

**BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE
AT CHENNAI
O.A. No. 47 of 2023**

Mr. Suresh
S/o. Pachiyappan,
6/36, Alamelupuram, Pappireddipatti,
Dharmapuri, Tamil Nadu – 636 905

...Applicant

Versus

Tamil Nadu Pollution Control Board,
Rep. by its Chairperson,
76, Anna Salai, Guindy Industrial Estate,
Guindy, Chennai – 600 032 and 5 Others

...Respondents

COUNTER AFFIDAVIT FILED BY THE 6TH RESPONDENT

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6. M/s. Varalakshmi Starch Industries (P) Ltd.,
Rep. by its Managing Director Mr. V. Anbalagan,
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...Respondents

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Dated at Chennai on 20th November, 2023.



COUNSEL FOR 6TH RESPONDENT

**BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE
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2. The Executive Engineer,
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For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

6. M/s. Varalakshmi Starch Industries (P) Ltd.,
Rep. by its Managing Director Mr. V. Anbalagan,
"Varalakshmi Tower", No.127/1,
2nd Floor, Gandhi Road, Salem – 636 007
Phone No.: Not known
Email: office@varalakshmistarch.com

...Respondents

COUNTER AFFIDAVIT FILED BY THE 6TH RESPONDENT

I, Mr.V.Anbalagan, the Managing Director of M/s. Varalakshmi Starch Industries (P) Ltd., a company incorporated under the Companies Act, 1956 and having its registered office at "Varalakshmi Tower", No.127/1, 2nd Floor, Gandhi Road, Salem – 636 007, having come down to Chennai for the purpose of signing this Affidavit, do hereby solemnly affirm and sincerely state as follows:-

1. I hereby submit that I am the Managing Director of M/s. Varalakshmi Starch Industries (P) Ltd., the 6th Respondent herein and I am duly authorised by way of Board Resolution dated 22.07.2023 to file this Counter Affidavit. (Copy of the Board Resolution dated 22.07.2023 is annexed herewith as **Annexure 1**)
2. I hereby submit that I am well acquainted with the facts and circumstances of the case and as such I am competent to swear this affidavit on behalf of the 6th Respondent herein.
3. I hereby submit that all the averments put forth by the Applicant herein, implied or otherwise contained or construed to be contained in the Application are denied, except for those that are specifically admitted through the submissions contained in this Counter Affidavit.
4. I hereby submit that at the very outset, this Application has to be dismissed for not specifying the date of cause of action when the alleged pollution/damage to the environment had occurred.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

I hereby further submit that the Applicant cannot take shelter under the garb of continuous cause of action without specifying the date on which the same had occurred to establish the continuity of cause of action. For this reason alone, this Application is not maintainable under Sections 14(3), 15, read with Section 18(1) of the National Green Tribunal Act, 2010, and is therefore, ought to be dismissed in limine.

5. I hereby submit that at the outset this entire Application filed by the Applicant is made out with some ulterior motive as the track record of M/s. Varalakshmi Starch Industries (P) Ltd. (hereinafter referred to as "the 6th Respondent industry"), dates back to 1995, when the 6th Respondent industry was incorporated on 16.05.1995, and commenced production activities from the year 1997 and has been in existence for more than 26 years till date and also, the 6th Respondent industry has been a source of economic value for all the villagers in and around the Pappireddipatti Taluk. (Copy of the Master Data of M/s. Varalakshmi Starch Industries (P) Ltd., extracted from the MCA website is annexed herewith as **Annexure 2**)
6. I hereby submit that Tamil Nadu had one of the largest cultivation areas for Tapioca crop in India, nonetheless, the export of the processed Tapioca Starch and Tapioca Sago was distinctly meagre when compared to the other leading exporting countries like Thailand and Vietnam, since the manufacturing units in Tamil Nadu were mostly small-scale units adopting very old conventional methods of cottage industry technology with no export of Tapioca Starch and Sago and were depending only on domestic market for more than 60 years and their quality of Tapioca Starch was of subpar performance in relation to the Global standards.

I further submit that the 6th Respondent industry was set up with huge investment in the Industrially Backward District of Dharmapuri to elevate the quality standards of the Tapioca products which was a breakthrough from the

For Varalakshmi Starch Industries (P) Ltd


(V ANBALAGAN)
Managing Director

age old conventional small-scale units for producing Starch and Sago, resulting in highly fluctuating very low price for the Tapioca Tubers. In order to provide remunerative price and assured market for around 10,000 Tapioca-cultivating Small, Tiny, Dryland & Tribal farmers (from Javadhu, Sitheri, Kali, Karmandorai & Kalrayan Hills) and to promote production of International Quality Tapioca Starch using world-class, high-tech machineries in Tamil Nadu, the State Government through State Industrial Promotion Corporation of Tamil Nadu (SIPCOT) had granted support to the 6th Respondent industry by providing financial assistance of Rs.2.50 Crores coupled with another assistance of Rs.6.50 Crores extended forwarded by Punjab National Bank for setting up the Unit in the year 1995 and has been in operation since 1997. I submit that the setting up of the 6th Respondent industry has benefitted thousands of poor farmers by assured market with remunerative price and prompt payments besides providing direct and indirect employment to thousands of rural work force which could be verified from the records. I hereby further submit that the 6th Respondent industry is a Medium-Scale industry with utmost due care for environment protection and also, records would vouch for the fact that the 6th Respondent industry has invested crores of rupees in ETP to treat the trade effluent as per the prescribed norms and the 6th Respondent industry was in operation all along for the past 26 Years under periodical rigorous inspection and testing of treated wastewater samples by the TNPCB. The 6th Respondent industry cannot be found at fault to be charged with serious violations/illegalities as baselessly alleged by the Applicant herein. The compliance to the TNPCB norms is one and the same for all the Sago and Starch industries located in the TNPCB jurisdiction in the whole state of Tamil Nadu, regardless of their position.

7. I hereby submit that the 6th Respondent industry is a Rural Agro-based Medium Scale Export Oriented Public Utility Industry located in the Industrially Backward area of Pappireddipatti of Dharmapuri District and engaged in the manufacture and export of Tapioca Starch (ISI certified), Tapioca Sago (ISI

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

certified), and Maize Starch to more than 20 countries, being the only exporter of Tapioca Starch from India.

I hereby submit that the 6th Respondent industry is the only ISI certified Tapioca Starch and Sago manufacturer in India. (Copy of the ISI Certification for manufacturing Tapioca Starch and Sago and FSSAI Certification is annexed herewith as **Annexure 3**)

8. I hereby submit that as the entire Sago and Starch industry is water intensive industry and in order to utilize maximum water resource from the rains, the 6th Respondent industry as per the instructions of the Government of Tamil Nadu and the TNPCB in the year 2002, had dug a Rainwater Harvesting Pond in its own premises for collection of rainwater and its freshwater requirement are sourced from Wells, Borewells and Rainwater Harvesting Pond within its own premises. I hereby further submit that the Rainwater Harvesting Pond also acts as a source for recharge of water table for the adjacent areas. (Copy of the Photographs of the Rainwater Harvesting Pond is annexed herewith as **Annexure 4**)
9. I hereby submit that it is very pertinent to note that for the past 26 years since its inception, there has been no complaint against the 6th Respondent Industry which is purely an Agro-based industry and has been employing state of the art machineries for minimising the use of raw water for processing and dealing with its products and the wastewater generated from the 6th Respondent industry.
10. I hereby submit that with regard to the conduct of the Applicant herein to have filed this Application at this point of time when the DEE, the Tamil Nadu Pollution Control Board (hereinafter referred to as "TNPCB"), Dharmapuri, had made certain baseless allegations (which would not amount to the violation of the Environmental Protection Acts as claimed by the Applicant herein) as the

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

6th Respondent industry did not yield to the monetary favours sought by the DEE, raises doubts about the intent with which this Application has been filed.

I hereby further submit that this Hon'ble Tribunal ought to have conducted a thorough investigation on the intent of the Applicant herein to have filed such an Application when the 6th Respondent industry is in possession of videos wherein, a complete criminal conspiracy has occurred to shut down the 6th Respondent industry to create huge loss to the 6th Respondent industry, Tapioca-cultivating farmers and revenue to the Government. The Applicant herein was also present along with the other conspirators. (Copy of the Photographs and the Video of the conspiracy by the Applicant is annexed herewith as **Annexure 5**).

11. I hereby submit that it is very strange that the Applicant herein claims to be an agriculturalist without holding any cultivable land, but the Applicant is in possession of all the documents exchanged by the 6th Respondent industry with the DEE, TNPCB, Dharmapuri and also seems to be making technical objections which clearly establishes doubts with regard to the intention of the Applicant herein. I hereby further submit that this Hon'ble Tribunal has to direct the Applicant herein to produce the clear source from where these documents which are privy only to the 6th Respondent industry and the TNPCB, Dharmapuri were collected by him. A video submitted by the Applicant herein to the TNPCB has footage that shows the flow inside the odai at around 12.00 AM midnight. But the footage clearly does not show any wastewater coming and discharged into the odai from the industry. (Copy of the Photograph of water flow inside the odai, clearly showing that there is no wastewater discharged into the odai from the 6th Respondent industry is annexed herewith as **Annexure 6**)

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

12. I hereby submit that the Applicant herein has not approached any forum, until 05.03.2022, despite the fact that he has been a resident of that area and claiming to be owning agricultural lands in his ancestral village, located at a distance of less than a kilometre from the 6th Respondent industry, which statement by itself is false and lacks evidence which has to be proved by the Applicant herein. I hereby further submit that the Pappireddipatti-Alamelupuram village map clearly reveals the fact that the alleged ancestral property of the Applicant herein is situated more than 1½ kilometres from the 6th Respondent industry and not at a distance of less than a kilometre as claimed by the Applicant herein, who has accordingly, misled this Hon'ble Tribunal. Before the location of the Applicant's lands, more than 20 farmers reside, owning agricultural lands, however, no one has ever raised such complaints against the 6th Respondent industry. I hereby further submit that the Applicant herein has no locus-standi to allege violations/illegalities against the 6th Respondent industry when the issue of compliance to the Environment Protection Acts or otherwise fall under the purview of the concerned Governmental Statutory Authorities. (Copy of the Pappireddipatti-Alamelupuram village map is annexed herewith as **Annexure 7**)

13. I hereby submit that the allegation made by the Applicant herein in Para 4 of the Application, with respect to being affected by pollution, illegal siphoning of water and other violations by the 6th Respondent industry, a large Starch and Sago manufacturing industry, is not sustainable in law as it is completely devoid of any material evidence.

14. I hereby submit that the lyakkam, by the name and style of "Peeniyaru Padhugappu Vivasayigal lyakkam" as claimed by the Applicant herein in Para 5 of the Application is not known to be a registered society or been in existence during the period of the 6th Respondent industry's operation for the last 26 years.

For Varalakshmi Starch Industries (P) Ltd

(V. ANBALAGAN)
Managing Director

I hereby submit that the said lyakkam appears to be an entity formed along with a couple of accomplices for the sole purpose of raising such baseless complaints, filing petition before this Hon'ble Tribunal and harass the 6th Respondent industry herein, thereby aiming to extort money from the 6th Respondent industry through wrongful means. I further submit that the true intentions of the Applicant herein and the so-called lyakkam are hidden under the garb of environmental activism. I hereby further submit that the attempt of the Applicant herein to refer to such an organisation raises doubts with regard to its credibility, as the Applicant has preferred to file this Application only in his individual capacity but seems to be referring to such an organisation by way of an Affidavit which is not required. I hereby further submit that it is also for the Applicant herein to clearly prove the list of actions, works, assignments undertaken by the said organisation with regard to the protection of water bodies or agriculture in and around Alamelupuram-Pappireddipatti village.

15. I hereby submit that with reference to Para 5 of the Application, it is also for the Applicant herein to clearly explain the need for filing an Impleading Application in the Appeal No.77 of 2022 which also shows that there is some private motive with regard to filing such an Application as the Appeal is a matter concerning only the 6th Respondent industry and the TNPCB.

16. I hereby submit that the Applicant herein, under the guise of the said lyakkam has been resorting to frequent complaints under one pretext or the other before the TNPCB only from the year 2022. The TNPCB Authorities also acting on each complaint, had conducted numerous surprise inspections of the factory (6th Respondent industry), the Peeniyaru jungle stream and the surrounding areas for the past 2 years, to ascertain the veracity of these complaints, but they have not detected any violations as alleged in the complaints raised by the Applicant herein.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

17. I hereby submit that the Applicant herein is attempting to mislead this Hon'ble Tribunal by stating that the 6th Respondent industry is discharging untreated effluent with chemicals into the Peeniyaru jungle stream. I hereby further submit that it is relevant to point out that there is only a jungle stream adjacent to the lands of the 6th Respondent industry which is not a river, rather, a stream of water. I hereby further submit that the jungle stream remains dry for more than 9 months and only during the monsoon or excessive rains, water flows through the said stream in a few odd year's which has also been stated by the Applicant herein.

18. I hereby submit that the 6th Respondent industry is not discharging treated or untreated wastewater into the Peeniyaru jungle stream as the 6th Respondent industry has its own required lands with greenbelt trees for the disposal of treated wastewater. I hereby submit that the TNPCB Authorities have also neither noticed nor reported any discharge of untreated wastewater or chemicals into the nearby water bodies in any of those many surprise inspections as falsely alleged by the Applicant herein. The TNPCB Authorities have repeatedly stated in their reports that the industry disposes the treated wastewater only in its own lands and that they have not noticed any discharge of wastewater or chemicals into the nearby water bodies. The TNPCB, the 1st Respondent herein in their Reply Affidavit to this Hon'ble Tribunal had also confirmed that after conducting inspection on 16.03.2022, the 6th Respondent industry is not discharging wastewater into the said Peeniyaru jungle stream. I hereby submit that for the past 26 years of the 6th Respondent industry's industrial operation, the Authorities have never alleged about the 6th Respondent industry having discharged wastewater to any outside lands or water bodies at any point of time which clearly vouches that the alleged grievances of the Applicant herein, made after nearly 26 years since the 6th Respondent industry had commenced its operation are with nothing but malafide intention, as a result of an afterthought in order to harass the 6th Respondent industry herein.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

19.I hereby submit that the Applicant herein admittedly also alleges that the notice of proceedings dated 17.10.2022 issued by the TNPCB under Section 33A of Water (Prevention and Control of Pollution) Act, 1974, was without any proper reason/grounds, rather, only on grounds such as growing/non-removal of Seemaikaruvelam trees, revamping of the Effluent Treatment Plant (ETP), construction of roof in the thippi storage area, suggesting more improvement work and enhancing aesthetic conditions as mentioned by the Applicant herein in Para 6 of the Application. The serious violations and illegalities mentioned by the Applicant herein are devoid of any material evidences.

The TNPCB had issued certain directions vide their Proceedings dated 17.10.2022 to which the 6th Respondent industry responded and submitted a reply on 28.10.2022 with all evidences and requested for personal hearing. (Copy of the notice of proceedings 17.10.2022 issued by the TNPCB is annexed herewith as **Annexure 8**) However, without taking this into cognizance, the TNPCB Authorities had issued the closure order under the pretext of non-response to the proceedings dated 17.10.2022. The 6th Respondent industry submitted a reply vide Letter VSIPL/PCB/2022-23/343/RPAD dated 28.10.2022 to the notice issued to them for proceedings under Sec. 33A of The Water (P&CP) Act, 1974, dated 17.10.2022 by the Chairman, TNPCB. (Copy of the Letter VSIPL/PCB/2022-23/343/RPAD dated 28.10.2022 is annexed herewith as **Annexure 9**)

20.I hereby submit that the 6th Respondent industry herein, aggrieved by the abrupt issue of closure order dated 08.11.2022 passed by the TNPCB under Sec. 33A of Water (Prevention and Control of Pollution) Act, 1974, without producing any evidences for serious violation to invoke the said Section and without following the principles of natural justice by not considering the reply dated 28.10.2022 submitted by the 6th Respondent industry, but highlighting only the Applicant's complaint, has filed an Appeal numbered as Appeal No. 77 of 2022 before this Hon'ble Tribunal seeking redressal and has obtained

For Varalakshmi Starch Industries (P) Ltd

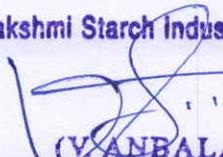

(V. ANBALAGAN)
Managing Director

interim orders. (Copy of the closure order dated 08.11.2022 issued by the TNPCB is annexed herewith as **Annexure 10**) I hereby further submit that the circumstances leading to the issue of the said closure order, its sustainability or otherwise are within the ambit of the TNPCB and when the issue is sub judice with the Hon'ble Tribunal, the Applicant herein has no right whatsoever to bring in extraneous issues into the said Appeal before this Hon'ble Tribunal by filing an Interim Application in I.A. No. 48 of 2023 seeking impleadment as a Party Respondent in the said Appeal.

21. I hereby submit that the 6th Respondent industry is engaged in the process of manufacturing Starch, Sago, Papads and Modified Starches, out of which Sago and Starch production constitutes 98% and Modified Starch production accounts for only 1-2% and such Modified Starch production involves only dry process and there is no such wastewater generated in the process. The Applicant herein in Para 7 of the Application refers to the production capacity permitted in the consent order as per the estimated production given by the 6th Respondent industry in the year 2008. However, the production actually made is far below especially the one pertaining to the Modified Starch. The Applicant herein is completely oblivious of the actual state of affairs of the 6th Respondent industry, and artificially makes false allegations to mislead the facts before this Hon'ble Tribunal.

22. I hereby submit that the Applicant herein had averred in Para 8 of the Application about the TNPCB referring to the list of 25 small-scale Sago industries in Dharmapuri District. I hereby further submit that it is a fact that these 25 units cannot be compared with the 6th Respondent industry in terms of the production capacity as stated by the Applicant herein in Para 9 of the Application but the treated wastewater discharge standards and ETP systems prescribed by the TNPCB are the same irrespective of whether the Sago and Starch Industries fall under the large, medium or small category. In this context, the TNPCB may compare the 6th Respondent industry with the other units which are on par with 6th Respondent industry, such as one at Erode

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district with permitted discharge of wastewater of 893.5 KL per day and one at Namakkal district with discharge of wastewater of 544 KL per day, both falling within the jurisdiction of the TNPCB. Both the aforesaid industries are located near to water bodies, similar to the 6th Respondent industry. However, the 6th Respondent industry alone has been subjected to the open surface water discharge standards.

23. I hereby submit that the allegation made by the Applicant herein in Para 10 of the Application is false as it was taken from the 2008 records and the 6th Respondent industry is not consuming 786 KL of water per day. Since then, for the past 15 years, many modifications have been made by introducing high-tech machines for reducing the water consumption. The effluent contains only bio-degradable organic volatile solids which is residue of Tapioca tuber and Maize. I hereby further submit that as per the latest consent order obtained by the 6th Respondent industry from the TNPCB, the consented capacity is to manufacture upto 6500 T/M of Starches & Modified Starches and upto 5000 T/M of Sago & Pappads, all from agricultural raw materials of Tapioca and Maize. The Applicant herein has wrongly presumed that manufacture of all Modified Starches generates effluent containing inorganic chemicals and further claimed that they are highly acidic which is completely denied as the same is made without any basis. I hereby further submit that Modified Starches are different Starch derivatives that are manufactured by physical heat or chemical (by dry/wet process) or enzymatic modification of Starches to change its internal characteristics. Of this, currently, only dry process-based modification is carried out which does not generate any wastewater. I hereby further submit that if the wastewater contains acidic components, the 6th Respondent industry will lose huge valuable bio-gas production.

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24. I hereby submit that as already submitted supra, for the economic reasons, the actual production and sales of Modified Starches has completely declined to less than 2% since 2010, and whatever reduced quantity that is being produced, is mostly through physical and dry process, where no effluent is generated, all of which can be validated by the scrutiny of records belonging to the 6th Respondent industry as well as the latest consent order of the TNPCB.

I hereby further submit that the 6th Respondent industry based on the directions of the TNPCB had engaged Anna University in the Year 2008 and through their Adequacy Report, Anna University had confirmed that the ETP is adequate to also handle wastewater generated from the manufacture of Modified Starch to meet the discharge standards of the TNPCB. (Copy of the Adequacy Report dated 28.03.2009 issued by Anna University is annexed herewith as **Annexure 11**)

25. I hereby submit that a District level Committee was constituted by the District Collector comprising a team of officials from 12 Departments in the wake of the repeated complaints submitted by the Applicant herein on 05.03.2022 to the various Government officials, to ascertain the allegations about the discharge of chemical laden wastewater into the Peeniyaru jungle stream and that the people residing nearby to the industry, fish and cattle are being severely affected with several health issues/diseases due to the contamination of the drinking water source, and further that the farming activities are affected, ground water levels and quality have significantly dropped. The surprise inspection was jointly conducted on 30.11.2022 by 12 Government Departments as stated by the Applicant herein in Para 11 of the Application. The 6th Respondent industry prior to this inspection was unaware of such a committee of officials having been formed by the District Collector. I hereby further submit that all of these alleged grievances have been proven false by the report dated 22.01.2023 with independent members of the Committee declaring that the people residing in the surrounding villages are

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not affected with any health issues due to the functioning of the 6th Respondent industry and that the ground water level has only improved consistently (from over-exploited area to semi-critical area), that the ground water quality in the surrounding villages are even fit for drinking apart from agricultural use and that the animals have also not been found to be affected. I hereby further submit that until the filing of this Application by the Applicant herein on 20.05.2023, the 6th Respondent industry was also unaware of the said report dated 22.01.2023 of the Committee. Later, the 6th Respondent industry had received the report from 2 Departments, viz., PWD, Ground Water Division, Vellore and PWD, Water Resources Dept., Dharmapuri, only after this Application was filed on 20.05.2023 by the Applicant herein. The 6th Respondent industry responded to the guidelines issued, by applying for a No Objection Certificate (NOC) to the State Ground Water and Surface Water Resources Data Centre, Taramani, Chennai. I hereby further submit that none of the Committee members sought for any queries or obtained statements from the 6th Respondent industry before filing their reports. I hereby further submit that the Applicant herein has only selectively submitted the reports of only 3 committee members before this Hon'ble Tribunal and the entire reports of all the committee members have been suppressed by the Applicant herein while filing this Application.

26. I hereby submit that the 6th Respondent industry having been made aware of the existence of the said reports of the committee members on receipt of this Application, had immediately requested the District Collector, Dharmapuri, and District Environmental Engineers (DEE), TNPCB, Dharmapuri, through RTI, to provide the copies of these reports to enable the 6th Respondent industry to suitably make their submissions to this Hon'ble Tribunal. The Collector vide Letter No.14332/2023/B3 dated 16.06.2023 (Copy of the Letter No.14332/2023/B3 dated 16.06.2023 is annexed herewith as **Annexure 12**) The Collector has forwarded the request to the TNPCB, Dharmapuri, directing them to furnish the Committee Reports to the 6th Respondent industry. The 6th

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Respondent industry on receipt of the said reports, will adhere to their advice immediately and report to this Hon'ble Tribunal.

27. I hereby submit that the Applicant herein is again falsely alleging that the farmers located on the northern side of the 6th Respondent industry have been affected by pollution without showing how and when they have been affected and without producing any evidence on any historical claims that the farmers have made to the district officials for claiming any crop loss arising due to the functioning of the 6th Respondent industry.

I hereby further submit that the Peeniyaru jungle stream begins from Manjavadi Village and after flowing for 7–8 kilometers, crosses the 6th Respondent industry. I hereby further submit that ahead of the 6th Respondent industry, there are around 10 other industries located near and bounded by the Peeniyaru jungle stream and its branches. (Copy of the rough sketch of the Industries near the Peeniyaru jungle stream is annexed herewith as **Annexure 13**)

Out of these, 7 units are RED Category Chemical Industries. The raw materials and finished products in those industries are inorganic chemicals namely, Barium Chloride, Sodium Sulphide, Barium Nitrate, Magnesium Sulphate, Lime grit and flakes, Barium Carbonate, Barytes, Soda Ash, Petroleum Coke, Nitric acid, Hydrochloric acid, Magnesite Powder, Sulphuric acid etc. The recent RTI reply by the TNPCB, Dharmapuri, informs that 6 Chemical RED category industries located along the Peeniyaru jungle stream have not obtained the Hazardous Waste Management Authorization and that there are no records available for disposal of their hazardous wastes. During the rainy season, the hazardous waste gets mixed with the flowing stream water. (Copy of the list of 7 RED Category Chemical Industries as verified by the TNPCB and Photographs of their Hazardous wastes are annexed herewith as **Annexure 14** and **Annexure 15** respectively) I hereby further submit that the pharmaceutical wastes, expired medicines and pesticide

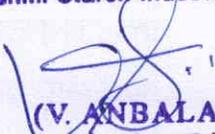
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wastes, expired pesticides are hugely dumped into the Peeniyaru jungle stream adjacent and within 50 meters to the Applicant's residence. I further submit that this came to the knowledge of the 6th Respondent industry through its employees and the same was informed to the TNPCB, Panchayat and Revenue Officials through WhatsApp. The officials then inspected the spot and removed the above dumping using JCB. (Copy of the Photographs of the inspection are enclosed for information in the **Annexure 16**) I hereby further submit that it is evident from this that there are various outside sources of contamination of the Peeniyaru jungle stream but the Applicant herein has targeted only the 6th Respondent industry to grab huge money from the 6th Respondent industry.

The 6th Respondent industry is using only Agro-based raw material Tapioca tuber and Maize for production of FSSAI certified Food products and thereby, no inorganic chemical is used in the process of production and that there is no hazardous waste generation. The TNPCB had tested the raw wastewater from the 6th Respondent industry in their own laboratory during several occasions in the last 26 Years and they had not once reported that the wastewater contains any non-bio-degradable hazardous inorganic components. I hereby further submit that recently, the Anna University Environmental Department conducted study of the Industry's ETP and reported in their Adequacy Report dated 29.05.2023, that the ETP is adequate to meet the discharge standards prescribed by the TNPCB. (Copy of the report dated 29.05.2023 given by the Anna University is annexed herewith as **Annexure 17**) I hereby further submit that the TDS in the treated water is within the permissible limit of 2100 mg/l. The averment of the Applicant herein that the jungle stream and the farmers are affected due to the pollution caused by the 6th Respondent industry is vague and false and is without any material evidence.

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28. I hereby submit that to the shock and surprise of the 6th Respondent industry, on 08.07.2023, they had received an email from Dr.S.Kanmani, Professor & Director, Centre for Environmental Studies, Anna University, stating the CES Report stands cancelled, referring to some scientific interpretations with respect to the TDS removal by the TNPCB. I hereby further submit that in response to the same the 6th Respondent industry had replied via e-mail dated 10.07.2023 requesting for clear reasons for cancellation of the said report, however, till date, even after a lapse of 130 days, no response has been received by the 6th Respondent industry from the Anna University. (Copy of the e-mail communication dated 08.07.2023 and 10.07.2023 is annexed herewith as **Annexure 18** and **Annexure 19** respectively)

I hereby further submit that the 6th Respondent industry has also requested the TNPCB vide Letter No. VSIPL/PCB/2023-24/102 dated 01.08.2023, regarding the queries raised to Anna University about the scientific interpretations with respect to the TDS removal etc., in order to enable the 6th Respondent industry to get technical advice for making reasonable submissions before this Hon'ble Tribunal, however, the same has also not been received till date. (Copy of the said Letter No. VSIPL/PCB/2023-24/102 dated 01.08.2023 to the TNPCB is annexed herewith as **Annexure 20**)

29. I hereby submit that the Applicant herein without giving any firm/concrete evidence makes false allegations with ill motives canvassed by an individual. The Applicant herein is not new to this place and is living in the same place since birth for more than 35 years. I hereby submit that the Applicant herein has furnished neither any evidence nor any records showing petitions or complaints (Copy of the Letter No.269/A/2023 dated 17.08.2023 sent by the Department of Animal Husbandry is annexed herewith as **Annexure 21**) to the local agricultural or revenue officials about the alleged crop loss, complaint to Fisheries Department about Fish death (Copy of the Letter No. 1817/U/2023 dated 25.08.2023 sent by the Department of Fisheries and

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Fishermen Welfare is annexed herewith as **Annexure 22**), complaint to Health Department about health issues that they have suffered due to the activities of the 6th Respondent industry and also neither any photos nor any videos of the alleged disposal of effluent in the nearby water bodies. I hereby further submit that the Applicant herein has falsely claimed that the farmers in the area have been severely impacted due to the alleged ground water contamination and siphoning of water by the 6th Respondent industry without providing an iota of evidence. The 6th Respondent industry is functioning for the past 26 years with no change in the raw materials and the finished product in its set up. The Applicant herein is not exposed to the 6th Respondent industry afresh in order to make this complaint afresh.

The Applicant's silence for all these years is a clear indicator that the present complaint made after 26 years is false and fabricated with nothing but a personal motive for gaining money through unfair means. I hereby further submit that contrary to the false claims of the Applicant herein, in the last 26 years of the industry's operation, neither any surrounding farmers have ever raised any complaints or submitted claims of crop loss arising due to the functioning of the factory (6th Respondent industry) to the local district agriculture department nor have any officials informed the 6th Respondent industry of such claims by the farmers. The Applicant herein has been falsely alleging that the farmers are being affected just to amplify the allegations against the 6th Respondent industry without putting forth any evidence or records to substantiate his claims. There is also no adverse medical report from the Health Department made available. The contents of the complaint dated 05.03.2022 given by the Applicant herein to the District Collector, Legislative committee and the TNPCB etc., is that the untreated wastewater and chemicals is discharged into the Peeniyaru jungle stream and thereby, the public and live stocks are being affected, which is as follows:

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“தி வரலக்ஷ்மி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிமிடெட் தொழிற்சாலையின் சுத்திகரிக்கப்படாத கழிவுநீர் மற்றும் இரசாயனம் பிணியாற்றில் கலப்பதால் மீன்கள் இறப்பு, கால்நடைகள் மற்றும் விவசாயம் பாதிப்பு, பொதுமக்களுக்கு ஒவ்வாமை, தோல் அரிப்பு, செரிமான கோளாறு, தலைவலி, வாந்தி,பேதி மற்றும் புற்று நோய் போன்ற பாதிப்புகள் ஏற்படுவதாக புகார் அளித்திருந்தார்.”

(Copy of the Complaint dated 05.03.2022 by the Applicant is annexed herewith as **Annexure 23**) I hereby submit that based on the aforesaid complaint dated 05.03.2022, more than 11 Departments including the DRO had inspected the 6th Respondent industry and after inspection they had submitted a report to the District Collector in which it has been clearly stated that the 6th Respondent industry has not been found as causing any serious violations as made out by the complainant, the Applicant herein.

I hereby further submit that the Applicant herein after being aware that the finding of the various Departments did not favour him has come before this Hon'ble Tribunal with unclean hands and indulged in forum shopping for which reason alone this Application has to be dismissed. (Copy of the inspection report of the DRO along with the findings by the 11 Departments submitted to the District Collector is annexed herewith as **Annexure 24**)

30. I hereby submit that the DEE of the TNPCB, Dr. A.Samuel Rajkumar, surprisingly, on 15.12.2021, inspected the 6th Respondent industry and the adjacent Peeniyaru jungle stream from start to end and checked if any raw wastewater and chemicals of the 6th Respondent industry is discharged into the jungle stream had taken wastewater samples from the 6th Respondent industry, water samples from the jungle stream, and more than 10 samples in the wells outside of the 6th Respondent industry. I hereby further submit that the DEE of the TNPCB based on the inspection, had not raised any major non-compliance issues such as discharge of wastewater into the Jungle stream against the 6th Respondent industry. However, the DEE of the TNPCB,

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provided all the correspondences and reports of the 6th Respondent industry to the Applicant herein. The 6th Respondent industry received the proceedings dated 17.10.2022 from the Chairman of the TNPCB under Sec. 33A of Water (P&CP) Act, 1974, to which the 6th Respondent industry had submitted a reply dated 28.10.2022 to the Chairman, Member Secretary and JCEE, R. Sarasavani, with all the photos and videos as evidences and also requested for personal hearing through mail and hard copy by Speed Post which were delivered to the Board within 3 days. However, surprisingly, this reply of the 6th respondent in compliance with their proceedings was ignored by the TNPCB while issuing the aforementioned closure order.

31. I hereby submit that on 08.11.2022, at 5 p.m., the EB officials on the directions of the TNPCB disconnected the total power supply amidst the production and wastewater treatment without any prior notice and information knowing fully well about the processing of the highly bio-degradable perishable raw materials around 400 tonnes of Tapioca and 200 tonnes of corn on that date and generation of wastewater. I hereby further submit that on 10.11.2022, the 6th Respondent industry had received two months' samples of August and September, 2022, from the DEE, Dr.A.Samuel Rajkumar, collected and tested by the TNPCB's own lab and the letter signed by the DEE on 02.11.2022 mentions that all the parameters are within the standards prescribed by the TNPCB. The DEE's report vouches for the fact that there was no wastewater discharge into the nearby water bodies and the treated effluent was also within the prescribed standards. But at the same time, the DEE recommended to the Board for the closure of the 6th Respondent industry on 04.11.2022.

32. I hereby submit that however, to the shock and surprise of the 6th Respondent industry, the 6th Respondent industry had received the closure order issued by the Chairman, TNPCB, just after a week from the date of disconnection of the power supply by the EB. I hereby further submit that on the perusal of the closure order, the 6th Respondent industry noticed that they had suppressed

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the reply Letter VSIPL/PCB/2022-23/343/RPAD dated 28.10.2022 submitted to the notice issued to them for the proceedings under Sec. 33A of The Water (P&CP) Act, 1974, dated 17.10.2022 by the Chairman, TNPCB, thereby concocting non-response to the Board's notice for issuing the said closure order. During discussions with the Chairman, the 6th Respondent industry observed that the JCEE, Sarasavani, had purposefully suppressed the 6th Respondent industry's reply dated 28.10.2022 to the above notice for the proceedings u/s. 33A ibid under the pretext of non-response to the notice to the Chairman, TNPCB, and on the other-hand, highlighted and cited as reference the Applicant's complaint dated 22.10.2022 and the DEE recommendation letter dated 04.11.2022 for closure and caused the issuance of closure order with a deliberate intention to shut down the 6th Respondent industry. Both the DEE and JCEE officials provided all the internal correspondences between the TNPCB Board and 6th Respondent industry to the Applicant herein when the same should not have been provided and some of these were found to be in circulation in some WhatsApp groups but the Applicant herein despite obtaining all information and documents from the TNPCB falsely claims that the TNPCB is favoring the 6th Respondent Industry.

33. I hereby submit that the DEE, Dr. A.Samuel Rajkumar and JCEE, Sarasavani, both knowing fully well that insignificant complaints against the 6th Respondent industry like the removal of Seemaikaruvaalem trees, construction of wet thippi yard roof, aesthetic improvements of ETP, etc., does not suffice to invoke Sec. 33A of Water (P&CP) Act, 1974. I hereby further submit that there was no such claim of non-compliance against the 6th Respondent industry warranting for action under the said Sec. 33A. Despite this, to support and collude with the Applicant herein, the DEE Dharmapuri, Dr. A.Samuel Rajkumar and JCEE, Sarasavani, recommended to the Board for the closure of the 6th Respondent industry, during peak crushing season resulting in multi-crore losses to the 6th Respondent industry and thousands of small, tribal, rain-fed farmers down the line in Dharmapuri District. I hereby further submit

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that this action of the TNPCB authorities, the DEE, Dr. A.Samuel Rajkumar and JCEE, Sarasawani, at the behest of an individual, is arbitrary and does not reflect proper appreciation of facts on record.

34. I hereby submit that in this situation, it is for the Applicant herein to disclose to this Hon'ble Tribunal with regard to him possessing the documents and correspondences between the 6th Respondent industry, the TNPCB and other 11 Departments' reports and relevant rulings and sections of the Act. The Applicant herein also purposefully misleads the facts before this Hon'ble Tribunal that the TNPCB is favoring the 6th Respondent industry, whereas, the occurrences clearly indicates that the DEE, Dr.A.Samuel Rajkumar and JCEE, Ms.Sarasavani, have favored the Applicant herein by causing issuance of speedy closure order against the 6th Respondent industry, by concealing the reply to the notice under Sec. 33A ibid given by the 6th Respondent industry and also without giving them an opportunity for personal hearing as per the Act and court order to put forth their plea. The closure order issued by the TNPCB to the 6th Respondent industry is totally violative of the requirement of the Section 33A ibid and cannot be regarded as a favour, but by all means the biggest punishment more or less in the nature of a non-speaking order to this rural, seasonal Agro-based industry (6th Respondent industry), thereby, affecting many beneficiary stake holders including the Government.

35. I hereby submit that there are evidences to exhibit as to how an individual canvassed the poor farmers and illiterate people for filing this case. The videos of the individual canvassing the farmers to harass the 6th Respondent industry from all angles and to file this Application before this Hon'ble Tribunal and getting signatures from them informing them that the farmers would get lumpsum money, by threatening the 6th Respondent industry through this litigation that once the case is admitted, they can demand money from the 6th Respondent industry by threatening through this case. In this situation, with

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the full support of the TNPCB, DEE Dr. A.Samuel Rajkumar and JCEE Sarasawani, to close the 6th Respondent industry, the Applicant's statement that the TNPCB is supporting the 6th Respondent industry is downright false.

36. I hereby submit that as per the G.O. MS No. 213 dated 13.03.1989 cited by the Applicant in Para 14(a) of the Application, the 6th Respondent industry applied to the TNPCB for consent for the establishment of their industry in 1996 and the consent for operation was issued in the year 1997, which allowed for the processing of water from ground water through bore-well or wells. (Copy of the G.O. Ms No. 213 dated 30.03.1989 is annexed herewith as **Annexure 25**) Post 1997, until 2021, prior to the DEE, Dr. A.Samuel Rajkumar taking charge, no adverse issues or violations or non-compliances were ever detected and pointed out by the TNPCB against the 6th Respondent industry, despite the continuous monitoring of the 6th Respondent industry by the TNPCB for the past 26 years and frequent testing of the effluent and treated wastewater that is being discharged into the greenbelt lands to ensure that the discharged wastewater is meeting the prescribed standards. These facts are not in dispute. I hereby further submit that the Applicant herein is knowingly attempting to mislead this Hon'ble Tribunal by stating that the 6th Respondent industry is situated in over-exploited area but as per the G.O. MS. No.213, Pappireddipatti Taluk, the same is shown as 'Semi-Critical Area'

37. I hereby submit that the open percolation Rainwater Harvesting pond available within the 6th Respondent industry premises was constructed in adherence to the Government's mandatory guidelines, the TNPCB's condition for the promotion of Rain Water Harvesting and their repeated condition that it should be well maintained every year. The Town and Country Planning Authority had also mandated for the collection of Rainwater within the industrial premises which has a vast rainwater catchment area comprising of industrial sheds, buildings, yards and vacant land. Accordingly, only the Rainwater Harvesting Pond with the suitable size was made based on the

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industry area. This was also constructed with the knowledge of PWD Groundwater Authority. The PWD also put forth a condition in 2008 that the 6th Respondent industry should use water for the expansion of Maize plant only from the Rainwater Harvesting Pond for their requirement. (Copy of the NOC from PWD Ground Water Division, Vellore Dt:03.12.2008 is annexed herewith as **Annexure 26-A**). I hereby further submit that the Rainwater Harvesting Pond is not illegal as alleged by the applicant herein.

I hereby submit that the open percolation rainwater harvesting pond was made in adherence to the Government's guidelines issued through a G.O.Ms.No.56 dated 21.07.2003 and GO.No.138 dated 11.10.2002 which made it mandatory in the State to implement rainwater harvesting systems. Similarly, TNPCB also imposed a Special condition to make arrangements for rainwater harvesting within the Industrial premises in the Year 2004 through their Consent order. Thereafter, TNPCB has been repeatedly in each and every renewal of consent orders imposing condition to maintain the rainwater harvesting facilities. (Copy of the GO 56 dated 21.07.2003, GO.No.138 dated 11.10.2002 is annexed herewith as **Annexure 26-B**)

The Town and Country Planning authority has also imposed mandatory conditions vide their Building Plan Approval Proceedings to construct and maintain the rainwater harvesting pond in our industrial premises as approved by them in their Building Approval Plans. (Copy of the proceedings of The Executive Officer, Pappireddipatti Panchayat dated 18.07.2011, the proceedings of the Joint Director, Town Planning Authority, Dharmapuri dated 02.05.2011 and the Executive Officer, Pappireddipatti Panchayat dated 19.08.2020 are annexed herewith as **Annexure 27**).

38. I hereby submit that in the year 2017, vide letter dated 13.01.2017, the 6th Respondent industry had made an Application to the Executive Engineer, PWD, Dharmapuri, stating that the 6th Respondent industry is facing water

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shortage of around 25% from its own source of water, i.e., wells, borewell and Rainwater Harvesting Pond, required for industrial use and requested permission for withdrawal of water from the Peeniyaru jungle stream to the extent of 25% of water requirement whenever there is flow of water in the jungle stream. (Copy of the letter dated 13.01.2017 made by the 6th Respondent industry to the Executive Engineer, PWD, Dharmapuri is annexed herewith as **Annexure 28**) The 6th Respondent industry had also informed them about their readiness to abide by the terms and conditions and to pay the necessary fees for the same. Pursuant to this, the Executive Engineer vide letter dated 15.02.2017 demanded to produce some other documents such as land ownership, industrial permission letter etc., which also included a concurrence letter from the District Collector for further processing of the Application based on eligibility. (Copy of the letter dated 15.02.2017 by the Executive Engineer, PWD, Dharmapuri is annexed herewith as **Annexure 29**)

39. I hereby submit that the 6th Respondent industry immediately made a representation vide Letter dated 28.02.2017 to the District Collector for the issuance of a concurrence letter explaining the merits of its Agro-based Rural Public Utility Industry for Dharmapuri District Farmers. (Copy of the Letter dated 28.02.2017 to the District Collector is annexed herewith as **Annexure 30**) The Secretary, Industries and the Secretary, Agriculture, were also addressed by the 6th Respondent industry for their recommendations. The issue is still pending for want of the Collector's concurrence letter and thus, the PWD still awaits. In the meantime, in 2020, the Sub-Collector, Harur, issued a notice under Sec 133 C.R.P.C. No. 2561/2020/A3 dated 01.10.2020 for the same issue, for which, the 6th Respondent industry replied that the harvested Rainwater benefits the Tapioca and Corn cultivating farmers in the Dharmapuri District. (Copy of the notice No. 2561/2020/A3 dated 01.10.2020 issued by the Sub-Collector, Harur, is annexed herewith as **Annexure 31**) I hereby further submit that the Sub-Collector, Harur, dropped the proceedings

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based on the genuineness and the requirement of water for crushing Tapioca and Maize which directly benefits the farmers serving as a Public Utility industry. The Rainwater Harvesting Pond is also helpful for thousands of farmers in the nearby surrounding area to the 6th Respondent industry in recharging the ground water. On this basis, the Sub-Collector had dropped the issue and recommended to the Collector to provide the concurrence letter to the PWD. I hereby submit that thus, with the knowledge of the PWD and the District Administration, this cannot be interpreted as theft and illegal as stated by the Applicant herein in Paras 14(b) & (c) of the Application. I hereby further submit that there are around 10,000 of Dharmapuri District farmers who benefit from this Tapioca and Corn crushing unit but only one supposed farmer, not owning any agricultural land and used for cultivation of Tapioca or Corn makes such frivolous complaints against the 6th Respondent industry.

40. I hereby submit that the wastewater from the 6th Respondent industry contains only bio-degradable organic waste which has high potential for tapping bio-gas as a renewable energy. The 6th Respondent industry have invested multi crore rupees for installing world-class, high-tech bio-methanation reactor to recover the renewable energy from the wastewater and generate power with the technology provided by New Jersey Institute of Technology, USA, through UNDP, MNRE, Govt. of India and Tamil Nadu Energy Development Agency under Tamil Nadu Government with Anna University monitoring its implementation. The 6th Respondent industry is tapping around 30,000 metric cube bio-gas every day when full capacity production is undertaken and the bio-gas is utilized for 1 MW equivalent thermal energy (boiler) and 2 MW electricity power generation.

The wastewater from the 6th Respondent industry is thus, converted into a valuable by-product, the bio-degradation treatment of which results in recovery of bio-gas used as a substitute for furnace oil and coal used for thermal application and grid electricity leading to the minimal usage of fossil fuel for reducing global warming. I hereby further submit that this being the

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case, there is no necessity to discharge such a valuable by-product in the name of effluent into the public lands. The allegation as stated by the Applicant herein in Para 14(d) of the Application is thus, artificially created by the Applicant herein for his personal benefits without appreciating the full facts.

41. I hereby submit that the 6th Respondent industry has 35 Acres of land with more than 500 well-grown Seemaikaruvelam trees and around 100 Grapers and Graces per acre as per the TNPCB condition in 2007. (Copy of the Photographs of the trees is annexed herewith as **Annexure 32**) This Seemaikaruvelam trees are drought resistant even in the absence of treated wastewater discharge during the non-production off-season summer period and there are about hundreds of cows, buffalos, goats, peacocks eating the grass and drinking the same treated wastewater for years together. More than 20 farmers in the surrounding area bring their household animals into the industry's greenbelt area for feeding everyday but the Applicant herein falsely claims that the cattle are dying.

42. I hereby submit that the Applicant herein has made contradictory statements which clearly establishes lack of knowledge in filing this application. I hereby further submit that it is an admitted fact by the Applicant herein that the jungle stream is situated in a lower gradient as per Para 14 (c) and the Applicant herein alleges that water is illegally tapped from Peeniyaru jungle stream and in Para 14 (e) the Applicant herein alleges that effluent is discharged into the stream as both will not be possible when the stream is on a lower gradient.

I hereby further submit that the 6th Respondent industry, being an Agro-based industry is water intensive and in order to stabilize the agricultural produce of the farmers, it is essential and necessary for the Agro-based industry to operate and in the event, the Agro-based industry does not operate, the farmers will not be able to utilize their produce.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

43. I hereby submit that the 6th Respondent industry does not use salt for any process and therefore, the charges as claimed in Para 14(f) of the Application are baseless and misleading to this Hon'ble Tribunal.

44. I hereby submit that the production of Modified Starches involves only dry process wherein, there is no wastewater generation. As already stated supra, even the production of Modified Starches is less than 2% only and hence, the averment of the Applicant herein in Para 14(g) of the Application is baseless and thus, denied.

45. I hereby submit that there are around 250 local workers working every day, inside the 6th Respondent industry, around 100 farmers and 100 of truck drivers visiting the 6th Respondent industry every day. The officials of 12 Departments numbering to 30 including DRO also inspected the 6th Respondent industry for the whole day and the District Collector also inspected on 13.10.2023 with 10 officials, and seemingly so, no one other than the Applicant herein who is residing 1.5 Km away from the 6th Respondent industry, has ever observed and reported any bad odour in and around the 6th Respondent industry, as falsely claimed by the Applicant herein in Para 14(h) of the Application.

46. I hereby submit that the Applicant herein has approached this Hon'ble Tribunal with unclean hands as it will be evident from the photos and videos of the Applicant's house and land, which shows very poor maintenance of animal waste and housekeeping, the electricity connection kept without proper maintenance of the electric switch box and motor starter box installed very close to the brim of the well which is totally unsafe for human and animals' habitation. (Copy of the Photographs of the Applicant's house and land is annexed herewith as **Annexure 33**) I hereby submit that the Applicant herein and his family lives there for over 25 years owning merely 2-3 Acres of land with unhygienic condition for living. This being the case, the Applicant herein

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

is unfit and does not have any locus standi in making such serious allegations, to the extent of seeking the closure of the 6th Respondent industry on frivolous charges and when no such complaint was ever made before this Application either by the Applicant herein or by any of the surrounding farmers.

47.I hereby submit that the averment made in Para 15 of the Application is misleading to this Hon'ble court. The 6th Respondent industry is situated in Semi-Critical Area. The last two G.O.s pertaining to the Ground Water Assessment which the Applicant herein has conveniently suppressed in order to mislead this Hon'ble Tribunal with the knowledge that the G.O.155 dated 28.10.2021 and G.O.15 dated 28.03.2023 issued by the Public Works Department of Govt. of Tamil Nadu classifies "**Pappireddipatti Firka**" as a "**Semi-Critical Area**" for ground water development. (Copy of the G.O. 155 dated 28.10.2021 and G.O. 15 dated 28.03.2023 is annexed herewith as **Annexure 34** and **Annexure 35** respectively) Though the 6th Respondent industry was started in 1997 and was in existence much prior to the commencement of the regulations in G.O. 142 dated 23.07.2014 (Copy of the G.O. 142 dated 23.07.2014 is annexed herewith as **Annexure 36**) for ground water extraction and is exempted from obtaining 'No Objection Certificate', the 6th Respondent industry adhering to the recent advice given by the PWD Ground Water Division vide Letter No.385/UE(N)/V/2023/ dated 30.05.2023 (Copy of the Letter No.385/UE(N)/V/2023/ dated 30.05.2023 by the PWD Ground Water Division, Vellore is annexed herewith as **Annexure 37**) has applied to obtain 'No Objection Certificate' for ground water extraction on 06.07.2023 to the Chief Engineer, State Ground and Surface Water Resources Data Centre, Chennai, for grant of NOC for extraction of ground water from our existing wells. (Copy of the Application dated 06.07.2023 for obtaining 'No Objection Certificate' by the 6th Respondent industry is annexed herewith as **Annexure 38**)

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

48. I hereby submit that the Applicant herein states that the area in which the 6th Respondent is situated is a dry area and rainfall is also very limited, however, the Applicant herein then makes a contradictory statement that water is flowing for 6 months in Para 16 of the Application and as such, the Applicant herein is misleading this Hon'ble Tribunal in all fronts. The PWD is also a member in the Committee and the Department has submitted the report in this regard as well.

49. I hereby submit that the Applicant herein is citing G.O. 51 dated 11.02.2004 in Para 17 of the Application, however, the current G.O. 15 dated 28.03.2023 has been issued by the Public Works Department of the Govt. of Tamil Nadu classifying "Pappireddipatti Firka" as a "Semi-Critical Area" for ground water development and the 6th Respondent industry is located in such area.

50. I hereby submit that the as already stated supra, the Chief Engineer, State Ground and Surface Water Resources Data Centre, Chennai, has been addressed by the 6th Respondent industry for the grant of NOC for extraction of ground water from the existing wells and the allegation in Para 18 of the Application is false.

51. I hereby submit that the Applicant herein makes false and baseless reports to this Hon'ble Tribunal in Para 20 of the Application without any knowledge about the facts relating to the production made and water consumption thereof.

52. I hereby submit that there is no flow of water in the Peeniyaru jungle stream for the last 8 months till date. The level of water in the Rainwater Harvesting Pond in the industry is full and the water level is more than the floor level of the Jungle stream by perfectly collecting the current rainwater from the industrial area. Nowadays, even though there is good rain for about 3-4 times a week and the water is collected in the said Pond, the water level is not increasing above the jungle stream level due to the seepage from the

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

Pond into the stream. The averment of the Applicant herein in Para 21 of the Application is therefore, false and baseless.

53. I hereby submit that the 6th Respondent industry extends upto 80 Acres, the slope being from west to east, with the Servarayan Hills in the west side of the 6th Respondent industry and Kalrayan Hills in the east side of the 6th Respondent industry. The Applicant herein is thereby providing this Hon'ble Tribunal with false and misleading information in Para 22 of the Application.

54. I hereby submit that all the averments stated in Paras 23, 24 and 25 are false and denied. As already stated, the harvested rainwater in the Pond overflows into the jungle stream through seepage and causes flow of water. As already submitted, the 6th Respondent industry requested the PWD in the year 2017 to regularize this issue, along with the readiness to follow the conditions and pay the necessary fees for absorbing the water in the jungle stream and the request is still in process. The 6th Respondent industry is not denying the fact that they have applied to the PWD for drawing the water. Now, as per the G.O. 15 dated 20.08.2023, the industry comes under the "Semi-Critical Area" and it can utilize the water for Agro-based industry for the benefit of the farmers in Dharmapuri District. The farmers have now requested the Government to start one more similar Tapioca industry in the Dharmapuri District and the present DMK led Government has also mentioned this subject in their election manifesto and has assured to start one more Tapioca industry in Dharmapuri District. Accordingly, around 10,000 real Tapioca-cultivating farmers in the Dharmapuri District are requesting for one more similar industry in the area for their benefits. At the same time, only one so-called farmer, named, Mr.Suresh, the Applicant herein, acting against the welfare of the Tapioca and Maize cultivating agriculturalists seeks to close the only existing medium-scale industry that is successful in its operation.

55. I hereby submit that the 6th Respondent industry has not yet received any correspondence from the Collector after the Joint Committee inspection. The

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

6th Respondent industry received a letter from the PWD with Letter No.295/2023/F.180/J.D.O.3/ dated 16.05.2023 with regards to the drawing of water based on the eligibility from Peeniyaru jungle stream for industry purpose. (Copy of the Letter No.295/2023/F.180/J.D.O.3/ dated 16.05.2023 given by the PWD, Dharmapuri is annexed herewith as **Annexure 39**) Accordingly, the 6th Respondent industry has requested the Collector once again to provide concurrence for the drawing of water, whenever water flows in the Peeniyaru jungle stream, in person vide Letter dated 31.05.2023 and the same is still pending. (Copy of the Request Letter dated 31.05.2023 given by the 6th Respondent industry to the Collector is annexed herewith as **Annexure 40**) I hereby further submit that the request has been submitted to the Agricultural Secretary, PWD Secretary and Industrial Secretary as well. The 6th Respondent industry had also received a letter from PWD, Water Resources Department, Vellore, with Letter No.385/UE(N)/V/2023/ dated 30.05.2023 to get NOC for the extraction of ground water for the industry. Accordingly, the 6th Respondent industry had applied for the issuance of NOC to the PWD, Taramani on 06.07.2023. Hence, the averment in Para 26 of the Application is false and denied.

56. I hereby submit that the averments in Paras 27-38 of the Application are false and denied. In the year 2008, the 6th Respondent industry approached Anna University for the adequacy report for their ETP. The Adequacy Report dated 28.03.2009 given by Anna University based on the estimated production for the 6th Respondent industry is with full capacity production. The Applicant herein has further mentioned some chemicals by referring to the Adequacy Report of Anna University dated 28.03.2009.

I hereby further submit that the usage of such chemicals like Sodium Hydroxide (NaOH), Hydrochloric Acid (HCl), Sodium Hypochlorite (NaClO) for manufacture of Modified Starches were consented by the TNPCB and the ETP was also certified as adequate to handle the effluent generated, by Anna University vide their said Adequacy Report dated 28.03.2009. Accordingly,

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(V. ANBALAGAN)
Managing Director

Anna University confirms that the 6th Respondent industry is having sufficient Effluent Treatment Plant (ETP) for the Modified Starch production. The TNPCB technical officials also confirmed that the ETP is sufficient for the production based on the report provided by the Anna University and provided the consent for establishment and issued consent to operate and continued renewal of the consent order for the industry from 2010 till 2021. The TNPCB officials regularly test the effluent and have been confirming that there are no hazardous waste and inorganic chemicals in the treated water. However, the Applicant herein without any evidence, makes the false allegation about the Modified Starch production and wastewater generation therefrom, to this Hon'ble Tribunal.

57. I hereby submit that there exists a vast Rainwater Catchment Area within the industrial premises comprising of industrial sheds, buildings, yards, and vacant land for which a Rainwater Harvesting Pond of appropriate size was also made for collection of the rainwater. Roof Rainwater tapping pipelines have been installed in all industrial sheds and buildings to channel the rainwater to the stormwater drains and rainwater from vacant lands, yards and boundary walls are also channeled to stormwater drains which are all linked to discharge the rainwater into the Rainwater Harvesting Pond which was made about 15 years back, in adherence to the Government's mandatory guidelines and the TNPCB's condition which mandated construction of Rainwater Harvesting structures for collection of rainwater within the industrial premises. When the water in the Rainwater Harvesting Pond reaches full level, the Rainwater only flows into the jungle stream through seepages. The treated trade effluent therefore, never gets mixed with this line.

The Applicant herein falsely states in Para 39 & 40 of the Application that the Tapioca wastes are also washed into the river and when Tapioca effluent is let out into the river, the river water turns yellow to whitish and when Maize effluent is released, the river water turns dark. The Applicant herein himself has provided so many photos and videos through WhatsApp messages but

For Varalakshmi Starch Industries (P) Ltd


(K. ANBALAGAN)
Managing Director

has not provided any photo showing the particular pipe line with wastewater flow, in which the 6th Respondent industry's effluent is let out into the river. Therefore, the Applicant's allegation lacks in evidence and cannot be sustained in law.

58. I hereby submit that the Applicant herein in Paras 40 & 41 of the Application states that the samples collected from the outlet indicates TSS 102 mg/l, BOD 297 mg/l and COD 2610 mg/l. If untreated trade effluent from Tapioca and Maize plant is tested, the test results would indicate that BOD will be around 10,000 mg/l and COD will be around 28,000 mg/l, which is the standards of untreated wastewater from the 6th Respondent industry's unit. It is pertinent to mention in this context that the Applicant herein himself admits that the wastewater has been treated with drastic reduction of above parameters but for meagre variation.

59. I hereby submit that the in the above discussions, there is no evidence whatsoever, and the allegations are artificially created by the Applicant herein. The violations alleged by the Applicant herein are baseless and the TNPCB never detected such violations and had not taken any action against the 6th Respondent industry for the past 26 years. I hereby further submit that all the violations as averred by the Applicant herein in Para 42 of the Application are fabricated as an afterthought with ulterior motive.

60. I hereby submit that the entire effluent generated in the production process from the processing of agricultural materials are organic and bio-degradable where the **"Effluent actually serves as a raw material for generation of highly valuable fuel namely, Bio-gas, which is used as a fuel for heat and power generation"**. The higher the reduction of COD and BOD in the effluent treatment process, the higher will be the quantum of cashable Bio-gas

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(V. ANBALAGAN)
Managing Director

generation. It is in the 6th Respondent industry's interest to generate high quantum of Bio-gas as it leads to huge savings in operation of the 6th Respondent industry through replacement of highly expensive coal and power. Therefore, the investments being made in the 6th Respondent industry serves the dual purpose of wastewater treatment as well as generation of high returns to the 6th Respondent industry through the use of Bio-gas as a replacement to fossil fuels in addition to complying with the TNPCB standards. The trade effluent is treated by the Effluent Treatment Plant (ETP) with reduction of BOD from 10,000 mg/l to 30-100 mg/l and COD from 28,000 mg/l to 100-250 mg/l. (Copy of the Photographs of the Effluent Treatment Plant (ETP) is annexed herewith as **Annexure 41**) I hereby further submit that whenever there are variations or fluctuations, the same is rectified from time to time by the 6th Respondent industry. The TNPCB in their various reports over the years have shown that the discharged treated wastewater is well within the prescribed limits for discharge in own greenbelt lands. The Applicant herein states in Para 43 of the Application that all the parameters are exceeding and in Para 44, the Applicant herein himself contradicts by stating that the parameters exceed very meagerly from the surface water discharge standards and it cannot be said as untreated. For example, in the last 14 lab test reports analyzed for the period from 09.01.2020 to 20.09.2022, except in 2 test reports, the variation in TDS is very meagre.

I hereby submit that the averment of the Applicant herein in Para 45 of the Application is false as proved by the ROA test report of the TNPCB. (Copy of the 6 ROA test reports of the TNPCB dated 30.08.2022 to 31.08.2023 is annexed herewith as **Annexure 42**)

61. I hereby submit that there is no stagnation of water in the industrial premises as alleged by the Applicant herein in Para 46 of the Application. The Applicant herein makes contradictory allegations by initially stating that the 6th Respondent industry discharges the wastewater into the jungle stream and

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

later, that the effluent discharged stagnates on the land. The Applicant herein had taken photos during the heavy rainy time. I hereby further submit that the Board itself is initiating to plant 400 trees in Hectare as the planting of 1000 trees in an Acre is impossible. The Applicant herein is thus, giving artificial figures for planting trees without any basis.

62. I hereby submit that the averments in Paras 47 and 48 are false and denied as 99% of the trees are alive with grasses and creepers, despite some trees getting damaged by the buffaloes and cows.

63. I hereby submit that the averments in Paras 49, 50 and 51 of the Application are false and denied as the report by the PWD, and the WRD, Vellore, as alleged by the Applicant herein is not available with the 6th Respondent industry, hence, if a copy of the full report from PWD, and the WRD, Vellore, is provided, the 6th Respondent industry will examine and offer its submissions thereof.

64. I hereby submit that the Applicant herein is falsely harping on the same averment in Para 52 of the Application that the 6th Respondent industry is discharging the entire effluent in the land without any treatment which is nowhere close to the actual facts. There exists no cogent evidence in the form of photos or video graphs relied upon evidencing the same. Hence, the allegation is totally void and at this juncture, there arises a question as to how the Applicant herein is more powerful than the statutory authorities such as the TNPCB, governing the 6th Respondent industry in the matter of any compliances to the PCB Acts.

I hereby further submit that there is no one other than the Applicant herein who can fathom an action, more stringent than the dire closure of the 6th Respondent industry that has had a triumphant industrial operation for over 2 decades not just in monetary terms but also in terms of efficient service to the society in general.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

65. I hereby submit that the averments as stated in Para 53 of the Application are repetitive and as such are baseless, misconceived and do not indicate proper understanding of the facts on record and classification of the factory area as "Semi-Critical Area" as per G.O. 15 dated 28.03.2023 by which the 6th Respondent industry is exempted from obtaining NOC as the industry was in existence prior to the commencement of the regulations for ground water extraction. I hereby further submit that the Applicant herein conveniently fails to note that the 6th Respondent industry has even applied for NOC on 30.05.2023 from the concerned authorities, adhering to the advice of the PWD Ground Water Division even though it was in existence prior to the commencement of the regulations for ground water extraction.

66. I hereby submit that the averments in Para 54 of the Application are badly fabricated and ill motivated in pursuance of pecuniary benefits to the Applicant herein and does not reflect the correct state of affairs as submitted supra. I hereby further submit that if the 6th Respondent industry does not further operate, the impact would be detrimental to the entire Dharmapuri District Tapioca-cultivating farmers amounting to around 10,000 of them, who will stand to lose multi crore rupees.

The Applicant herein, without appreciating this, has been exploiting the name of the farmers of the concerned District, and indulges in making false complaints against the 6th Respondent industry, seeking closure of the well-established Public Utility Unit with nothing but malafide intention to grab money for his personal whims and fancies only, as canvassed by lawyers as per the video enclosed, when the fact is that the Applicant herein is not cultivating any agricultural produce whatsoever, in his own fields of around 2 Acres, regardless of the fact of possessing a well with water right upto the brim.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

For Varalakshmi Starch Industries (P) Ltd
(V. ANBALAGAN)
Managing Director

67.I hereby submit that on 16.09.2023, the Executive Engineer, Ground Water Division, Water Resources Department, Vellore, the 3rd Respondent herein had submitted their report dated 14.09.2023 which clearly establishes that the 6th Respondent industry falls under 'Semi-critical Area' and is eligible to utilize the groundwater for operating their industry.

68.I hereby submit that with reference to the abnormalities and the TDS in open well, as stated in the aforesaid report, it is to be noted that the TDS of the water in the open well is not within the control of the 6th Respondent industry and is beyond the scope of the 6th Respondent industry to maintain the Bureau of Indian Standards of water in the open well.

69.I hereby submit that the District Collector, Dharmapuri, the 5th Respondent herein, made a surprise inspection of the 6th Respondent industry on 13.10.2023 along with the District Environmental Engineer, TNPCB, the Executive Engineer, PWD (Surface water), Tahsildar, Assistant Engineer, PWD (Ground water), Health Department officials and other Government officials.

I hereby further submit that the District Collector, the 5th Respondent herein inspected the operations of the production unit of the 6th Respondent industry and the Effluent Treatment Plant and also verified that the wastewater is treated in the Effluent Treatment Plant, that the treated wastewater is only discharged into the 6th Respondent industry's own greenbelt area and also that there is no discharge into the nearby Peeniyaru jungle stream or public lands.

70.I hereby submit that at the time of inspection, the DEE, TNPCB pointed out that there were certain parameters which were exceeding the TNPCB standards and that those parameters pertain to the discharging of treated water for the open surface water discharge standards. I hereby further submit that the 6th Respondent industry informed the District Collector, the 5th

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

Respondent herein and the TNPCB that time and again, the 6th Respondent industry had informed that the open surface water discharge standards will not be applicable to the 6th Respondent industry, that the 6th Respondent industry have been mandated by the TNPCB for discharge of their treated water on their own irrigated land and also that for no other similar large-scale Tapioca and Sago manufacturing Agro-based industry, open surface water discharge standards have been prescribed by the TNPCB.

71. I hereby further submit that the District Collector, the 5th Respondent herein also inspected the Rainwater Harvesting Pond and the nearby jungle stream and the 6th Respondent industry's representatives explained that the water level in the Pond is full and higher than the floor level of the nearby jungle stream. The District Collector, the 5th Respondent herein was also informed by the AE, PWD that there has been no waterflow in the Peeniyaru Jungle stream for the past 9 months.

72. I hereby submit that with regard to various grounds raised in the Application by the Applicant herein, the responses to each of the grounds are detailed hereunder:

Sl. No.	Grounds raised by the Applicant against the 6 th Respondent	Responses
1.	Illegal drawing of water from Peeniyaru.	There is no flow of water in the Jungle stream for the past 9 months, whereas, the water level in the Rainwater Harvesting Pond is above the floor level of the Jungle stream. At many instances, whenever there is excess rain, water used to overflow into the Jungle stream which has also been arrested.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

2.	No permission for drawl of water.	When drawing is not possible, such a ground will not arise.
3.	Water abstraction is not permitted as Industry is in Over Exploited zone.	The 6 th Respondent industry is in Semi-Critical Area and an application for NOC for extraction is already submitted to the authority.
4.	Illegal utilization of 700 KLD per day and has interfered with ground water regime.	There is no proof for such an allegation and Rainwater Harvesting Pond is the main source of water for the 6 th Respondent industry.
5.	Illegal construction of well/tank adjacent to Peeniyaru.	Rain Water Harvesting Pond constructed as per the mandatory instructions from the authorities.
6.	Illegal tapping of water from Peeniyaru.	As stated earlier, admittedly, there is no flow of water in the Jungle stream for the past 9 months, whereas, the water level in the Rainwater Harvesting Pond is above the floor level of the Jungle stream. At many instances, whenever there is excess rain, water used to overflow into the Jungle stream which has also been arrested.
7.	Failed to treat effluent and has been discharging effluents in violation of discharge standards.	Agro-based 6 th Respondent industry Effluents are treated and appropriately discharged in the own lands of the 6 th Respondent industry.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

8.	High TDS effluent containing inorganic chemicals from Modified Starch.	Reports of Anna University shows sufficient proof that the TDS are within the prescribed standards.
9.	Discharge of effluents in contamination of ground water.	There is no such contamination of ground water based on the 6 th Respondent industry wastewater found to substantiate such an allegation.
10.	Pollution to the Peeniyaru by the discharge of effluents into the river.	There is a huge ETP and detailed process for treatment of waste and discharge of treated wastewater into the land of the 6 th Respondent industry and no such discharge is made to Peeniyaru jungle stream.
11.	Operation without valid consent of TNPCB.	Consent renewal application has been filed and fees paid to the TNPCB, and the same is still pending.
12.	Violation of the consent orders of the TNPCB.	There is no such violation of consent orders by the 6 th Respondent industry. Recommendations of the Committee have been implemented.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
 Managing Director

It is therefore most respectfully prayed that in the light of the facts and circumstances stated above, this Hon'ble Tribunal may be pleased to dismiss this Original Application filed by the Applicant herein as devoid of merits and with exemplary costs and pass such further or other orders as this Hon'ble Tribunal may deem fit and necessary in the facts and circumstances of this case and thus, render justice.

X
For Varalakshmi Starch Industries (P) Ltd


(V. VENKATAN)
Managing Director

Solemnly affirmed at Chennai on
this the 20th day of November, 2023
and signed his name in my presence.

BEFORE ME



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

An ISO 9001 : 2008, 14001 : 2004, BS OHSAS 18001 : 2007 Certified Company



MRFS. & EXPORTERS : SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

EXTRACT OF MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE COMPANY, HELD ON 22ND DAY, OF JULY, 2023, AT THE REGISTERED OFFICE SITUATED AT "VARALAKSHMI TOWER", NO.127/1, 2ND FLOOR, GANDHI ROAD, SALEM – 636 007

RESOLVED THAT Consent of the Board of Directors of the Company be and is hereby accorded to authorize **Mr.V.Anbzhagan**, Managing Director of the Company to represent the Company in legal proceedings initiated before the Hon'ble National Green Tribunal, Southern Zone, Chennai in the Original Application titled as Mr. Suresh, S/o. Pachiyappan Versus Tamil Nadu Pollution Control Board & Anr.;

RESOLVED FURTHER THAT Mr.V.Anbzhagan, Managing Director, be and is hereby authorized and empowered for and on behalf of the Company, to file and/or to defend the Original Application titled as Mr. Suresh V. The Tamil Nadu Pollution Control Board & Anr. under the applicable law before the competent Court, Tribunal, Authorities or Forums including any Appellate Tribunal for and on behalf of the Company as and when required to give effect to the above resolution;

RESOLVED FURTHER THAT Mr.V.Anbzhagan, Managing Director, Director, be and is hereby authorized and empowered for and on behalf of the Company, to engage any Advocate/Solicitors/Consultants and to submit Vakalatnama, statements, documents, evidences, declarations, etc., before the appropriate Authorities/Court and/or the Police Authorities for and on behalf of the Company, as and when required and to enter into any compromise, settlement of case they may consider appropriate in the interest of the Company.

For Varalakshmi Starch Industries (P) Ltd


(V. ANBALAGAN)
Managing Director

Regd. Office : " Varalakshmi Tower ", II Floor, No. 127/1, Gandhi Road, Salem - 636 007. T.N. India.

Ph. (Off.) : 0427 - 4031073

Email : office@varalakshmistarch.com

Factory : No. 7/114-126, Bommi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.

CIN No. U10153271995PTC006136

www.varalakshmistarch.com

IS : 899

IS : 1319



CML-6100012769



CML-6299891

Company Master Data

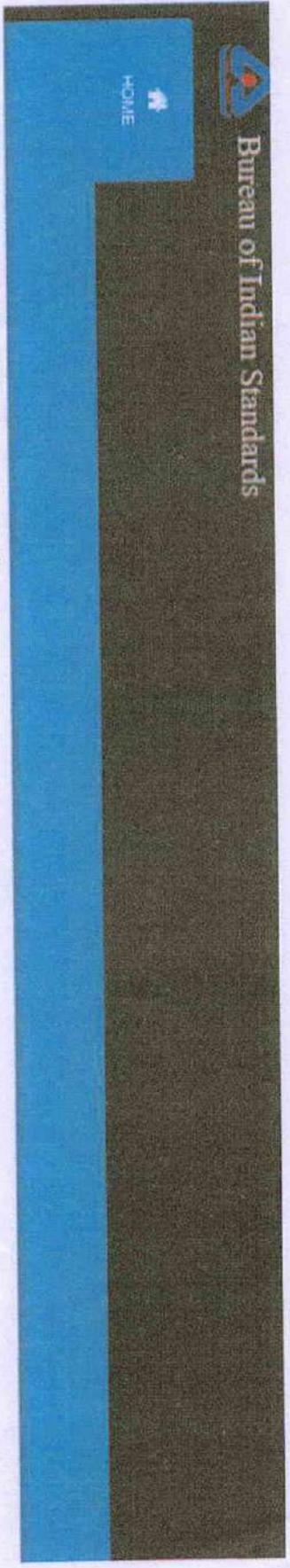
CIN	U01532TZ1995PTC006136
Company Name	VARALAKSHMI STARCH INDUSTRIES PRIVATE LIMITED
ROC Code	RoC-Coimbatore
Registration Number	006136
Company Category	Company limited by Shares
Company SubCategory	Non-govt company
Class of Company	Private
Authorised Capital(Rs)	200000000
Paid up Capital(Rs)	150000000
Number of Members(Applicable in case of company without Share Capital)	0
Date of Incorporation	16/05/1995
Registered Address	NO 127 1 OLDNO 7GANDHIROAD SALEM TAMIL NADU TN 636007 IN
Address other than R/o where all or any books of account and papers are maintained	-
Email Id	cs@varalakshmistarch.com
Whether Listed or not	Unlisted
ACTIVE compliance	ACTIVE compliant
Suspended at stock exchange	-
Date of last AGM	30/09/2022
Date of Balance Sheet	31/03/2022
Company Status(for e filing)	Active

Charges

Assets under charge	Charge Amount	Date of Creation	Date of Modification	Status
Immovable property or any interest therein; Book debts; Movable property (not being pledge)	350000000	24/09/2004	14/03/2022	OPEN

Directors/Signatory Details

DIN/PAN	Name	Begin date	End date	Surrendered DIN
00452689	VARADHARAJA GOUNDER ANBALAGAN	16/05/1995	-	
00452900	ANBALAGAN SUGUNA	16/05/1995	-	
00725683	ANBALAGAN VINOTHKUMAR	19/07/2016	-	



B18-Tapioca starch.

Granted Licenses/Certificates of Conformity

Search:

S.No.	CML No.	Firm Name	IS No./IS Description	Status	Granted Date	License Valid Till
1	6299891	VARALAKSHMI STARCH INDUSTRIES PRIVATE LTD	IS 1319:1983	License Operative	2002-10-23	2024-10-31

3



HOME

BIS - Tapioca sagro

Granted Licenses/Certificates of Conformity

Search:

S.No.	CML No.	Firm Name	IS No./IS Description	Status	Granted Date	License Valid Till
1	6100012769	Varalakshmi Starch Industries (P) Ltd	IS 899:1971	License Operative	2015-06-01	2025-06-07

Type here to search





Form C
Government of India
Food Safety and Standards Authority of India
License under FSS Act, 2006



अनुज्ञप्ति संख्या / License Number: **10018042003565**



- | | |
|---|---|
| 1. Name & Registered Office address of Licensee / अनुज्ञप्तिधारी के पंजीकृत कार्यालय का नाम और पता: | VARALAKSHMI STARCH INDUSTRIES PRIVATE LIMITED
127/1, Gandhi Road,
Varalakshmi Tower, 2nd Floor,
Hasthampatty,
Salem, Salem, Tamil Nadu-636007 |
| 2. Address of Authorized Premises / प्राधिकृत परिसरो का पता: | 7/114-126, Bommidi Main Road,
Pappireddipatty PO & TK,
Dharmapuri District, Dharmapuri, Tamil Nadu-636905 |
| 3. Kind of Business / कारोबार का प्रकार: | Trade/Retail - Importer
Manufacturer - Exporter - Manufacturer |
| 4. Dairy Business Details / डेयरी कारोबार विवरण हेतु: | No |
| 5. Category of License / अनुज्ञप्ति का वर्ग: | Central License |

This license is granted under and is subject to the provisions of FSS Act, 2006 all of which must be complied with by the licensee. / यह अनुज्ञप्ति खाद्य संरक्षा और मानक अधिनियम, 2006 के अधीन अनुदत्त की गई और वह अधिनियम के उपबंधों के अध्यादीन है जिनका अनुज्ञप्तिधारी द्वारा अवश्य पालन किया जाना चाहिए.

Place / स्थान:	FSSAI Chennai	Designated Officer	
Issued On / दिनांक:	19-12-2022 (Renewal License)	Date :	19-12-2022 21:37:43 IST
Valid Upto: / वैधता:	10-01-2028 (For details, refer Annexure)	User Id :	cLXXX01
		Verified through Mobile :	99XXXXXX05

Annexures:

1. [Product Annexure](#)
2. [Validity Annexure](#)
3. [Non-Form C Annexure](#)
4. [Conditions Of License](#)

Note:

1. Application for renewal of License can be filed as early as 180 days prior to expiry date of License. You can file application for renewal or modification of License by login into FSSAI's Food Safety Compliance System(<https://foscos.fssai.gov.in>) with your user id and password or call us at 1800112100 for any clarification.
2. This License is only to commence or carry on food businesses and not for any other purpose.
3. This is computer generated license and doesn't require any signature or stamp by authority.

Product Annexure



Form C
Government of India
Food Safety and Standards Authority of India
License under FSS Act, 2006



अनुज्ञप्ति संख्या / License Number: 10018042003565

Kind Of Business: Manufacturer - Exporter - Manufacturer

Sl.No	Export Unit Type	Product Category	Name of Food Item(s)	Quantity	Unit	Per day/Per annum	Scope of Product Supply
1	Others Food Processing Unit	06 - Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses, legumes and pith or soft core of palm tree, excluding bakery wares of food category 7.0	Tapioca Starch, Tapioca Sago and Maize Starch	500.00	MT	Per Day	Domestic & Exports

Kind Of Business: Trade/Retail - Importer

Sl.No.	Product(s)
1	06 - Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses, legumes and pith or soft core of palm tree, excluding bakery wares of food category 7.0

DGFT Registration Details:

IE Code: 3200002701	
Importer/Company Name: VARALAKSHMI STARCH INDUSTRIES PRIVATE LTD	
Address: 127(1), OLD NO.7, GANDHI ROAD, VARALAKSHMI TOWER I	Telephone No:
E-mail:	Pan Card No: AABCV0094P
Date of Estd:	

Validation And Renewal Annexure



Form C
Government of India
Food Safety and Standards Authority of India
License under FSS Act, 2006



अनुज्ञप्ति संख्या / License Number: **10018042003565**

Validity From	Validity Upto	Issued On	Fee Paid	Type	Issuing Authority
11-01-2018	10-01-2019	11-01-2018	7500 INR	New	Central Licensing Authority
11-01-2019	10-01-2020	06-03-2019	7500 INR	Renewal	Central Licensing Authority
11-01-2020	10-01-2023	11-12-2019	22500 INR	Renewal	Central Licensing Authority
11-01-2020	10-01-2023	30-06-2021	7500 INR	Modification	Central Licensing Authority
11-01-2020	10-01-2023	01-07-2021	1000 INR	Modification	Central Licensing Authority
11-01-2023	10-01-2028	19-12-2022	44840 INR	Renewal	Central Licensing Authority

Suspension History

S.No	History	Date
	N/A	

Current Status of License: License Issued

Note:

- Application for renewal of License can be filed as early as 180 days prior to expiry date of License. You can file application for renewal or modification of License by login into FSSAI's Food Safety Compliance System(<https://foscos.fssai.gov.in>) with your user id and password or call us at 1800112100 for any clarification.
- The Application for renewal of license shall be submitted 30 days prior to the expiry date mentioned above after which Rs. 100 per day will be charged up to the date of expiry.
- Modification* (if any) denotes the change in the Authority. Issuing Authority mentioned along with Modification* is the Jurisdictional Authority with effect from the date of issuance of modified license.

Non-Form C Annexure



Government of India
Food Safety and Standards Authority of India
License under FSS Act, 2006



अनुज्ञप्ति संख्या / License Number: **10018042003565**

Person in charge of operations

Name:	Vinoth Kumar.A	Qualification:	B.Tech
Contact No:	N/A	Mobile No:	9443388074
Email-ID:	jmd@varalakshmistarch.com		
Address :	7/114-126, Bommidi Main Road, Pappireddipatty PO & TK, Dharmapuri District		
State:	Tamil Nadu	District:	Dharmapuri
Pin Code:	636905	Photo Id Card:	Passport
Photo Id No:	S4993234	Photo Id Expiry Date:	08-08-2028
FoSTaC No:	Not Provided		

Person responsible for complying with conditions of license(The person must be same as mentioned in Form IX, as per FSS Regulations, 2011)

Name:	Vinoth Kumar.A	Qualification:	B.Tech
Contact No:	N/A	Mobile No:	9443388074
Email-ID:	jmd@varalakshmistarch.com		
Address :	7/114-126, Bommidi Main Road, Pappireddipatty PO & TK, Dharmapuri District		
State:	Tamil Nadu	District:	Dharmapuri
Pin Code:	636905	Photo Id Card:	Passport
Photo Id No:	S4993234	Photo Id Expiry Date:	08-08-2028

Place / स्थान: FSSAI Chennai
 Issued On / दिनांक: 19-12-2022 (Renewal License)

Designated Officer

Date : 19-12-2022 21:37:43 IST
 User Id : cLXXX01
 Verified through Mobile : 99XXXXXX05



Note: Any change in above details shall be immediately communicated to authorities. You can apply for modification of license for updation of details without any cost through Food Safety Compliance System (<https://foscos.fssai.gov.in>)

Condition of License

All Food Business operators shall ensure that the following conditions are complied with at all times during the course of its Food Business.

Food Business Operators Shall:

1. Display a true copy of the license granted in Form C shall at all time at a prominent place in the premises.
2. Give necessary access to licensing authorities or their authorized personnel to the premises.
3. Inform authorities about any change or modifications in activities.
4. Employ at least one technical person to supervise the production process. The person supervising the production process shall possess at least a degree in science with Chemistry/ Bio-chemistry/ Food and nutrition/ Microbiology or a degree or diploma in Food Technology/ Dairy Technology/ Dairy Microbiology/ Dairy chemistry/ Dairy engineering/ Oil technology/ Veterinary science / Hotel management & Catering technology or any degree or diploma in any other discipline related to the specific requirement of the business from a recognized university or institute or equivalent.
5. Furnish periodic annual return 1st April to 31 st March, with in 31 st May of each year. For collection/ handling/manufacturing of milk and milk product half yearly return also to be furnished as specified.
6. Ensure that no product other than the product indicated in the license /registration is produced in the unit.
7. Maintain factory's sanitary and hygienic standards and workers hygiene as specified in the schedule-4 according to the category of food business.
8. Maintain daily records of production, raw materials utilization and sales separately.
9. Ensure that the source and standards of raw material used are of optimum quality.
10. Food business operator shall not manufacture , store or expose for sale or permit the sale of any article of food in any premises not effectively separated to the satisfaction of the licensing authority from any privy, urine, sullage ,drain or place of storage of foul and waste matter
11. Ensure clean-in-place system (whatever necessary) for regular cleaning of machine & equipment.
12. Ensure testing of relevant chemical and/or microbiological contaminants in food products in accordance with these regulation as frequency as required on the basis of historical data and risk assessment to ensure production and delivery of safe food through own or NABLaccredited/ FSSAI recognized labs atleast once in six month.
13. Ensure that as much as possible the required temperature shall be maintained throughout the supply chain from the place of procurement or sourcing till it reaches the end consumer including chilling, transportation, storage etc.
14. The Manufacturer/ Importer/ Distributer shall buy and sell food products only from, or to , licensed / registered vendors and maintain record thereof.

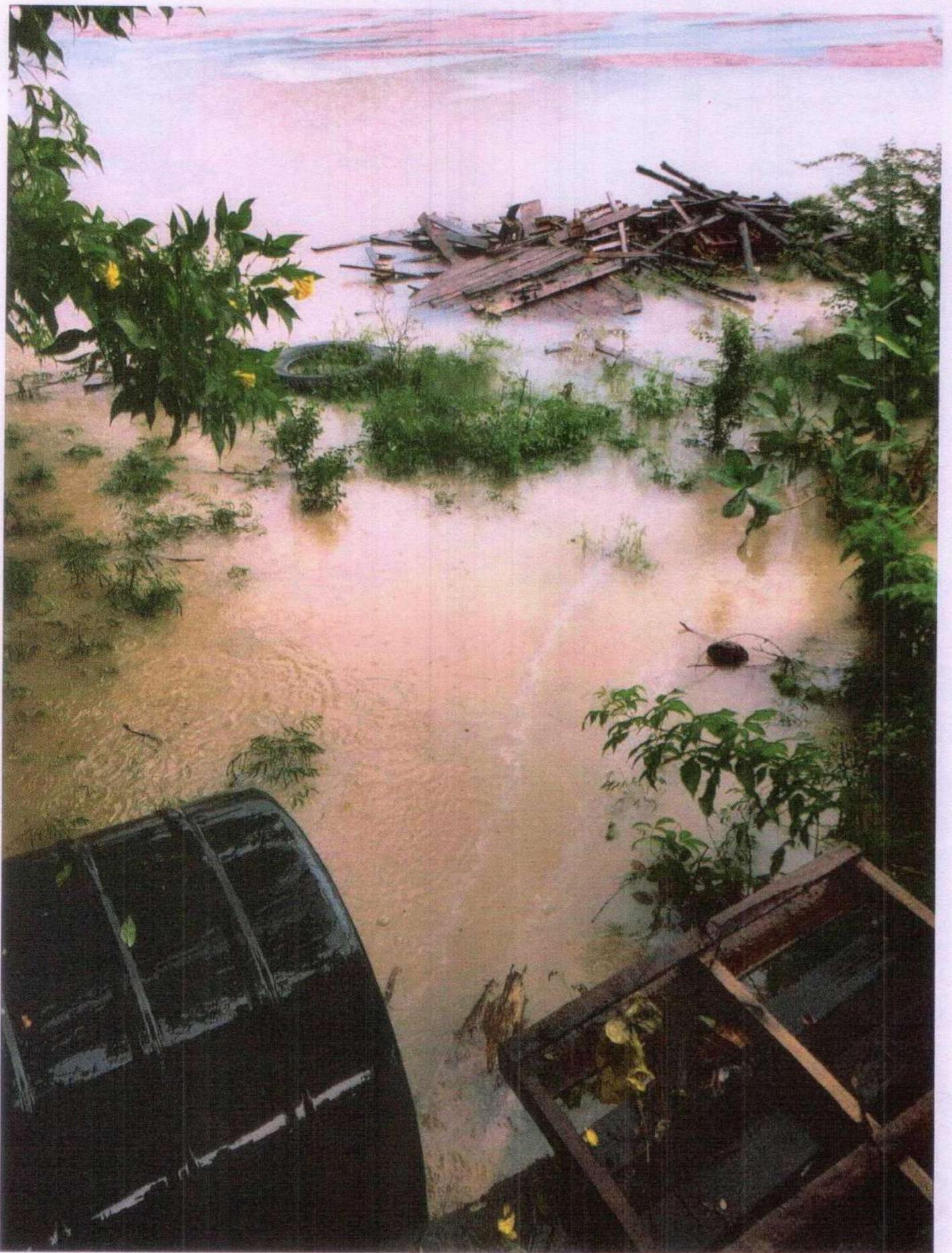
Other Condition

1. Proprietors of hotels, restaurants and other food stalls who sell or expose for sale savouries, sweets or other article of food shall put up a notice board containing separates lists of the articles which have been cooked in ghee, edible oil, vanaspati and other fats for the information of the intending purchasers.
2. Food business operator selling cooked or prepared food shall display a notice board containing the nature of articles being exposed for sale.
3. Every manufacture (including ghani operator) or wholesale dealer in butter ,ghee ,vanaspti ,edible oils, solvent extracted oil, de oiled meal, edible flour and any other fats shall minimum a register showing the quantity of manufactured, received or sold, nature of oil seed used and quantity of de oiled meal and edible flour used etc. as applicable and the destination of each consignment of the substances sent out from his factory or place of business, and shall present such register for inspection whenever required to do so by the licensing authority.
4. No producer or manufacturer of vegetable oil ,edible oil and their products shall be edible for license under this act ,unless he has own laboratory facility for analytical testing of samples
5. Every sale and movement of stocks of solvents- extracted oil , 'semi refined' or 'raw grade I' , edible groundnut flour or edible coconut flour ,or both by the producer shall be a sale or movement of stocks directly to a registered user and not to any other person ,and no such sale or movement shall be effected through any third party.
6. Every quantity of solvent-extracted oil ,edible groundnut flour or edible coconut flour ,or both purchased by a registered user shall be used by him in his own factory entirely for the purpose intended and shall not be re-sold or otherwise transferred to any other person :
Provided that nothing in this sub-clause shall apply to the sale or movement of the following:-
 1. Karanjia oil
 2. Kusum oil
 3. Mahua oil
 4. Neem oil
 5. Tamarind seed oil
 6. Edible groundnut flour bearing the I.S.I certification mark
 7. Edible coconut flour bearing the I.S.I certificate mark
7. No food business operator shall sell or distribute or offer for sale or dispatch or deliver to any person for purpose of sale any edible oil which is not packed, marked and labeled in the manner specified in the regulations unless specifically exempted from this condition vide notification in the official Gazette issued in the public interest by food safety commissioners in specific circumstances and for a specific period and for reason to be recorded in writing.

Photographs of Rainwater Harvesting Pond

dated 01.10.2020





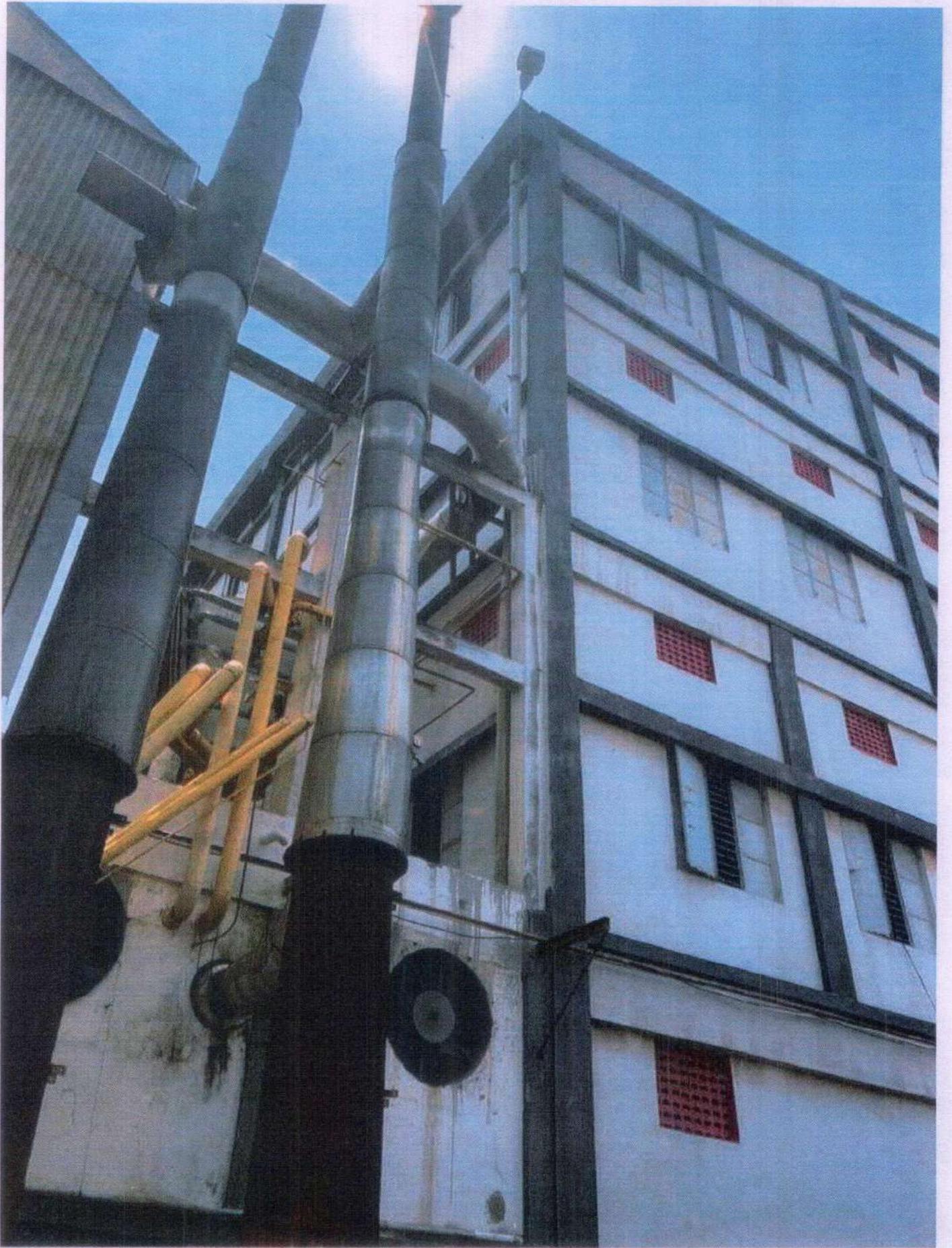












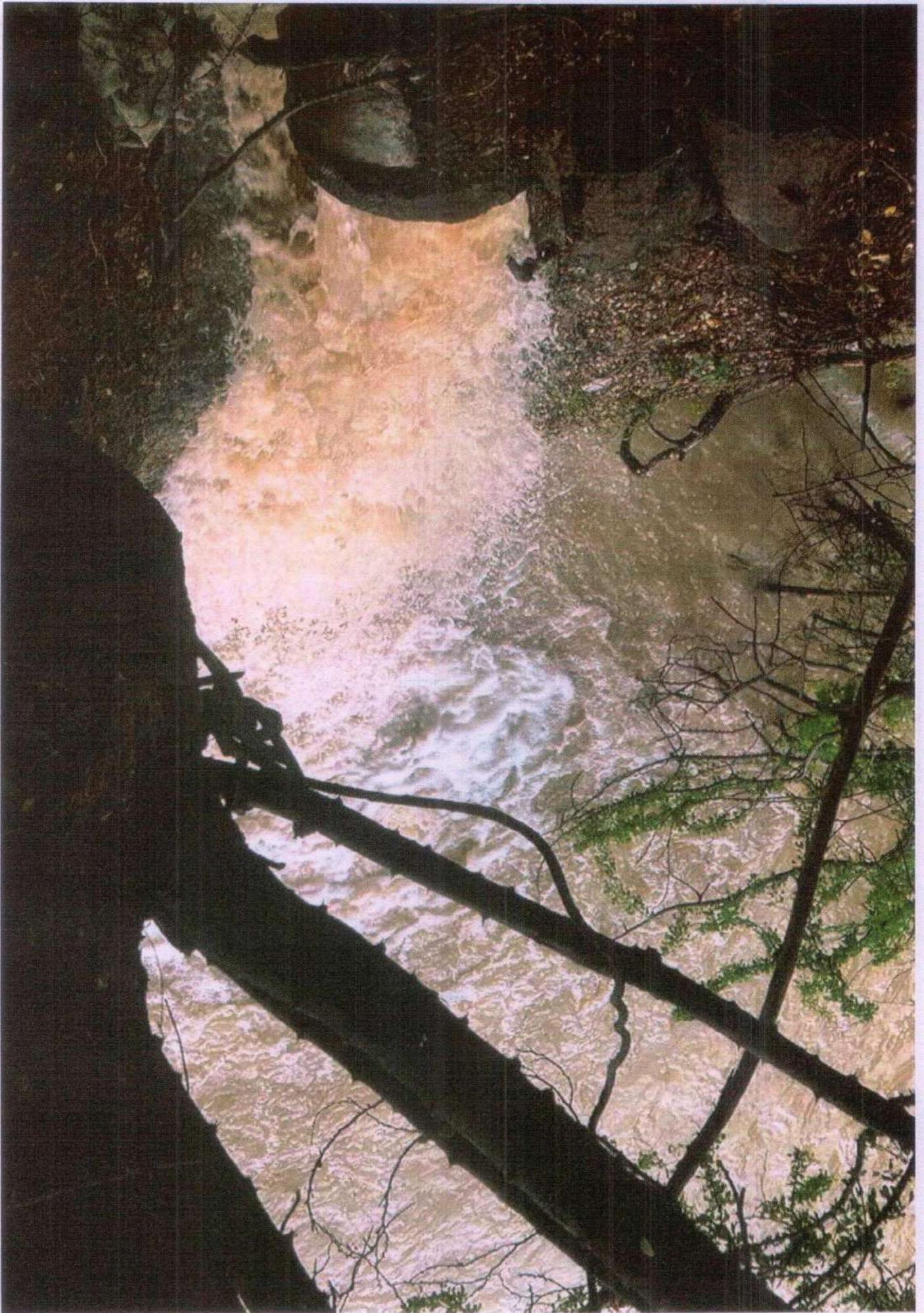




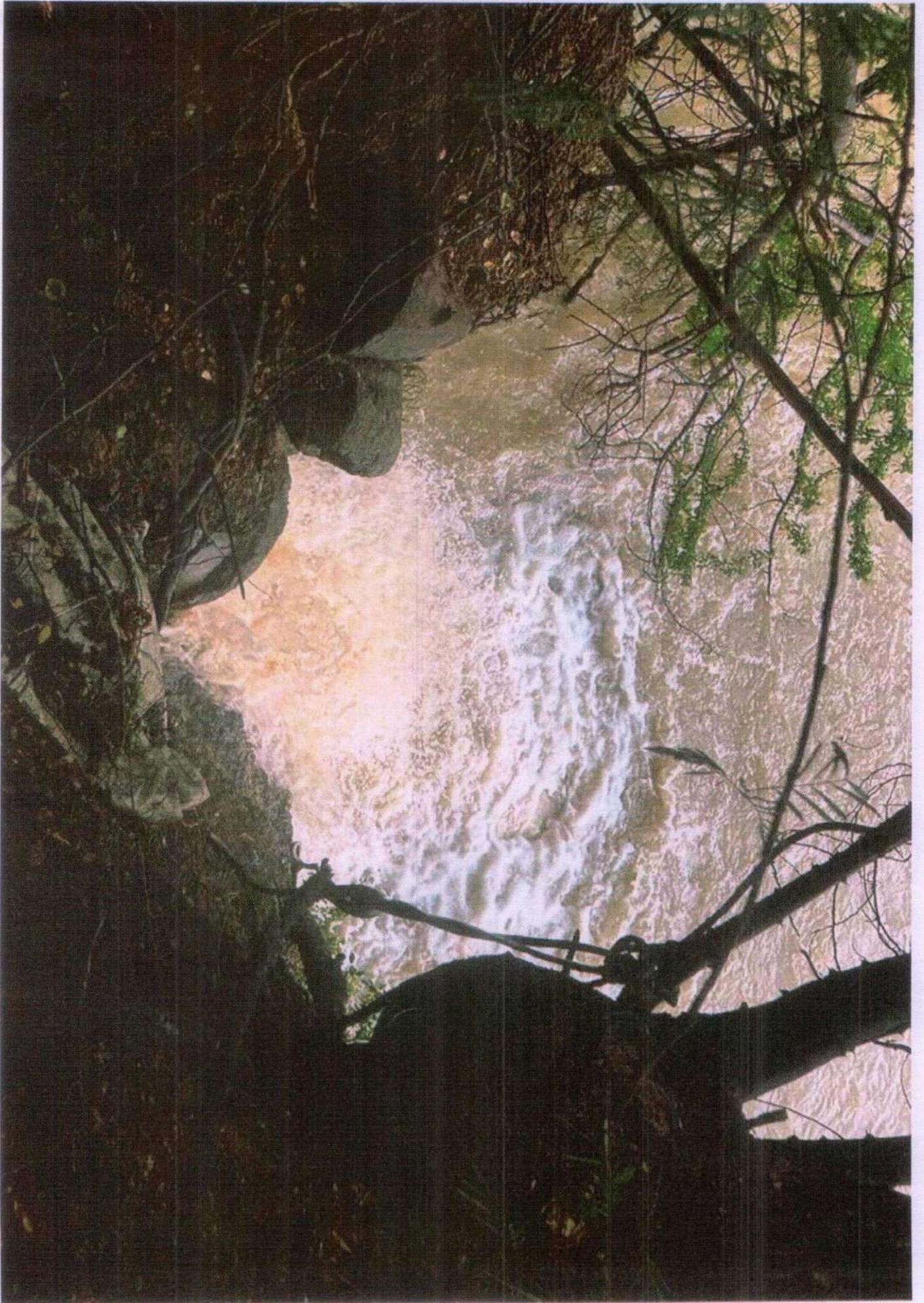


Photographs dated 10.10.2023













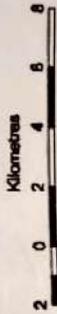
**Photographs of water-flow inside the Odai
dated 17.02.2022**



Pappireddipatti-Alamelupuram Village Map



INDIA TAMIL NADU PAPPIREDDIPATTI TALUK DHARMAPURI DISTRICT

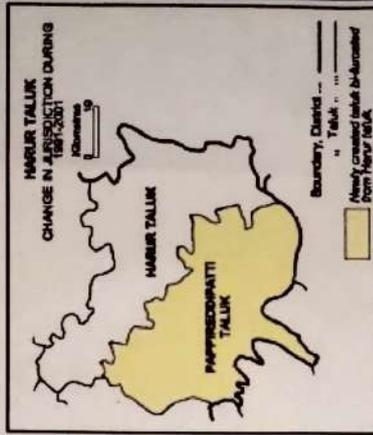


No. of Villages	162
No. of Towns	3
PLCH Starting from	00305790
PLCH Ending at	00305908
Total Population	2,15,671

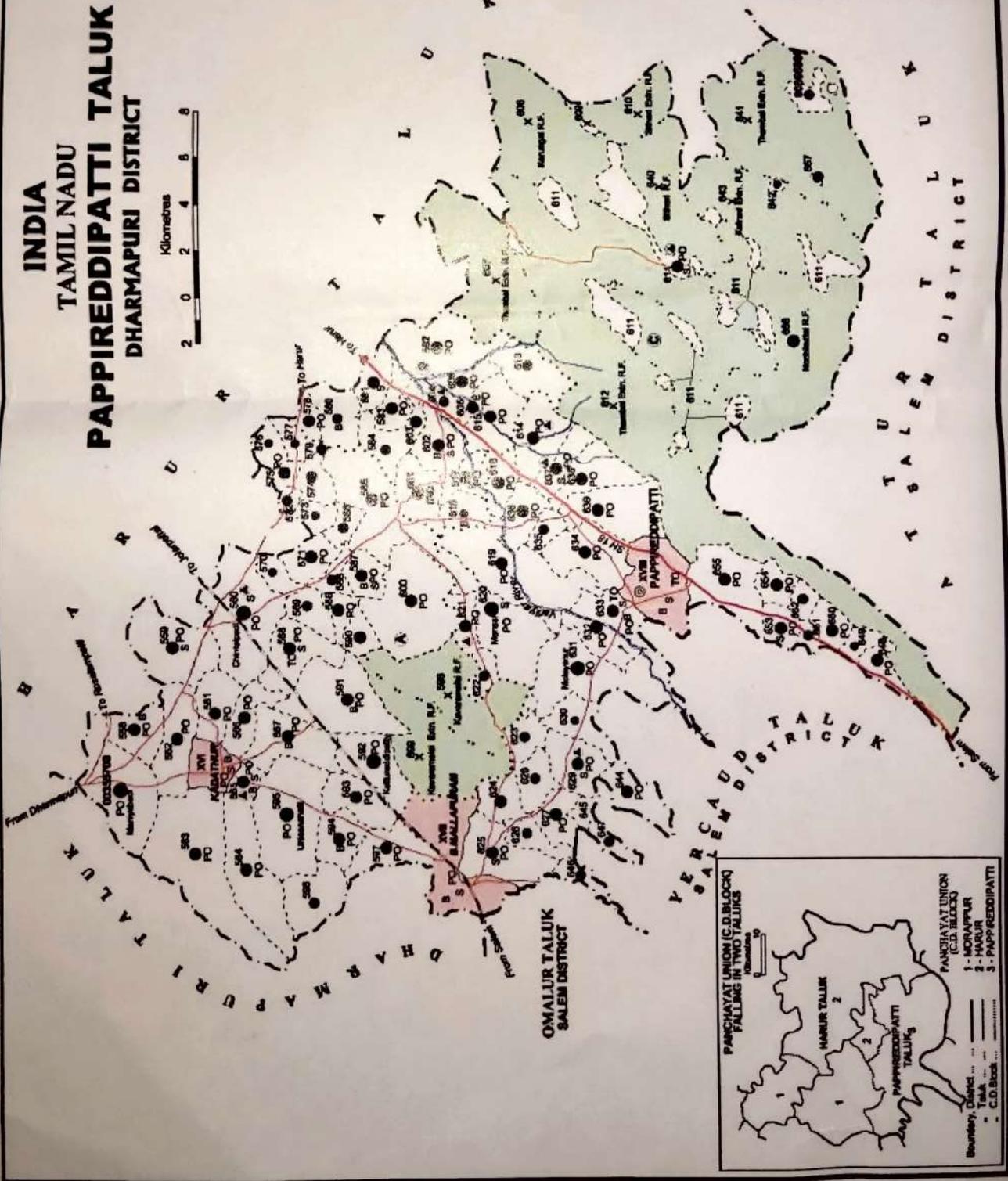
Panchayat Union (C.D. Block) boundary includes military town.

PANCHAYAT UNIONS (C.D. BLOCKS)

- A MORAPPUR (Part)
- B HARUR (Part)
- C PAPPIREDDIPATTI



- Boundary, District ...
- Taluk ...
- Panchayat Union (C.D. Block) ...
- Village with location Code No. ...
- Reserved Forest with name ...
- Taluk Headquarters ...
- Village having 200-499, 500 - 999, 1000 - 4999 and 5000 & above Population ...
- Urban Area with Location Code number ...
- Uninhabited Villages with Location Code Number ...
- State Highway ...
- Important Metalled Road ...
- Railway line, Broad gauge ...
- River and Stream ...
- Post Office / Telegraph Office ...
- Higher Secondary School ...
- Primary Health Centre ...
- Barrack ...



7

By Speed Post

TAMIL NADU POLLUTION CONTROL BOARD

Proceeding No.: TNPCB / T2 / F.025102 / Directions / Water / 2022 , dt: 17.10.2022

Sub. TNPCB – Industries – M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District – Directions issued under Section 33A of the Water (P&CP) Act, 1974 as amended – Regarding.

- Ref.**
1. Proceeding No.: TNPCB / T2 / F.025102 / DMP / OL / Directions / W / 2021, Dated: 18.04.2022
 2. DEE's Letter No.: DEE / TNPCB / DMP / STARCH / OL / 2021, Dated: 24.05.2022
 3. Board's Memo No.: T2 / TNPCB / F.025102 / DMP / OL / 2021, Dated: 17.06.2022
 4. JCEE (M)'s Letter. No.: JCEE (M) / TNPCB / VLR / F.No.1510 / DMP-OL / 2022, Dated: 12.09.2022.

Whereas, direction was issued to the unit M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F.No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District vide proceeding 1st cited to comply with certain conditions stipulated therein. Subsequently, the unit was inspected by the Officials of O/o. DEE, Dharmapuri on 23.05.2022 and observed that the unit has not complied with most of the conditions of the direction issued to the unit. In view of the above, DEE, Dharmapuri vide reference 2nd cited recommended to conduct a personal hearing with unit.

Whereas, the Board vide reference 3rd cited, requested the JCEE (M), Vellore to inspect the unit and give a personal hearing and send a detailed report. Based on the Board's instruction, the unit was inspected by the JCEE (M), Vellore along with the Officials of O/o. DEE, Dharmapuri on 04.08.2022 and observed that the unit has not complied with any of the conditions imposed in the direction issued to the unit.

Whereas, unit was requested by the JCEE(M) to attend the personal hearing in the O/o. JCEE(M), TNPCB, Vellore on 22.08.2022 with all relevant particulars. The Managing Director of the above unit attended the personal hearing on 22.08.2022 and during the personal hearing the DEE, Dharmapuri was also present. During the personal hearing, the unit was requested to furnish certain details including action plan with time schedule for revamping the existing ETP.

Whereas, in response to the personal hearing conducted with the unit by JCEE (M), Vellore, the unit has sent a reply vide letter 25.08.2022. From the same the JCEE (M) observed that,

- 1) The unit has not complied the most of the directions issued by the Board vide board's proceedings dt: 18.04.2022. The unit has not improved the existing ETP so far and the existing ETP will not serve the purpose of satisfying the treated effluent standards as prescribed by the Board.
- 2) The unit has to conduct detailed study by a reputed institution by Anna University, Chennai / IIT Chennai on water and waste water audit and adequacy of their existing and proposed effluent treatment plant systems.
- 3) The unit has not satisfied the treated effluent standards prescribed by the Board, as collected from November 2021 to June 2022. The main parameters TSS, BOD & COD are mostly exceeding the standards prescribed by the Board.
- 4) The unit has not taken any efforts to replace the Seemai Karuvelam and to plant the native species as suggested by the Agricultural Department till date.

In the view of the above, JCEE (M), Vellore, vide letter 3rd cited has recommended to direct the unit to furnish certain details immediately.

In the light of the above, the unit of M/s. Varalakshmi Starch Industries, Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District is issued with the following directions under Section 33A of Water (Prevention and Control of Pollution) Act, 1974.

1. The unit has to furnish an action plan with time schedule for revamping the existing ETP provided so as to satisfy the treated effluent standards as prescribed by the Board and remove the Seemai Karuvelam trees already planted by them and replacing the same by planting the native species as recommended by the Agriculture Department along with proposal for safe disposal of entire quantity of treated effluent within 15 days.
2. The unit shall ensure that the treated effluent is uniformly dispersed for green belt development without any stagnation and also shall not discharge any treated /untreated trade effluent in to nearby water bodies
3. The unit has to furnish the report on Water and Wastewater audit and groundwater quality study carried out by reputed Institution like Anna University, Chennai / IIT Chennai within three months.
4. The unit has to cover the area of the storage of wet Tapioca Thippi by providing a shed within 3 months.



TAMIL NADU POLLUTION CONTROL BOARD

5. The unit has to provide proper storm water drain to restrain the rain water mixing with trade effluent generated from the process area within three months.
6. The unit shall provide compound wall around the green belt area and ETP area within nine months.
7. In order to ensure for the compliance of the above directions 1 to 6, the unit shall furnish a Bank Guarantee for Rs. 50 Lakhs with validity for two years within a week's to the TNPCB, Chennai. (Format enclosed)

Failing to comply with the above direction, further action will be initiated against the unit on merits in accordance with law without any prior intimation.

The receipt of this proceeding shall be acknowledged.

Enclosure: As above

Chen
17/10/22
For Chairperson
Ch
17/10/22

To

The Managing Director,
M/s. Varalakshmi Starch Industries Pvt. Ltd.,
Alamelupuram Village, Pappireddipatti Taluk,
Dharmapuri District
Pin: 636 905

Copy To

1. The Joint Chief Environmental Engineer (M),
Tamil Nadu Pollution Control Board,
Vellore Zone - JCEE (M) is requested to furnish quarterly report on the unit's operation.
2. The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Dharmapuri.
- The DEE, Dharmapuri is requested to monitor the above unit closely. After getting the reply for the above directions and Bank Guarantee from the unit, the DEE shall examine the issue of renewal of consent for current year. Based on the performance of the ETP operations and compliance of the directions, further renewal shall be decided by DEE. Further, the DEE is requested to furnish monthly report on the unit's operation.

STATE OF NEW YORK

IN SENATE
January 12, 1910.

REPORT OF THE

COMMISSIONERS OF THE LAND OFFICE

IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE

TO BE TYPED IN Rs.100/- NON JUDICIAL STAMP PAPER

THIS DEED OF GUARANTEE made on the _____ day of _____ Two Thousand Twenty One by _____ of the one part in favour of Tamil Nadu Pollution Control Board (TNPCB) of other part.

WHEREAS M/s. _____ running an industry at _____ has approached the TNPCB for the purpose of _____ and TNPCB having agreed to consider the request of the industry of M/s. _____ under the terms and conditions put forth in the schedule enclosed hereunder.

AND WHEREAS in accordance with clause _____ of the conditions put forth in the schedule enclosed hereunder the industry M/s. _____ is desirous of furnishing a Bank Guarantee from _____ for the sum of Rs. _____ towards security deposit valid for _____ months.

AND WHEREAS at the request of the industry holder the Bank has agreed to give its guarantee as hereinafter contained. Now this deed witnesses as follows:

We (Bank name and address is to be typed here) (Herein after referred to as the Bank) do hereby undertake to pay the Board an amount not exceeding Rs. _____ (amount to be typed in figures & words) against any non-fulfillment of the conditions contained in the schedule, wholly or partly by the said industry M/s. (full address of the unit is to be type here) and we, (Bank name and address is to be typed here) do hereby undertake to pay the amount due payable under this guarantee without any demur, merely on demand from the Board stating that the amount claimed is due by non-fulfillment of the conditions in the schedule wholly or partly by the said industry. Any such demand made on the Bank shall be conclusive as regards the amount due payable by the Bank under this guarantee. However our liability under this guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said schedule and that it shall continue to be enforceable till all dues of the Board under the schedule have been fully performed and its claim satisfied or discharged or till the Tamil Nadu Pollution Control Board (Office / Department) certifies that the terms and conditions of the said schedule have been fully and properly carried out by the said industry and accordingly discharges the guarantee. Unless a demand or claim under the guarantee is made on us in writing on or before (date of expiry of bank guarantee to be typed here) we shall be discharged from all liability under this guarantee thereafter.

We (Bank name and address is to be typed here) further agree with the Board that the Board shall have full liberty without our concern and without affecting in any manner our obligation hereunder to every one of the terms and conditions of the said schedule or to the extent the time of performance by the said industry from time to time or to postpone for any time or from time to time any of the powers exercised by the Board against the said industry and forbear and enforce any of the terms and conditions relating to the said schedule and we shall not be relieved of our liability by reason of any such variation, or extension being granted to the said industry or for any forbearance, act or omission on the part of the Board or any indulgence by the Board.

We (Bank name and address is to be typed here) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.

(Banker Signature with Seal)

SCHEDULE TO THE BANK GUARANTEE NO.

M/s.

Name of the Industry which applied for the consent of the Board	Bank guarantee Rupees	Terms and conditions
(full address of the unit is to be typed here)	Rs.50 Lakhs.	<ol style="list-style-type: none"> 1. The unit has to furnish <u>an action plan</u> with time schedule for revamping the existing ETP provided so as to satisfy the treated effluent standards as prescribed by the Board and remove the Seemai Karuvelam trees already planted by them and replacing the same by planting the native species as recommended by the Agriculture Department along with proposal for safe disposal of entire quantity of treated effluent <u>within 15 days.</u> 2. The unit shall ensure that the treated effluent is uniformly dispersed for green belt development without any stagnation and also shall not discharge any treated /untreated trade effluent in to near by water bodies 3. The unit has to furnish the report on Water and Wastewater audit and groundwater quality study carried out by reputed Institution like Anna University, Chennai / IIT Chennai <u>within three months.</u> 4. The unit has to cover the area of the storage of wet Tapioca Thippi by providing a shed within 3 months. 5. The unit has to provide proper storm water drain to restrain the rain water mixing with trade effluent generated from the process area <u>within three months.</u> 6. The unit shall provide compound wall around the green belt area and ETP area <u>within nine months.</u> 7. Any non compliance of the above mentioned conditions will lead to forfeit of the Bank Guarantee amount.

(Banker Seal with Signature)

(Banker Name and Code Number)

<p>1. Name of the person</p> <p>2. Address</p> <p>3. Telephone No.</p>	<p>4. Date of birth</p> <p>5. Sex</p> <p>6. Religion</p>
<p>1. Mr. A. B. C.</p> <p>2. 123 Main St., New York, N.Y.</p> <p>3. (212) 555-1234</p>	<p>4. 15/03/1945</p> <p>5. Male</p> <p>6. Hindu</p>
<p>1. Mrs. D. E. F.</p> <p>2. 456 Park Ave., New York, N.Y.</p> <p>3. (212) 555-5678</p>	<p>4. 20/08/1930</p> <p>5. Female</p> <p>6. Christian</p>
<p>1. Mr. G. H. I.</p> <p>2. 789 Broadway, New York, N.Y.</p> <p>3. (212) 555-9012</p>	<p>4. 10/11/1925</p> <p>5. Male</p> <p>6. Muslim</p>
<p>1. Miss J. K. L.</p> <p>2. 1010 5th Ave., New York, N.Y.</p> <p>3. (212) 555-3456</p>	<p>4. 05/07/1940</p> <p>5. Female</p> <p>6. Buddhist</p>
<p>1. Mr. M. N. O.</p> <p>2. 1111 6th Ave., New York, N.Y.</p> <p>3. (212) 555-7890</p>	<p>4. 22/02/1935</p> <p>5. Male</p> <p>6. Christian</p>
<p>1. Mrs. P. Q. R.</p> <p>2. 1212 7th Ave., New York, N.Y.</p> <p>3. (212) 555-2345</p>	<p>4. 18/09/1928</p> <p>5. Female</p> <p>6. Hindu</p>
<p>1. Mr. S. T. U.</p> <p>2. 1313 8th Ave., New York, N.Y.</p> <p>3. (212) 555-6789</p>	<p>4. 01/04/1942</p> <p>5. Male</p> <p>6. Muslim</p>



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

An ISO 9001 : 2008, 14001 : 2004, BS OHSAS 18001 : 2007 Certified Company



MRFS. & EXPORTERS : SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

VS IPL/PCB/2022-23/343/RPAD

28/10/2022

To
The Chairman
Tamil Nadu Pollution Control Board
No.76, Mount Salai
Guindy, Chennai- 600 032

Sir,

Sub: Submission of our reply to The Chairman's proceeding dated 17/10/22 for the Renewal of Consent Order of our Industry - M/s. Varalakshmi Starch Industries (P) Ltd., at Pappireddipatti, Dharmapuri District - reg.,

- Ref: 1. Our Online Application under Orange category for Renewal of Consent orders submitted on 20/04/2021 with a payment of Rs.4,54,756/- by SBI DD Bearing No. 765824 dated 17/04/2021- got auto deleted due to the then prevailing PANDEMIC COVID -19.
2. Our Online Application for Renewal of Consent Orders submitted on 09/10/2021
3. Return of our Application with Scrutiny Report dated 18/10/2021
4. Our letter No. VS IPL/PCB/2021-22/337 dated 08/11/2021 with Photos of our ETP
5. Resubmission of our Online Application for Renewal of Consent Orders on 16/11/2021
6. Return of our Application with Scrutiny Report dated 17/11/2021 citing to The DEE letter F.DMP.0013/DEE/TNPCB/DMP/OL/2021 dated 17/11/2021
7. Resubmission of our Online Application for Renewal of Consent Orders on 18/11/2021
8. Our letter No. VS IPL/PCB/2021-22/366 dated 20/11/2021 addressed to The Chairman PCB with a CC marked to the Member Secretary and The DEE & Resubmission
9. Inspection of our unit by The DEE & Agricultural Department Officials
10. Return of our Application with Scrutiny Report dated 17/12/2021 citing The DEE letter F.DMP.0013/DEE/TNPCB/DMP/OL/2021 dated 16/12/2021
11. Resubmission of our Online Application for Renewal of Consent Orders on 29/01/2022 for keeping the application active in portal.
12. Return of our Application with Scrutiny details received through OCMMS portal on 04/02/22
13. Our Submissions to DEE vide letter No. VS IPL/PCB/2021-22/525 dated 24/02/2022.
14. Resubmission of our Online Application for Renewal of Consent Orders on 19/03/2022
15. Return of our Application with Scrutiny details dated 28/03/2022
16. TNPCB Board's Proceeding No. TNPCB/T2/F.025102/DMP/OL/Directions/W/2021/dated 18/04/2022 received on 25/04/2022
17. Our letter No. VS IPL/PCB/2022-23/037 dated 02/05/2022 addressed to The Chairman, PCB with a CC marked to The DEE
18. Our Online Application -fresh submission for Hazardous Waste Management submitted on 11/05/2022, second time.



Regd. Office : " Varalakshmi Tower ", II Floor, No. 127/1, Gandhi Road, Salem - 636 007, India.

Ph. (Off.) : 0427 - 4031073

Email : office@varalakshmistarch.com

Factory : No. 7/114-126, Bommidi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.

CIN No. U01532TZ1995PTC006136

www.varalakshmistarch.com



CML-6100012769



CML-6299891



19. Our 2nd letter No. VSIPL/PCB/2022-23/060 dated 11/05/2022 addressed to The Chairman, PCB, in continuation to our letter dated 02/05/2022 with a CC marked to The DEE
20. Our Online Resubmission of Application for Renewal of Consent Orders on 02/05/2022.
21. Return of our Hazardous Waste Management Application with details dated 21/05/2022
22. Return of our Renewal Application with Scrutiny details dated 23/05/2022
23. Inspection of our unit by the The JCEE (M), The DEE and The AEE on 04/08/22
24. Letter from The JCEE (M) on 18/08/2022 vide Lr.No.JCEE(M) VLR-Z/TNPCB/DMP/1510/2022 Dt.16/08/2022
25. Resubmission of Application for Renewal of Consent Orders on 19/08/2022 –To keep active
26. Meeting with JCEE (M) on 22/08/2022 followed by our letter No. VSIPL/PCB/2022-23/242 Dated 25/08/2022.
27. Return of our Renewal Application with Scrutiny details dated 23/08/2022
28. TNPCB Board's Proceeding No. TNPCB/T2/F.025102/ Directions/Water/2022/dated 17/10/2022 received on 25/10/2022 by Speed Post.
29. Our letter No. VSIPL/PCB/2022-23/335 dated 19/10/2022 addressed to The Chairman PCB, seeking copies of the letters referred in 2, 3 & 4 of the Proceedings cited in reference 28, with a CC marked to the JCEE& DEE.
30. The DEE letter F.DMP.0013/DEE/TNPCB/DMP/OL/2021 dated 22/10/2022 stating the copies Sought for - are internal correspondences.

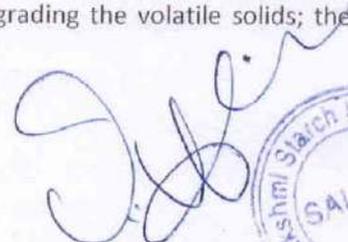
Respected Sir,

At the outset, we are sorry for citing 30 references; we equally understand that citing so many references to The Chairman, will be annoying. But we are forced to cite all the above since, we understand from the Board's latest proceeding (17/10/22) that The DEE has misinterpreted / miscommunicated to The Chairman about our industry as well as stating that we are not responding to any of The DEE's instructions. The DEE has falsely and seriously damaged our Units name with the Board. We are putting sincere efforts in trying to save our Industry's name with the Board.

Introduction about our Factory: -

We are an Agro based Rural Food Manufacturing Medium Scale Export Industry, located in the Industrial backward District of Dharmapuri. We have inbuilt world class high-tech technology and machineries installed to be at par with the international standards **for production of Starches and Sagó**. Our raw materials are Tapioca Tubers and Maize kernels. No Hazardous products are used in our industry. Our finished products are Food products / Ingredients used in manufacturing of Food products. Other than used oil and grease for the machinery there are no any Hazardous waste products generated in our factory.

Our wastewater is 99.5% organic waste only; around 93% of the BOD and COD is bio degraded by using the HUSMAR technology provided by NEW JERSEY INSTITUTE OF TECHNOLOGY, NEW YORK. Around 35000 m³ of biogas per day is being produced from the wastewater generated from our one day production and being utilized as a substitute for Fossil fuels. So, technically we are more interested in destroying the BOD & COD levels in the waste water so that we can generate more bio gas. Accordingly, in our factory the waste water is being converted into a valuable by-product with capital investment of around Rs.15.00 crores for waste water treatment and tapping renewable energy. If in our water treatment plant we are not perfectly bio degrading the volatile solids; the financial loss due to loss of production of bio gas is much greater.






Around 10,000 farmers & 500+ rural work force depend on our factory for their livelihood. Revenue of around Rs.10.00 crores per annum is being paid to the Government in the form of several Taxes, Fees etc., and around Rs.30.00 crores per annum of Foreign Exchange is being earned by the export of our products to several countries.

Accordingly, this industry is a Public Utility Agro industry (**Priority Sector**). We are running this factory for more than 25 years with valid consent orders and without any issues with TNPCB in all these years.

Response for your direction vide proceeding dated 17/10/22

With reference to your good office proceeding no. TNPCB/T2/F.025102/DIRECTIONS/WATER/2022 dated 17/10/2022, cited in 28th reference above, received through e mail on 18/10/2022 and by speed post on 25/10/2022, we would like to bring to your kind attention the following.

First of all, we wish to inform you that, we are not aware of the contents in the letters mentioned in reference no. 2, 3, and 4 of the above proceedings; we tried to get these to submit our perfect response, but it was denied by The DEE through his letter cited in reference 30th above.

Sir, now we are responding through this reply based on the contents mentioned in your proceeding (28th ref.)

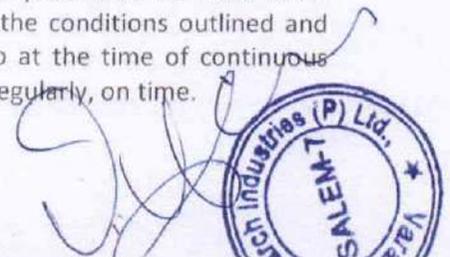
Para 1., The unit was inspected by the officials of O/o DEE Dharmapuri on 23/05/2022 and observed that **"the unit has not complied with most of the conditions** of the direction issued to the unit".

Para 2: The unit was inspected by JCEE (M) along with Officials of O/o DEE on 04.08.2022 and was observed that **"the unit has not complied with any of the conditions** imposed in the direction issued to the unit".

On 22/08/2022 we attended a joint meeting called by The JCEE(M) along with The DEE, Dharmapuri at Vellore JCEE (M) office and discussed in detail about all the compliances and explained our views and plans for implementing the secondary ETP plant in our factory with an additional huge investment of Rs.3.80 crores to control all the parameters consistently (BOD, COD, TSS, and TDS) even though there were only very marginal increase in some samples. On that day, The JCEE(M) gave suggestions and directions to overcome for maintaining the standards and requested us to submit the compliances in detail. And the JCEE(M) requested one additional copy of the reply from us for the same to be forwarded to the Board, which we provided vide our letter dated 25/08/2022 cited in reference 26th above. Meanwhile, by seeing the proceedings dated 17.10.2022 from your office we are shocked that The JCEE(M) has not conveyed anything about the discussions and about our factory, but blindly informed to your good office that "the unit has not complied with any of the compliances imposed". Herewith we are enclosing the reply given by us to The JCEE(M) on 25/08/2022 for your reference.

Based on the above para 1 and para 2 of the proceedings, we understand that it has been brought to The Chairman's observation that our unit is totally not responding to the TNPCB Rules and Regulations and is illegally running by violating, as communicated by our Dharmapuri TNPCB DEE Mr.Samuel Rajkumar. Sir, this is purely contrary to what is actually been following/ happening.

We are following the rules and regulations stipulated by The Board, TNPCB in accordance with the Consent Orders being issued and renewed regularly for the past 25 years and we have been operating the factory sincerely as per the instructions being given or the conditions outlined and prescribed by The TNPCB at the time of sanction of consent and also at the time of continuous regular renewals. Up to 31.03.2021, we have got our consent renewals regularly, on time.



**A) First online application returned**

In line with that well in advance, on 09/10/2021 itself, we had applied for the renewal of our consent orders by online even before the cut-off date of auto extended validity date (30/11/21) and our application had been returned initially on 18/10/2021 by the DEE citing the below scrutiny report.

Queries raised in 18/10/2021 – 1st Scrutiny report

"In the ROAs of samples collected on 29/01/2021 reveals that the parameters TSS, BOD & COD exceeds the standard prescribed by the Board and ROA of the samples collected on 11/03/2021 reveals that the parameters TSS, TDS, BOD, COD exceed the standards prescribed by the Board. Hence the unit is requested to take immediate steps to improve the performance of ETP and send a detailed action taken report along with the photographs so as to achieve the standards prescribed by the Board. Further you are requested to re-submit the application after completion of the above."

The reported values of the ROAs cited by the DEE are as under

Parameters	Units	Standards of the Board	Reported Values	
		For Own Land Irrigation	Sample Date 29/01/21	Sample Date 11/03/21
TSS	mg/l	200	260	220
TDS	mg/l	2100	1952	2944
BOD	mg/l	100	315	75
COD	mg/l	--	960	592

During Covid-19, when The Government itself was struggling and taking various steps to ease the burden of the Public, under **Force Majure Clause**, the Board too had voluntarily extended the renewal period up to 30/11/21 by eliminating the need to apply for renewal of consent orders, for saving/keeping the Industries, alive. The DEE has returned the renewal application by pointing out that the TSS: 20-60 mg/l and TDS: 800mg/l; based on our Treated Waste Water, all the 4 Parameters are treated more than 98.5%; while using for own land irrigation purpose, in line with the PCB standard, out of those two samples referred to, in one sample, BOD is much better within the standard and in one sample it has exceeded marginally; This marginal increase was because at that time there was continuous heavy rainfall in our area. Our predominant raw material being the Tapioca Tuber, due to heavy rain some of the tubers were slightly rotten in the truck loads received from farmers. These rotten tubers will be mixed with good tubers and cannot be identified when in trucks. We could not refuse to purchase these tubers due to the ongoing covid crisis hence we supported the farmers by purchasing it. (copies of the media reports were already brought to the notice of The Chairman vide our letter dated 20/11/21) and for COD there is no any prescribed standard set in by PCB, if used for own land irrigation; These two samples were drawn during the severe Covid crisis period and even then all the four parameters have very meagre differences within 1.0 % only; Moreover these evidences the fact that functioning of our system (ETP) holds good and is in line with the adequacy report provided by the esteemed Anna University in 2009 itself; from then onwards, to till date there is no any change either in the process or in the volume of effluent discharge. Without considering these and the Pandemic period, The DEE, Dharmapuri has returned the online application.





Even though it was a Covid period and Heavy rain falls were persisting, for getting the renewal we have submitted our reply vide our letter No. VSIPL/PCB/2021-22/337 dated 08/11/2021, cited in 4th reference above, along with the Photos of our ETP, to The DEE, as asked by him, about the improvements. (Copy enclosed for kind and immediate reference)

Once we have sent our reply and resubmitted our application on 16/11/2021, The DEE has returned the application by stating 3 queries vide 2nd scrutiny report.

Queries raised in 17/11/2021 – 2nd Scrutiny report

"Samples collected at the outlet of the ETP on 13/11/2021 and sent for analysis and ROA is awaited from the laboratory.

1. *The unit Shall take steps to remove the Seemakaruvellam trees and shall develop green belt by planting native species like vilvam, agal, asogam, puli, tekkuetc (native species) within the premises.*
2. *The unit shall apply and obtain authorisation under Hazardous and other wasted (Management and Transboundary Movement) Rules, 2016"*

For which we have sought waiver of the 1st query for getting consent renewal from your good self (The Chairman, TNPCB) by explaining in detail the practical feasibility in complying with the removal of Seemakaruvellam trees, vide our letter No. VSIPL/ PCB/ 2021-22/366 dated 20/11/2021, cited in 8th reference, addressed to The Chairman PCB with a CC marked to the Member Secretary and The DEE (until the latest proceeding (28th ref.) we have not received any reply either from the Board OR through The DEE /The JCEE (M) informing the status of our waiver request, for getting our consent renewal) and have resubmitted our application.

Followed by this, The DEE has inspected our unit on 15/12/2021 and drawn around 8 samples from, within our plant, nearby our plant and from the Jungle stream. Later only we have been informed by The DEE, vide his letter dated 17/12/2021 cited in 9th reference that this was the follow up made in accordance with the Board's memo dated 10/12/2021, addressed to The DEE (copy of the same not shared with us) when our application has been returned by the DEE 3rd time, with further queries.

Queries raised in 17/12/2021 – 3rd Scrutiny report

1. *The Unit shall take immediate steps to arrest the pipeline leakages in the process area.*
2. *The Unit shall improve the House keeping within the factory premises*
3. *The Unit shall take necessary steps to treat the stagnated effluent mixed with rain water in the proposed anaerobic pit immediately and shall ensure that there is no stagnation of effluent in the incomplete pits.*
4. *The Unit shall ensure that there is no stagnation of treated effluent take places in the green belt area. Since stagnation of effluent may cause seepage into ground water. The Unit shall also ensure that the treated effluent is being distributed uniformly in the green belt area.*
5. *The Unit shall improve the aesthetic conditions of the Effluent Treatment Plant and to dispose the sludges /scums into Sludge Drying Beds only, for further treatment.*
6. *The Unit shall carry out Water and Waste Water Audit so as to reduce the water consumption / waste water generation by engaging reputed institutions.*
7. *The Unit shall file application seeking authorisation under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (for generating used oil from DG sets) along with valid consent of the Board.*





We have submitted our reply for the observations raised by DEE, Dharmapuri on inspection of our factory on 15/12/2021, vide our letter No. VSIPL/PCB/2021-22/525/RPADdt. 24/02/2022, 13th cited above. We have re-read the same for your kind reference.

Sl.No	Queries raised	Rectification submitted
1.	The unit shall take immediate steps to arrest the pipe line leakages in the process area	We had been asked to arrest the Pipeline leakages in the process area. Our processing area is separate, and it is around 500 feet away from our effluent treatment plant area. All process wastewater from the processing area is collected at one point and sent to the effluent treatment plant. It is in our interest to prevent any process leakages as it would lead to loss of our valuable starch. We have thoroughly inspected our entire plant and all leakages have been arrested.
2	The unit shall improve the house keeping within the factory premises	We have been asked to improve the house keeping within the factory premises. We have now improved the House Keeping in the entire factory premises. Due to the prevailing heavy continuous rainfall of North-East Monsoon in the month of November, December & January and absenteeism of workers during the calamity period, the house keeping could not be maintained up to 100%. After rain season, everything is being perfect.
3	The unit shall take necessary steps to treat the stagnated effluent mixed with rain water in the proposed anaerobic pit immediately and shall ensure that there is no stagnation of effluent in the incomplete pits.	At the time of The DEE inspection, heavy monsoon rainfall was prevailing for around 60 days. Due to which rain water got stagnated in the proposed anaerobic pit. The pit is around 30 feet in depth from the surface level, so there is seepage of ground water into the pit. We tried several times to drain it out but have not succeeded since natural ground water is seeping into the pit, like well.
4	The unit shall ensure that there is no stagnation of treated effluent take places in the green belt area, since stagnation of effluent may cause seepage into ground water. The unit shall also ensure that the treated effluent is being distributed uniformly in the green belt area.	The Treated Effluent Water is being uniformly distributed in our own green belt area. On the same time the ground level on the west side of our green belt area is higher. During the rainy period, for the excess rain water from the neighbour land there is no drain out, so naturally it gets stored during the monsoon rainy season post which it recovers as we cannot divert it to odai, covering the distance.
5	The unit shall improve the aesthetic conditions of the Effluent Treatment Plant and to dispose the sludges/ scrums into Sludge Drying Beds Only. For further treatment	Aesthetic conditions of the Effluent Treatment Plant are further improved. Sludges will be disposed only in the Sludge drying beds available in our Effluent treatment plant.





6	The unit shall carry out water and waste water audit so as to reduce the water consumption/waste water generation by engaging reputed institutions.	In the year 2008-09 itself, we had engaged a Top institution (Anna University, Chennai) and conducted a detailed study on reducing the raw water consumption & wastewater generation and have gained sufficient knowledge on this. Further, we are continuously upgrading and importing new upgraded equipments with better processing techniques to reduce the volume of raw water consumption and wastewater generation.
7	The unit shall file application seeking authorisation under Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016(for generating used oil from DG sets) along with valid consent of the Board.	We have submitted an application for Hazardous Waste Disposal (for the meagre used oil generated from our Diesel Generators, upon usage of the gensets if any) on 23/03/2020 itself and the status of the same is not processed and not returned by the TNPCB. Due to that pending application, we are unable to upload a fresh application currently through your online portal. Please look into this matter and support us to submit new application for authorisation, through your portal.

In the past 3 years during October to March, heavy rain fall prevails. The land height on the western side boundary is higher than that of our land and at times of rain, the rain water flows through our industry land and reaches the stream. Because of this, the neighbouring land owners excess rain water overflows into our land and is getting mixed with the water in our Green belt area.

For responding above compliances, we have complied all the compliances which can be complied within our premises and informed the DEE. But for the removal of seemakaruvelam trees, we would like to state the below few points.

a) The Characteristics of seemakaruvelam tree is absorbing huge amount of ground water and spread wide; the plenty of ground water being consumed will result in drinking water scarcity. That's why the Honourable Courts and the Govt. of Tamilnadu are ordering for the cutting of these SeemaKaruvalem trees.

b) Ironically, purpose of plantation of SeemaKaruvalem trees in our unit is, it should consume more treated wastewater being discharged, fully as it is a major water consuming plant variant. Moreover there is no theft of this plant. That is why, when the PCB vide 2007 consent order No. DEE/HSR/2555/W/DMP/2007 dt 29/06/2007, under special conditions, para no.16 stated.

"The industry has to ensure that minimum of three varieties of tree 1. EUCALYPTUS, 2. SUBABUL AND 3. ANY OTHER SUITABLE VARIETY are planted at the density not less than 1000 trees per acre of land the trees may be planted along with the boundaries of the industry or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area and maintained them.", we first preferred Eucalyptus and Subabul only which highly consumes water, but due to their marketable and sale value, we were not able to secure those variants from theft. Also our's being seasonally operated industry, we could not provide water for the plants to stay alive during off season i.e., in the summer season, without water, drought non- resistant plants, got dried and died. After struggling for 2 to 3 years, from 2010, we planted this seemakaruvalam trees, in line with the TNPCB's third option (any other suitable variety, of the above referred consent order) which is theft free and drought resistant. And from then onwards to till date there is no any issue in discharging the treated effluent.





We came to know from the DEE's letter dated 17/12/21, that the Respected Chairman had directed The DEE to obtain opinion from Agricultural Department based on the request made by us to waive the condition, "removal of SeemaKaruvamelam Trees," for getting our consent renewal and accordingly the concerned officials of Agricultural Dept. had visited our unit and inspected the green belt area. Outcome of their visit is not known to us since we have not received any copy of the same till date even after we requested The DEE to share a copy with us.

Until the receipt of the latest proceedings of the Board (28th reference) we were uninformed about our waiver request on this subject made to the Chairman, vide our letter dated 20/11/2021 (8th reference) requesting not to include the issue of removing seemakaruvelam trees with the renewal of our consents.

If removal of seemakaruvelam trees issue is clubbed with the renewal of our consent orders, for obliging that, it will take a minimum of at least 5 years for the newly planted trees to be able to consume the treated waste water load of 500.1KL/day. Until then the condition of the PCB towards discharging the 35KL/Ha of hydraulic load itself, will get violated. Growing or maintaining the seemakaruvelam trees in accordance with the consent order of 2007 is not a violation. But whereas if those trees are removed, it will then become the real violation of the PCB rules, since the new baby (seedlings) plants might not be able to consume the Hydraulic load of 35 kl /Ha per day of treated waste water being discharged right away.

Respected Chairman Sir, we too have to cooperate with The Honourable High court Chennai and The TN Govt. orders, being issued on public interest. Hence, we have opted for a Secondary Treatment Plant, in addition to the already existing ETP which perfectly reduces the pollution load up to 99%, by investing around Rs.3.80 crores, just to further bring down the levels of BOD & COD, as per the standards prescribed by the Board, of the treated wastewater, consistently. Our investment for such Secondary Treatment plant has started from April 2022 onwards, itself.

And from December 2021 onwards, as instructed by Board to The DEE, monthly sample are being collected and being analysed. A detailed table with the ROAs of sample drawn right from the starting of this renewal to till last sample drawn on 20/09/22 (report yet to be received) is enclosed herewith as **ANNEXURE I**. All the reports confirm that our ETP achieves 99% results.

To keep the application active in online portal, we kept resubmitting the same on regular intervals and the same was being returned by The DEE stating new reasons each time.

Queries raised in 04/02/2022 – 4th scrutiny report

1. *The Unit has not furnished the action taken to rectify the short falls mentioned in T.O letter dated 16.12.2021.*
2. *Also, during inspection of the unit on 28/01/21, it was observed that no improvement has been made by the unit as per the instructions issued vide T.O. letter dated 16.12.2021. Samples were collected from the ETP and sent for analysis, ROA awaited.*
3. *Further, the Report of Analysis of the ETP outlet samples (Three samples) collected during the month of November 2021 and December 2021 reveals that the parameters TSS (1/3), TDS (1/3), BOD (2/3) and COD 3/3) exceeds the Standards prescribed by the Board.*
4. *Also, the report of analysis of ground water samples (Five samples) collected around the unit reveals that the parameters Turbidity (5/5), TDS (5/5), Cl (4/5), Mg (5/5), F (2/5), Total Ammonical Nitrogen (5/5), Ca (4/5) and Alkalinity (5/5) exceeds the Drinking Water Specification (IS 10500 :2012).*



[Handwritten signature]



5. The Peeniyaru flows at a distance of 150m from treated effluent discharge point. The ROA of the river water samples (two Samples) collected reveals that the parameters Turbidity (2/2), TDS (2/2), Cl (1/2), Mg (2/2), Total Ammonical Nitrogen (1/2) and Alkalinity (2/2) exceedsthe Drinking Water Specification (IS 10500 :2012).
6. A detailed letter has been addressed to the MS, TNPCB, vide T.O. letter dated 03/02/2022 (copy enclosed) and the same is submitted for kind perusal. In view of the above, the application filed by the unit is returned to the unit.

Queries raised in 28/03/2022 – 5th scrutiny report

"The Report of analysis of the Treated Effluent Samples (NOV Month – one sample , DEC Month two samples, JAN – one sample) collected from M/s. Varalakshmi Starch Industries (P) Ltd., reveals that the parameters TSS (1/4), TDS (1/4), BOD (3/4), COD (4/4) exceeds the standards prescribed by the Board. Also complaint petitions are received against the operation of this unit. Hence, a detailed report has already been submitted to the corporate office and based the instructions of the corporate office, the processing of application for renewal of consent will be considered. Hence, the application submitted by the unit is returned as per DEE's remarks."

Queries raised in 23/05/2022 – 6th scrutiny report

"Directions have been issued to the unit vide Proc. Dated 25/04/22 and the unit has furnished a reply to the Chairman vide its letter dated 11/05/22. Subsequently, the Board vide memo dated 13.05.2022 has instructed DEE, Dharmapuri to furnish a report on the action taken by the unit on the Directions issued and units letter dated 11/05/2022. In this regard, it is submitted that the report is under preparation and it will be submitted to the Board, shortly. On receipt of further instructions from the Corporate office, the unit's application for renewal of consent will be processed. Hence the application seeking renewal of consent of the Board is returned to the unit."

Queries raised in 28/08/2022 – 7th scrutiny report

"A Joint Inspection has been carried out by The JCEE (M) Vellore along with the DEE and AEE, Dharmapuri District on 04/08/2022. Subsequently, Personal Hearing was conducted by the JCEE (M) with the unit on 22/08/2022, in the presence of The DEE, Dharmapuri. In this connection, the unit has been instructed to furnish the action plan for revamping the existing ETP, replacing the seemaikaruvelam trees by native species, Water & Waste Water audit report through reputed institutions etc, with time schedule and they are awaited from the above unit. Hence the application filed by the unit is returned."

After our responses to the DEE's queries, neither The DEE nor the Officials of O/o. The DEE Dharmapuri; inspected our factory until the inspection carried out by The JCEE (M) on 04/08/2022. During the meantime, only AE used to visit the ETP for collecting the samples only. Samples have been taken on 28/01/2022, 25/02/2022, 16/03/2022, 05/04/2022, 09/05/2022, 22/06/2022, this is the actual fact.

Meanwhile, post 5th Scrutiny report, we received the Boards proceedings vide Proceeding No. TNPCB/T2/F.025102/DMP/OL/Directions/W/2021/dated18/04/2022, cited in 16th reference above and have submitted our reply letters to The Chairman, TNPCB, vide our letters cited in 17th and 19th reference above.

In accordance with the proceedings, though we have already applied for the Hazardous Waste Management Disposal Authorization, status of which is unknown. We have again submitted a fresh application by online in the portal for HWM, cited in 18th reference, for the second time on 11/05/22. It was very surprising to note that our application for Hazardous Waste Management





disposal has been returned by The DEE stating that, for providing HWM authorization, validity of the consent order is required; Previously when our application for renewal of consent order was submitted, it has been returned stating, HWM authorization is required to provide renewal (reference 2nd scrutiny report of The DEE 17/11/21) We are unsure as to which application should come first. (Which is first HEN or EGG....). If The DEE had raised all the queries in one slot, we too would have been able to attend to/ rectified and provided our reply concretely.

Thus to conclude, we reiterate that just by going through the number of references we have cited in itself, The Board would be able to understand that for getting our Consents renewed, we are continuously following and responding each and every query being raised by The DEE afresh every time we submit our application; so far 7 times our consent renewal application has been returned and the issue is being prolonged for around TWO years.

Subsequently on 04/08/2022, our unit has been inspected by the JCEE (M), Vellore along with The DEE, Dharmapuri followed by which we have discussed in person with The JCEE (M) Vellore, on 22/08/22 and subsequently submitted our detailed reply with relevant enclosures to the JCEE (M), Vellore vide our letter No. VSIPL/PCB/2022-23/242 dated 25/08/2022, cited in 26th reference above, stating the already complied/rectified facts and the next steps being preceded.

Now, we wish to detail below our submissions to the latest direction received from The Chairman, TNPCB vide proceeding No. TNPCB/T2/F.025102/Directions/Water/2022/dated 17/10/2022, received by email on followed by speed post on 25/10/22.

1. "The unit has to furnish an action plan with Time Schedule for revamping the existing ETP provided so as to satisfy the Treated Effluent standards as prescribed by the Board and remove the Seem Karuvelam trees already planted by them and replacing the same by planting the native species as recommended by the Agricultural Department along with the proposal for safe disposal of entire quantity of treated effluent within 15 days.

Our response:

Sir with the existing ETP, treatment is achieved 98% to 99% in the heavy rainy time, itself. Last two samples (04/08/22 & 20/09/22) tested are perfectly within the standards prescribed by TNPCB. But we are still working tirelessly for achieving 100% treatment, consistency, by installing a Secondary Treatment plant, with an investment of Rs.3.80 crores and the Secondary Treatment will be put into use within 3 months.

The existing SeemaKaruvelam Trees in our premises are around 15 years well grown and now they are consuming the entire treated water. For changing to any other baby (seedlings) plant, it will take years together for those new plants to consume the entire treated water being discharged at a time; and that type of plant/tree should also be drought resistant (since during our off-season period there is no Treated Wastewater and it being a natural summer period).

In the last four years, there is one more issue persisting in our green belt area; Acquisition of our around 5.22.3 hectares of green belt area for the proposed 8 Lane Green Corridor Express Highway connecting Salem and Chennai of the National Highway Department was under proposal and it is still pending in the Court as the proposal has yet not been dropped. If at all again the Proposal recommences we will be losing around 5.22.3 hectares for road purpose and another 5.70.3 hectares of land getting bifurcated to the other side of the road, while forming the road towards this 8 lane project as projected by NHAI. We have already brought this to notice of the Chairman, in the year 2018 itself regarding the Salem to Chennai 8 way Corridor Road proposal for acquiring our green belt area and this issue is pending till date.





For overcoming and safe guarding our industry from the above two issues, we have decided for putting a Secondary Treatment Plant by adopting latest MBR technology; For which, we searched worldwide & selected one proven latest Technology being followed by the European developed countries such as Italy & Holland. Tested through their pilot plant in our plant and final results got achieved. The Company which has developed this technology has already installed many waste water treatment plants, in Italy, Germany and Holland. The undersigned had visited both the factories at Italy and Holland, observed the working of the plant and found to be perfect. Hence, we have decided to implement the new proven MBR technology with a capital investment of Rs.3.80 crores, and started the initial process in the month of April 2022 itself. This investment of Rs.3.80 crore does not yield additional profit or efficiency to our industry. This is only to follow the rules and regulations of the PCB Act & to maintain public relations, this investment is being made. Due to this reason our Banker is not considering a Term Loan for this investment. All the imported equipments value of Rs. 1.50 crore required for the Secondary plant have been ordered with 40% advance and all the indigenous machineries have also been ordered with advance payments. Some items have got delivered already. Despite of the prevailing rains, 70% of the Civil construction works are also completed in the heavy rainy time. To ascertain these, we enclosed copies of the purchase orders, purchase bills as on today. (The same has been inspected by The AE, TNPCB Dharmapuri also on 18/10/2022). The relevant photos too are enclosed.

2. The unit shall ensure that the treated effluent is uniformly dispersed for green belt development without any stagnation and also shall not discharge any treated/ untreated trade effluent into nearby water bodies.

Sir, we are still perfectly following this and The DEE has also never complained about this OR stated as we are releasing in Odai, in his letters. In the western side of our green belt area, the ground level is higher. So during heavy rainy time, the western side storm water flows into our green belt area. This is being the adopted practise for several years even before starting our factory; also naturally water flows from high to low areas; If we transfer the excess storm water by providing soil thittu to northern side of greenbelt area the neighbouring agricultural land owners will object. We are facing this difficulty during heavy rainy season only and that too just for 2 or 3 days. We have tried to purchase the northern side land for set right the issue but could not since they are quoting abnormal prices from current market price to an extent of Rs.30.00 Lakhs per acre for which the actual market value is between Rs.5.00 to 10.00 lakhs per acre only.

3. The unit has to furnish their report on Water and Waste water audit and ground water quality study carried out by reputed Institution like Anna University, Chennai/ IIT Chennai within three months.

Sir, we have already on 24/08/22 initiated the process of obtaining report from the esteem Anna University, Chennai for conducting Water and Waste Water Audit and have made a payment of Rs.3,75,000/- (Rupees Three Lakhs and Seventy Five Thousands only) on 11/10/2022 based on their demand. Anytime, Project is about to be commenced.

4. The unit has to cover the area of the storage of wet Tapioca Thippi by providing a shed within 3 months.

Sir, we have already completed constructing the Columns and Pillars and the civil works are over in the last year itself. Within 3 or 4 months, the entire Thippi Shed Work will be over. It may get delayed accordingly, if unforeseen continuous rainfall persists.





5. The unit has to provide proper storm water drain to restrain the rain water mixing with trade effluent generated from the process area within three months.

Sir, we have already completed this work before 10 years itself. And all rain water are perfectly harvested /diverted to rain water harvesting pond. Supporting Photos are enclosed.

6. The unit shall provide compound wall around the green belt area and ETP area within nine months.

Sir, our unit comprises of 32.86 Ha (81.20 acres) of land totally. Out of which 50 acres of land for green belt area is on the Southern side of our factory boundary and on the eastern side is jungle stream; part of western side and northern side are all agricultural lands; If the 8 lane corridor road acquire and bifurcate our green belt area land we are forced to purchase the western and northern side lands to consistently follow the conditions mentioned in the Consent order for green belt area. If Compound Wall is constructed now, then all the expenses incurred will become waste since for this project, it has to get demolished. The Chairman may accept our genuine explanation, for running the Agro based rural medium scale exporting industry.

7. In order to ensure for the compliance of the above directions 1 to 6, the unit shall furnish a Bank Guarantee for Rs.50 Lakhs with validity for two years within a week's to the TNPCB, Chennai (Format enclosed)

Sir, prior to receiving these instructions of The Chairman, we have already initiated the process (in April 2022 itself) of installing a Secondary Treatment Plant and have already made advance investments of about Rs. 2.00 crore and proportionately the balance investments too will be made upon stage by stage completion, as we decided treating the waste water consistently as per the TNPCB prescribed standards. We have already started such without profit making investment of Rs.3.80 crores, as capital investment for Secondary Treatment Plant for strictly adhering to the TNPCB Consent Order Conditions and Acts. This plan was informed with all evidences to JCEE(M) but this plan not informed to The Chairman. While joint meeting with JCEE(M) at Vellore on August 2022, The JCEE(M) had perfectly informed us the consequences with examples, our factory has to face if we are not adhering to the TNPCB standards, the financial loss and the serious issues might would have to be faced by the factory. By going through the copies of the purchase bills and purchase orders placed for The Secondary ETP project, The Chairman Sir could easily understand that we have already started commencing the project. Copies of The Photos are enclosed herewith for the kind reference of The Chairman.

We ourselves have already voluntarily set aside around Rs.3.80 crores investment towards our new Secondary Treatment Plant, which is more than 7 times of the Bank Guarantee of Rs.0.50 Crore, being demanded from the Board, for improving our ETP. Hence, we request The Chairman to kindly waive of the Bank Guarantee clause for getting our consent renewal. Asides, when we approached our Bankers for this bank Guarantee, they have refused the same stating that since there is No Bank Guarantee Limit Sanctioned to us, despite our huge collateral securities with them, they could not provide us with this Bank Guarantee and If still insisted, we are supposed to Deposit that 50 lakh rupees in the bank for obtaining the Bank Guarantee of Rs. 50.00 lakhs. (For getting financial assistance from Bank we must submit the valid consent order as per the terms and conditions provided by the Bank) Then, it is we, who have to make it out from our own sources and it will be a huge additional burden in addition to Rs.360 lakhs and end up in additional financial crux and burden for running the industry due to loss of working capital.



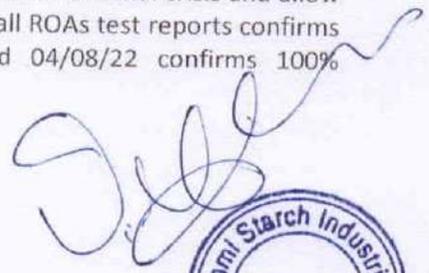


We would also like to bring to the kind attention of The Chairman that up to 31/03/2021, we have been getting our consent orders renewed from TNPCB regularly on time. This is the first ever time we are facing this delay for the renewal, due to misunderstanding with The DEE. From this the Chairman can understand how the issue might have started. Our humble request to the Chairman is that, The Chairman himself could ascertain all these facts by inspecting our factory and then can decide where the issue is; Either with our Factory or with The DEE.

Our factory is paying huge amount of taxes to the tune of around Rs.10.00 crores every year to The Central and State Government and earning huge foreign exchange to the Government through our exports; And supporting more than 500 rural work forces for their livelihood and helping more than 10000 farmers surrounding Dharmapuri Districts. The Undersigned is a well-known noteworthy industrialist and has got more than 20 awards from The Central Government, State Government, Banks and from Public. The Ministry of Agriculture, Central Government has appointed the Undersigned as a committee member in the CODEX COMMITTEE (*though he has done just his schooling*) as an Honesty Industrialist having profound knowledge in food processing. The undersigned had been supported by Central Government for UNDP demonstration project for a tune of 3.6 crores for the project Waste to Energy.

There are around 12 factories nearby to our factory and all those units also come under the purview of The Dharmapuri DEE (Mr.Samuel Rajkumar) only. These units are also located nearby to the jungle stream Peeniyaru only. Out of which, red category Chemical manufacturing industries are also there. The DEE has showed off his language skills by using the words such as Hygiene, House Keeping & Aesthetics while writing to us. But whereas none of these units have at least basics of any Hygiene, Housekeeping or Aesthetics implemented in their units; from this itself the Chairman can understand the intention of The DEE, upfront. Out of those factories around 3 to 4 Red Category Chemical factories are also there. Just By inspecting 1 or 2 Red Category Chemical units situated nearby to our Factory, which are also operating near to the Peeniyaru, The Chairman could understand how these chemical factories have got their renewal of consent orders being issued to them by the same Dharmapuri DEE Mr.Samuel Rajkumar. We are very sure that not even a single unit is following many of the PCB Compliance fully and even basic hygiene or housekeeping could not be found at all in those units. But to our dismay, those units are getting their consent orders regularly renewed by the same DEE. But whereas, Consent Order renewals of Our unit, even after following the stipulated norms, conditions, rules of the Board (PCB), is kept pending, by raising new, new queries each and every time of our submission and getting prolonged for around 1.5 years.

Sir, based on the improvement measures being taken for our industry/ETP improvement by Waste Water Management and Perfect Treatment as per the PCB Act towards, Chairman Sir, may please observe that our Company without any pressure from the Board, spending a sum of Rs.3.60 crore on a non-profit making investment. Hence, we request not to create additional financial crisis and allow the unit to complete the Secondary Treatment Plant project. Previous all ROAs test reports confirms 99% achievement and the last two reports dated 22/06/22 and 04/08/22 confirms 100% achievement.






We declare that all the facts which we have discussed above are absolutely genuine and nothing is fabricated. Considering the wellbeing of around 500+ rural workforce, Export oriented seasonally operating rural agro Public utility Medium Scale industry, we further request The Respected Chairman to kindly provide us renewal of Consents And before taking any action against the Industry, we request to provide us an appointment / PH, wherein we could present ourselves with all the supporting evidences, comprising of many files and put forth our stand, more clearly.

Due to the Deepavali festival holiday, many of the employees were not available for more than 5 days. So, for preparing the reply with relevant evidences enclosures taken time for one week. Sorry for the inconvenience delay caused in this regard.

In anticipation of the kind response of The Chairman by providing us with an appointment/PH to meet in person with all relevant documents,

We thank you and remain Sincerely Yours,
For VARALAKSHMI STARCH INDUSTRIES PRIVATE LIMITED,

for (V. Anbalagan)
Managing Director



Enclosures:

1. Around ROA 11 reports
2. Online renewal applications applied in the portal and rejections issued by the DEE.
3. Correspondence with Anna University for getting latest Adequacy report.
4. Brief catalogue for MBR project.
5. Secondary Treated Water plant cost of project with purchase order and quotations.
6. Our factory capital investment for waste water management.
7. INSAT map for showing the 8 way corridor Road taken in the year 2018.
8. Photos for secondary treatment plant execution.
9. Photos for storm water drainage in the factory.
10. The MBR installation photos in Italy.
11. Our factory green belt area photos.
12. Letter dated 25/08/2022 to JCEE(M) regarding discussions on 22/08/2022 at Vellore JCEE office.

9

By Speed Post



TAMILNADU POLLUTION CONTROL BOARD

Proceeding No.: TNPCB / T2 / F.025102 / DMP / Closure / Water / 2022, dt:08.11.2022

Sub.: TNPCB – Industries – M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District – Directions for closure and disconnection of power supply under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended – Orders issued – Regarding

Ref.: 1. Proceeding No.: TNPCB / T2 / F.025102 / Directions / Water / 2022 , dt:17.10.2022
2. Compliant petition dated 22.10.2022
3. DEE's Letter No.: DEE/TNPCB/DMP/F.DMP0013/OL/2021, dt:03.11.2022 and 07.11.2022.

Whereas, Direction was issued to the unit M/s. Varalakshmi Starch Industries Pvt. Ltd, vide proceeding 1st cited under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended to comply with certain conditions.

Whereas, the unit vide letter dated 19.10.2022 has requested certain details pertaining to the said Direction issued to the unit, for which Board vide letter dated 27.10.2022 instructed the unit to comply with the Direction issued within the prescribed time limit and to furnish the status report on compliance on weekly basis.

Whereas, a complaint petition was again received vide reference 2nd cited against the operation of M/s. Varalakshmi Starch Industries. In this regard, the unit was inspected by the officials of O/o. DEE, Dharmapuri on 03.11.2022 and during inspection the following observations were made.

1. The unit was not in operation and no production has been observed, however the unit has started receiving tapioca roots from the farmers for commissioning its crushing activity.
2. As the unit was not in operation during inspection, no trade effluent was generated
3. The unit was in the process of revamping the existing ETP. The unit has proposed to install MBR as additional component in the treatment plant and was carrying out civil works for mounting the same. The unit has installed Filter press and one of the ETP components and not yet commissioned.
4. The unit is yet to take steps for removal of seemaikaruvelam trees already planted by them and replacing the same by planting the native species as recommended by the Agriculture Department
5. The unit has not furnished any action plan with time schedule for carrying out Water and Waste water audit and ground water quantity study through reputed institution like Anna University, Chennai / IIT Chennai
6. The unit has not taken any steps to provide shed cover the area of the storage of wet Tapioca Thippi and has also not furnished any action plan for the same.
7. The unit has not taken any steps to provide proper storm water drain to restrain the rain water mixing with trade effluent and has also not furnished any action plan for the same.
8. The unit has not taken any steps to provide compound wall around the green belt area and the ETP area and has also not furnished any action plan for the same
9. The unit has not furnished Bank Guarantee for Rs 50 Lakhs with validity for two years for compliance of the Directions issued.



TAMILNADU POLLUTION CONTROL BOARD

10. Report of Analysis of the samples collected at the outlet of the ETP on 13.11.2021, 09.12.2021, 15.12.2021, 28.01.2022, 25.02.2022, 16.03.2022, 05.04.2022, 09.05.2022, 22.06.2022 reveals that the parameters TSS, TDS, BOD and COD exceeds the standards prescribed by the Board.

Whereas, the DEE, TNPCB, Dharmapuri vide reference 3rd cited has recommended for direction for closure and disconnection of power supply to the unit under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended.

In the light of the above said facts it is decided to issue direction for closure and disconnection of power supply to the unit of M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended for the above violations.

Therefore, in exercise of the powers conferred under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended, it is hereby directed that the unit of M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District shall be closed and power supply shall be disconnected with immediate effect.

This order of closure and disconnection of power supply is issued by Chairperson as per the delegation of powers issued by the Board vide B.P.No.9, dated 11.03.1994.

The receipt of this proceeding shall be acknowledged.

Sd/-
Chairperson

To:

The Managing Director,
M/s. Varalakshmi Starch Industries Pvt. Ltd.,
Alamelupuram Village, Pappireddipatti Taluk,
Dharmapuri District - 636 905

Copy to:

1. The District Collector,
Dharmapuri District
2. The Joint Chief Environmental Engineer (M),
Tamilnadu Pollution Control Board,
Auxilium College Road , (Opposite to Auxilium College) Gandhi Nagar,
Vellore -632 006.
3. The District Environmental Engineer,
Tamilnadu Pollution Control Board,
SF.No.415/1,Adhiyaman kottai - Hosur Bypass road,
A.Reddihalli village(Near to Don Bosco College),
Dharmapuri Taluk, Dharmapuri District - 636 809.
4. The Superintending Engineer / Dharmapuri
Salem Main Road, Opposite to Collectroate,
Dharmapuri - 636 705
E-mail : sedpi@tnebnet.org
5. The Assistant Engineer / Pappireddipatti/Town,
Town Pappireddipatty 33KVSub station campus,
Pappireddipatty - 636905
E mail : vld129ae@tnebnet.org.
6. File Copy

[Signature]
For Chairperson

By Speed Post

TAMILNADU POLLUTION CONTROL BOARD

**Proceeding No.: TNPCB / T2 / F.025102 / DMP / Closure / Water / EB / 2022, dated:
08.11.2022**

Sub.: TNPCB – Industries – M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District – Direction for disconnection of power supply to the unit under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended – Orders issued – Regarding.

Ref.: 1. Proceeding No.: TNPCB / T2 / F.025102 / DMP / Closure / Water / 2022, dated: 08.11.2022
2. Memo No.: SE / Comm. / EE 3 / Assistant Environmental Engineer – 1 / TNPC Board / D 320 / 2002, dated: 04.12.2002 from the Chairman, TNEB to Superintending Engineers of all electricity Distribution Circles, TNEB.

Tamil Nadu Pollution Control Board enforces the provisions of Water (Prevention and Control of Pollution) Act, 1974 as amended. As per Section 33A of Water (Prevention and Control of Pollution) Act, 1974, the Board is empowered to issue Directions for closure, prohibition or regulation of any industry and stoppage of electricity or any other services. Instructions have been issued by Tamil Nadu Electricity Board in this regard vide reference 2nd cited.

In this connection, a copy of Board's Proceeding 1st cited is also enclosed wherein directions have been issued under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended for closure and disconnection of power supply to the unit of M/s. Varalakshmi Starch Industries Pvt. Ltd, S.F. No. 75 pt, 77 pt, 78 pt, 168 pt of Pappireddipatti & 121pt, 125pt, 128 -132 pt, 138 pt of Alamelupuram Village, Pappireddipatti Taluk, Dharmapuri District in view of the reasons stated therein.

It is hereby further directed in exercise of the powers conferred under Section 33A of Water (Prevention and Control of Pollution) Act, 1974 as amended, the power supply to the above said unit shall be disconnected with immediate effect.

The receipt of the proceeding shall be acknowledged and the action taken in this regard shall also be intimated to this office at the earliest.

Enclosure: As above.

**Sd/-
Chairperson**

To

1. The Superintending Engineer / Dharmapuri
Salem Main Road, Opposite to Collectroate,
Dharmapuri – 636 705
E-mail : sedpi@tnebnpc.org



TAMILNADU POLLUTION CONTROL BOARD

2. The Assistant Engineer / Pappireddipatti/Town,
Town Pappireddipatty 33KVSub station campus,
Pappireddipatty – 636905
E mail: vld129ae@tnebnnet.org.

Copy to:

1. The District Collector,
Dharmapuri District
2. The Joint Chief Environmental Engineer (M),
Tamilnadu Pollution Control Board,
Auxilium College Road , (Opposite to Auxilium College) Gandhi Nagar,
Vellore -632 006.
3. The District Environmental Engineer,
Tamilnadu Pollution Control Board,
SF.No.415/1,Adhiyaman kottai - Hosur Bypass road,
A.Reddihalli village(Near to Don Bosco College),
Dharmapuri Taluk, Dharmapuri District - 636 809..
4. The Managing Director,
M/s. Varalakshmi Starch Industries Pvt. Ltd.,
Alamelupuram Village, Pappireddipatti Taluk,
Dharmapuri District
Pin: 636 905
5. File Copy

Man 08/11/22
For Chairperson

P. S. H.
8/11/22

**ADEQUACY REPORT FOR ENHANCEMENT OF
PRODUCTION CAPACITY FOR M/s VARALAKSHMI
STARCH INDUSTRIES PVT. LTD.,
Pappireddipatti village, Dharmapuri District, Tamil Nadu**



Prepared by



**CENTRE FOR ENVIRONMENTAL STUDIES
ANNA UNIVERSITY CHENNAI
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MARCH 2009

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Dr.S. Amal Raj
Assistant Professor

Ref: CES/Varalakshmi/SA/2009

28th March 2009

To

The Managing Director
Varalakshmi Starch Industries (P).Ltd.,
"Varalakshmi Tower",
Second Floor
No. 127/1 Gandhi Road
Salem 636 007

Dear Sir,

Sub: Submission of final report on 'Adequacy report for enhancement of production capacity' – reg.

With reference to the above, I herewith attach 6 copies of the final report of the 'Adequacy report for enhancement of production capacity' for M/s.Varalakshmi Starch Industries Pvt. Ltd., Pappireddipatti Village, Dharmapuri District, Tamil Nadu" for your perusal and necessary action at your end.

Thanking you,

Your sincerely,

Dr. S. AMAL RAJ
(Project Coordinator)

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**ADEQUACY REPORT FOR ENHANCEMENT OF PRODUCTION
CAPACITY FOR VARALAKSHMI STARCH INDUSTRIES PVT. LTD.**

1. INTRODUCTION

Tapioca starch production is one of the major food industries in Tamil Nadu. M/s Varalakshmi Starch Industry is an agro-based industry engaged in manufacture, export of native tapioca starch (ISI marked) and modified starches of international standards. Tapioca starch and modified starches are manufactured by crushing 480 MT of tapioca root per day in the existing plant located at Pappireddipatti village, Dharmapuri District, Tamil Nadu. The raw material namely, tapioca, is an agricultural product which is seasonally available. The unit has peak season of 120 days (November to February), lean season of 60 days (October & March) and off-season of 180 days (April to September) in a year.

M/s Varalakshmi starch industry has recently proposed to enhance its production capacity to run the plant continuously as well as to give regular employment to its employees. It is proposed to increase the crushing capacity by 120 MT of tapioca root per day. It has also been proposed to manufacture maize based food grade starch with a crushing capacity of around 375 MT of maize per day in the existing tapioca starch plant premises by utilizing the existing facilities such as man power, electric power, treated water disposal facilities, and Effluent Treatment Plant (ETP) in the off season period of tapioca.

M/s Varalakshmi starch industry had requested the Centre for Environmental Studies (CES), Anna University to conduct a study and prepare a report on the adequacy of the proposed plant to cater to the increased pollution load arising due to change in production capacity and introduction of additional products. The studies were carried out by Dr. S. Amal Raj (Assistant Professor) under the guidance of Dr. K. Thanasekaran (Professor) of CES in November, 2008 – January, 2009.

It was primarily based on the information provided by Varalakshmi Starch Industry during discussions with engineering staff on the production processes, waste generation, effluent characteristics and verification of the same based on process chemistry and records. For critical cases, primary data were also collected.

The details of products now manufactured as per TNPCB Consent Order No. DEE/HSR/2555/W/DMP/2007 dated 29.06.2007 and that proposed to be manufactured after expansion are presented in Table 1.

Table 1: Details of Products manufacturing capacity

Sl. No.	Description	Mean Production Capacity MT/month	
		Existing	After Expansion*
Main Products			
1.	Native Tapioca Starch	1,620	900
2.	Modified Starches-wet process :		
i	Oxidised Starch	1,000	2,000
ii	Cationic Starch	50	300
iii	Spray Starch	50	300
3.	Modified Starches-dry process :		
i	Acetylated Starch	300	300
ii	Yellow Dextrin	150	150
iii	White Dextrin	150	150
iv	Carboxy Methyl Starch	100	100
v	Pre-geletinised Starch	----	300
Total		3,420	4,500
4.	Tapioca Thippi	1,730	2,500
5.	Maize Starch	----	7,000

Note: *Data furnished by the Industry

The details of raw materials and chemicals requirement per month for the existing plant and that after expansion have been illustrated in Tables 2 and 3 respectively.

Table 2: Raw materials requirement for the existing plant and that after expansion

Materials	Existing		Expansion	
		MT/month		MT/month
Tapioca	Conversion in to Native Tapioca Starch	6,480	Conversion in to Native Tapioca Starch/Sago	3,600
	Conversion in to Modified Starches : (wet process) Oxidised Starch, Cationic Starch & Spray Starch	4,850	Conversion in to Modified Starches : Oxidised Starch, Cationic Starch & Spray Starch - wet process	10,400
	Conversion in to Modified Starches : (dry process) Acetylated Starch, Yellow Dextrin, White Dextrin & Carboxy Methyl Starch	3,070	Conversion in to Modified Starches : Acetylated Starch, Yellow & White Dextrins, Carboxy Methyl Starch, Pre-geletinised Starch & all other Modified Starches - dry process	4,000
TOTAL		14,400	TOTAL	18,000
Maize		NIL	Conversion in to Maize Starch	11,000

Note: Calculated on the basis of 27% Starch content in Tapioca Tuber and around 62% Starch content in Raw Maize

The industry has stated that only one wet based modified starch is produced at a time and all the chemicals listed in the table are not used simultaneously. Depending upon the product chosen, the type of chemicals used varies. Among the various types of modified starch, oxidised starch consumes maximum amount of chemicals.

Table 3: Chemical requirement for the existing plant and that after expansion

List of all materials	Principal use	Amount in MT/Month	
		Existing	After expansion
Chemicals : (Inorganic)			
1. Caustic Soda Lye (Sodium Hydroxide)	For Oxidised Starch, Cationic Starch & Spray Starch	21.00	60.00
2. Hydro Choric Acid	For Oxidised Starch, Spray Starch Acetylated Starch & Dextrins	20.00	30.00
3. Sodium Hypo Chlorite	For Oxidised Starch	300.00	500.00
4. Sulphur	For Native Tapioca Starch	0.90	1.20
5. Nitrogen (Food to Reactors)	---	---	15.00
6. Sodium Mono Chloro Acetate	For Carboxy Methyl Starch	15.00	25.00
7. Cationic Reagent	For Cationic Starch	2.00	40.00
8. Acetic Anhydrite	For Acetylated Starch	4.00 kL	1.50 kL
9. Caustic Soda Flakes	For Carboxy Methyl Starch	1.50	1.50
10. Sodium Phosphate	For Acetylated Starch	1.00	1.00
11. Calcium Chlorite	For Water Treatment	1.00	1.00
12. Ferrous Sulphate	For Water Treatment	0.60	0.60
13. Bleaching Powder	For Water Treatment	1.00	1.00
14. Hydrated Lime	For Water Treatment	8.00	10.00
15. Sulphur	For Maize Starch	---	10.00
TOTAL		372 MT/ month + 4 kL	696.3 MT/ month + 1.5 kL

2. EXISTING MANUFACTURING PROCESS

2.1 Native tapioca starch

Extraction of starch from tapioca is a simple and straightforward process. The separation of starch granules from the tuber in a pure form is essential in the manufacture of tapioca starch. The granules are locked in cells together with other constituents of the protoplasm (proteins, soluble carbohydrate, fats etc.) and which can only be removed by a purification process in aqueous phase. The roots of tapioca should be processed within 48 hours after harvesting. The essential factor in the production of food grade tapioca starch is that the whole process, from harvesting the roots to completion of the final drying, should be carried out in the shortest time possible since deterioration sets in from the time of root extraction and proceeds throughout the process. The process flow diagram for the manufacture of starch from tapioca is presented in Fig.1.

The step by step procedure of manufacturing native tapioca starch and sago as followed in the industry is given below:

Step I:

Fresh tapioca tubers received at the factory are passed through a dry peeler, which removes the outermost skin and all soil particles adhering to the tapioca tubers. This dry peeling and pre-cleaning not only improve the quality of end product but also reduces the consumption of water in the washing process thereby reducing the load on ETP to a large extent (95% sand and mud removed).

Step II:

The pre-cleaned tapioca tubers are peeled and washed in an automatic washer using the recycled treated effluent obtained from primary sludge settling tank (remaining 5% sand and mud removed).

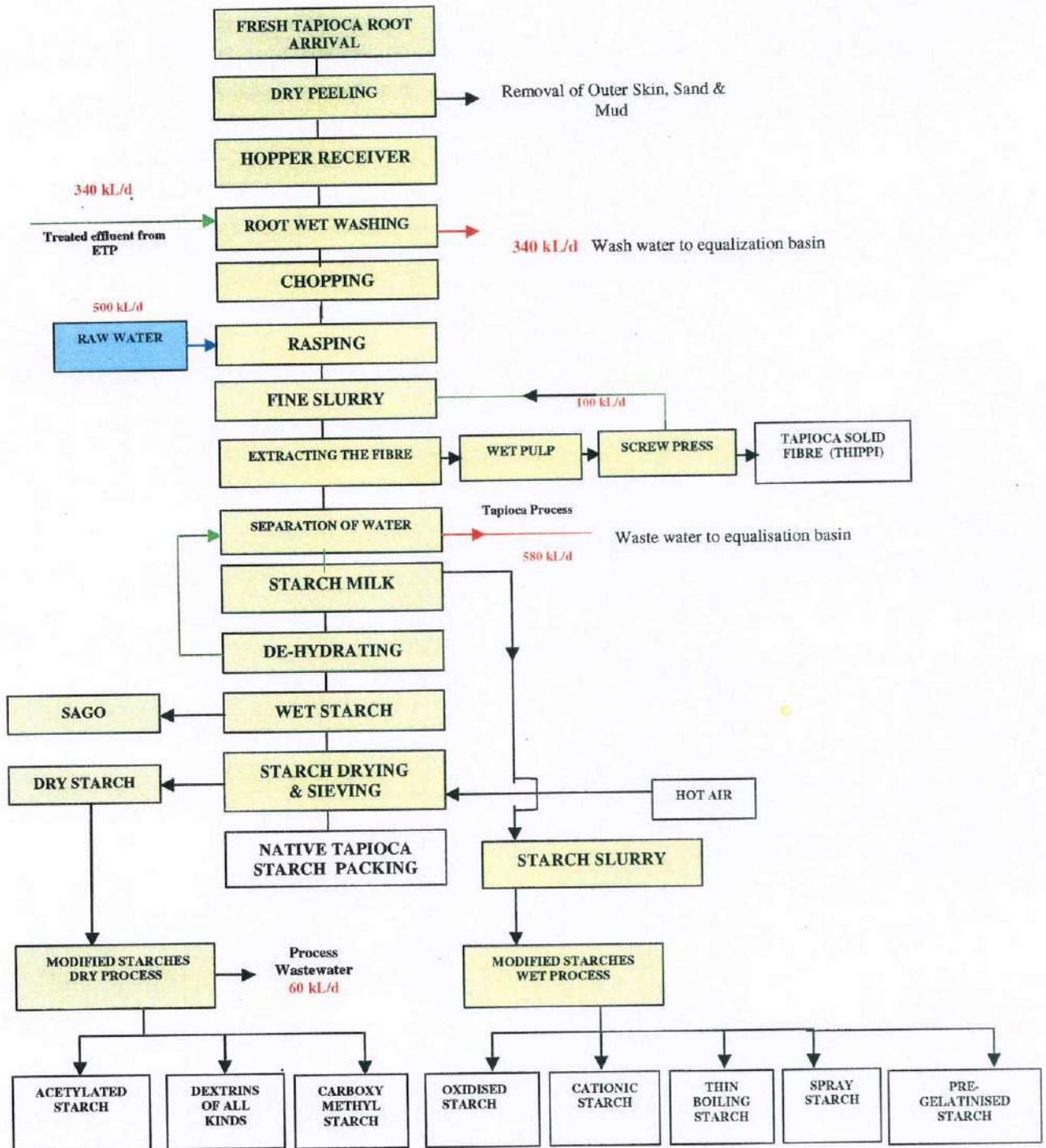


Fig. 1: The process flow diagram for the manufacture of native tapioca starch (existing)

Step III:

Washed tapioca tubers are fed in to a chopper where the tapioca tubers are chopped in to small bits. This initial chopping reduces the load on the rasps as well as reduces the water requirement in the rasping process, as the Tapioca Tubers are fed into the rasps for rasping in disintegrated form requiring less water for crushing.

Step IV:

The finely chopped tapioca tubers are fed in to rasps where the tapioca tubers are crushed in to fine slurry. The rasps used in the process employ modern technology using serrated high tensile rasp blades. By this method the requirement of water is brought down considerably as the rasp Blades used here are able to crush the tapioca tubers into fine slurry with less water. The rasps are so designed that they are able to crush the tapioca tubers in to micro particles so that the Tapioca Starch recovery will be high and the water usage also less so that the load on the Separators at later stage of manufacturing would be reduced.

Step V:

Finely rasped tapioca slurry is passed through pulp extractors where the pulp (Thippi) is extracted from the tapioca slurry by adopting centrifugal separation method. The pulp separated here is passed through screw press where most of the remaining water from the tapioca pulp (Thippi) is removed. The tapioca pulp which comes out of the screw press is of semi solid consistency.

Step VI:

The tapioca starch milk obtained in the previous section is passed through separators which remove the process water, fruit water contained tapioca tuber and immatured starch from the starch milk employing centrifugal principle. Tapioca starch milk coming out of

these separators is more refined and concentrated. Separated water is the only wastewater.

Step VII:

The concentrated tapioca starch milk is passed through centrifugal de-hydrators where water from the tapioca starch is removed by centrifugal method. The resultant wet tapioca starch will be in small lumps with about 30-35 % moisture. The process water removed from the tapioca starch by de-hydrators is passed to separators inlet (Step VI) to recover escaped tapioca starch particles.

Step VIII:

The lumps of wet tapioca starch obtained from the de-hydrators are passed through a disintegrator to convert it in to fine tapioca starch powder.

Step IX:

The powdery wet tapioca starch from the disintegrators is fed in to flash dryers which dry the tapioca starch automatically using hot air generated from hot air furnace to reduce the moisture in the finished tapioca starch to about 12% - 14%.

Step X:

The dried native tapioca starch powders obtained from the flash dryers is passed through feeder and sifters and gets bagged automatically.

2.2 Manufacturing process for modified Starch - wet process

The raw material namely tapioca root is seasonally available one. So the tapioca root crushing period of the plant is November, December, January and February (4 months), which is considered as peak season; October and March (2 months), which is considered as

lean season every year. In the remaining period April-September, conversion of dried native tapioca starch or stored semi-finished tapioca starch into modified starches is being undertaken in the plant.

2.2.1 Manufacturing process of Oxidised Starch

- Step I** : Concentrated starch slurry taken for further chemical treatment.
- Step II** : Addition of the required Chemical(s) – Caustic Soda Lye, Hydrochloric Acid, Sodium Hypo Chlorite with Starch Slurry.
- Step III** : The Starch Slurry and Chemical(s) blended well, by using Agitator(s).
- Step IV** : Allowed around 10 hours for further reaction.
- Step V** : The Chemically reacted Modified Starch Slurry converted in to Dry Modified Starch powder by using Flash Drier(s).
- Step VI** : The dry Modified Starch Powder-Oxidised Starch obtained from the Flash Dryer(s) get sieved and bagged.

The process flow diagram for the manufacturing of oxidized starch is shown in Fig. 2.

2.2.2 Manufacturing process of Cationic Starch

- Step I** : Preparation of starch slurry.
- Step II** : Adding of required Chemical(s) – Caustic Soda Lye, Cationic Reagent with Starch Slurry.
- Step III** : The Starch Slurry and Chemical(s) blended well, by using Agitator(s).
- Step IV** : Allowed around 20 hours for further reaction.
- Step V** : The chemically reacted Modified Starch Slurry converted in to Dry Modified Starch powder by using Flash Drier(s).
- Step VI** : The dry Modified Starch Powder-Cationic Starch obtained from the Flash Dryer(s) gets sieved and bagged.

The process flow diagram for the manufacturing of Cationic Starch is shown in Fig. 3.

2.2.3 Manufacturing process of Spray Starch

- Step I** : Preparation of starch slurry.
- Step II** : Addition of required Chemical(s) – Caustic Soda Lye and Hydrochloric Acid with Starch Slurry.
- Step III** : The Starch Slurry and Chemical(s) mixed well, by using Agitator(s).
- Step IV** : Allowed around 5 hours for further reaction.
- Step V** : The Chemically reacted Modified Starch Slurry converted in to Dry Modified Starch powder by using Flash Drier(s).
- Step VI** : The dry Modified Starch Powder-Spray Starch obtained from the Flash Dryer(s) gets sieved and bagged.

The process flow diagram for the manufacturing of Spray Starch is shown in Fig. 4.

2.3 Modified Starch - dry process

2.3.1 Carboxy Methyl Starch

- Step I** : Taking Dry Native Tapioca Starch.
- Step II** : Addition of required Chemical(s) – Sodium Mono Chloro Acetate, Caustic Soda Flakes with Dry Starch
- Step III** : The Dry Starch and Chemical(s) blended well, by using Ball Mill Mixer(s).
- Step IV** : Quality Control carrying out.
- Step V** : The Modified Starch Powder-Carboxy Methyl Starch get sieved and bagged.

The process flow diagram for the manufacturing of Carboxy Methyl Starch is shown in Fig. 5.

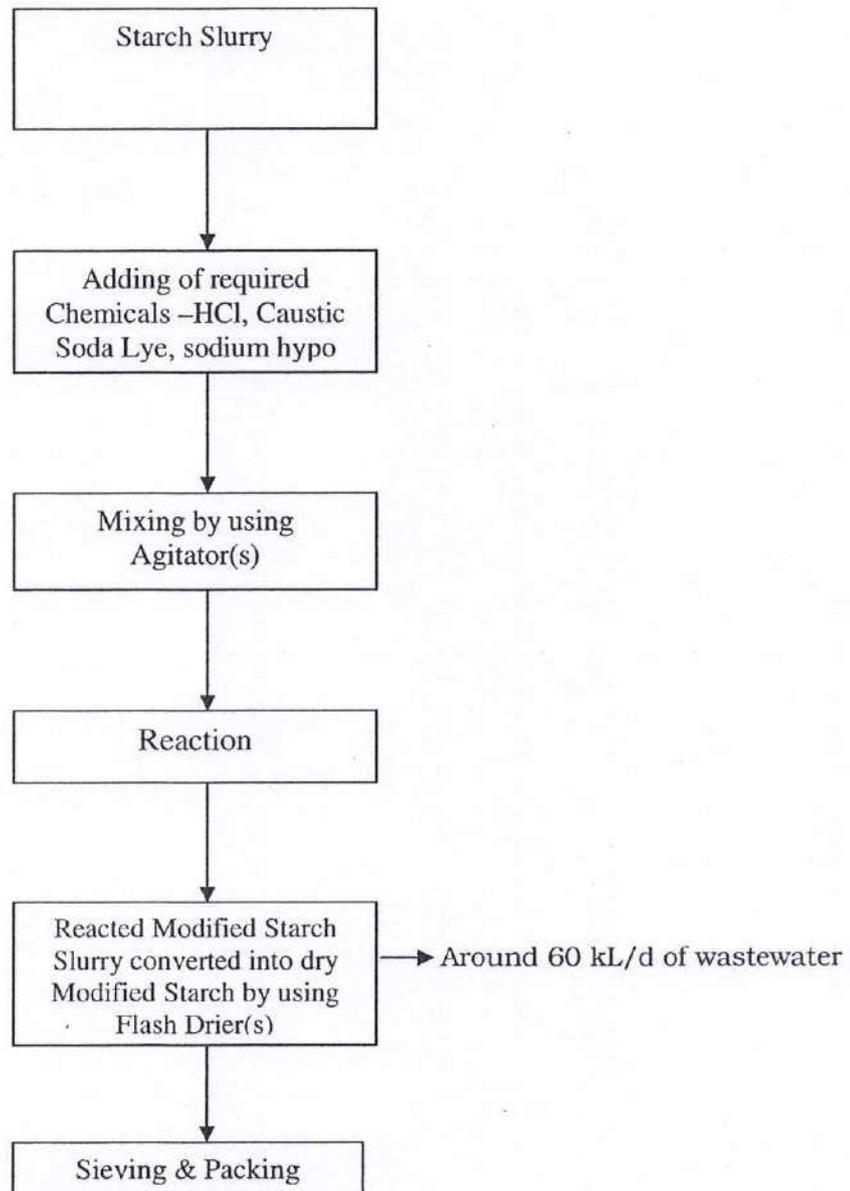


Fig.2. Flow Diagram of Oxidized Starch Manufacturing Process

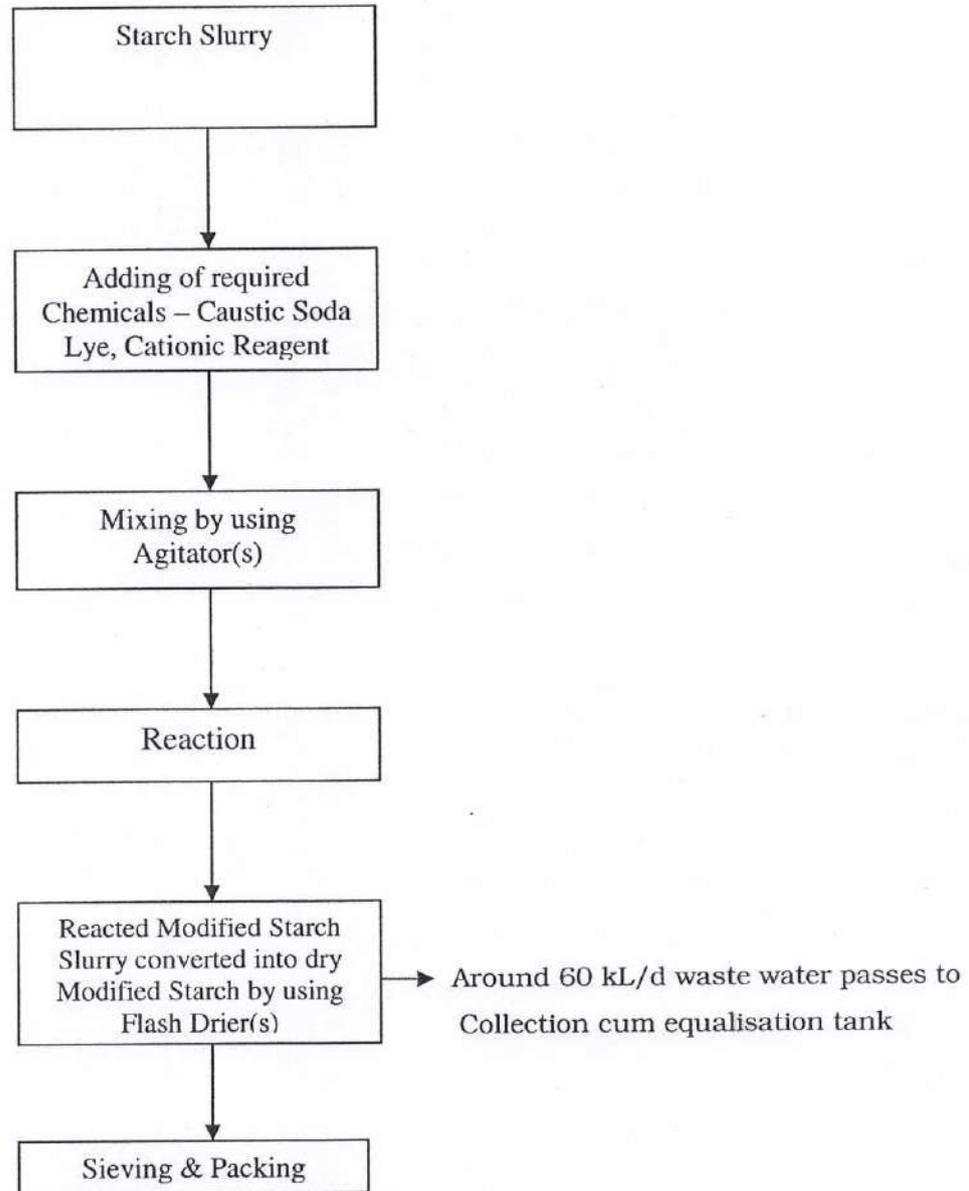


Fig.3. Flow Diagram of Cationic Starch Manufacturing Process

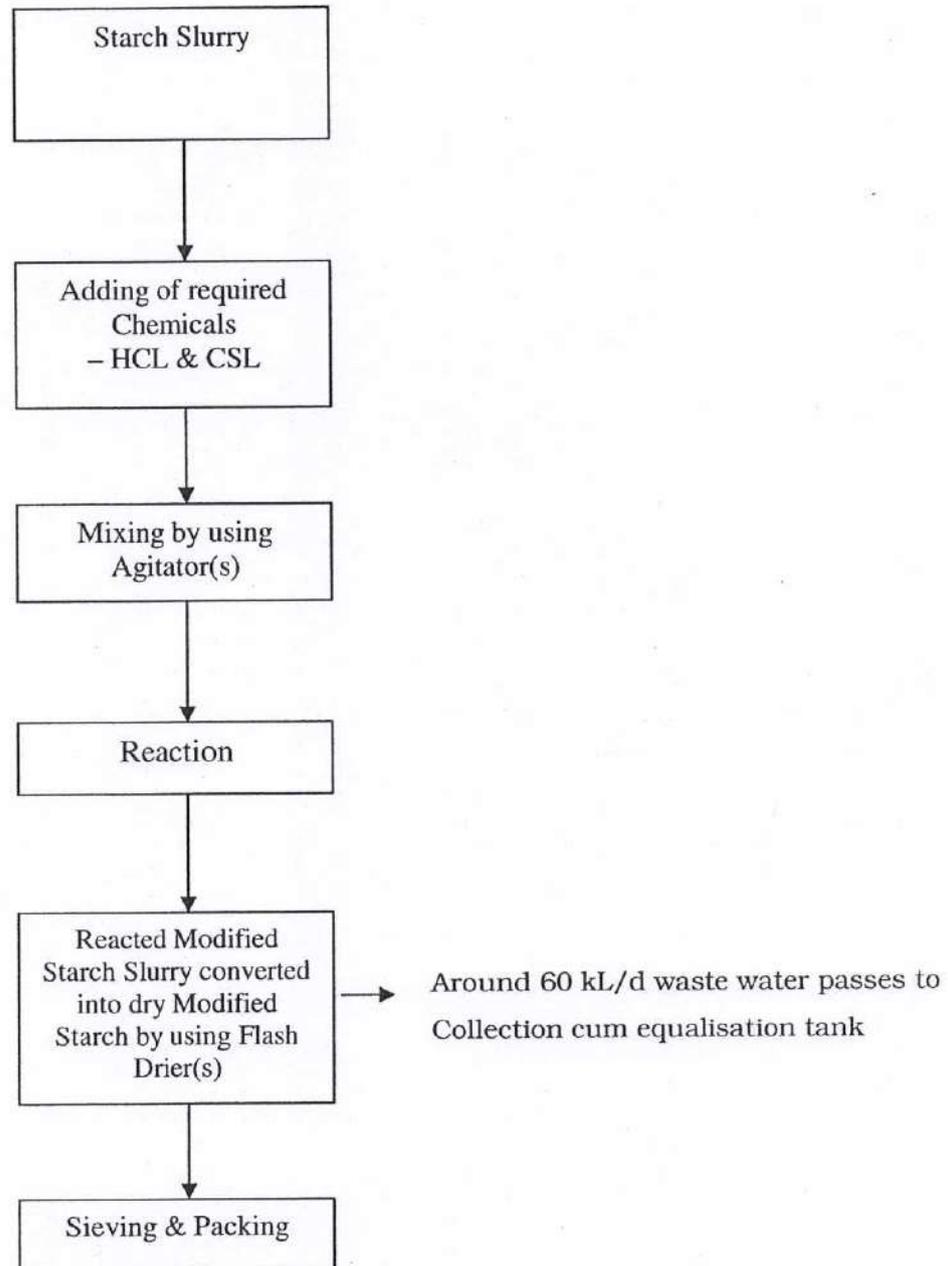


Fig.4. Flow Diagram of Spray Starch Manufacturing Process

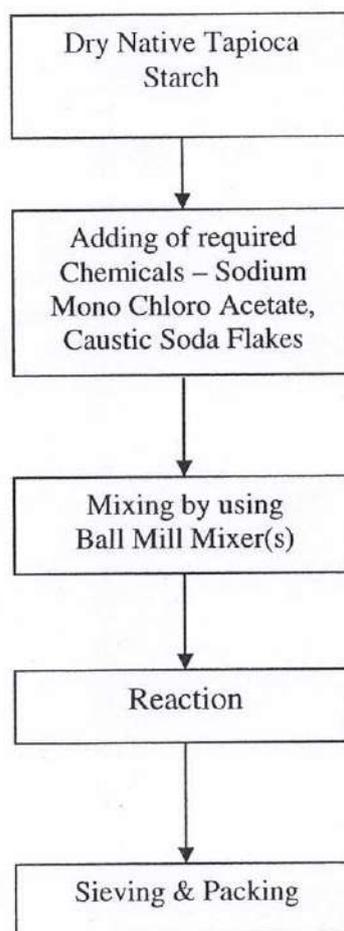


Fig.5. Flow Diagram of Carboxy Methyl Starch Manufacturing Process

2.3.2 Manufacturing process of Acetylated Starch

- Step I** : Taking Dry Native Tapioca Starch.
- Step II** : Addition of required Chemical(s) – Caustic Soda Flakes, Hydrochloric Acid, Acetic Anhydrite, and Sodium Phosphate with Dry Starch.
- Step III** : Sieving using Sieve Machine(s).
- Step IV** : Quality Control
- Step V** : The Modified Starch Powder-Acetylated Starch gets bagged.

The process flow diagram for the manufacturing of Acetylated Starch is shown in Fig. 6.

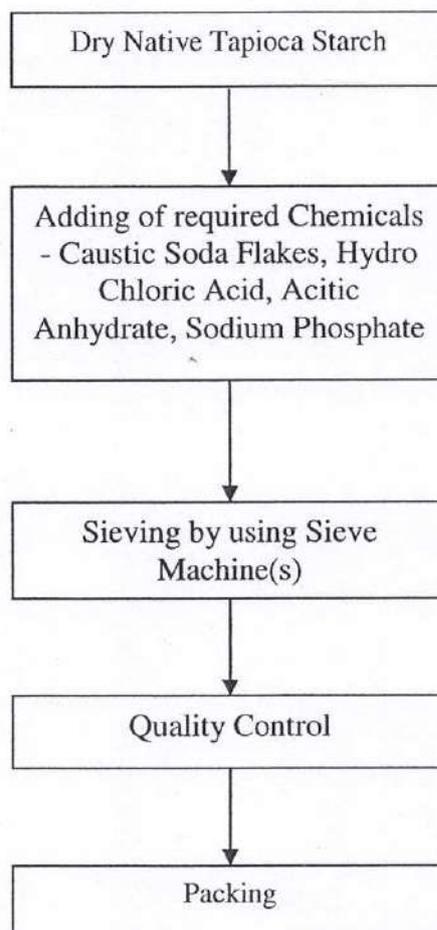


Fig.6. Flow Diagram of Acetylated Starch Manufacturing Process

2.3.3 Manufacturing process of Dextrins (White & Yellow)

- Step I** : Taking Dry Native Tapioca Starch.
- Step II** : Addition of required Chemical(s) – Hydrochloric Acid with Dry Starch.
- Step III** : Roasting with low / high temperature carrying out to obtain White/ Yellow Dextrins.
- Step IV** : Reducing the temperature by using Cooling Vessels.
- Step V** : Sieving by using Sieve Machine(s).
- Step VI** : Quality Control.
- Step VII** : The Modified Starch Powder-White & Yellow Dextrins get bagged.

The process flow diagram for the manufacturing of Dextrins (White & Yellow) is shown in Fig. 7.

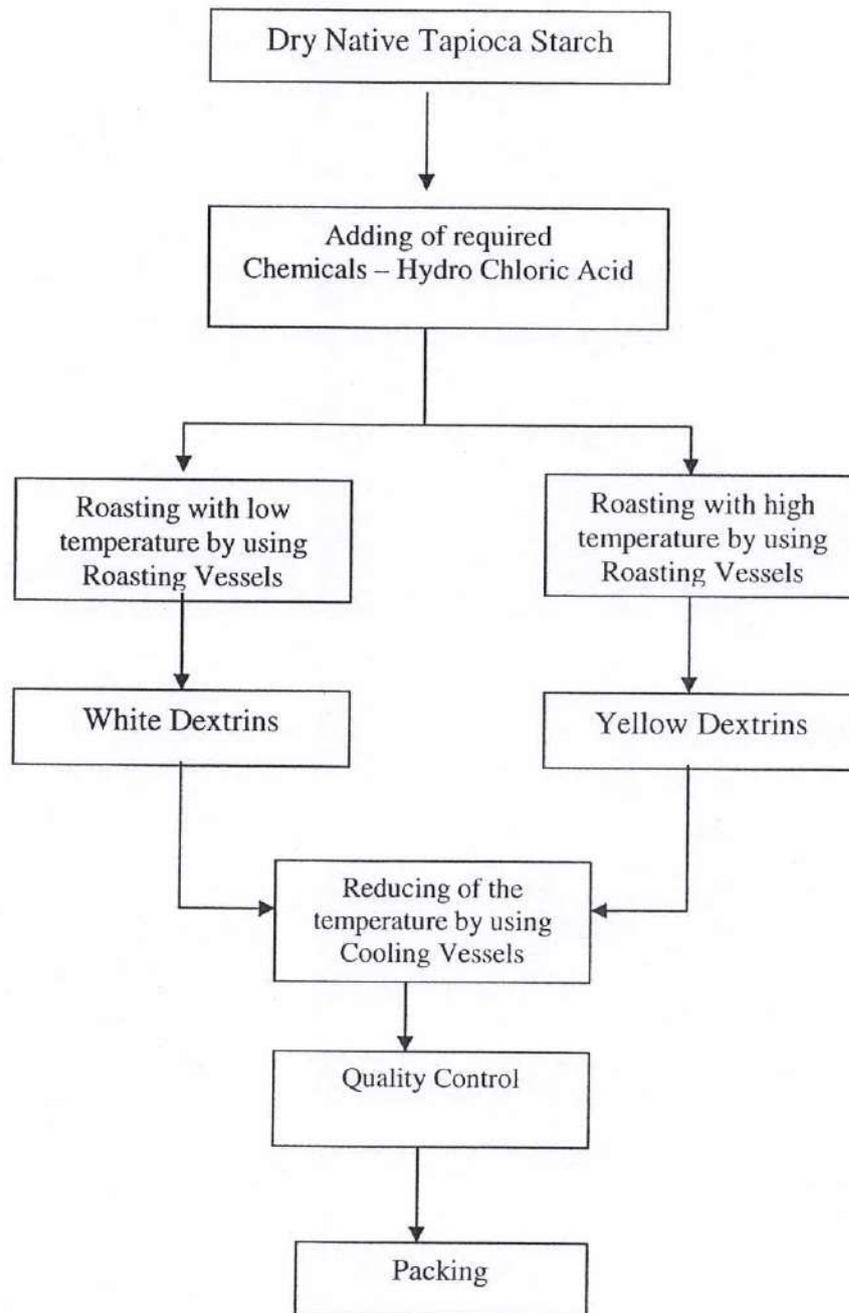


Fig.7. Flow Diagram of Dextrins (White & Yellow) Manufacturing Process

3. PRODUCTION PROCESS AFTER EXPANSION

In addition to the existing crushing of tapioca root of 480 MT/d, it is proposed to add an additional crushing capacity of 120 MT/d of tapioca root per day. So the future crushing capacity of tapioca root would be around 600 MT/d. The details of the additional machinery for increasing the tapioca crushing are given in Table 4. It has also been proposed to manufacture maize based food grade starch with a crushing capacity of around 375 MT/d of maize per day in the existing tapioca starch plant premises during the tapioca off season (April - September) by using existing facilities such as man power, connected electric power, Administration, other marketing set up, Effluent Treatment Plant and treated water utilization facilities for irrigation.

Table 4. Details of additional machinery for increasing the tapioca crushing

S. No	Description	Quantity in nos.		
		Existing	Additional	Total
1	Root washer pit	2	2	4
2	Inclined root conveyor belt	1	1	2
3	Root chopper	1	1	2
4	Root rasper	4	3	7
5	Coarse extractor	18	5	23
6	Fine extractor	8	8	16
7	Final extractor	6	6	12
8	Separator	3	2	5
9	Dehydrating centrifuge	4	2	6
10	Conveyor belt	1	1	2
11	Paddle mixing conveyor	1	1	2
12	Flash Dryer duct	1	2	3
13	Drying cyclone	2	1	3
14	Starch shifting and bagging cabinet	6	3	9
15	Heater furnace	2	1	3
16	Oil burner	2	1	3
17	Hot air blower	2	1	3
18	Drying blower	2	1	3
19	Cooling blower	1	1	2

3.1 PROCESS DETAILS FOR MAIZE STARCH PRODUCTION.

The process flow diagram for the manufacture of starch from maize is presented in Fig.8.

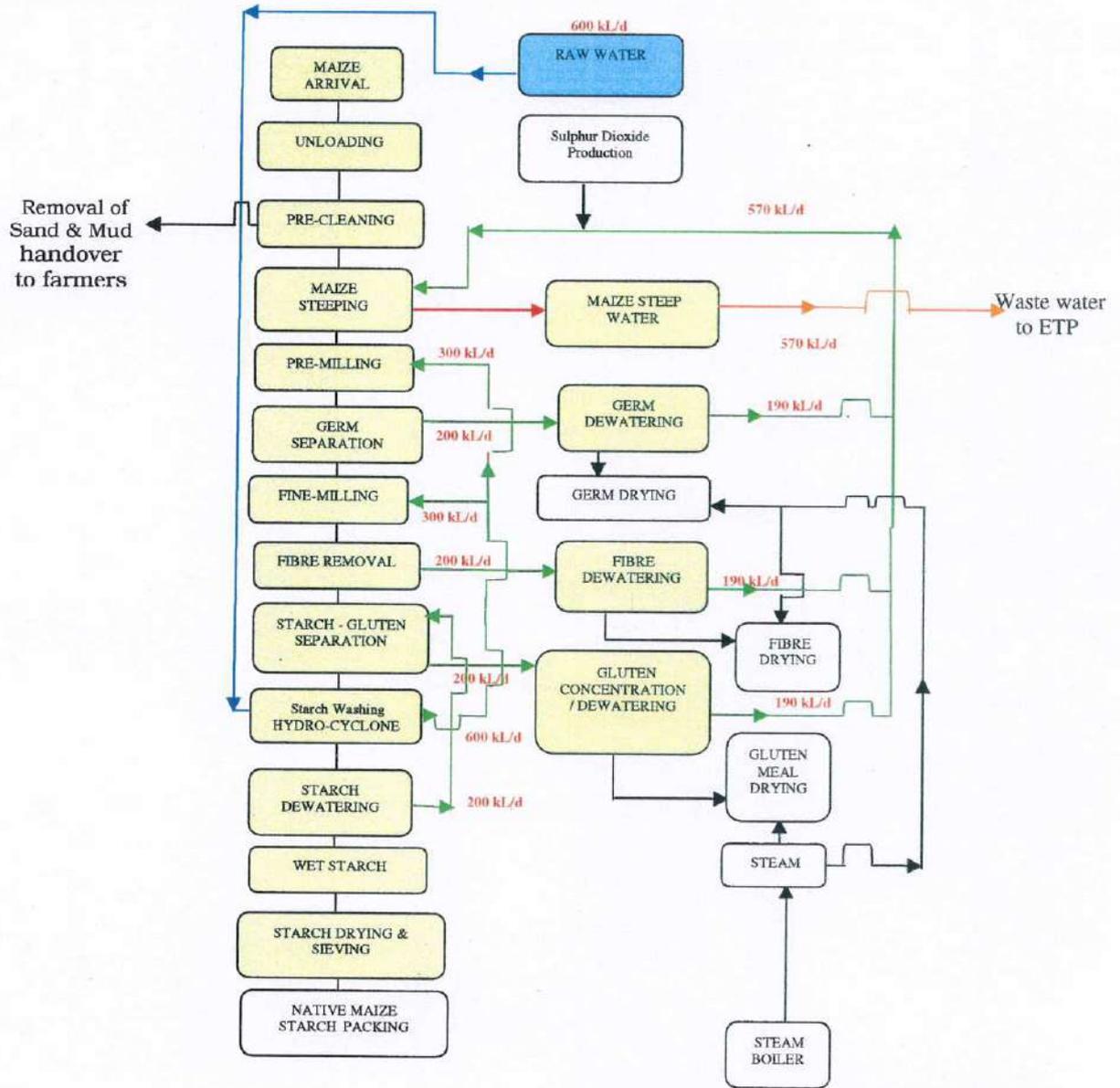


Fig.8. The process flow diagram for the manufacture of starch from maize

The Proposed stage wise procedure involved in maize starch production is detailed as under.

Unloading and Cleaning

Raw Maize received from farmers is unloaded and it is cleaned to remove solid impurities like cob, chaffs, sand and other undesirable foreign matter. The solid waste items and packing material are returned to the farmers and then cleaned maize is taken for process or stored into silos.

Maize Steeping

The cleaned maize is softened by steeping process by using recycled process water for duration of 40 to 60 hours at a temperature of 48 to 52°C. In this process the maize absorbs water and become soft to enable easy separation of germ. After steeping, the water from the steeping tanks is fed into bio methanation reactors to produce bio gas and to reduce the BOD and COD in the effluent.

Pre-Milling and Germ Separation

The softened maize is subjected to coarse grinding/pre-milling where the maize is coarsely ground to release the germs without damaging them. As the germ is much light in density than the broken maize kernels, the germ is easily separated by using cyclones. The germ coming out of germ separating cyclones sent to dewatering section where the water from the germ is separated and sent back for steeping processing. The wet germ from the germ separation section is then dried in a germ drier and disposed off as a byproduct.

Fine Milling and Fibre Separation

The coarsely ground maize kernels free from germs are then ground through fine mill, finally to liberate maize slurry containing fiber, starch and gluten. The fiber is removed from the slurry by DSM Screen. The fiber thus removed is sent to fiber de-watering section where the free water from the wet fiber is removed and recycled into steeping processing. The fiber after reducing of water is then dried and disposed off as a byproduct.

Gluten Separation

The mixture of gluten and starch slurry free from fiber and germ is sent to primary gluten separator. Here the gluten is of lower density than starch and so gluten slurry and starch slurry both are separated. The gluten slurry separated in this section is sent to Gluten concentrator (gluten thickening separator) and concentration section where the excess water is removed from the gluten and the water recycled into steeping process. The concentrated gluten cake from vacuum belt filter is sent to gluten drying section where it is dried as a byproduct.

Starch Slurry Washing and Dewatering

The starch milk after releasing the gluten is then thoroughly washed with the help of fresh water through 12 stage Hydro cyclones. After washing, the process water is removed from the starch milk and the water is recycled into milling section processing.

Starch Dewatering

The concentrated starch milk is passed through De-Hydrating Centrifuge for reducing moisture content upto 30% - 35%. The outlet water contains small portion of starch and it is recycled to starch slurry dewatering section.

Starch Drying

The wet starch /starch cake obtained from dewatering section is then dried in flash drier by using hot air. The dry starch obtained from the starch drier is sieved and then fine starch powder is packed and disposed off as finished product.

The crushing capacity and the various products likely to be generated for the proposed maize plant are presented in the Table 5.

Table 5: The crushing capacity and product generation for the proposed maize plant

Sl.No.	Product	Quantity (MT/d) (+/- 2%)
1.	Maize crushing (raw material)	375.0
2.	Maize Starch production (product)	232.5
By Products		
3.	Germ	30.0
4.	Gluten	22.5
5.	Husk (Fibre)	48.75
6.	Moisture	37.5
Process waste		
7.	Sand & Silicon along with Maize	3.75
Total (2 to 7)		375
Generation of wastewater during process		580.0 kL/d

3.2 MANUFACTURING PROCESS FOR PRE- GELATINIZED STARCH

Step I : Preparation of starch slurry

Step II : The starch slurry is passed through drum drier which is heated to a temperature of 150 °C.

Step III : The dried starch obtained from the above process is removed, powdered and packed for commercial use.

The process flow diagram for pre-gelatinized starch is shown in Fig.9.

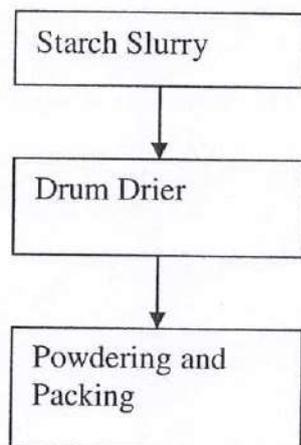


Fig.9: Flow diagram of pre-gelatinized starch process

4. MATERIAL BALANCE

The material balance for the conversion of native tapioca and maize starch are given in Tables 6 and 7 respectively.

Table 6: Material balance for conversion of Tapioca Root to Native Tapioca starch

Sl.No.	Product	Quantity (%) (+/- 3%)
1.	Native Tapioca Starch	25
2.	Tapioca Thippi	10
3.	Fruit Water (including volatile solids)	62
4.	Outer Skin, Sand, Mud	3
Total		100

Table 7: Material balance - conversion of maize to starch

Sl.No.	Product	Quantity (%) (+/- 2%)
1.	Native maize Starch	62
2.	Germ Dry	8
3.	Gluten Dry	6
4.	Husk (Fiber) Dry	13
5.	Water (including volatile solids)	10
6.	Sand, Mud etc.,	1
Total		100

5. WASTE GENERATION AND MANAGEMENT FOR THE PRESENT PRODUCTION PROCESS

5.1 Liquid Effluent Generation and Management

The details of daily liquid effluent generation for the present production process are presented in Table 8.

Table 8: Details of daily liquid effluent generation for the present production process

Sl.No.	Type of effluent	Quantity (kL/d)
1	Sewage	20
2	Industrial effluent through use of raw water	500
3	Recycled treated waste water for tuber washing	340
4	Tuber Fruit water arises	80
5	Waste water from modified starch process	60
Total		1,000

The process of extracting starch from tapioca tubers requires about 500 kL/d of raw water and significant volumes of wastewaters are generated. The effluent from the starch industry is acidic and highly organic in nature. The wastewaters arising out of the washing of the

tapioca tubers and the supernatant from the separator constitute the trade effluent from the starch industry. Liquid effluent generated during washing of tapioca tubers is found to be 340 kL/d. This wash water is directly fed into collection cum equalisation tank. In addition to the wash water, the tapioca process effluent (580 kL/d), modified starch effluent (60 kL/d) and the sewage generated (20 kL/d) within the industrial premises are also stored in collection-cum-equalisation tank. From the equalisation tank, the mixed effluent stream is distributed into 4 hybrid bio-methanation reactors each with holding capacity of 2,670 m³ (16.5 m dia x 12.5 m height) Each reactor is packed with cross flow PVC fills of specific surfaces 102 m²/m³.

The partially treated effluent from the bio-methanation reactor is being passed directly into anaerobic lagoon. The residual organic matter present in the effluent of anaerobic lagoon is further treated by conventional aeration process (8 units provided with sub-surface fixed aerator of 10 hp motor). The effluent from the aeration tank is fed into primary settling tank, then treated effluent around 340 kL/d taken for tuber washing and the remaining 660 kL/d is passed through clarifier (secondary settling) to remove residual solids. The supernatant from the clarifier is used for irrigation. The characteristics of effluent before the treatment are given in Table 9. The process flow diagram for the existing ETP is shown in Fig. 10.

Table 9: Characteristics of effluent before treatment

S.No.	Parameters	Unit	Value*
1	pH	---	4.55
2	Electrical conductivity	μS/cm	8,090
3	COD	mg/L	26,000
4	BOD at 27°C for 3 days	mg/L	16,500
5	Suspended Solids	mg/L	10,000
6	Total Solids	mg/L	25,000
7	Total Dissolved Solids	mg/L	15,000

* Based on the analysis of samples done by the CES

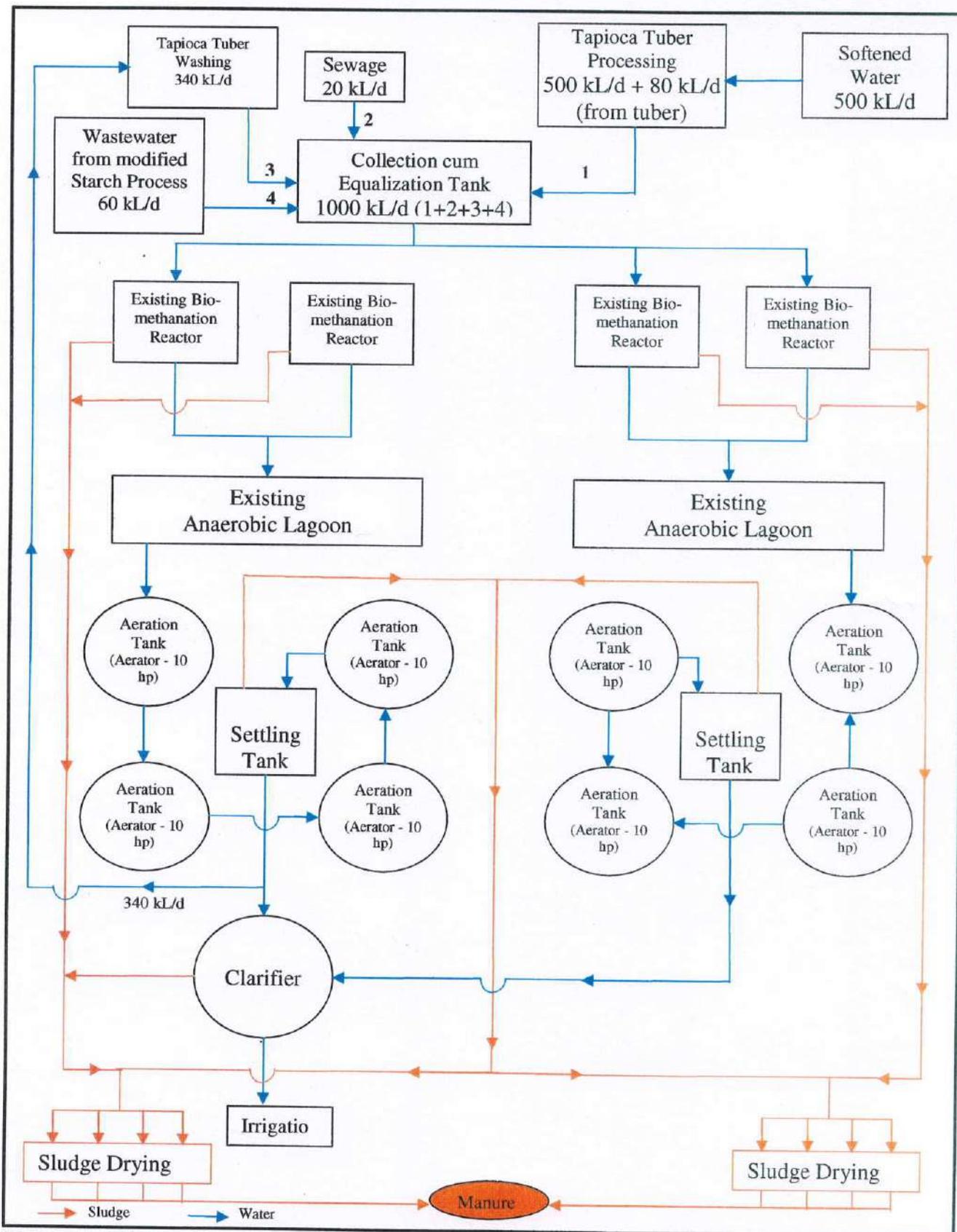


Fig 10. The process flow diagram for the ETP to cater effluent load for existing production process

5.2 Solid waste generation and management:

The major source of solid waste generation in this starch industry includes:

- Peelings of outer skin of tapioca tubers
- Tapioca fibrous residue (Thippi- by product)
- partly stabilized sludge from sludge drying bed

The solid waste generated for the present production process is given in the Table 10.

Table 10: Solid waste generated for the present production process

S.No	Process	Quantity MT/d	Constituents
Tapioca starch			
1	Pre- cleaning	14.4	Outer most skin, soil particles
2.	Tapioca thippi	57.6	cellulose
3.	Biological sludge	4	----

The quantity of solid waste arising from pre-cleaning process is roughly around 14.4 MT/d. It consists of the outer skin mud and sand is being given to the farmers for using as manure. Thippi from screw press is dried in the open drying yard, in case of rainfall dumped in heaps in the open pit during the crushing season and is dried on summer season. The sun dried thippi is sold as animal feed. The total quantity of partly stabilized sludge from sludge drying bed is reported to be 4 MT/d which is being supplied to farmer as manure.

6. WASTE GENERATION AND MANAGEMENT FOR THE FUTURE PRODUCTION PROCESS

6.1 Liquid Effluent Generation and Management for the future Production Process (600 MT/d of Tapioca)

The summary of daily liquid effluent generation for the future production of tapioca starch for the crushing capacity of tapioca root at the rate of 600 MT/d is presented in Table 11.

Table 11: Details of daily liquid effluent generation after expansion

Sl. No.	Type of effluent	Quantity kL/d
1	Sewage	20
2	Industrial effluent through use of raw water	600
3	Recycled treated waste water for tuber washing	620
4	Tuber Fruit water arises	100
5	Waste water from modified starch process	60
Total		1,400

The total liquid effluent generated for the crushing capacity of tapioca at the rate of 600 MT/d will be around 1400 kL/d during peak season (Nov-Feb). The tapioca root crushing period of the plant is November, December, January and February (4 months), which is considered as peak season; October & March (2 months), which is considered as lean season every year.

The existing ETP comprising of 4 Nos. of hybrid bio-methanation reactors, 2 Nos. of anaerobic lagoons, 8 Nos. of aeration tanks having sub-surface fixed type aerators of 10 hp capacity, 2 Nos. of primary settling tanks, 2 Nos. of sludge drying bed and 1 No. of clarifier (secondary settling). In order to handle an additional effluent load of 400 kL/d, the industry has proposed to install two more hybrid bio-methanation reactor of equal capacity to the existing 4 Nos. of hybrid bio-methanation reactors. The details of reactors proposed to be added to cater an additional effluent load of 400 kL/d is presented in Table 12. The process flow diagram for the ETP with proposed modifications to handle an additional effluent load for future production process is shown in Fig.11.

It is proposed to collect four streams of wastewater (process wastewater, sewage, tuber wash and modified starch process wastewater) in equalisation tank. In addition to that, the effluent from the bio-methanation reactors would be recirculated (1 : 0.7) to equalisation tank to dilute incoming raw process wastewater. By this arrangement the organic load to the subsequent reactors will considerably be reduced.

The effluent from the equalisation tank would be distributed to six hybrid bio-methanation reactors of equal capacity. The treated effluent from the bio-methanation reactor would then be subjected to anaerobic treatment in 2 anaerobic lagoons followed by aerobic treatment in 8 aeration tanks. The solids present in the effluents from the aeration tanks is to be segregated with the aid of 2 primary settling tanks and a clarifier (secondary settling tank). It is proposed to install 2 decanters, each of 1 MT capacity to dewater the sludge.

Table 12 Reactor requirement for additional effluent load after expansion

Sl. No	Description of reactor	Number of units existing	Additional units proposed to be added	TOTAL
1	Collection-cum-equalisation tank	1	--	1
2	Hybrid Bio-methanation reactor	4	2	6
3	Anaerobic lagoon	2	--	2
4	Aeration tank (Aerator capacity 10 hp)	8	--	8
5	Settling tank	2	--	2
6	Clarifier	1	--	1
7	Sludge drying bed	2	--	2
8	Decanter	-	2	2

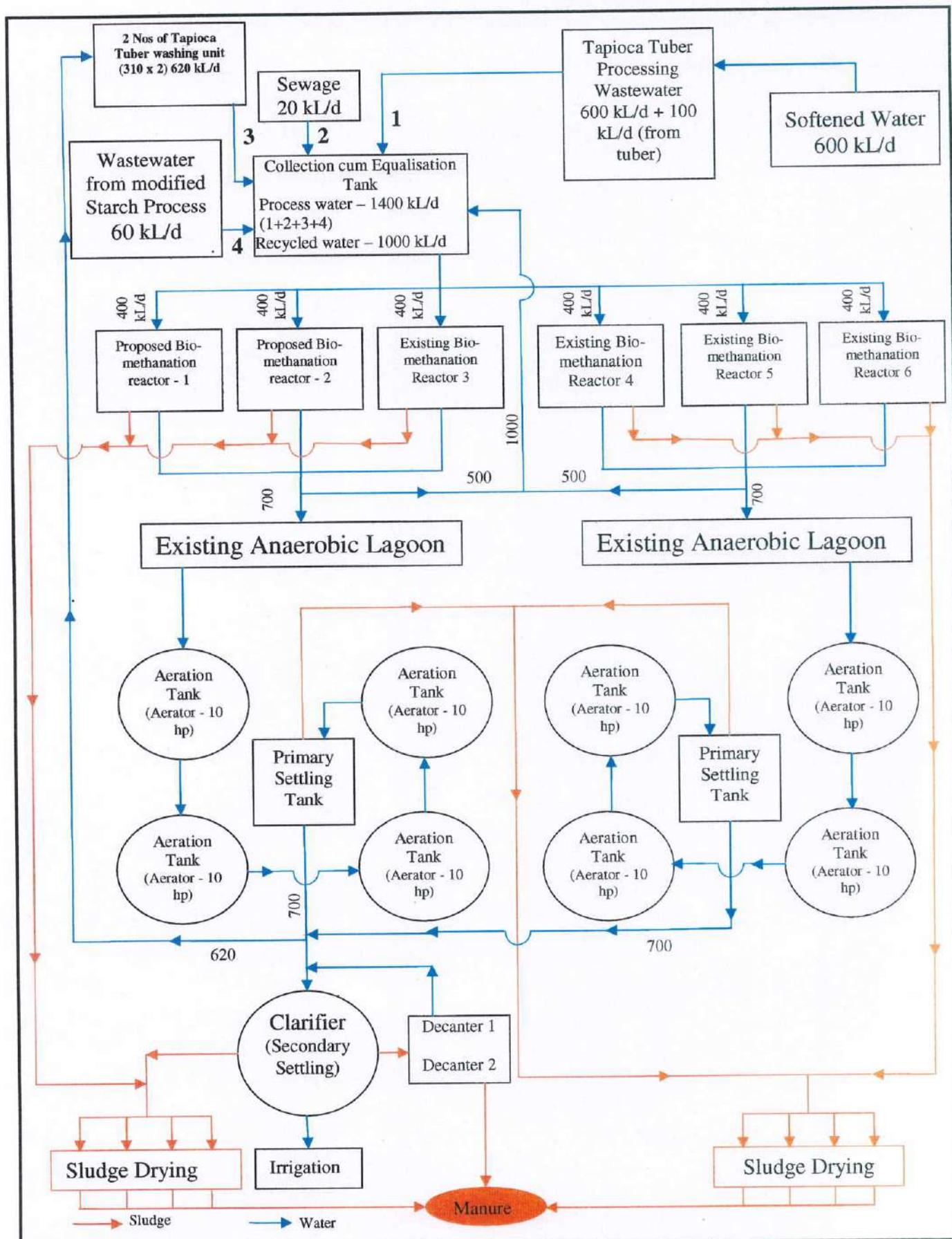


Fig 11. The process flow diagram for the ETP to cater additional effluent load of future production process

6.1.1 BOD, COD and TSS in the Treated effluent

Based on the performance of existing ETP, the efficiency of various treatment units have been arrived as follows (Table 13):

Table 13: Treatment efficiency for existing bioreactors

Parameter	Removal Efficiency (%)			
	Hybrid bio-methanation reactor	Anaerobic lagoon	Aeration cum settling tank	Clarifier
BOD	94	85	85	20
COD	70	70	60	20
TSS	80	60	80	60

The characterization of raw wastewater such as BOD, COD and TSS are found to range from 15000 to 22000 (with a typical 18000 mg/L), 5000 to 10000 (typical 8000 mg/L) and 20000 to 34000 mg/L respectively. For the above range of values the residual BOD, COD and TSS that will be present in the treated effluent in the proposed ETP after expansion have been calculated. It is inferred from this calculation that the treated effluent meets the effluent quality standards prescribed by TNPCB in terms of BOD, COD and TSS.

6.1.2 Total Dissolved Solids in the Treated Effluent

According to industry, oxidised starch production involves maximum usage of chemicals when compared to other forms of modified starch. Therefore this product has been chosen for estimating expected TDS in the raw effluent. The maximum production capacity of modified starch plant is 69 MT/d.

Average chemical consumption for producing 69 MT/d of oxidised starch

	Sodium Hypo Chlorite(kg)	Caustic Sod Lye (kg)	Hydro Chloric Acid(kg)	TOTAL (kg)
Average Consumption per ton of Modified Starch per day	280	5	18	303
Inorganic Solid contents per MT of Modified Starch	28	1.5	0.15	29.65
Inorganic Solid contents for 69 MT of Modified Starches by using above chemicals				2045
Less: Ash content in Modified Starch is around 1.7% normally ash generated through raw water around 0.3% after deducting 0.3% taken 1.4% which is arising from chemicals which is goes along with finished product.				966
Excess Inorganic Solid contents goes with Effluent Water				1,079 kg
TDS of composite wastewater if 1079 kg of inorganic salts in 60 kL/d of modified starch effluent mixed with 700 kL/d of tapioca process wastewater.				1,498mg/L
TDS of composite wastewater if 1079 kg of inorganic salts in 60 kL/d of modified starch effluent mixed with 580 kL/d of process wastewater of maize starch plant.				1,860mg/L

The TDS level in effluent during the peak and off season of tapioca is expected to be 1,498 mg/L and 1,860 mg/L respectively. As per the calculations above, it is found that the TDS in the effluent will be below the standard limit of 2,100 mg/L.

6.2 Liquid Effluent Generation and Management for the proposed Maize starch plant

It is proposed to set up a maize starch plant in the existing tapioca starch plant premises to manufacture maize starch by crushing around 375 MT of raw maize per day during the lean and off-season period of tapioca of around 150 days in a year by utilizing the existing facilities man power, connected electric power, Administration, other marketing set up, Effluent Treatment Plant and treated water utilization facilities for irrigation. During the tapioca off season the effluent generated due to maize processing will be around 580 kL/d. The quantity of liquid effluent for maize starch plant is lesser than tapioca starch plant. The tentative composite characteristics of maize starch process effluent are presented in Table 14. The characteristics of maize starch effluent are more or less similar to tapioca starch process effluent. The existing ETP with proposed modification is adequate to handle maize starch effluent at the rate of 580 kL/d during off peak season of tapioca.

Table 14: Characteristics of maize starch process effluent*

S.No	Parameter	Units	Value expected
1	pH	Number	4.2 – 5.0
2	Total Suspended Solids	mg/L	5,000 – 10,000
3	Total Dissolved Solids	mg/L	20,000 – 30,000
4	Chloride	mg/L	500 – 700
5	Sulphate	mg/L	250 – 350
6	Oil & Grease	mg/L	8 – 10
7	BOD 3 days at 27°C	mg/L	15,000 – 20,000
8	COD	mg/L	25,000 – 30,000

* Source: data furnished by industry

6.3 Solid waste generation and management for the future production process

The solid waste generated for the future production process is given in the Table 14.

Table 15: Solid waste generation for the after expansion

S.No	Process	Quantity MT/d	Constituents
Tapioca starch			
1	Pre cleaning	18.0	Outer most skin, soil particles
2.	Tapioca tippi	60.0	---
3..	Biological sludge	5.0	---
Maize starch			
1.	Precleaning	3.75	Chaff, soil particle
2.	Husk and gluten	71.25	--
3.	Biological sludge	3.0	--

The anticipated quantities of solid waste arising from pre-cleaning process of tapioca and maize starch are 18 and 3.75 MT/d. respectively. It consists of the outer skin, chaff, mud and sand is being sold to the farmers as manure. Thippi from screw press is dried in the drying yard and during rainy days dumped in heaps in the open pits during the crushing season. The sun dried thippi, Gluten and husk are being sold as animal feed (important ingredient for making of animal feeds and poultry feeds). The total quantity of dewatered sludge from sludge drying bed will be 5.0 MT/d which is being used as manure.

At present, during the off season of tapioca, the industry collects and dewateres the biological sludge from the clarifier, bio-methanation reactors, anaerobic lagoons and excess sludge in the settling tank using sludge drying bed and in the drying yard. The dried sludge is being given to farmers (who are supplying tapioca

tuber) as manure. After the maize plant is commissioned, the operations of the plant will be carried out throughout the year and therefore the industry has planned to install two decanters each of 1 MT capacity per hour (on dry basis) to concentrate the sludge.

7. RECOMMENDATION

The present study shows that due to increase in crushing capacity of tapioca, a further load of 400 kL/d of liquid effluent is likely to be generated in addition to the existing load of 1000 kL/d of effluent. The treatment of this additional quantum of about 400 kL/d is proposed to be accommodated in the existing ETP with two additional hybrid bio-methanisation reactors along with recirculation of effluent and regulating the return sludge flow to aeration tank. Thus the capacity of the proposed ETP will be sufficient to treat the future load of 1400 kL/d.

The existing sludge dewatering units along with the two proposed decanters, each having a capacity of 1.0 MT/h are adequate to handle the future sludge generation of 5 MT/d.

In line with the scope of the present study, it is found that the existing ETP with proposed modifications will be adequate to meet the required treated effluent quality standards.

தகவல் பெறும் உரிமைச் சட்டம்/மிக அவசரம்:

(12)

அனுப்புதல்

பொது தகவல் அலுவலர்/ மாவட்ட ஆட்சியரின் நேர்முக உதவியாளர் (பொது),
மாவட்ட ஆட்சியர் அலுவலகம்,
தருமபுரி - 636 705.

பெறுதல்

பொது தகவல் அலுவலர்/
மாவட்ட ஆட்சியர் அலுவலர்/ பொது நேர்முக உதவியாளர்,
5/6/2016 மாத தருமபுரி உதவியாளர்,
அதிமான்மேடை சூதர் அறவழி சாலை
ஏ.மபடி அறநி கோலம்,
தருமபுரி அலுவலகம் (b) மாவட்டம் - 636800.

14332
மூ.மு. /2023/ப3, நாள்: 06.2023

அய்யா/அம்மையர்,

பொருள் : தகவல் பெறும் உரிமைச் சட்டம் 2005 - ன்கீழ் சில தகவல்கள் வழங்க கோரியது தொடர்பாக.

பார்வை : திரு. V. Sathyam, என்பவரது மனு நாள்: 07.6.2023.
(இருக்கைக்கு கிடைக்கப்பெற்ற நாள்: 09.6.2023)

0-0-0

பார்வையில் காணும் மனுதாரரின் மனுவில் கோரியுள்ள தகவல்கள் தங்கள் அலுவலகம் தொடர்புடையது என்பதால், தகவல் பெறும் உரிமைச் சட்டம் 2005- பிரிவு 6(3) (ii)-ன்படி மனு அசலாக இத்துடன் இணைத்தனுப்பப்படுகிறது. இவ்வினம் தொடர்பான எவ்வித மேல்முறையீடுகளுக்கும் தாங்களே பொறுப்பான அலுவலர் என்பதை தெரிவித்துக் கொள்கிறேன்.

இணைப்பு: அசல் மனு

பொது தகவல் அலுவலர்
மற்றும் மாவட்ட ஆட்சியரின்
நேர்முக உதவியாளர் (பொது)
தருமபுரி.

நகல்:

Thiru - V. Sathyam, manager, Varalakshmi Starch Industries Private Limited, Varalakshmi Towers, 127/1, Gandhi Road, Husthampatti, Salem - 636007.	- For Information.
--	--------------------

19.6.2023

Right of Information Act/Most urgent**From**

General Information officer/Personal
Assistant to District Collector (General)
District Collector office
Dharmapuri 636 705

To

General information officer/District
Environmental Engineer
Tamil Nadu Pollution Control Board
Adiyaman Fort, Hosur Outer Road
Dharmapuri District

M.M.No.14332/2023/P3 dated .06.2023

Sir/Madam,

Sub: Request to provide information under the Right of Information At 2005 reg.

Ref: Application of Mr.V. Sathyam dated 07.06.2023 received on 09.06.2023

Since the details requested by the Applicant as per the above reference is related to your office. The Original Application is enclosed along with this letter as per the Right of Information Act, 2002-Section 6(3)(ii). In this regard, we would like to inform you that you are the responsible officer for any further appeal for the petition.

Encl: Original Application

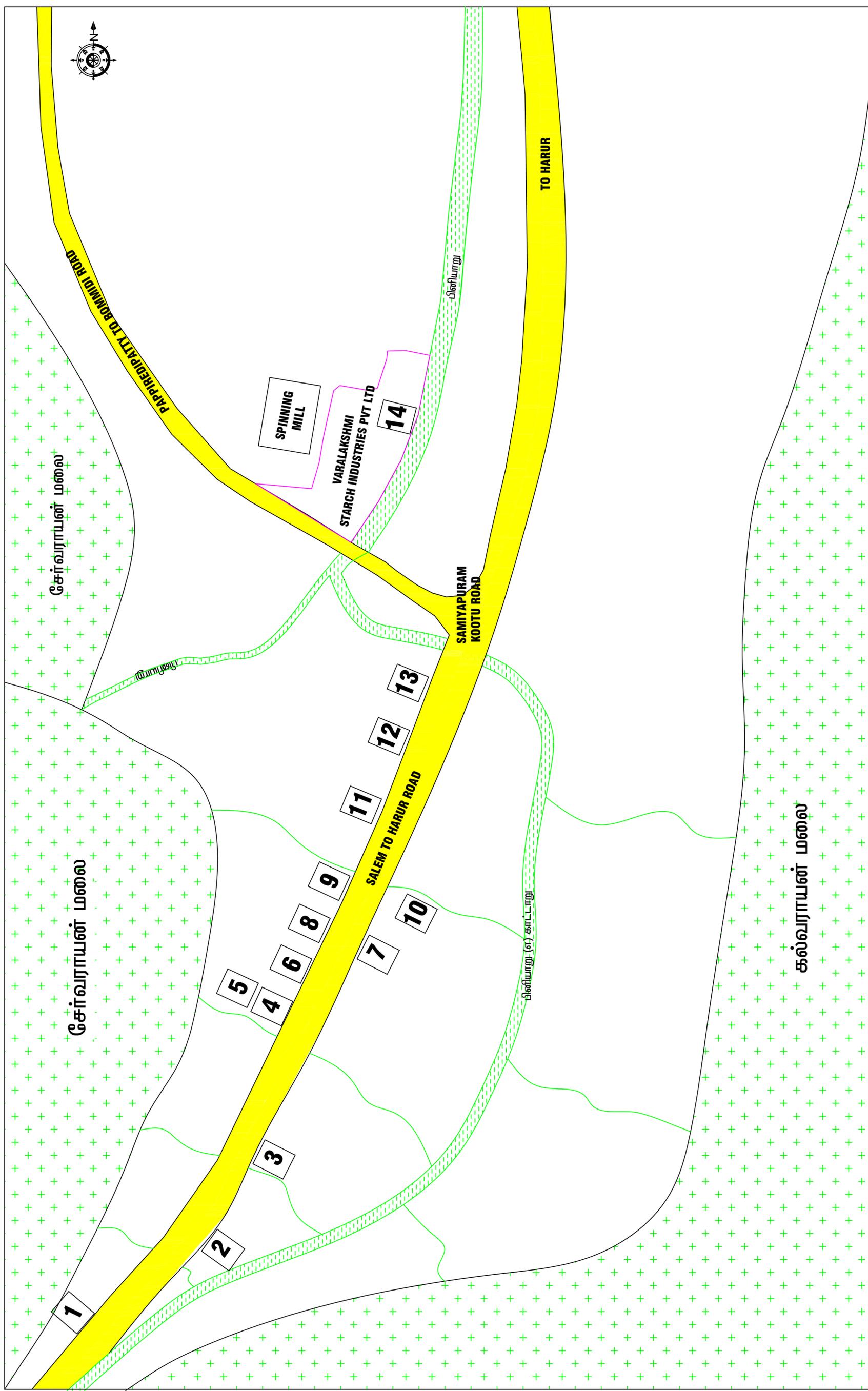
(Sd..)

General Information officer
and Personal Assistant to
District Collector (General),
Dharmapuri

Copy to:

<p>Mr.Sathyam, Manager, Varalakshmi Starch Industries (P) Ltd. 127/1, Gandhi Road, Hasthampatti, Salem - 636 007 Salem 636 007</p>	<p>For Information</p>
--	------------------------

TENTATIVE MAP



- | | |
|---|--|
| 1. Unnamalai Spinning Mill | 8. Agro Nets Company, Kalipettai |
| 2. Arunachala Dairy Products, Chinna Manjavaadi | 9. Star Sago Factory, Kalipettai |
| 3. Ellak Chem Industries India pvt Ltd, Chinna Manjavaadi | 10. Gayathri Farm, Kalipettai |
| 4. Lakshmi Hitech Chemical, Manjavaadi | 11. Sri Arunachala Starch Industries, Varadha Gavundanoor |
| 5. Shiva Chemical, Manjavaadi | 12. Satharn Spinners Pvt Ltd, Pattukonampatti |
| 6. Five Star Glue, Kalipettai | 13. Shree Venkateshwara Wheat Mills Pvt Ltd, Pattukonampatti |
| 7. Granites India Pvt Ltd, Kalipettai | 14. Varalakshmi Starch Industries Pvt Ltd. |

Received on 24/6/23 By Register post with Ack.

RPAD



14

TAMIL NADU POLLUTION CONTROL BOARD

From
Er. A. Nithyalakshmi., M.Tech.,
Public Information Officer/
District Environmental Engineer
Tamil Nadu Pollution Control Board
Adiyamankottai-Hosur bypass Road,
A.Reddihalli, Dharmapuri -636 809
Tamil Nadu.

To
Thiru. V. Sathyam
Manager,
M/s. Varalakshmi Starch Industres Pvt Ltd,
Varalakshmi Tower, II Floor,
No.127/1, Gandhi Road, Hasthampatti,
Salem- 636 007

Letter No. 008364/RTI /DEE/TNPCB/DMP/2023, dated: 22.06.2023

Sir,

Sub: Tamil Nadu Pollution Control Board – O/o. District Environmental Engineer, Dharmapuri – Thiru. V. Sathyam, Salem - RTI Petition - Details – Sent – Reg.

- Ref: 1. Your RTI Petition Dated: 02.05.2023, received on 05.05.2023
2. T.O Letter dt:18.05.2023
3. Your Postal Order received on 26.05.2023

With reference to the above petition under the Right to Information Act, 2005, the following details are furnished.

Qn.No	Information Sought	Information Furnished
3.(a)	<p>We require the last consent order copy for the 7 Red Category Industries</p> <ol style="list-style-type: none"> 1. M/s. Ellak Chem Industries (India) Private Limited, S.No.10 Chinnamanjavadi Village, Pappireddipatti Taluk, Dharmapuri District 2. M/s. High - Tech Chemical, S.No. 11/6A, Kallattupatty village, Pappireddipatti Circle and Dharmapuri District 3. M/s Sri Amman Chemicals, S.No. 11/6A, Kallattupatty village, Pappireddipatti Taluk and Dharmapuri District 4. M/s Leather & textile Chemicals, S.No. 11/6A, Kallattupatty village Pappireddipatti Circle and Dharmapuri District. 5. M/s. Siva Chemical, S.No. 11/6A, Kallattupatty village, Pappireddipatti Circle and Dharmapuri District 6. M/s. Siva Sakthi Chemicals, S.No. 11/6A, Kallattupatty village, Pappireddipatti Circle and Dharmapuri District 7. M/s Agro Needs, S.No.40/4, Noonanganoor village, Pappireddipatti Taluk and Dharmapuri District 	<p>As per this office records last consent order copy for the said industries contains 51 pages</p>

3.(b)	We require what are all the chemicals (such a Solid, Liquid) used as raw materials and their quantity for production in all the industries mentioned above.	As per this office records, details are enclosed vide Annexure - I
3(c)	Is the industry generating Hazardous waste or not? If generating Hazardous waste provide the quantity of Hazardous waste generated per month and permission orders/ Authorization for the same for all the industries mentioned above.	
3.(d)	We require the Monthly Disposal details of Solid waste/ hazardous waste of each of the above mentioned industries which were handover to the third party recyclers approved by the Pollution Control Board.	
3.(e)	We require the details of wastewater generated by the seven industries and what type of wastewater treatment facility they have	
3.(f)	We require the details of water consumption for Domestic and Industrial usage separately for the seven industries	
3.(g)	We require the land holding details of the seven industries mentioned above	
3.(h)	We require the last inspection report of TNPCB for the above 7 industries before issuance of the renewal consent order	
3.(i)	We require the details of recommendations made by the DEE, TNPCB to the TNPCB Board for the issuance of renewal of their last consent for operation for all the above 7 industries	Details of recommendations made by the DEE, TNPCB mentioned in Inspection Report.
3.(j)	We require the details of the aesthetic conditions maintained by the seven industries	Details not available in this office records.
3.(k)	We require the Separate Door Nos, Street, Survey Nos, Village of the above seven Industries.	As per this office records Details are enclosed vide Annexure - I

The requested information contains 85 Pages, Hence, it is requested to remit Rs.170/- (85 pages X Rs.2), either in the form of cash/ Demand Draft (Favour of "DEE, TNPCB, Dharmapuri" payable at Dharmapuri), so as to provide the copies of the same.

The receipt of the letter may be acknowledged.

Appellate Authority Officer

Chief Environmental Engineer,
Tamilnadu Pollution Control Board,
76, Mount Salil, Guindy,
Chennai – 600 032.
Phone No. 044 – 22353146,22353143.
Email Id : rtisec@tnpcb.gov.in

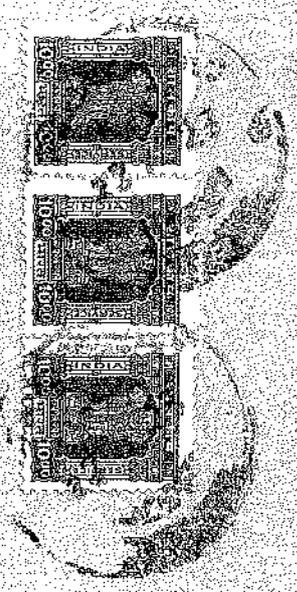

Public Information Officer/
District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Dharmapuri
22/10/23
22/10/23

S.No	Name & Address of the industry	3(b)			3(c)	3(d)	3(e)			3(f)		3(g)	3(k)
		Raw-Material Name	Raw-Material Quantity	Unit			Sewage (KLD)	Trade Effluent (KLD)	Domestic (KLD)	Industrial (KLD)			
1.	Eliak Chem Industries (India) Private Limited, S.F.No.10 Chinnamanjavadi Village, Pappireddipatti Taluk, Dharmapuri District	Barytes	1440	MT/Month	Not available in this office records	Not available in this office records	2.5 Septic Tank & soak pit	0.1 Solar Evaporation pans	3.1	138.9	2.916 Ha	S.F.No.10 Chinnamanjavadi Village, Pappireddipatti Taluk, Dharmapuri District	
		Soda Ash	325	MT/Month									
		Petroleum Coke	450	T/ Month									
		Cement	300	kg/day									
2.	Hi - Tech Chemical, S.F.No. 11/6A, Kallattupatty village, Paappireddipatti Taluk and Dharmapuri District	Barium Carbonate	112.5	T/ Month	Not available in this office records	Not available in this office records	0.2 Septic Tank & soak pit	-	0.2	-	0.0106 Ha	S.F.No. 11-6A, Kallattupatty Village, Pappireddipatti Taluk, Dharmapuri District	
		Nitric Acid	181.2	T/ Month									
3.	Sri Amman Chemicals, S.F.No. 11/6A, Kallattupatty village, Paappireddipatti Taluk and Dharmapuri District	Sodium Sulphide Solution (20% Concentration)	375	T/ Month	Not available in this office records	Not available in this office records	0.05 Septic Tank & soak pit	-	0.05	0.03	0.0107 Ha	S.F.No.11/6A Kallattupatty Village Pappireddipatti Taluk Dharmapuri District	
4.	Leather & textile Chemicals, S.F.No. 11/6A, Kallattupatty village Paappireddipatti Taluk and Dharmapuri District	Sodium Sulphide Solution (20% Concentration)	375	T/ Month	Not available in this office records	Not available in this office records	0.05 Septic Tank & soak pit	-	0.05	0.03	0.0106 Ha	SF.No.11-6A Kallattupatty Village Pappireddipatti Taluk Dharmapuri District	
		Barium Carbonate	142.5	MT/month									
5.	Siva Chemical, S.F.No. 11/6A, Kallattupatty village, Paappireddipatti Taluk, Dharmapuri District	Hydrochloric Acid	175.5	MT/month	Not available in this office records	Not available in this office records	0.02 Septic Tank & soak pit	0.01 Solar Evaporation pan	0.02	0.01	0.1Ha	Shed "C" 11/6A Kallauthupatti, Lakshmapuram Post, Pappireddipatti Taluk, Dharmapuri District	
		Barium Carbonate	142.5	MT/month									

Siva Sakthi Chemicals, S.F.No. 11/6A, Kallattupatty village, Paappireddipatti Taluk and Dharmapuri District	Sodium Sulphide Solution 18% to 20%	16	T/day	Not available in this office records	Not available in this office records	0.1 Septic Tank & soak pit	0.01 Recycling condensate from Evaporator	0.15	3.01	0.03Ha	S.F.No. 11/6A PT, Kallauttupatty Village, Paappireddipatti Taluk, Dharmapuri District
	Magnesite Powder	150	T/ Month	Not available in this office records	Not available in this office records	2.0 Septic Tank	-	3.0	7.0	0.98 Ha	S.No.40/4, Nunungannur village, Paappireddipatti Taluk, Dharmapuri District
Agro Needs, S.F.No.40/4, Nonanganur village, Paappireddipatti Taluk and Dharmapuri District	Sulphuric Acid	120	KL/Month								


 Public Information Officer/
 District Environmental Engineer,
 Tamil Nadu Pollution Control Board,
 Dharmapuri

O/a. District Environmental Engineer,
Tamilnadu Pollution Control Board,
Ardhyamarkottai Hosur Bye-Pass Road,
Ardhahalli Village, Dharmapuri Taluk,
Dharmapuri District. 636 809.



RTGS

To
THIRU. V. SATHYAN
M/S. VARALAKSHMI STEEL INDUSTRIES
VARALAKSHMI TOWER, II FLOOR
NO. 127/1, Gandhi Road
HASTHAMPALLE
Salem - 636 007.

**Photographs of the Hazardous Chemicals dumped in the open area
dated 30.04.2023**











Pharmaceutical wastes, Expired medicines and Pesticide wastes are hugely dumped into the Peeniyaru jungle stream

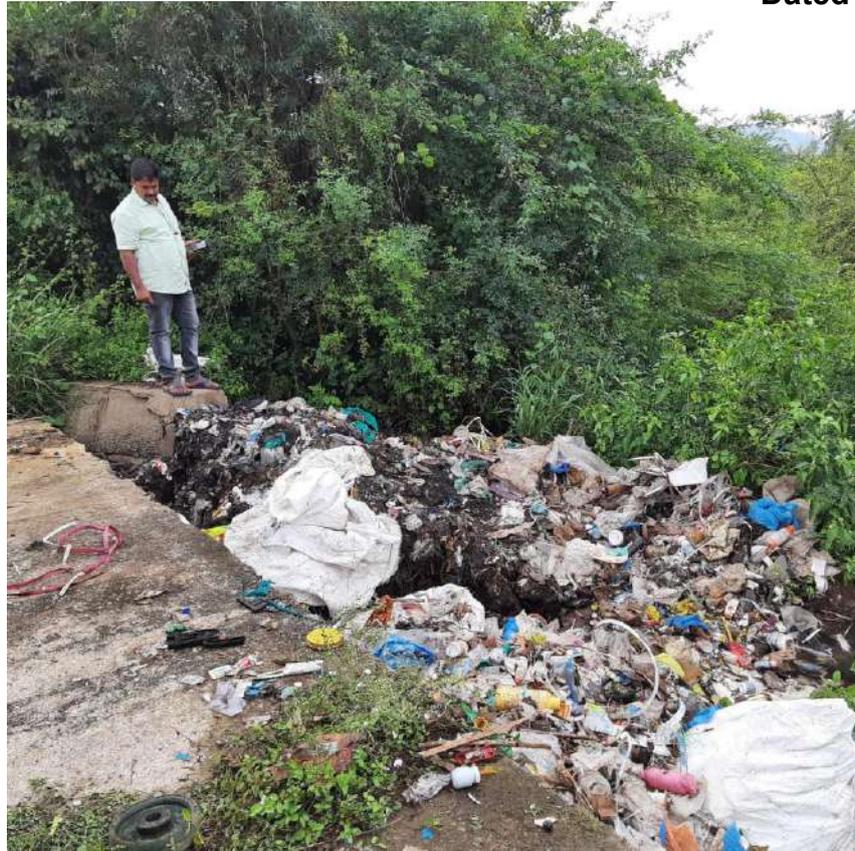






Photographs of the Inspection of Pharmaceutical wastes, Expired medicines and Pesticide wastes dumped into the Peeniyaru jungle

Dated 18.10.2022







CENTRE FOR ENVIRONMENTAL STUDIES
ANNA UNIVERSITY, CHENNAI - 600 025.

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 +91-44-2235 9009 / 9027 / 9010 / 9011
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 Email : directorcesau@gmail.com
 skanmani@annauniv.edu, skanmani@hotmail.com

Dr. S. KANMANI, B.E., M.E., Ph.D.
Professor & Director

Date: 29.05.2023

To
 Mr. V. Anbalagan
 Managing Director
 Varalakshmi Starch Industries Pvt Ltd,
 Varalakshmi Tower, 2nd floor,
 No.127/1 Gandhi Road,
 Hasthampati (po),
 Salem - 636007

Sir,

Sub: Consultancy work on "Design Adequacy for Existing Effluent Treatment Plant" in M/s. Varalakshmi Starch Industries Private Limited, Dharmapuri - Report sent - Reg.

With reference to the above, I enclose 4 copies of the final Report on "Design Adequacy for Existing Effluent Treatment Plant" in M/s. Varalakshmi Starch Industries Private Limited, Dharmapuri. Kindly acknowledge the **Receipt** and issue the **Completion Certificate** for the consultancy work.

Thanking you,

Yours faithfully,


DIRECTOR-CES

Encl: Report - 4 Nos.

Dr. S. Kanmani, B.E., M.E., Ph.D.
 Professor & Director
 Centre for Environmental Studies
 Anna University, Chennai - 600 025

DESIGN ADEQUACY REPORT FOR EXISTING EFFLUENT TREATMENT PLANT

for

**M/s. VARALAKSHMI STARCH INDUSTRIES PRIVATE
LIMITED, DHARMAPURI**



Prepared by



**CENTRE FOR ENVIRONMENTAL STUDIES
DEPARTMENT OF CIVIL ENGINEERING
ANNA UNIVERSITY, CHENNAI - 600 025
MAY 2023**

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**DESIGN ADEQUACY REPORT FOR EXISTING EFFLUENT TREATMENT PLANT IN
M/s. VARALAKSHMI STARCH INDUSTRIES PRIVATE LIMITED**

1.0 INTRODUCTION

M/s. Varalakshmi Starch Industries Private Limited is a composite, integrated and agro-based rural medium-scale industry located in Pappiredipatti of Dharmapuri district and engaged in the manufacture and export of BIS-ISI Certified Starch and Sago products at par with international standards using Tapioca Tuber and Maize Kernel and the largest producer of Tapioca Starch and Sago in India. The raw materials of Tapioca tuber (Cassava) and Maize are agricultural produce and are cultivated by small dry-land and tribal farmers predominantly in Tamil Nadu. The industry was set up in 1997 and has high-tech, automated, medium-scale operations in the fields of Tapioca and Maize. This industry has capacity to manufacture starches and modified starches at 6500 MT/month and sago and pappads at 5000 MT/month. The number of byproducts such as tapioca thippi, maize germ, maize gluten, and maize husk produced by the industry is 2000, 900, 675, and 1460 MT/month respectively.

The treatment capacity of the effluent treatment plant is 500 KLD. Since 2001, this industry has been running bio-methanation plants to treat industrial effluent as well as to generate biogas. The generated biogas is utilized for power generation as well as industrial heating, replacing furnace oil and coal. There are a total of six numbers of bio-methanation plants (Anaerobic Digesters – each 2,000 m³ volume). This anaerobic digester is known as the Hybrid Upflow Sludge Medium Anaerobic Reactors (HUSMAR) process. This technology is provided by New Jersey Institute Technology, New York, USA. This industry is categorized as the "orange category" by TNPCB. The industrial effluent is treated organically to generate biogas and the treated wastewater is discharged into their own lands for irrigation. The findings of the CES team led by Dr. S. Kanmani, based on the data collected during the field visits on 24th February, 2023 and the interactions with ETP operational staff are presented in this report.

2.0 GEOGRAPHICAL LOCATION OF VARALAKSHMI STARCH INDUSTRIES (P) LTD

M/s. Varalakshmi Starch Industries Private Limited is situated in Pappireddipatti village, Dharmapuri district in Tamil Nadu. Geographical location of the industry is $11^{\circ} 40' 18.12''$ N latitude and $78^{\circ} 9' 18.396''$ E longitude of the earth's equator. Photograph of the Geographical location of industry is shown in Figure 1.

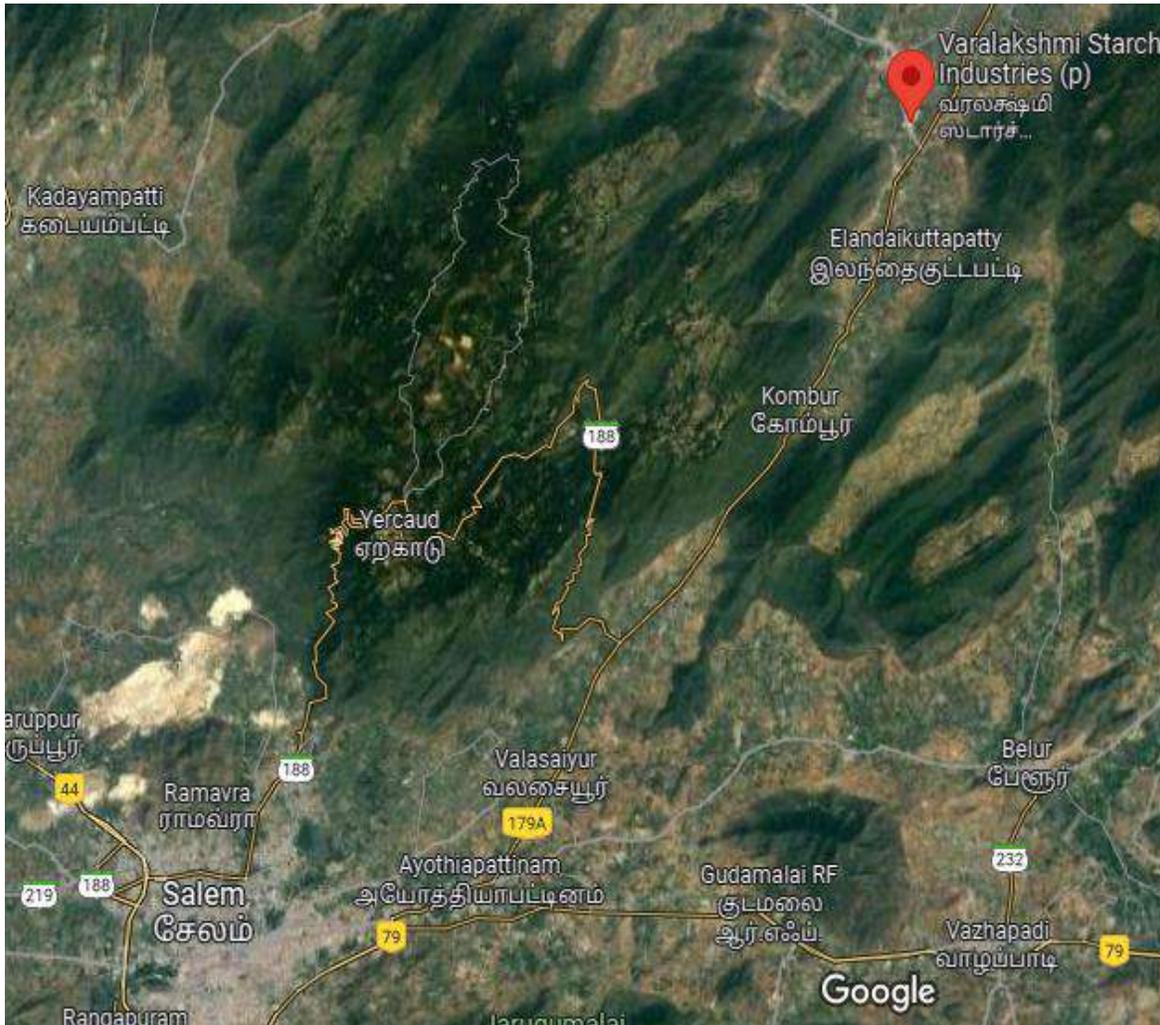


Figure 1 Aerial View of Varalakshmi Starch Industry (Source: Google)

2.1 MANUFACTURING PROCESS AT VARALAKSHMI STARCH INDUSTRY

2.1.1 MANUFACTURING PROCESS OF TAPIOCA STARCH

The manufacturing process flow diagram for Tapioca starch and sago is represented in Figure 2. The extraction of starch from tapioca is a process of separating starch granules from the tuber in their pure form. The granules are locked in cells together with other constituents of the protoplasm (proteins, soluble carbohydrates, fats, etc.,) and can only be removed by a purification process in the aqueous phase without any additives. The roots of tapioca should be processed within 48 hours after harvesting. The essential factor in the production of food grade tapioca starch is that the whole process, from harvesting the roots to completion of the final drying, should be carried out in the shortest time possible since deterioration sets in from the time of root extraction and proceeds throughout the process.

Fresh Tapioca Tuber Arrival & Dry Peeling (Cleaning)

Fresh tapioca tubers received at the factory are passed through a dry peeler, which removes the outermost skin and all soil particles adhering to the Tapioca tubers. This dry peeling and pre-cleaning not only improve the quality of the end product but also reduce the consumption of water in the washing process, thereby reducing the load on ETP to a large extent (Sand and Mud 95% removed).

Wet Washing of Tubers

The pre-cleaned tapioca tubers are peeled and washed in an automatic washer using clarified water obtained from the Decanter.

Chopping & Rasping

Washed tapioca tubers are fed into a chopper and chopped into small bits. This initial chopping reduces the load on the rasps as well as now the water requirement in the rasping process, as the Tapioca tubers are fed into the rasps for rasping in a disintegrated form, requiring less water for crushing.

The finely chopped tapioca tubers are fed into rasps, where they are crushed into a fine slurry. The SO₂ solution (not more than 80 ppm) is added through the column to prevent bacterial growth. The rasps used in the process employ modern technology using serrated, high-tensile

rasper blades. By using this method, the requirement for water is brought down considerably, as the rasper blades used here can crush the tapioca tubers into fine slurry with less water. The raspers are so designed that they can crush the tapioca tubers into micro particles, so that the Tapioca starch recovery will be high. The water usage will also be low, so the load on the decanters at the next stage of manufacturing will be reduced.

Decanting

The Fine slurry from the raspers is then fed into the high speed Centrifugal Decanters for removal of the impure fruit water from the fine slurry. This fruit water is then used as process water in the earlier stage for washing of the Tapioca tubers. This stage is introduced in the manufacturing process to reduce the washing load on the subsequent washing stage thereby leading to reduction of water consumption.

Extraction

Finely decanted tapioca slurry is passed through pulp extractors where the pulp (Thippi) is extracted from the tapioca slurry by adopting centrifugal separation method. The pulp separated here is passed through belt press where most of the remaining water from the tapioca pulp (Thippi) is removed. The tapioca pulp which comes out of the belt press is of semi solid consistency with 50-55% water.

Multistage Hydrocyclone washing

The tapioca starch milk obtained in the previous section is passed through separators which remove the 50% process water from the starch milk employing centrifugal principle. Tapioca starch milk coming out of these multistage hydrocyclone is further refined and concentrated in multi-stage hydrocyclones. In this stage, the entire impurity is removed and 70% water and 30% starch is obtained.

Centrifugal Separator

The fibre removed slurry have 5-8% matured starch, 0.1-0.2% partially matured starch and 92-94% water. The centrifugal separator removes around 50-60% process water which used for raw tapioca rasping and chopping.

Dehydrating

The concentrated tapioca starch milk is passed through centrifugal de-hydrators where water from the tapioca starch is removed by centrifugal method. The resultant wet tapioca starch will be in small lumps with about 35-40% moisture. The process water removed from the tapioca starch by de-hydrators is passed to Separators inlet (Step VI) to recover escaped tapioca starch particles.

Starch drying & Sieving

The lumps of wet tapioca starch obtained from the dehydrators are passed through a disintegrator to convert them into fine Tapioca starch powder. The powdery wet tapioca starch from the disintegrators is fed into flash dryers and dry the tapioca starch automatically using hot air generated from a hot air furnace, which is used to reduce the moisture in the finished tapioca starch to about 10%–12%.

Drying & Packing

The dried native tapioca starch powders obtained from the flash dryers is passed through feeder and sifters and gets bagged.

2.1.2 MANUFACTURING PROCESS OF TAPIOCA SAGO

The concentrated tapioca starch milk obtained in the Tapioca Starch manufacturing process is diverted for manufacturing of Tapioca Sago as follows.

De-hydrating

The concentrated tapioca starch milk is passed through centrifugal de-hydrators and Rotary drum Vacuum filters where water from the tapioca starch milk is removed. The resultant wet tapioca starch will be in small lumps with about 40 % moisture.

Sago balls making

The wet tapioca starch lumps are then made into wet Sago in the form of globules / pearls and sieved for the desired size.

Roasting

The sieved sago is roasted/boiled at high temperature in Thermic fluid oil heated Roasters.

Drying

The Roasted/Boiled Sago is dried in dryer to reduce moisture content to about 10-12%. Then the dried Sago is disintegrated to break the lumps and separate the Sago pearls.

Sieving & Packing

After disintegration the sago is sieved to remove powder and un-sized sago and then the Sago is packed.

The process flow diagram for the manufacture of Tapioca Starch and Tapioca

Sago

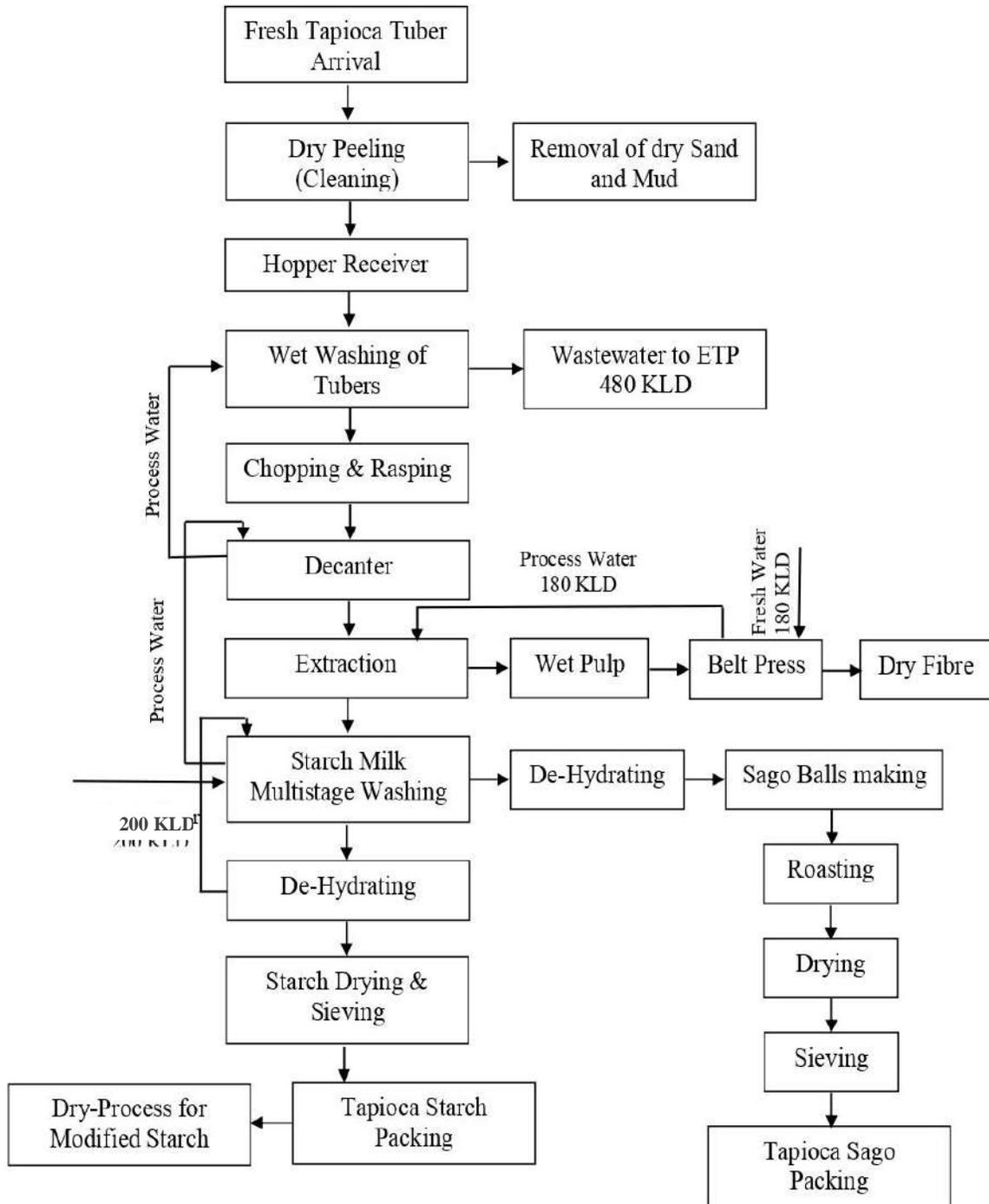


Figure 2 Manufacturing Process Flow Diagram of Tapioca starch and sago

Tube Receiver



Dry Peeler



Hopper Receiver



Root Washer



Receiver



Separator



Decanter**Centrifuge****Dryer****Packing****Figure 3 Manufacturing Process of Tapioca starch and sago**

2.1.3 MANUFACTURING PROCESS OF MAIZE STARCH

The manufacturing process flow diagram of Maize starch is represented in Figure 4.

Unloading and Cleaning

Raw Maize received from farmers is unloaded and it is cleaned to remove solid impurities like cob, chaffs, sand and other undesirable foreign matter. The solid waste items and packing material are returned to the farmers and then cleaned maize is taken for process or stored into silos.

Maize Steeping

The cleaned maize is softened by steeping process by using recycled process water for duration of 40 to 60 hours at a temperature of 48 to 52 degree Celsius. In this process the maize absorbs water and become soft to enable easy separation of Germ. After steeping, the water from the steeping tanks is fed into biomethanation reactors to produce biogas and to reduce the BOD and COD in the effluent.

Pre-Milling and Germ Separation

The softened maize is subjected to coarse grinding/pre-milling where the maize is coarsely ground to release the germs without damaging them. As the germ is much light in density than the broken maize kernels, the germ is easily separated by using cyclones. The germ coming out of germ separating cyclones sent to dewatering section where the water from the germ is separated and sent back for steeping processing. The wet germ from the germ separation section is then dried in a germ drier and sold as a byproduct to Oil expellers for extraction of Corn Oil.

Fine Milling and Fiber Separation

The coarsely ground maize kernels free from germs are then ground through impact mill, finally to liberate maize slurry containing fiber, starch and gluten. The fiber is removed from the slurry by (Dutch State Mines) DSM Screens. The fiber thus removed is sent to fiber de-watering section where the free water from the wet fiber is removed and recycled into steeping processing. The fiber after reducing of water is either sold in wet condition or dried and sold as a byproduct for use as cattle feed.

Gluten Separation

The mixture of Gluten and Starch slurry free from fiber and germ is sent to primary Gluten Separator. Here the Gluten is of lower density than starch and so gluten slurry and starch slurry both

are separated. The gluten slurry separated in this section is sent to Gluten concentrator (Gluten Thickening Separator) and concentration section where the excess water is removed from the Gluten and the water recycled into steeping process. The concentrated Gluten cake from vacuum belt filter is sent to Gluten drying section where it is dried as a byproduct for poultry feed use.

Starch Slurry Washing and Dewatering

The starch milk after releasing the gluten is then thoroughly washed with the help of fresh water through 12 stage Hydro cyclones. After washing, the process water is removed from the starch milk and the water is recycled into milling section processing.

Starch Dewatering

The concentrated starch milk (Starch 40% and Water 60%) is passed through De-Hydrating Centrifuge for reducing moisture content upto 35% - 40%. The outlet water contains small portion of starch and it is recycled to starch slurry dewatering section.

Starch Drying

The wet starch /starch cake with 35-40% water obtained from dewatering section is then dried in flash drier by using hot air. The dry starch with 10-12% moisture obtained from the starch drier is sieved and then fine starch powder is packed and sold as finished product.

The Process flow diagram for the manufacture of Maize Starch

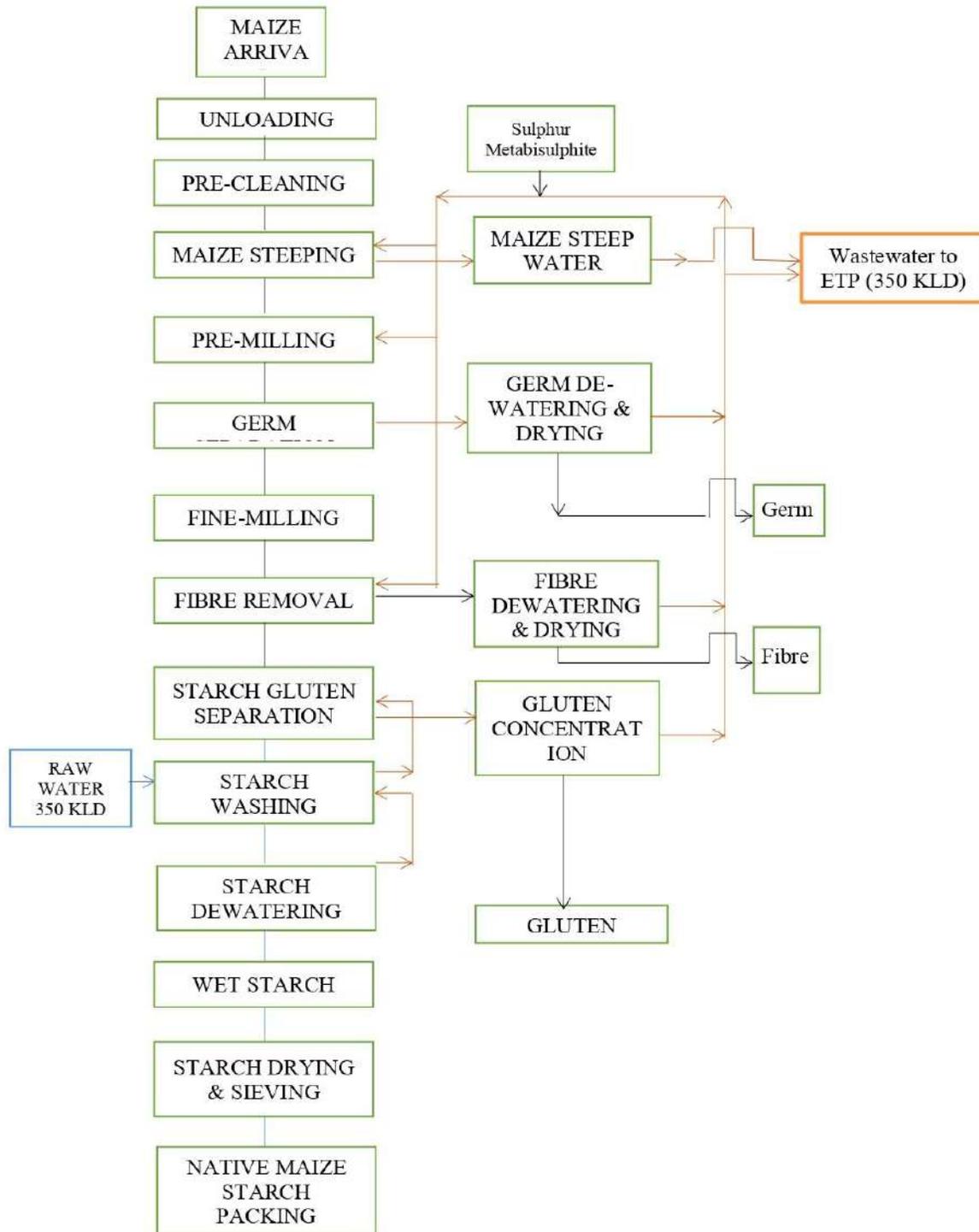


Figure 4 Manufacturing Process Flow Diagram of Maize starch

3.0 VARALAKSHMI STARCH ETP –SCENARIO

3.1 ETP TREATMENT PROCESS DESCRIPTION-CURRENT STATUS

The existing and proposed tertiary treatment process flow diagram of ETP is presented in Figures 5 and 6. Effluent treatment plant (ETP) comprises of a four-stage process such as primary treatment, secondary treatment, tertiary treatment and sludge management. The existing systems are Collection tank, Overhead equalization tank, Hybrid Upward Flow Sludge Media Anaerobic Reactor (HUSMAR), Anaerobic lagoons, Diffused Aerators, Surface Aerators, Primary settling tanks, Clarifier, Filter press, Rotary vacuum filter and Sludge trying beds. The proposed systems are Diffused aeration tank, Settling tank and submerged MBR system. The ETP layout is presented in Figure 7. The ETP Treatment unit details are presented in Table 1.

Table 1 Treatment Units Details

S.No	Treatment Units	Nos.	Dimensions	Capacity
Existing System				
Primary Treatment				
1	Collection tank	1	3.4 m×1.2 m×1.6 m	500 m ³
2	Overhead Equalization tank	1	304 m×2.6 m×1.0 m	
3	Hybrid Upward Flow Sludge Media Anaerobic Reactor (HUSMAR)	6	15.0 m dia.×16.0 m ht. (each)	2000 m ³ (each)
Secondary Treatment				
4	Anaerobic lagoons	2	30.0 m×15.0 m×3.5 m (each)	
5	Diffused Aerators	4	10.0 m dia.×3.0 m ht. (each)	400 m ³ (each)
6	Surface Aerators	4	10.0 m dia.×3.0 m ht. (each)	400 m ³ (each)
7	Primary settling tanks	2	15.0 m×6.0 m×3.0 m (each)	
8	Clarifier	1	23.30 m dia.×4.2 m ht.	
Sludge Management				
9	Filter Press	2	5.25 m×0.98 m	
10	Rotary vacuum filter	1	2.50 m dia.×3.25 m length	
11	Sludge drying beds	5	10.18 m×15.24 m×1.10 m	
Proposed System				
Tertiary Treatment				
12	Diffused aeration tank	1	5.70 m×14.25m×4.40 m	
13	Settling tank	1	4.50 m×14.25m×4.40 m	
14	Submerged MBR System			
	MBR Tank	2	3.20 m×9.30 m×4.40 m	
	MBR Settling tank	2	3.20 m×4.50 m×4.40 m	
	MBR Permeate tank	2	3.20 m×4.50 m×4.40 m	

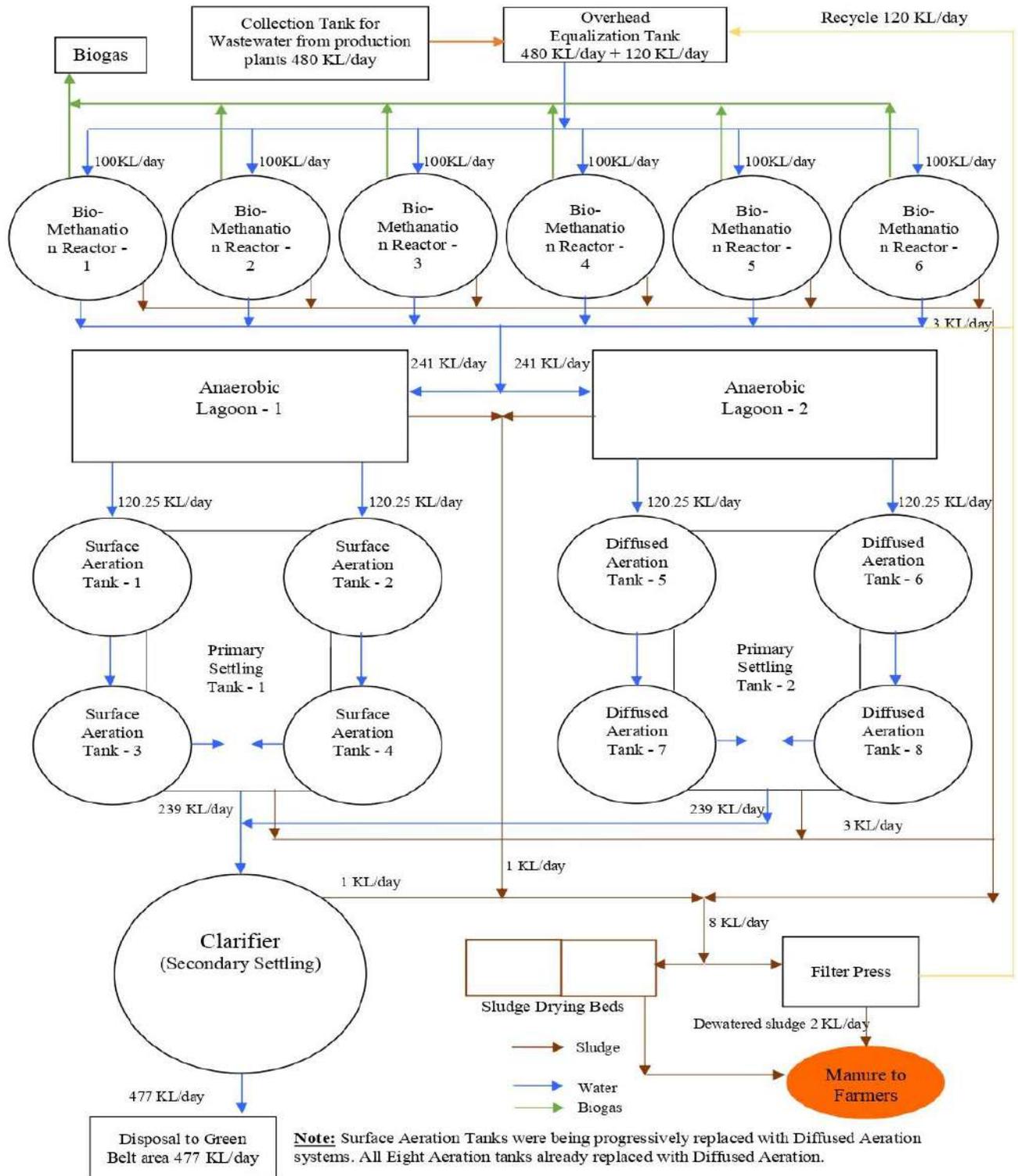


Figure 5 Treatment Process Flow diagram (Existing system)

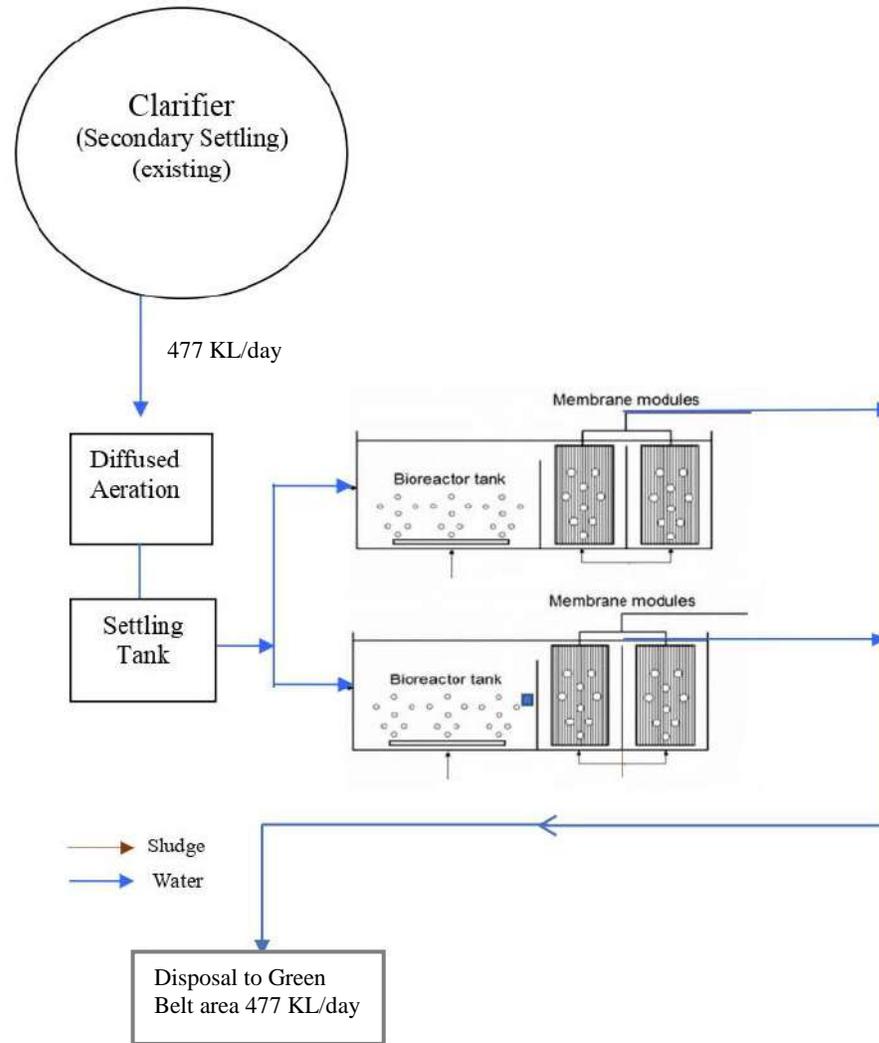


Figure 6 Tertiary Treatment Process Flow diagram (Proposed system)

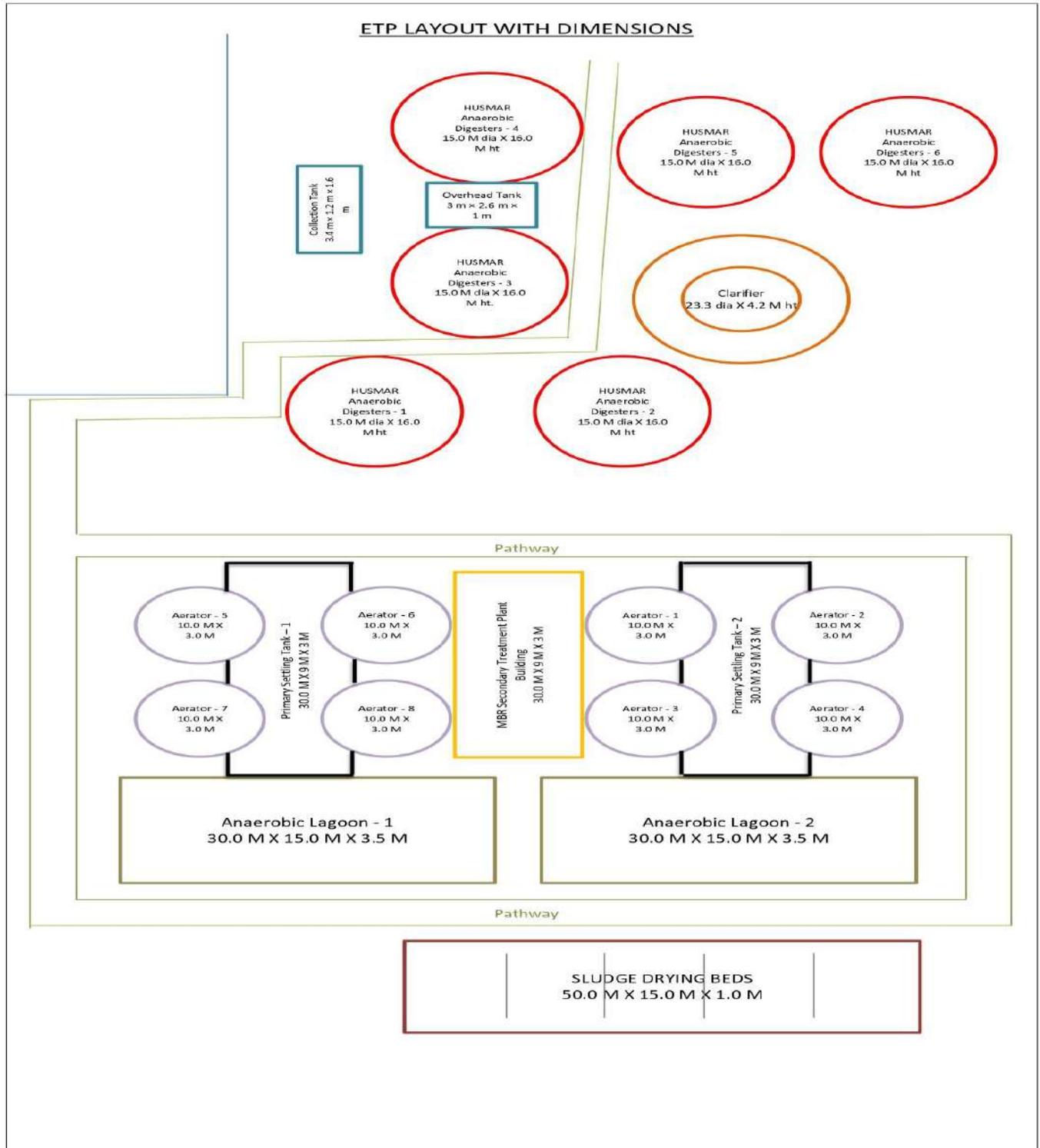


Figure 7 Plant layout

3.1.1 PRIMARY TREATMENT

High-Rate Bio-Methanation Plant

The effluent generated in the ETP from the processing of agricultural materials are organic and biodegradable where the effluent actually serves as a raw material for generation of highly valuable fuel namely Biogas which is used as a fuel for heat and power generation. Higher the reduction of COD and BOD in the effluent treatment process will lead to higher quantum of Biogas generation as use of Biogas leads to huge savings in operation of the industry through replacement of costly coal and power. Accordingly this industry is converting the wastewater into valuable byproduct as renewable energy.

Anaerobic Technology is best suited for treatment of wastewater containing organic matters. It is clean, environment friendly and highly efficient technology. It requires very low operating & maintenance costs, less land area and lesser power requirement for operation. In anaerobic treatment process, the wastewater is passed through a reactor where fermentation of organic matters takes place in the presence of acidogenic and methanogenic bacteria resulting in the formation of methane rich biogas as the end product. The biogas can be utilized for power generation due to its fairly higher energy content and thermal application depending upon the requirement. Anaerobic digestion is the step for wise conversion of large molecules of organic compounds into Methane and Carbon Dioxide by bacteria in the absence of free oxygen. This process is carried out in an airtight reactor. Wastewater introduced continuously or intermittently into the reactor is retained for varying periods of time. The stabilized wastewater is withdrawn continuously or intermittently from the reactor, which is reduced in organic and pathogen content and non-putrescible. The characteristics of the starch-processed wastewater were analyzed and anaerobic Treatment through High Rate Biomethanation Process was decided as the technically and economically viable method.

Hybrid Upward Flow Sludge Media Anaerobic Reactor (HUSMAR) Process

The HUSMAR Process is a combination of the UASB and the Upflow Fixed Film (UFF) reactors. This development is an improved evolution as it combines the strong process attributes of the UASB and Fixed Film Technologies System (extensive surface area for holding live bacteria) and minimizes the shortcomings of these systems. The HUSMAR is a cylindrical vessel. The lowermost 20-30 % of the volume is the UASB portion where a flocculent and / or granular sludge develops. Most of the organic stabilization occurs in this sludge bed. The uppermost 50 - 60 % of

the volume is the UFF section and remaining area of 20-30% for gas holder. Depending on the physical, chemical & biological properties of the effluent and the conditions of biochemical interactions prevailing in the HUSMAR, the gas composition is observed to vary. The Low heat content of gas is estimated to be about 5000 Kcal/m³. Typical analysis of the gas composition generated from Tapioca starch and Maize starch effluents with HUSMAR is presented in the Table 2.

Table 2 Composition of Biogas from HUSMAR

S.No	Constituent Gas	Volumetric composition
1	Methane, CH ₄	50-65%
2	Carbon-dioxide CO ₂	34-49%
3	Hydrogen Sulphide H ₂ S	0.5-1%

A total of six numbers of Bio-Methanation Plants (Anaerobic Digesters - each 2,000 m³ volume) serve dual purpose of treating the wastewater as well as to generate Biogas (waste to energy). These Digesters were put up in 3 phases, 2 digesters in the year 2002 as first of its kind Demonstration projects under United Nations Development Program (UNDP) and after being successful, 2 digesters in the year 2007 and the last 2 digesters in the year 2012 were further installed. In this stage itself, the BOD and COD are reduced and Biogas (50 – 65 % Methane) is generated and used for electric power generation and heat applications. The anaerobic digesters in primary treatment are presented in Figures 8 and 9.



Figure 8 Anaerobic digester

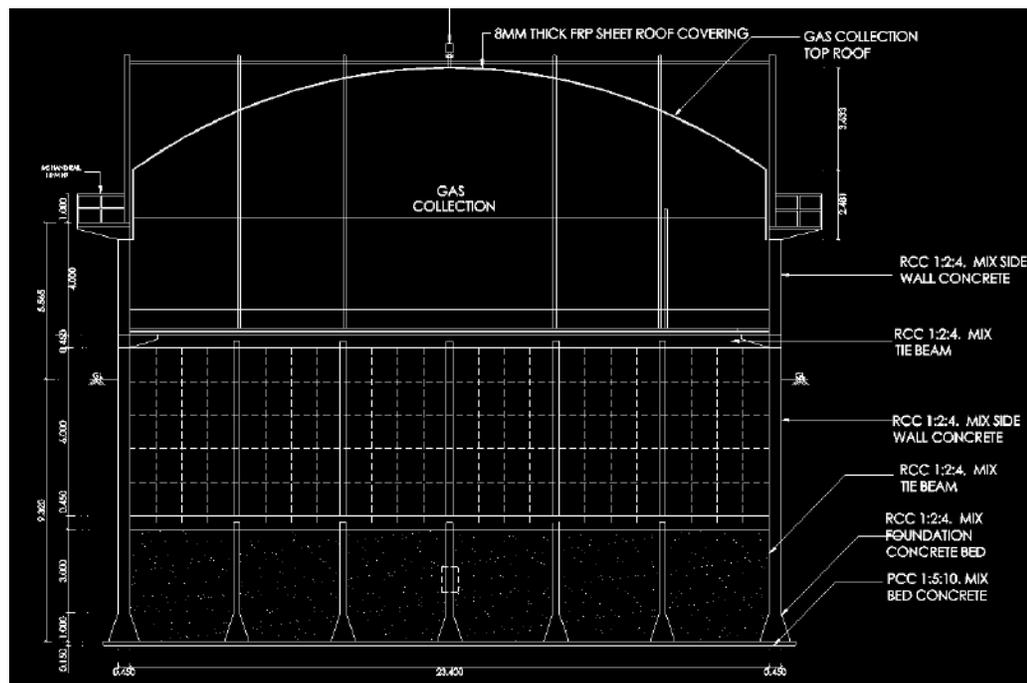


Figure 9 Anaerobic digester design

3.1.2 SECONDARY TREATMENT

Aeration and Clarification Process

After the primary treatment, the near wholly treated effluent is then subjected to Aerobic treatment in 4 nos. of Diffused aeration system and 4 nos. of surface aeration system each with a volumetric capacity of 400 m³ and the sludge in the treated effluent is allowed to settle in Settling Tanks before it sent to the Clarifier. The alum is added in clarifier inlet to enhance the treatment performance. The aeration and settling tanks are represented in Figure 10.



Figure 10 Aeration and Settling tanks

3.1.3 TERTIARY TREATMENT (PROPOSED)

Membrane Bioreactor Technology (MBR)

Membrane bioreactor (MBR) is a combination of membrane processes like microfiltration or ultrafiltration with a biological wastewater treatment process, the activated sludge process. In the submerged membrane bioreactor (SMBR), the membrane is located inside the biological reactor, submerged in the wastewater. MBR processes can produce effluent of high enough quality for discharge into the sea, oceans, or waterways for usage in urban irrigation. Two MBR configurations exist: internal/submerged, where the membranes are immersed in and integral to the biological

reactor; and external/side stream, where membranes are a separate unit process requiring an intermediate pumping step.

The submerged configuration adopted in the ETP. Here, the filtration element is installed in the main bioreactor vessel. The modules are positioned above the aeration system, fulfilling two functions, the supply of oxygen and the cleaning of the membranes. The membranes are tubular and incorporates an online backwash system which reduces membrane surface fouling by pumping membrane permeate back through the membrane. Immersed MBR has been the preferred configuration due to its low energy consumption level, high biodegradation efficiency, and low fouling rate compared to side stream membrane bioreactors. Due to the high number of microorganisms in MBRs, better degradation is achieved in comparison to the conventional process. The industry has expanded the ETP by installing the Membrane Bioreactor (MBR) technology to enhance the treatment efficiency and meet the standards for treated wastewater reuse. The proposed Membrane Bioreactor (MBR) module is presented in Figure 11.



Figure 11 Membrane Bioreactor (MBR) Module

Specifications of MBR

Membrane Specifications

Membrane Type	:	Gemini -U
Membrane Material	:	Reinforced PVDF (Poly vinylidene difluoride)
Membrane fiber ID/OD	:	ID:1.0mm /OD:2.0mm
Nominal Pore Size	:	0.02 μ m
Membrane Type	:	Immersed
Membrane configuration	:	Hollow fiber outside -in
Max Extraction pressure	:	60 kPa
Max operation temperature	:	40°C
pH resistant range	:	1~13
Membrane area module	:	31m ² each
Membrane module size (LxWxH)	:	2122x 721x 70 (mm) each

Cassette Specifications

Cassette Model	:	Gemini –U26
Module per cassette	:	26 Pcs x 6 nos
Membrane Area per cassette	:	806 m ² x 6 = 4836 m ²

MBR Design criteria

S.No	Parameter	Inlet	Outlet
1	pH	7 .0- 8.0	> 8.0
2	TSS	100 – 1000 mg/L	< 1 mg/L
3	BOD	100 – 300 mg/L	< 100 mg/L
4	COD	200 – 1000 mg/L	< 200

3.1.4 SLUDGE MANAGEMENT

Filter Press and Drying Beds

The Sludge is removed from the Anaerobic Digesters, Anaerobic lagoon and Settling Tanks. The sludge is dewatered in Rotary Drum Vacuum Filters / Filter Presses and then the dewatered wet sludge is dried in Sludge Drying Beds. The dried sludge is given to farmers supplying Tapioca to the unit as manure. The sludge drying beds is shown in Figure 12.



Figure 12 Sludge drying beds

4.0 STATUS AND OBSERVATION OF VARALAKSHMI STARCH ETP

The monitoring data of the ETP for the quality of effluents from different units of treatment plant was carried out on 24th February 2022 by CES team. The onsite measurement data of ETP is presented in Table 3. The collected ETP samples are presented in Figure 13. The field visit photos of treatment units in ETP are shown in Figure 14 (a-h). The parameters of the collected effluent samples analyzed by CES are presented in Table 4. In ETP, the color of the raw effluent was recorded as 2.63 m⁻¹, 2.99 m⁻¹, 3.51 m⁻¹ at 436 nm, 526 nm and 620 nm respectively and the colour of treated effluent from clarifier was observed to be 2.21 m⁻¹, 3.14 m⁻¹, 4.36 m⁻¹ at 436 nm, 526 nm and 620 nm respectively. The pH of the effluent was varied from 5.2 to 8.6 at the clarifier outlet.

The TDS of the raw effluent was found to be 12150 mg/L. After Anaerobic treatment, TDS was reduced to 4650 mg/L and reduced to 4450 mg/L in aerobic treatment. The TDS was decreased to 1650 mg/L in clarifier outlet, which are within the permissible limit given by TNPCB (TDS – 2100 mg/L). Total suspended Solids (TSS) present in the raw effluent was found to be 7200 mg/L and the TSS was reduced to 1100 mg/L in anaerobic treatment. After Aerobic treatment, the TSS was reduced to 550 mg/L and almost complete TSS reduction was achieved in clarifier which is within the permissible limit given by TNPCB (TSS – 100 mg/L).

The organic removal in terms of COD & BOD was analyzed and the obtained data demonstrated that the COD of the raw effluent was found to be 3516 mg/L. During the anaerobic treatment process, COD was reduced to 330 mg/L and the COD was reduced to 95 mg/L at clarifier tank. The BOD concentrations at collection tank and clarifier outlet were observed to be 3800 mg/L and 30 mg/L. From the results, the organics are within the permissible limit given by TNPCB (COD – 250 mg/L, BOD – 30 mg/L). From this, the organic removal was found to be 97.3% of COD and 99% of BOD.

The total hardness, calcium hardness and magnesium hardness of raw effluent were observed to be 1200 mg/L, 200 mg/L and 1000 mg/L respectively. The total hardness, calcium hardness and magnesium hardness of treated effluent were observed to be 370 mg/L, 60 mg/L and 310 mg/L respectively. The concentration of chlorides present in the raw effluent was observed as 253 mg/L and it was reduced to 160 mg/L, which is less than permissible limit (1000 mg/L). The concentration of the sulphates in the raw effluent found to be 546 mg/L and it was decreased to 54 mg/L, which is less than permissible limit (1000 mg/L).

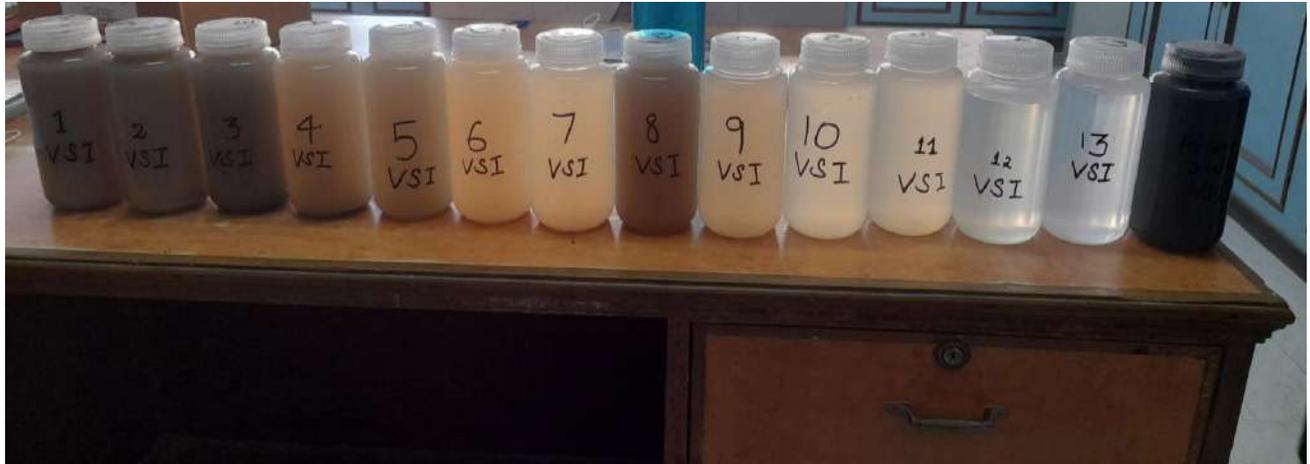


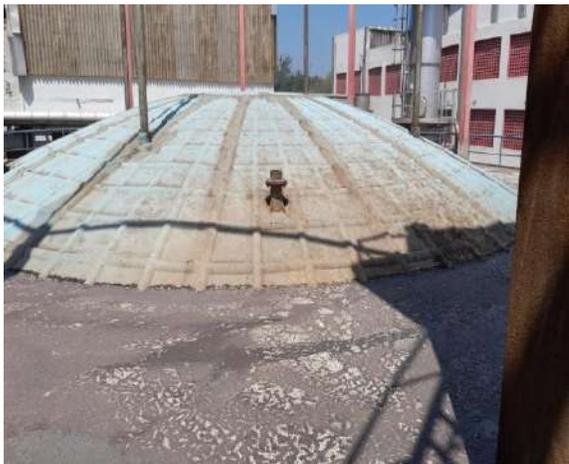
Figure 13 Samples collected from ETP on 24.02.2023



(a) Collection Tank



(b) Overhead Equalization Tank



(c) Anaerobic Digester



(d) Anaerobic lagoons



(e) Diffused Aeration tank



(f) Surface Aeration Tank



(g) Clarifier



(h) Treated effluent discharge area



(h) Proposed MBR System

Figure 14 (a-h) Treatment units of ETP on 24.02.2023

Table 3 Onsite Measurement Data for ETP Samples on 24.02.2023

Parameter	Hourly Measurement	1 Collection Tank	2 Equalization Tank	3 Anaerobic digester Outlet	4 Anaerobic lagoons 1 Outlet	5 Anaerobic lagoons 2 Outlet	6 Diffused Aeration Tank 1 Outlet	7 Diffused Aeration Tank 2 Outlet
pH	1	5.64		7.56	7.81	7.73	7.79	8.29
	2	6.37	6.37	7.63	7.82	7.81	7.94	8.47
	3	6.53		7.75	7.94	8.03	8.12	8.53
	COMPOSITE	6.50		7.40	8.29	8.33	8.48	8.76
EC (µS/cm)	1	3035		1200	1410	8015	4376	5376
	2	4437	4437	6609	6852	6430	5593	5593
	3	4307		5990	6430	6430	5553	5553
	COMPOSITE	4220		5887	6202	6202	5420	5420
TDS (mg/L)	1	1517		600	705	407	2188	2688
	2	2219	2219	3305	3426	3215	2797	2797
	3	2154		2995	3215	3215	2710	2777
	COMPOSITE	2110		2944	3101	2710	2710	2710

Table 3 Continued

Parameter	Hourly Measurement	8 Surface Aeration Tank Outlet	9 Primary settling Tank Outlet	10 Clarifier Outlet	11 Treated Water for Irrigation	12 Pond Water	13 Ground water	14 Sludge dewatering outlet
pH	1	8.27	8.15	8.49	8.56	8.72	8.31	8.39
	2	8.42	8.13	8.61				
	3	8.55	8.28	8.66				
	COMPOSITE	8.78	8.62	8.95				
EC ($\mu\text{S}/\text{cm}$)	1	5050	5376	2912	2753	899	375	5464
	2	5936	2218	3065				
	3	5050	1992	2455				
	COMPOSITE	5050	3210	2664				
TDS (mg/L)	1	2525	2688	1456	1377	450	188	2732
	2	2968	1109	1533				
	3	2525	996	1228				
	COMPOSITE	2525	1605	1332				

Table 4 Characteristics of ETP Samples on 24.02.2023

S.No	Parameters	Unit	1 Collection Tank	2 Equalization Tank	3 Anaerobic digester Outlet	4 Anaerobic lagoons 1 Outlet	5 Anaerobic lagoons 2 Outlet	6 Diffused Aeration Tank 1 Outlet	7 Diffused Aeration Tank 2 Outlet
1	pH		5.2	5.3	7.7	8.1	8	8.2	8.4
2	EC	μS/cm	2230	2150	2980	3060	3120	2690	2660
3	TS	mg/L	20000	18700	5800	5050	5750	6250	4600
4	TDS	mg/L	12150	11050	4650	4650	4000	4600	4450
5	TSS	mg/L	7200	7250	3650	1300	1100	600	550
6	BOD	mg/L	3800	3400	370	260	330	290	190
7	COD	mg/L	3516	2698	1697	1063	1022	1124	654
8	Color (436 nm)	m ⁻¹	2.63	2.59	2.51	2.42	2.52	2.32	2.28
9	Color (526 nm)	m ⁻¹	2.99	3.06	3.02	3.04	2.99	3.11	3.11
10	Color (620 nm)	m ⁻¹	3.51	3.49	3.70	3.88	3.72	4.05	4.15
11	Total Hardness	mg/L	1200	1040	680	600	560	660	660
12	Calcium Hardness	mg/L	200	560	500	320	480	140	330
13	Magnesium Hardness	mg/L	1000	480	180	280	80	520	330
14	Chlorides	mg/L	253	337	295	270	312	278	262
15	Sulphates	mg/L	546	616	76	63	58	99	0
16	Silica	mg/L	1456	1676	1097	1206	897	1002	534
17	MLSS	mg/L	ND	ND	ND	ND	ND	800	ND
18	SVI	mL/g	ND	ND	ND	ND	ND	62.5	ND

Table 4 Continued

S.No	Parameters	Unit	8 Surface Aeration Tank Outlet	9 Primary settling Tank Outlet	10 Clarifier Outlet	11 Treated Water for Irrigation	12 Pond Water	13 Ground water	14 Sludge dewatering outlet
1	pH		8.5	8	8.6	8.4	8.6	7.6	8.2
2	EC	µS/cm	2620	1630	1050	988	427	190	2700
3	TS	mg/L	4750	3200	1850	1650	600	150	4750
4	TDS	mg/L	4400	2750	1650	1300	750	200	5450
5	TSS	mg/L	1600	250	0	100	0	0	1150
6	BOD	mg/L	240	160	30	54	48	9	180
7	COD	mg/L	818	593	95	172	0	4	981
8	Color (436 nm)	m ⁻¹	2.41	2.31	2.21	2.89	0	2.33	2.33
9	Color (526 nm)	m ⁻¹	3.06	3.08	3.14	3.08	0	3.18	3.11
10	Color (620 nm)	m ⁻¹	3.87	4.12	4.36	4.19	0	3.89	4.02
11	Total Hardness	mg/L	540	370	320	320	230	20	540
12	Calcium Hardness	mg/L	520	60	110	80	90	10	500
13	Magnesium Hardness	mg/L	20	310	210	240	140	10	40
14	Chlorides	mg/L	287	186	160	152	110	46	270
15	Sulphates	mg/L	49	5	54	28	21	3	53
16	Silica	mg/L	800	563	636	522	317	146	1935
17	MLSS	mg/L	1400	ND	ND	ND	ND	ND	ND
18	SVI	mL/g	35.7	ND	ND	ND	ND	ND	ND

The primary and secondary sludge characteristics are presented in Table 5. The pH and EC of sludge were observed to be 7.9 and 23800 $\mu\text{S}/\text{cm}$ respectively. The TSS and TDS of sludge were observed to be 280 mg/g and mg/g respectively. The moisture content of sludge was observed to be 91.65%. The Chlorides, sulphates and soluble silica of sludge were observed to be 253 mg/g, 80 mg/g and 146 mg/g respectively.

Table 5 Characteristics of Sludge on 24.03.2023

S.No	Parameters	Units	Value
1	pH		7.9
2	EC	$\mu\text{S}/\text{cm}$	23800
3	TSS	mg/g	280
4	TDS	mg/g	4833
5	Moisture content	%	91.65
6	Chlorides	mg/g	253
7	Sulphates	mg/g	80
8	Soluble silica	mg/g	146

Table 6 Characteristics of ETP Samples during February 2021- September 2022

Parameters	February 2021		March 2021		November 2021	December 2021			February 2022	March 2022		
	Inlet	Outlet	Inlet	Outlet	Outlet	Inlet	Anaerobic reactor	Outlet	Outlet	Inlet	Anaerobic reactor	Outlet
pH	3.83	7.85	4.03	7.38	7.18	4.19	6.33	7.36	6.65	2.46	6.11	6.24
TSS (mg/L)	2000	260	392	220	156	2612	1340	884	124	1212	564	264
TDS (mg/L)	4868	1952	4128	2944	1072	7080	1032	2332	916	4156	4256	916
Chloride (mg/L)	325	160	250	130	120	400	230	220	75	500	550	105
Sulphate (mg/L)	209	24	211	31	28	17	105	15	5	34	62	7
BOD (mg/L)	2400	315	2500	75	66	2400	660	180	115	4000	525	144
COD (mg/L)	11040	960	19840	592	368	14560	4000	752	504	25200	3520	600

Parameters	May 2022			July 2022			August 2022				September 2022		
	Inlet	Anaerobic reactor	Outlet	Inlet	Anaerobic reactor	Outlet	Inlet	Anaerobic reactor	Aeration Outlet	Outlet	Inlet	Anaerobic reactor	Outlet
pH	3.76	6.14	6.48	4.88	7.45	7.24	4.60	7.52	7.82	7.80	4.53	7.55	7.64
TSS (mg/L)	2860	860	196	2652	1184	124	1200	140	800	32	2600	460	24
TDS (mg/L)	18576	3344	1192	1704	2372	824	1620	2448	2024	1672	628	2988	664
Chloride (mg/L)	7498	450	165	445	490	173	325	450	450	290	260	725	150
Sulphate (mg/L)	162	111	22	74	70	23	157	24	46	32	5	39	5
BOD (mg/L)	9300	225	70	5250	1800	115	3900	145	108	30	168	168	8.7
COD (mg/L)	36400	1520	256	19200	14800	496	12600	1504	912	224	1440	1440	72

5.0 ELECTROMAGNETIC FLOW METER READINGS

The electromagnetic flow meter is used to measure the inlet and outlet flow of effluent in ETP. The electromagnetic flow meter for ETP inlet is shown in Figure 15. The flow meter reading was observed to be 195 m³ in 24.02.2023.



Figure 15 Electromagnetic flow meter in ETP inlet

The flow meter readings data for January 2022 is presented in Table 7. From the table, the minimum and maximum flow was observed to be 80 m³ and 480 m³ respectively. Total flow was observed to be 12115 m³ in ETP.

Table 7 Flow Meter Readings for January 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	5853	6328	475
2	6328	6808	480
3	6808	7283	475
4	7283	7723	440
5	7723	8168	445
6	8168	8630	462
7	8630	9095	465
8	9095	9563	468
9	9563	10028	465
10	10028	10498	470
11	10498	10968	470
12	10968	11436	468
13	11436	11901	465
14	11901	12366	465
15	12366	12366	0
16	12366	12366	0
17	12366	12446	80
18	12446	12446	0
19	12446	12546	100
20	12546	12834	288
21	12834	13304	470
22	13304	13769	465
23	13769	14237	468
24	14237	14702	465
25	14702	15167	465
26	15167	15637	470
27	15637	16107	470
28	16107	16572	465
29	16572	17034	462
30	17034	17502	468
31	17502	17968	466
Total			12115

The flow meter readings data for February 2022 is presented in Table 8. From the table, the minimum and maximum flow were observed to be 380 m³ and 474 m³ respectively. Total flow was observed to be 12807 m³ in ETP.

Table 8 Flow Meter Readings for February 2022

Days	Initial Reading in m³	Final Reading in m³	Inlet Flow in m³
1	17968	18435	467
2	18435	18900	465
3	18900	19368	468
4	19368	19832	464
5	19832	20297	465
6	20297	20763	466
7	20763	21230	467
8	21230	21695	465
9	21695	22155	460
10	22155	22617	462
11	22617	23080	463
12	23080	23524	444
13	23524	23960	436
14	23960	24342	382
15	24342	24814	472
16	24814	25287	473
17	25287	25759	472
18	25759	26237	478
19	26237	26713	476
20	26713	27190	477
21	27190	27656	466
22	27656	28096	440
23	28096	28566	470
24	28566	29038	472
25	29038	29448	410
26	29448	29922	474
27	29922	30395	473
28	30395	30775	380
Total			12807

The flow meter readings data for March 2022 is presented in Table 9. From the table, the minimum and maximum flow were observed to be 110 m³ and 477 m³ respectively. Total flow was observed to be 9354 m³ in ETP.

Table 9 Flow Meter Readings for March 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	30775	31135	360
2	31135	31517	383
3	31517	31748	231
4	31748	32015	267
5	32015	32485	470
6	32485	32885	400
7	32885	33175	290
8	33175	33652	477
9	33652	33959	307
10	33959	34279	320
11	34279	34549	270
12	34549	34795	246
13	34795	35104	309
14	35104	35304	200
15	35304	35544	240
16	35544	35979	435
17	35979	36309	330
18	36309	36639	330
19	36639	36804	165
20	36804	37046	242
21	37046	37386	340
22	37386	37706	320
23	37706	38176	470
24	38176	38641	465
25	38641	39101	460
26	39101	39431	330
27	39431	39621	190
28	39621	39756	135
29	39756	39866	110
30	39866	39997	131
31	39997	40128	131
Total			9354

The flow meter readings data for April 2022 is presented in Table 10. From the table, the minimum and maximum flow were observed to be 140 m³ and 210 m³ respectively. Total flow was observed to be 5218 m³ in ETP.

Table 10 Flow Meter Readings for April 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	40128	40320	200
2	40320	40478	150
3	40478	40688	210
4	40688	40888	200
5	40888	41088	200
6	41088	41238	150
7	41238	41398	160
8	41398	41558	160
9	41558	41708	150
10	41708	41848	140
11	41848	42008	160
12	42008	42183	175
13	42183	42361	178
14	42361	42541	180
15	42541	42691	150
16	42691	42831	140
17	42831	42981	150
18	42981	43141	160
19	43141	43311	170
20	43311	43471	160
21	43471	43641	170
22	43641	43821	180
23	43821	43981	160
24	43981	44146	165
25	44146	44316	170
26	44316	44516	200
27	44516	44716	210
28	44716	44926	210
29	44926	45126	200
30	45126	45336	210
Total			5218

The flow meter readings data for May 2022 is presented in Table 11. From the table, the minimum and maximum flow were observed to be 35 m³ and 285 m³ respectively. Total flow was observed to be 3210 m³ in ETP.

Table 11 Flow Meter Readings for May 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	45336	45336	0
2	45336	45536	200
3	45536	45737	201
4	45737	45772	35
5	45772	45964	192
6	45964	46149	285
7	46149	46184	35
8	46184	46351	167
9	46351	46386	35
10	46386	46561	175
11	46561	46671	110
12	46671	46808	137
13	46808	46943	135
14	46943	47108	165
15	47108	47143	35
16	47143	47178	35
17	47178	47208	30
18	47208	47248	40
19	47248	47288	40
20	47288	47324	36
21	47324	47364	40
22	47364	47400	36
23	47400	47435	35
24	47435	47475	40
25	47475	47671	196
26	47671	47720	49
27	47720	47773	53
28	47773	47978	205
29	47978	48034	56
30	48034	48247	207
31	48247	48556	205
Total			3210

The flow meter readings data for June 2022 is presented in Table 12. From the table, the minimum and maximum flow were observed to be 45 m³ and 215 m³ respectively. Total flow was observed to be 3826 m³ in ETP.

Table 12 Flow Meter Readings for June 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	48446	48616	170
2	48616	48768	152
3	48768	48918	150
4	48918	49129	211
5	49129	49274	145
6	49274	49444	170
7	49444	49489	45
8	49489	49649	160
9	49649	49824	175
10	49824	49870	46
11	49870	50072	202
12	50072	50247	175
13	50247	50412	165
14	50412	50557	145
15	50557	50692	135
16	50692	50872	180
17	50872	51077	215
18	51077	51232	145
19	51232	51387	155
20	51387	51552	165
21	51552	51704	152
22	51704	51876	172
23	51876	51976	100
24	51976	51976	0
25	51976	52081	105
26	52081	52081	0
27	52081	52081	0
28	52081	52187	106
29	52187	52187	0
30	52187	52272	85
Total			3826

The flow meter readings data for July 2022 is presented in Table 13. From the table, the minimum and maximum flow were observed to be 25 m³ and 125 m³ respectively. Total flow was observed to be 1018 m³ in ETP.

Table 13 Flow Meter Readings for July 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	52272	52302	30
2	52302	52336	34
3	52336	52366	30
4	52366	52400	34
5	52400	52434	34
6	52434	52463	29
7	52463	52488	25
8	52488	52521	33
9	52521	52551	30
10	52551	52581	30
11	52581	52611	30
12	52611	52736	125
13	52736	52762	26
14	52762	52788	26
15	52788	52815	27
16	52815	52915	100
17	52915	52940	25
18	52940	53020	80
19	53020	53100	80
20	53100	53190	90
21	53190	53190	0
22	53190	53260	70
23	53260	53260	0
24	53260	53260	0
25	53260	53260	0
26	53260	53260	0
27	53260	53260	0
28	53260	53260	0
29	53260	53260	0
30	53260	53260	0
31	53260	53290	30
Total			1018

The flow meter readings data for August 2022 is presented in Table 14. From the table, the minimum and maximum flow were observed to be 13 m³ and 192 m³ respectively. Total flow was observed to be 1315 m³ in ETP.

Table 14 Flow Meter Readings for August 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	53290	53290	0
2	53290	53310	20
3	53310	53310	0
4	53310	53380	70
5	53380	53393	13
6	53393	53403	10
7	53403	53473	70
8	53473	53528	55
9	53528	53583	55
10	53583	53638	55
11	53638	53683	45
12	53683	53733	50
13	53733	53773	40
14	53773	53808	35
15	53808	53843	35
16	53843	53883	40
17	53883	53933	50
18	53933	53983	55
19	53983	54041	58
20	54041	54101	60
21	54101	54141	40
22	54141	54183	42
23	54183	54201	18
24	54201	54237	36
25	54237	54274	37
26	54274	54300	26
27	54300	54356	56
28	54356	54356	0
29	54356	54408	52
30	54408	54600	192
31	54600	54600	0
Total			1315

The flow meter readings data for September 2022 is presented in Table 15. From the table, the minimum and maximum flow were observed to be 3 m³ and 192 m³ respectively. Total flow was observed to be 2224 m³ in ETP.

Table 15 Flow Meter Readings for September 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	54600	54740	140
2	54740	54897	157
3	54897	55072	175
4	55072	55264	192
5	55264	55412	148
6	55412	55604	192
7	55604	55761	157
8	55761	55936	175
9	55936	56119	183
10	56119	56285	166
11	56285	56442	157
12	56442	56547	105
13	56547	56552	0
14	56552	56555	5
15	56555	56555	3
16	56555	56555	0
17	56555	56555	0
18	56555	56555	0
19	56555	56555	0
20	56555	56571	16
21	56571	56606	35
22	56606	56636	30
23	56636	56651	15
24	56651	56683	32
25	56683	56683	0
26	56683	56718	35
27	56718	56745	27
28	56745	56775	30
29	56775	56788	13
30	56788	56824	36
Total			2224

The flow meter readings data for October 2022 is presented in Table 16. From the table, the minimum and maximum flow were observed to be 16 m³ and 192 m³ respectively. Total flow was observed to be 732 m³ in ETP.

Table 16 Flow Meter Readings for October 2022

Days	Initial Reading in m³	Final Reading in m³	Flow in m³
1	56824	56854	30
2	56854	56854	0
3	56854	56870	16
4	56870	56902	32
5	56902	56902	0
6	56902	56932	20
7	56932	56957	25
8	56957	56957	0
9	56957	57149	192
10	57149	57306	157
11	57306	57481	175
12	57481	57566	85
13	57566	57566	0
14	57566	57566	0
15	57566	57566	0
16	57566	57566	0
17	57566	57566	0
18	57566	57566	0
19	57566	57566	0
20	57566	57566	0
21	57566	57566	0
22	57566	57566	0
23	57566	57566	0
24	57566	57566	0
25	57566	57566	0
26	57566	57566	0
27	57566	57566	0
28	57566	57566	0
29	57566	57566	0
30	57566	57566	0
31	57566	57566	0
Total			732

The power consumption data for ETP during January 2022 to October 2022 is presented in Table 17. From the table, the maximum power consumption was observed in February 2022 and the minimum power consumption was observed in June 2022.

Table 17 Monthly Power consumption data during January 2022 – October 2022

Days	January	February	March	April	May	June	July	August	September	October
	Power consumed, kW									
1	1617	1615	1575	795	0	170	751	0	772	731
2	1620	1614	1582	776	795	152	752	747	778	0
3	1617	1615	1526	800	795	150	751	0	785	726
4	1605	1614	1540	795	733	211	752	746	792	732
5	1606	1615	1618	795	792	145	752	724	775	0
6	1613	1614	1590	776	789	170	750	723	792	731
7	1615	1615	1548	779	733	45	749	746	778	729
8	1613	1614	1618	779	782	160	752	741	785	0
9	1615	1612	1555	776	733	175	751	741	788	792
10	1615	1612	1558	770	785	46	751	741	782	778
11	1616	1613	1540	779	761	202	751	736	778	785
12	1613	1603	1532	783	771	175	786	738	759	751
13	1620	1603	1557	785	770	165	749	735	0	0
14	1618	1583	1528	788	780	145	749	733	721	0
15	0	1617	1530	776	733	135	749	733	721	0
16	0	1616	1603	770	733	180	777	735	0	0
17	1470	1615	1560	776	731	215	749	739	0	0
18	0	1619	1560	779	735	145	770	740	0	0
19	1477	1618	1501	780	735	155	770	741	0	0
20	1548	1618	1530	779	733	165	773	742	726	0
21	1615	1614	1567	780	735	152	0	735	733	0
22	1613	1605	1560	788	733	172	766	736	731	0
23	1615	1618	1618	779	733	100	0	727	725	0
24	1614	1618	1614	772	735	0	0	734	732	0
25	1614	1593	1610	780	790	105	0	734	0	0
26	1618	1617	1560	795	738	0	0	730	733	0
27	1618	1618	1511	796	739	0	0	741	730	0
28	1614	1582	770	797	796	106	0	0	731	0
29	1614	1615	761	795	739	0	0	739	724	0
30	1615	1615	769	796	796	85	0	792	733	0
31	1615	1615	770	0	796	0	751	0	0	0
Total	44863	49955	45261	23514	22749	3826	16651	19949	18104	6755

6.0 GREEN BELT AREA

The total green belt area is 15.41 Hectares. The treated wastewater of 477 KLD is discharged in this green belt area. The soil types in the irrigated lands are Clay Soil and Gravel Soil and available plants are Seemai Karuvelam, Creepers and Grass. The layout of green belt is shown in Figure 16. The total green belt area utilized for treated effluent discharge is presented in Table 18. The green belt photos of Varalakshmi starch is presented in Figure 17.

Table 18 Utilization of land for Treated effluent discharge

Land for Greenbelt for disposing treated wastewater			
Village Name	Patta No.	Survey No.	Extent in Hectares
Pappiredipatty	206	75/2	0.95.00
Alamelupuram	18	125/1D	0.49.50
	18	125/2B	0.33.50
	18	125/3B	0.03.50
	18	128/2C	0.30.50
	18	128/5	0.14.50
	25	121/2A	1.26.50
	25	121/2B	0.76.00
	25	125/1A	2.44.00
	25	125/1C1	0.55.00
	25	125/1C2	0.07.00
	25	125/2A	0.16.50
	25	125/3A1	0.19.00
	25	125/3A2	0.04.00
	25	128/2A	0.84.00
	25	128/2B	0.36.00
	25	128/3A	0.13.50
	25	128/3B	0.14.00
	25	130/7	0.16.00
	37	128/1	0.50.00
	37	129/1	1.47.50
	37	129/2	0.68.50
	37	129/3	1.15.50
	37	130/1	0.32.00
	37	130/5	1.51.00
	37	130/6	0.11.50
Total			15.410

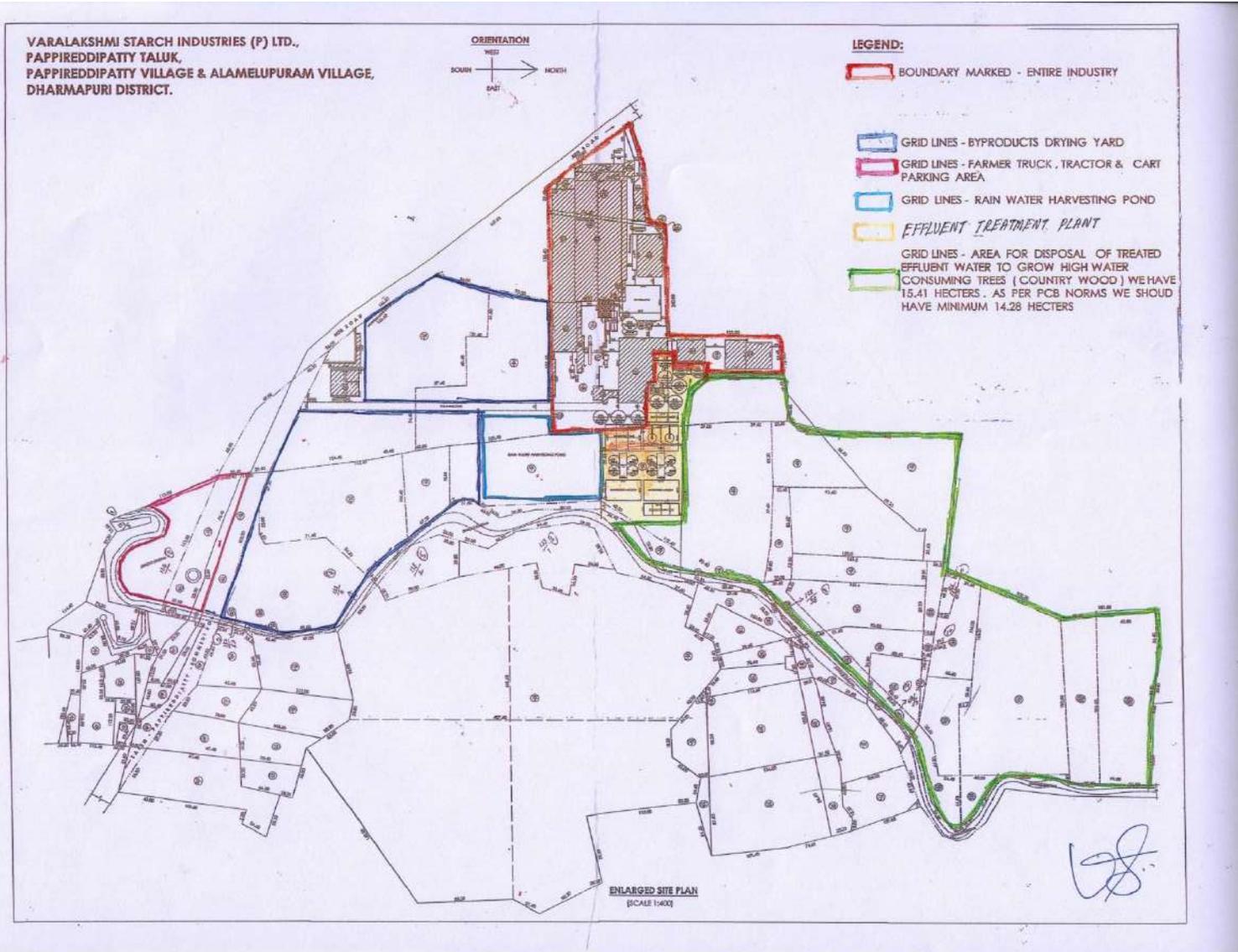


Figure 16 Green belt Area Layout



Figure 17 Green belt photos

7.0 SAFETY MEASURES

- PPE's such as Safety Boots, Safety Goggles, Rubber Gloves, Clothing, Safety Belts, First Aid Box, Fire extinguishers and Protective masks are provided to Personnel working in the ETP.
- The wastewater generated is 100% organic and biodegradable and non-hazardous.
- Therefore the needs for special safety measures are not required.

8.0 SUMMARY

M/s Varalakshmi Starch Industries Pvt Ltd. has requested the Centre for Environmental studies, Anna University, Chennai to carry out a design adequacy report for existing Effluent Treatment Plant on 19th September 2022. Varalakshmi Starch Effluent treatment plant has the capacity of 500 KLD for treating effluent from the manufacturing process of Tapioca starch, sago and maize starch. The water sources for starch production process are rainwater harvesting pond, wells and borewells. Varalakshmi Starch ETP proposed a MBR system for efficient solids and organic removal. By adopting this technique, the quality of treated effluent is expected to be meeting the reuse purposes. The overall performance analysis of ETP effluent shows that there is 100% colour removal. TDS concentration of effluent was reduced from 12150 mg/L to 1650 mg/L. TSS was found to be 7200 mg/L in the raw effluent and the almost complete TSS reduction achieved in clarifier. During the treatment process, COD of the raw effluent was reduced from 3516 mg/L to 95 mg/L at clarifier outlet and BOD concentration of raw effluent was reduced from 3800 mg/L to 30 mg/L at treated effluent. From the analysis results, the BOD and COD removal efficiencies were found to be 99% and 97.3% in the Effluent treatment plant.

Varalakshmi Starch industry used the Bio-methanation plants to treat the industrial effluent as well as to generate Biogas which is utilised for Power generation as well as for industrial heating replacing Furnace Oil and Coal. Biogas generation and Fresh water consumption records are not maintained by the industry. The industrial effluent is treated with anaerobic digestors to generate Biogas and the treated wastewater of 477 KLD is discharged in their own irrigated greenbelt lands of 15.41 Hectares. The land application of treated effluent is 30.7 m³/d/ha, which is within the limit of standards. Biogas is used for Thermal application in the Boiler and Thermic Fluid Heaters as a substitute for Coal as well used for Power generation by using Biogas fuelled Gensets. The generated sludge is disposed as manure to the Tapioca supplying farmers. The generation of byproduct (thippi) from tapioca starch manufacturing is dried in the sunlight and stored in bags. And the stored thippi is supplied for cattle feed manufacturing. Based on process design furnished and analysis results, the effluent treatment plant with 500 KLD capacity proposed with MBR technology is expected to meet the discharge and reuse standards.

8.1 CONCLUSION

The performance study of the existing ETP in Varalakshmi Starch was evaluated by the CES Team based on field visit on 24th February 2023, and also CES team monitored and reviewed records maintained by the industry. The industry itself is regularly monitoring the performance of all the treatment units. The discharge of treated effluent into the land is found to be within the discharge limits. It may be concluded that all the treatment units as envisaged in the process flow diagram was implemented in the ETP except MBR system. The following observations were made during the period of field visit.

- The MBR system is not commissioned in the Varalakshmi starch ETP.
- After secondary treatment, the treated wastewater is directly discharged into the irrigation land.
- The chemical and biological sludge are not properly separated and treated.
- The quantity of sludge generation records is not maintained by the industry.
- The biogas generation, consumption and power generation data are not maintained by the industry.
- The flow meter is only installed in the inlet of Effluent treatment plant.
- The piezometric wells are not provided by the industry for ground water monitoring.
- The proper infrastructure facilities are not available in the industry for storage of byproducts.
- The hydraulic flow diagram is not available for the treatment systems.

Hence, it is concluded that Varalakshmi starch ETP industry is needed to commission the MBR treatment system for reusing of treated water to avoid contamination of surrounding environment. The industry is needed to provide proper infrastructure facilities for the storage and handling of by products. The industry is required to ensure appropriate safety systems and measures as proposed to avoid accidents and emergencies.

8.2 RECOMMENDATIONS

By observation of the Effluent Treatment Plant at Varalakshmi Starch, the CES is recommending the following inputs to be adopted by the industry.

- The industry is recommended to carry out the analysis of samples from all treatment units at regular intervals in order to study the performance of each operation and process.
- The presence of sulphur dioxide concentration in starch product shall monitor regularly before packing and ensure that it is within the limits of FSSAI standards.
- The industry is suggested to monitor the treated effluent parameters regularly and ensure that the all parameters are within the limit of discharge standards before which is discharged into the irrigation land.
- Hydraulic flow diagram for Effluent Treatment Plant should be prepared.
- The industry is recommended to adopt treated water reuse against discharging of treated water into the land.
- The industry shall conduct water and wastewater audit and groundwater quality study and also check the stability of the ETP.
- The industry shall provide piezometric wells in green belt area to monitor the ground water quality regularly.
- The industry shall develop the greenbelt area of 33% with local species plants as per CPCB guidelines.
- The industry is suggested to complete the MBR technology installation works for achieving effluent quality reuse standards.
- The proper infrastructure facilities shall provide for storage and handling of Thippi.
- The ETP is suggested to install the electromagnetic flow meters in inlet and outlet and check the water balance regularly.
- Biogas generation, power generation and sludge generation records should be maintained.
- Fresh water consumption and Biogas consumption records should be maintained.
- The sludge withdrawal rate of biological treatment system should be regulated so as to retain mean cell residence time in the range of 25-50 days.
- The chemical and biological sludge handling and treatment should be properly managed.

- The ETP should be operated by quality personnel and records should be maintained to establish sustained performance.
- Proper protective equipment should be given to the personnel involved in the cleaning of treatment units.
- The industry needs to implement measures to improve the Health, Safety and Environmental aspects in their unit, to the satisfactory level and practice all the mandatory safety systems, so as to protect the safety of workers and the environment.
- It is also recommended that the TNPCB shall periodically monitor the performance of the key treatment processes of the ETP and verify the monitoring and measurement being carried out by the ETP.


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ANNEXURE I
DESIGN REPORT

DESIGN FOR 500 KLD ETP

BASIS OF DESIGN			
DESIGN PARAMETER	DESIGN VALUE	UNIT	
Total Capacity of Plant	500	m ³ /day	
Operating Hours Per Day (Working Hours)	24	Hrs	
Total Average Flow rate	20.8	m ³ /hr	
Peak Factor Considered	1.5		
Peak flow rate	31	m ³ /day	
CHARACTERISTICS OF TRADE EFFLUENT			
Biological Oxygen Demand, BOD	5000	mg/L	
Total Dissolved Solids, TDS	5000	mg/L	
Total Suspended Solids, TSS	7500	mg/L	
pH	3.8 - 4.5		
1 COLLECTION TANK			
Design Flow rate	20.8	m ³ /hr	
Volume of Tank	6.5	m³	
Side Water Depth (SWD)	1.6	m	
Free Board (FB)	0.4	m	
Area of Tank	4.06	m ²	
Total Height of Tank	2	m	
Detention time	0.31	hr	
Number of tanks	1	No	
Provided size of tank	3.4 x 1.2 x 2.0	m	
2 OVERHEAD EQUALIZATION TANK			
Design Flow rate	20.8	m ³ /hr	
Volume of Tank	8	m³	
Side Water Depth (SWD)	1	m	
Free Board (FB)	0.5	m	
Area of Tank	7.80	m ²	
Total Height of Tank	1.50	m	
Detention time	0.37	hr	
Number of tanks	1	No	
Provided size of tank	3.0 x 2.6 x 1.5	m	

3	ANAEROBIC HUSMAR DIGESTERS		
	Design Flow rate	500	m ³ /day
	Operating Hours	24	Hrs
	Average Flow rate	20.8	m ³ /hr
	Yield Coefficient	0.58	kg VSS/kg BOD
	Decay Coefficient	0.05	per Day
	Inlet BOD	5000	mg/L
	Outlet BOD	1200	mg/L
	Removal Efficiency of BOD	76	%
	BOD Load	2500	kg/d
	BOD removal Load	1900	kg/d
	Hydraulic Retention Time Considered	15	Days
	Volume of Tank Based on HRT	7500	m³
	Volume of Tank provided	9600	m³
	Number of Tanks/Unit	6	Nos
	Volume of Each Tank	1600	m ³
	Side Water Depth (SWD)	13	m
	Free Board (FB)	0	m
	Area of Tank	755	m ²
	Total Height of Tank	13	m
	Number of Tanks	6	Nos
	Provided size of anaerobic round tank	12.5 x 13	m
4	ANAEROBIC LAGOON - 1		
	Design Flow rate	250	m ³ /day
	Operating Hours	24	Hrs
	Average Flow rate	10.4	m ³ /hr
	Yield Coefficient	0.58	kg VSS/kg BOD
	Decay Coefficient	0.05	per Day
	Inlet BOD	1200	mg/L
	Outlet BOD	450	mg/L
	Removal Efficiency of BOD	62.5	%
	BOD Load	300	kg/d
	BOD removal Load	187.5	kg/d
	Hydraulic Retention Time Considered	13	Days
	Volume of Tank Based on HRT	3250	m³
	Volume of Tank provided	4300	m³
	Side Water Depth (SWD)	3	m
	Free Board (FB)	0.3	m
	Area of Tank	1433.33	m ²

	Total Height of Tank	3.3	m
	Number of Tanks	1	No
	Provided size of tank	32 x 45 x 3.3	m
5	ANAEROBIC LAGOON - 2		
	Design Flow rate	250	m ³ /day
	Operating Hours	24	Hrs
	Average Flow rate	10.4	m ³ /hr
	Yield Coefficient	0.58	kg VSS/kg BOD
	Decay Coefficient	0.05	per Day
	Inlet BOD	1200	mg/L
	Outlet BOD	450	mg/L
	Removal Efficiency of BOD	62.5	%
	BOD Load	300	kg/d
	BOD removal Load	187.5	kg/d
	Hydraulic Retention Time Considered	13	Days
	Volume of Tank Based on HRT	3250	m³
	Volume of Tank provided	3650	m³
	Side Water Depth (SWD)	3	m
	Free Board (FB)	0.3	m
	Area of Tank	1216.67	m ²
	Total Height of Tank	3.3	m
	Number of Tanks	1	No
	Provided size of tank	32 x 38 x 3.3	m
6	AERATION TANKS		
	Design Flow rate	500	m ³ /day
	Operating Hours	24	Hrs
	Average Flow rate	20.8	m ³ /hr
	Sludge Age (15 - 25 Days)	25	Days
	Yield Coefficient	0.58	kg VSS/kg BOD
	Decay Coefficient	0.05	per Day
	Inlet BOD	450	mg/L
	Outlet BOD	70	mg/L
	Removal Efficiency of BOD	84.4%	
	BOD Load	225	kg/d
	BOD removal Load	190	kg/d
	Food/Micro Organisms, F/M ratio	0.12	
	Mixed Liquid Suspended Solids, MLSS	3500	mg/L
		3.5	g/L

Percentage of MLVSS/MLSS	60%	
Hydraulic Retention Time Considered	4	Days
Volume of Tank Based on HRT	2000	m³
Volume of Tank Based on F/M & MLSS	536	m³
Volume of Tank provided	2880	m ³
Volume Considered (Max Volume)	2880	m³
Number of Tanks/Unit	8	Nos
Volume of Each Tank	360	m ³
Side Water Depth (SWD)	3.2	m
Free Board (FB)	0.2	m
Area of Tank	346	m ²
Total Height of Tank	3.4	m
Number of Tanks	8	Nos
Provided size of each aeration tank	12 x 3.4	m
OPTION - I		
AIR REQUIREMENT FOR AERATION		
Average Flow rate	20.8	m ³ /hr
Max Inlet BOD	450	mg/L
Outlet BOD	70	mg/L
Oxygen required to remove BOD load	190	kg/day
	7.9	kg/hr
Oxygen Requirement	2	kg/kg of BOD
Total Oxygen required	15.83	kgs/hr
Density of Air	1.2	kg/m ³
% of Oxygen in air (23%)	0.23	
Alpha Factor	0.65	
Beta Factor	0.95	
Tolerance of Air Blower (95%)	0.95	
Oxygen Transfer Efficiency	0.2	
Air requirement for Aeration	489	m³/hr
Number of Tanks	8	Nos
OPTION - II		
AIR REQUIREMENT FOR AERATION		
Average Flow rate	20.8	m ³ /hr
Max Inlet BOD	450	mg/L
Outlet BOD	70	mg/L
Oxygen required to remove BOD load	190	kg/day
	7.9	kg/hr

Density of Air	1.201	kg/m ³
Oxygen Fraction in air (% by weight)	13	kg/m ³
Design Temperature	28	Deg C
Alpha Factor	0.65	
Beta Factor	0.95	
SOTE value for Diffusers	32	
Saturation value of DO at MSI at 27 Deg C	7.95	mg/L
Saturation value of DO at Field Conditions	7.31	mg/L
DO Saturation Concentration for Tap Water	9.08	mg/L
DO Saturation Concentration for Field Condition	10.13	mg/L
Standard DO for Sewage water at Field Conditions	8.16	mg/L
Minimum DO to be maintain in the Tank	2.00	mg/L
Value of Factor	1.015	
Field Oxygen Transfer Efficiency	18	%
Actual Oxygen required	44	kg/hr
Total Quantity of air required	340	kg/hr
Density of Air	1.201	kg/m ³
Total Quantity of air required	283	m ³ /hr
Tolerance of Air Blower (85%)	0.85	
Air requirement for Aeration	333	m³/hr
Air requirement for Aeration (Max)	489	m³/hr
AERATION SYSTEM (DIFFUSERS)		
Total Air requirement for tanks	489	m ³ /hr
Fine Bubble Diffusers volume	1.70	m ³ /hr
Total Diffusers provided	1184	Nos
Number of Tanks	8	Nos
Air blowers capacity provided for AT and EQT	2000	m³/hr
7 PRIMARY SETTLING TANKS		
Design Flow rate	500	m ³ /day
Design Flow rate	20.8	m ³ /hr
Volume of each Tank	1150	m³
Side Water Depth (SWD)	3	m
Free Board (FB)	0.4	m
Area of Tank	383.33	m ²
Total Height of Tank	3.40	m
Number of Tanks	2	No
Provided size of each tank	32 x 12 x 3.4	m

	RETURN SLUDGE TRANSFER PUMP		
	RAS Recycle ration	0.5	
	Return Sludge Transfer Pump Flow rate	10.4	m ³ /hr
	No of Pumps	2	Nos
8	CLARIFIER		
	Design Flow rate	500	m ³ /day
	Surface overflow rate	35	m ³ / m ² /day
	Area of tank required	14.3	m²
	Diameter of Tank	4.3	m
	Side Water Depth (SWD)	3	m
	Free Board (FB)	0.4	m
	Total Height of Tank	3.4	m
	Number of Tanks	1	No
	Area of Tank provided	69.9	m²
	Volume of Tank	209.7	m³
	Detention time	10.08	Hrs
	Provided size of tank	23.3 x 3	m
9	MEMBRANE BIOREACTOR (MBR) EXTENSION		
9A	DIFFUSED AERATION TANK		
	Design Flow rate	500	m ³ /day
	Operating Hours	24	Hrs
	Average Flow rate	20.8	m ³ /hr
	Sludge Age (15 - 25 Days)	25	Days
	Yield Coefficient	0.58	kg VSS/kg BOD
	Decay Coefficient	0.05	per Day
	Inlet BOD	70	mg/L
	Outlet BOD	20	mg/L
	Removal Efficiency of BOD	71.4	%
	BOD Load	35	kg/d
	BOD removal Load	25	kg/d
	Food/Micro Organisms, F/M ratio	0.12	
	Mixed Liquid Suspended Solids, MLSS	3500	mg/L
		3.5	g/L
	Percentage of MLVSS/MLSS	60%	
	Hydraulic Retention Time Considered	0.5	Days
	Volume of Tank Based on HRT	250	m ³
	Volume of Tank Based on F/M & MLSS	83	m ³

Volume of Tank provided	350	m ³
Volume Considered (Max Volume)	350	m³
Number of Tanks/Unit	1	Nos
Volume of Each Tank	350	m ³
Side Water Depth (SWD)	4.4	m
Free Board (FB)	0.2	m
Area of Tank	346	m ²
Total Height of Tank	4.6	m
Number of Tanks	1	Nos
Provided size of each aeration tank	14.25 X 5.7 X 4.6	m
OPTION - I		
AIR REQUIREMENT FOR AERATION		
Average Flow rate	20.8	m ³ /hr
Max Inlet BOD	70	mg/L
Outlet BOD	20	mg/L
Oxygen required to remove BOD load	25	kg/day
	1.0	kg/hr
Oxygen Requirement	2	kg/kg of BOD
Total Oxygen required	2.083	kgs/hr
Density of Air	1.2	Kg/m ³
% of Oxygen in air (23%)	0.23	
Alpha Factor	0.65	
Beta Factor	0.95	
Tolerance of Air Blower (95%)	0.95	
Oxygen Transfer Efficiency	0.2	
Air requirement for Aeration	64	m³/hr
Number of Tanks	1	No
OPTION - II		
AIR REQUIREMENT FOR AERATION		
Average Flow rate	20.8	m ³ /hr
Max Inlet BOD	70	mg/L
Outlet BOD	20	mg/L
Oxygen required to remove BOD load	25	kg/day
	1.5	kg/hr
Density of Air	1.201	kg/m ³
Oxygen Fraction in air (% by weight)	13	kg/m ³
Design Temperature	28	Deg C
Alpha Factor	0.65	

	Beta Factor	0.95	
	SOTE value for Diffusers	32	
	Saturation value of DO at MSI at 27 Deg C	7.95	mg/L
	Saturation value of DO at Field Conditions	7.31	mg/L
	DO Saturation Concentration for Tap Water	9.08	mg/L
	DO Saturation Concentration for Field Condition	10.13	mg/L
	Standard DO for Sewage water at Field Conditions	8.16	mg/L
	Minimum DO to be maintain in the Tank	2.00	mg/L
	Value of Factor	1.015	
	Field Oxygen Transfer Efficiency	18	%
	Actual Oxygen required	6	kg/hr
	Total Quantity of air required	45	kg/hr
	Density of Air	1.201	kg/m ³
	Total Quantity of air required	37	m ³ /hr
	Tolerance of Air Blower (85%)	0.85	
	Air requirement for Aeration	44	m³/hr
	Air requirement for Aeration (Max)	64	m³/hr
	AERATION SYSTEM (DIFFUSERS)		
	Total Air requirement for tanks	64	m ³ /hr
	Fine Bubble Diffusers volume	1.70	m ³ /hr
	Total Diffusers provided	125	Nos
	Number of Tanks	1	Nos
	Air blowers capacity provided for AT and EQT	500	m³/hr
9B	SETTLING TANK		
	Design Flow rate	500	m ³ /day
	Design Flow rate	20.8	m ³ /hr
	Volume of Tank	280	m³
	Side Water Depth (SWD)	4.4	m
	Free Board (FB)	0.2	m
	Area of Tank	63.64	m ²
	Total Height of Tank	4.60	m
	Number of Tanks	1	No
	Provided size of each tank	14.25 X 4.5 X 4.6	m
9C	MBR SUBMERSIBLE TANK		
	Design Flow rate	500	m ³ /day
	Average Flow rate	20.8	m ³ /hr
	Volume of Tank	130	m³

	Side Water Depth (SWD)	4.4	m
	Free Board (FB)	0.2	m
	Area of Tank	29.55	m ²
	Total Height of Tank	4.60	m
	Number of Tanks	1	No
	Provided size of each tank	9.3 X 3.2 X 4.6	m
	Membrane Module Type		
	Number of Membrane Cassette	6	No
	Number of Membrane Modules per Cassette	26	Nos
	Membrane area per module	31	m²
	Total Membrane Area per cassette	806	m²
	Membrane Material		
	Membrane fiber ID	1.0	mm
	Membrane fiber OD	2.0	mm
	Nominal Pore Size	0.02	µm
	Membrane Type		
	Membrane configuration		
	Max Extraction pressure	60	kPa
	Max operation temperature	40	Deg c
	Membrane module size	2.1 x 0.7 x 0.07	m
	Each Cassette Dimension	2.1 x 0.8 x 2.5	m
9D	SETTLING TANK		
	Design Flow rate	500	m ³ /day
	Design Flow rate	20.8	m ³ /hr
	Volume of Tank	120	m³
	Side Water Depth (SWD)	4.4	m
	Free Board (FB)	0.2	m
	Area of Tank	27.27	m ²
	Total Height of Tank	4.60	m
	Number of Tanks	2	No
	Provided size of each tank	4.5 x 3.2 x 4.6	m
9E	PERMEATE TANK		
	Design Flow rate	500	m ³ /day
	Average Flow rate	20.8	m ³ /hr
	Volume of Tank	120	m³
	Side Water Depth (SWD)	4.4	m
	Free Board (FB)	0.2	m
	Area of Tank	27.27	m ²

	Total Height of Tank	4.60	m
	Detention Time	5.8	Hrs
	Number of Tanks	2	Nos
	Provided size of each tank	4.5 x 3.2 x 4.6	m
10	Sludge Drying Beds		
	BOD Load	2500	kg/d
	Sludge produced (30% of BOD load)	750	kg/day
	Sludge consistency	1.0	%
	Sludge generated	75	m ³ /day
	Sludge height	0.8	m
	Area required	93.75	m²
	Area provided	154.7	m²
	Number of beds	5	Nos
	Provided Size of beds	10.18 × 15.24 × 1.10	m

ANNEXURE II
STANNDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURE EFFLUENT TREATMENT PLANT

OBJECTIVE / SCOPE

To ensure that the trade effluent from the Production unit is being treated, managed, and maintained in the ETP.

RESPONSIBILITY

Operation / Maintenance Personnel

SAFETY INFORMATION

All necessary protective clothing must be worn as required during operation and maintenance.

- Safety Footwear
- Gloves
- Headgear (when required)
- Safety Goggles (when required)
- Uniforms are to be always worn on company property.

PROCEDURE

EFFLUENT TREATMENT PLANT (ETP) MANAGEMENT

1. Collect the trade effluent in collection tank and pump to the Overhead equalization tank. Ensure the operating pump is in operation and the standby spare pumps are ready for operation.
2. The effluent from the Overhead equalization tank is to be equally distributed to all the six Anaerobic Digesters for Anaerobic biological bacterial treatment which degrades organic matter present in the effluent and reduced COD and BOD from the effluent in turn generating renewable Biogas fuel.
3. Ensure that the Methane containing Biogas generated in each Anaerobic Digester are conveyed by Blowers either for Thermal use or Power Generation.
4. Ensure that the partly treated effluent from the Anaerobic Digesters are fed evenly to the two Anaerobic Lagoons for further biological bacterial treatment for reduction of further COD and BOD.
5. From the Anaerobic Lagoons, ensure the partly treated effluent is fed equally to the downstream eight Aeration Tanks for Aerobic bacterial treatment where biological culture

is developed which degrades organic matter present in the effluent and reduced COD and BOD from the effluent.

6. Carry out aeration by positive displacement air blowers by means of diffused aeration. Monitor the Dissolved Oxygen level using ORP sensor, MLSS and Sludge Volume. Required quantity of RAS is to be circulated back to the Aeration Tanks for maintenance of bacterial load.
7. The partly treated effluent from the Aeration tanks are to be allowed in the subsequent Primary settling tanks from where sludge is to be allowed to settle by gravity and then drained from the bottom of the settling tank to the sludge beds.
8. Allow the partly treated effluent to be clarified in the secondary clarifier and sediment from clarifier to be sent to sludge bed.
9. Before clarification, dosage of Alum / Ferrous sulphate is to be added in a flocculation tank. Make up flocculant mix in dosing tank and feed to the flocculation tank.
10. The treated wastewater from the clarifier is then disposed to the greenbelt maintained within the unit.
11. Monitor the quality and flow through the ETP and effluent discharge and adjust the plant equipment accordingly.
12. Keep the Effluent plant area in a tidy condition.
13. Report any faults to the Plant Manager.
14. Effluent sample to be collect once per day once plant has been running. Sample is to be taken in a bottle which can be obtained from the lab. Sample then to go to the laboratory for testing.

PRE-OPERATIONAL CHECKING

1. Check the requisite materials in the First Aid Box and ensure the expiry period.
2. Check the refilling time or expiry of fire extinguishers.
3. Check for any broken parts or damage in equipments and if found then inform to the supervisor immediately.
4. Check the moving parts with covers or guards in position.
5. Be careful while stepping to see the effluent level in the treatment tanks.
6. Carefully walk over the platforms of the Digesters, Aeration tanks and Clarifier.
7. If see any leakage from any ETP treatment systems or pipeline, then make immediate

arrangement for stopping and reporting the same.

8. Ensure that areas, such as chemical mixing room, pump room and electrical control room and ETP surroundings are properly lighted and safe to work.

HOUSEKEEPING / CLEANING

1. ETP plant area to be cleanly maintained.
2. ETP plant area to be cleaned weekly.
3. Supplies and materials those used at the ETP plant should be stored in a neat and orderly manner.
4. Extraneous materials not in use shall be cleared from operational areas.
5. Avoid the floors to be slippery due to water or aqueous solutions.
6. Other areas around the effluent treatment plant to be kept tidy by removing any rubbish and removal of weeds.

ENVIRONMENTAL ASPECTS

1. The company accepts an obligation to comply with all relevant environmental legislation, and statutory requirements.
2. The company regards the protection of the environment, and the prevention of pollution, as a mutual objective between management, employees, and all other interested parties.

226
From: CES Anna University <directorcesau@gmail.com>
Date: 8 July 2023 at 9:31:02 AM IST
To: vsilmd <vsilmd@gmail.com>, "JMD @ Varalakshmi Starch"
<jmd@varalakshmistarch.com>
Cc: deedmp@tnpcb.gov.in
Subject: Varalakshmi Starch Report Cancelled - Reg

Dear Sir,

Greetings!

With reference to the ces report released on 29.05.2023. I hereby inform you the report Stands cancelled and it couldn't be submitted further to TNPCB or court. Because there are some scientific interpretations which is in need to be carried out with respect to the TDS removal happening in your system. Based on the discussion with TNPCB authorities, it is hereby informed you that another trial would be carried out at your plant once you make all arrangements. If there are any extra charges from Anna University side, we also would calculate and would inform to you.

Looking forward for field trial at your unit and requesting you to propose your convenient date for Conducting the field study.

Thank you

Kind regards

Dr.S.Kanmani
Professor & Director
Centre for Environmental Studies
Anna University
Chennai-600 025

From: Anbalagan Varadharaj <vsilmd@gmail.com> 227
Date: 10 July 2023 at 10:54:02 AM IST
To: CES Anna University <directorcesau@gmail.com>
Subject: Re: Varalakshmi Starch Report Cancelled - Reg

Dear Dr.Kanmani,

It is very shocking to see the below your mail regarding cancellation of the report after more than one month of releasing it.

We have approached Anna university directly for the feasibility report and all demanded charges was paid. You have taken 5 to 6 months to conduct various studies at our plant . Only after detailed analysis of various datas and studies you have released the report .

In this situation Anna university Cancelling the report at this point without any prior discussions with us is very surprising. This report is between our company and the Anna university. We have submitted the report to TNPCB Dharmapuri office by ourself. If they have any query in the report they can ask us for the clarification. Instead they have approached the university directly .

Our industry is Rural Agro based export oriented industry promoted with the initiative of both the central and state governments. After 25 years smooth tuning as per PCB act now we have been targeted by TNPCB Dharmapuri office to close the industry and we are at the peak stage of the issues . This instance clearly shows that we are the victim here . It is well aware that our issue is in NGT.

In and around Dharmapuri and Salem districts there are more than 500 sago and starch industries present. One of them much bigger than our industry and few of them are the same size of our Industry . But for targeting our industry we have been only asked several additional compliances now a days.

As per your mail we understand that you need more clarify in the TDS removal system only. If that's the case you may put on hold for only the TDS related information rather cancelling the entire report .

We would like to know the communication that happened between Anna university and the TNPCB Dharmapuri office with regards to the TDS removal process in our plant. Kindly share the mail or post correspondence with us.

Dear Madam our industry supports more than 10000 farmers and 500 rural workers directly or indirectly situated in the backward agriculture dependent district of Dharmapuri with Multi crore Investment by us and government through subsidies . We are struggling to save our industry and the people dependent on it for the last two years from DE TNPCB - Dharmapuri . At present our industry are being saved only by NGT south zone.

Kindly give us opportunity to explain our stand before taking any hard decisions

Regards,

Anbalagan
MD - Varalakshmi starch industries PVT Ltd
Sent from my iPhone



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

An ISO 9001 : 2008, 14001 : 2004, BS OHSAS 18001 : 2007 Certified Company



MRFS. & EXPORTERS : SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

VS IPL/PCB/2023-24/102

01.08.2023

To,
The District Environment Engineer,
TNPCB, Dharmapuri.

Madam,

Ref: Adequacy report of Anna University dated 29.05.2023 of our existing ETP submitted to you on 06.06.2023.

We had been informed by the Centre for Environment Studies, Anna University vide their email dated 08.07.2023, that their Adequacy report of our ETP dated 29.05.2023 issued to us has been cancelled by stating that based on the discussion with TNPCB authorities, some scientific interpretation needs to be carried with respect to TDS removal happening in our system.

Therefore, we request you to kindly share with us your queries on scientific interpretation regarding TDS removal in our system (ETP) raised by you to Anna University to enable us to get technical assistance from our expert who had provided us the technology for the Anaerobic Digesters installed in our ETP. The knowhow for these Anaerobic Digesters were provided by New Jersey Institute of Technology, USA with approval from Ministry of New and Renewable Energy, Govt of India and funded by UN Development Programme (Global Environment Facility) and National Bioenergy Board with Tamilnadu Energy Development Agency (TEDA), Govt of TN acting as the implementing agency for the ETP project and monitored by Anna University. Further, the CES Department, Anna University had audited our ETP including analysis of our wastewater and provided an Adequacy Report dated 28.03.2009 confirming that our ETP is sufficient to meet the discharge standards of TNPCB, based on which we have been operating our ETP for the past 12 years and obtaining Consents to Operate from TNPCB since then.

The current study of Anna University of our ETP was initiated by us to once again validate that our ETP is capable to meet the discharge standards prescribed by TNPCB. We had then also informed the Honourable NGT that a study of our ETP by Anna University has been completed and that a draft report has been released and that the final report is under preparation. After which, Anna University had submitted to us their report dated 29.05.2023 which was then provided to you by us and was also to be submitted to the Honourable NGT during the subsequent hearing. But in the meantime, due to your queries raised to Anna University on scientific interpretation regarding TDS removal in our system (ETP), Anna University has cancelled their submitted report vide their email dated 08.07.2023 sent to us and you.

Regd. Office : " Varalakshmi Tower ", II Floor, No. 127/1, Gandhi Road, Salem - 636 007. T.N. India.

Ph. (Off.) : 0427 - 4031073

Email : office@varalakshmistarch.com

Factory : No. 7/114-126, Bommidi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.

CIN No. U01532TZ1995PTC006136

www.varalakshmistarch.com

IS : 899

IS : 1319



CML-6100012769



CML-6299891



Varalakshmi Starch Industries (P) Ltd.,

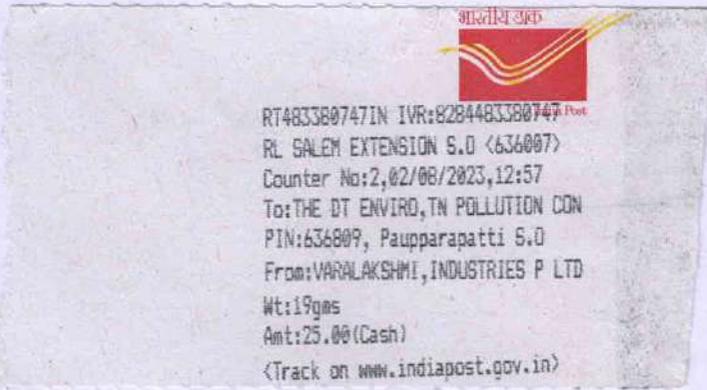
Continuation Sheet

Therefore, we request you to kindly share with us your technical queries raised to Anna University about scientific interpretation on TDS removal etc... to enable us to get technical advice from our technology provider.

Kindly treat our request with utmost urgency as we have to get technical clarification from our consultant and then make our submissions to the Honourable NGT which has listed our case for hearing on 14/08/2023.

Thanking You,
Yours Faithfully,

(V. Anbalagan)
Managing Director
Varalakshmi Starch Industries Private Limited



VSIPL/PCB/2023-24/109, dt 1.8.23
ACKNOWLEDGEMENT

No.

Received a Registered Letter / Post Card / Packet / Parcel
Insured
Addressed to (name) } The Dist. Environmental Engineer,
Tamil Nadu Pollution Control Board,
Adiyamanayakan - Hosur Bypass Road,
A. Reddihalli

Insured for Rupees

Date of Delivery

Score out the matter not required.

For Insured articles only.



Signature of addressee

Received on 19/8/23 By ordinary post. Time 1.16 pm.

கால்நடை பராமரிப்புத்துறை

(20)

அனுப்புநர்
மரு.செ.மணிமாறன்,பிவிஎஸ்சி.,
துணை இயக்குநர்,(சவ/பொ)
கால்நடை பெருக்கம் மற்றும்
தீவன அபிவிருத்தி, தருமபுரி

பெறுநர்
மேலாளர்,
வரலக்ஷ்மி ஸ்டார்ச் இண்டஸ் ரீஸ்
பிரைவேட் லிமிடெட்,
வரலக்ஷ்மி டவர்ஸ்
27/1 காந்திசாலை அஸ்தம்பட்டி,
சேலம்-636 007.

ந.க.எண்.269/ஆ/ 2023 நாள். .08.2023

ஐயா,

பொருள் தகவல் அறியும் உரிமை சட்டம் 2005 அலமேலுபுரம் கிராமத்தில் கால்நடைகள் இறப்பு சம்மந்தமான கோரப்பட்ட விவரங்களுக்கு பதில் அறிக்கை அனுப்புதல் -தொடர்பாக.

பார்வை 1. மேலாளர், வரலக்ஷ்மி ஸ்டார்ச் இண்டஸ் ரீஸ் பிரைவேட் லிமிடெட், தகவல் அறியும் உரிமைச் சட்டம் 2005 விண்ணப்பம் நாள்.31.07.2023.

2. அருநர் உதவி இயக்குநர், அலுவலக கடித
ந.க.எண்.1095/ஆ/2023 நாள்.14.08.2023

பார்வை 1-ல் காணும் தகவல் அறியும் உரிமைச்சட்டம் 2005-ன்கீழ் கோரப்பட்ட விவரங்களை பார்வை 2-ல் காணும் அருநர் உதவி இயக்குநர் கடித வழி பெற்று கீழ்க்கண்டவாறு தெரிவிக்கப்படுகிறது.

I.Subject matter of information

Please provide us the details if there have been any complaint about death of animals in the Alamelupuram village due to the waste water of our industry and If you have any complaints for the past one year or more than year from the farmers of Alamelupuram village, Pappireddipatti Taluk about the death of animals in Alamelupuram Village due to waste water of our industry, please provide the same to us.

Reply: There is no complaint from farmers about death of animals in the Alamelupuram village due to waste water from Varalakshmi Starch Industries Private Limited till date.

II. Period to which the information relates:

Please provide us all the details for the period from 01.01.2020 till date for the death of animals due to the waste water of our industry, in Alamelupuram village of Pappireddipatti Taluk or if there be any complaints received from the farmers during the period mentioned above or before this period, please provide the same to us.

Reply: There is no complaint from farmers about death of animals in the Alamelupuram village due to waste water of Varalakshmi Starch Industries Private Limited for the period from 01.01.2020 to till date.

III. Description of information required:

We require the details of any death of animals in the Alamelupuram village of Pappireddipatti Taluk due to our factory's waste water and details of any complaints for the past one year or more than a year received from the farmers of Alamelupuram village, Pappireddipatty Taluk, with regard to the death of animals to your good office, and provide the same to us.

Reply: There is no record of animal death available due to waste water from Varalakshmi Starch Industries Private Limited and no complaint received from farmers in this regard for no past one or more than a year.

தங்கள் உண்மையுள்ள ,

[Handwritten signature]

துணை இயக்குநர்(கூ./பொ.)
கால்நடை பெருக்கம் மற்றும் தீவன
அபிவிருத்தி, தருமபுரி.

[Handwritten signature]
11/8/23

நகல் பணித்தனுப்பப்படுகிறது

மண்டல இணை இயக்குநர், கால்நடை பராமரிப்புத்துறை, தருமபுரி

படிவங்கள் சம்பந்தம் அடங்கியது Received on 29.8.23 By Register post with Acknowledgement

மீன்வளம் மற்றும் மீனவர் நலத்துறை

21

அனுப்புநர்
திரு.சூ.கோகுலமணன், எம்.எப்.எஸ்ஸி.,
உதவி இயக்குநர்,
மீன்வளம் மற்றும் மீனவர் நலத்துறை
தருமபுரி.

பெறுநர்
திரு.வீ.சத்தியம்,
மேலாளர்,
வரலட்சுமி ஸ்டார்ச் தொழிற்சாலை
வரலட்சுமி டவர்ஸ்,
127/1 காந்தி ரோடு
அஸ்தம்பட்டி, சேலம்-7

ந.க.எண்: 1817/உ/2023

நாள்: 25.08.2023

ஐயா,

பொருள்: மீன்வளம் மற்றும் மீனவர் நலத்துறை - தகவல் அறியும் உரிமை சட்டம் 2005 - மீன்களின் இறப்பு விவரம் குறித்த விவரம் கோரியது - விவரம் அளித்தல் - தொடர்பாக

பார்வை: திரு.வீ.சத்தியம், மேலாளர், வரலட்சுமி ஸ்டார்ச் தொழிற்சாலை, வரலட்சுமி டவர்ஸ், 127/1 காந்தி ரோடு, அஸ்தம்பட்டி, சேலம்-7 கடித நாள்: 28.07.2023

பார்வையில் காணும் தங்களது மனுவிற்கு தகவல் அறியும் உரிமைச்சட்டம் 2005 -ன் கீழ் பின்வருமாறு தகவல்கள் வழங்கப்படுகிறது.
தகவல் எண் :1 -க்கான விளக்கம்

பாப்பிரெட்டிபட்டியில் உள்ள அலமேலுபுரம் கிராமத்திலிருந்து தங்களது தொழில் நிறுவனத்தின் கழிவு நீரால் மீன்கள் இறப்பு குறித்து புகார் ஏதும் இவ்வலுவலகத்தில் பெறப்படவில்லை. மேலும் கடந்த ஒரு வருடமாக மீன்வளர்ப்போரிடமிருந்து மீன்கள் ஏதும் இறந்ததாக புகார் ஏதும் பெறப்படவில்லை.

தகவல் எண் :2 -க்கான விளக்கம்

பாப்பிரெட்டிபட்டியில் உள்ள அலமேலுபுரம் கிராமத்திலிருந்து 01.01.2020 லிருந்து நாள்து தேதி வரை தங்களது தொழில் நிறுவனத்தின் கழிவு நீரால் மீன்கள் இறப்பு குறித்து புகார் ஏதும் இவ்வலுவலகத்தில் பெறப்படவில்லை.

தகவல் எண் :3 -க்கான விளக்கம்

பாப்பிரெட்டிபட்டியில் உள்ள அலமேலுபுரம் கிராமத்திலிருந்து தங்களது தொழில் நிறுவனத்தின் கழிவு நீரால் கடந்த ஒரு வருடமாக மற்றும் ஒரு வருடத்திற்கு மேலாக மீன்கள் (நீர்வாழ் உயிரினங்கள்) ஏதும் இறந்ததாக புகார் ஏதும் பெறப்படவில்லை.

உதவி இயக்குநர்,
மீன்வளம் மற்றும் மீனவர் நலத்துறை
தருமபுரி

25.8.2023

Department of Fisheries and Fisherman Welfare**From**

Mr.G.Gokularamanan, M.F, Sc.,
Assistant Director,
Department of Fisheries and Fisherman Welfare
Dharmapuri

To

Mr.V.Sathyam
Manager
Varalakshmi Starch Factory
Varalakshmi Towers
127/1, Gandhi Road
Asthampatti Salem -7

Na.Ka.No.1817/U/2023**Date: 25.08.2023**

Sub: Department of Fisheries and Fishermen Welfare - Right to Information Act,
2005 – Seeking information about the death of fish - providing information– reg.

Ref: Mr.V.Sathyam, Manager, Varalakshmi Starch Factory, Varalakshmi Towers-
127/1, Gandhi Road, Asthampatti, Salem-7 letter dated 28.07.2023

-----With reference to the above subject, information is provided for your application
as per the Right to Information Act, 2005.

Explanation for the information No.1

There is no complaint has been received from the Alamelupuram Village,
Papireddypatti by this office about the death of fish by draining of wastage water of
your Factory. For the last one year, there is no complaint received about the death of
fish from the fish farmers.

Explanation for the information No.2

There is no complaint has been received from the Alamelupuram Village,
Papireddypatti by this office about the death of fish by draining of wastage water of
your Factory from 01.01.2020 to till date.

Explanation for the information No.3

There is no complaint has been received from the Alamelupuraam Village,
Papireddypatti by this office about the death of fish (Aquatic organisms) due to your
factory wastage water for the past one year or more than a year.

Asst. Director
Department of Fisheries and
Fishermen welfare

சட்டவிரோதமாக சுமார் 10 ஏக்கர் நிலப்பரப்பில் 70 அடி ஆழம் கொண்ட மிகப்பெரிய குட்டையை வெட்டி, அதில் ஆற்று நீரை நிரப்பி சேகரித்து வைத்து அவர்களின் தொழிற்சாலையில் தேவைக்கு பயன்படுத்தி, அதன் பிறகு அதிலிருந்து வெளியேறும் ரசாயன கழிவு நீரை மீண்டும் ஆற்றில் நேரடியாக விடுவதால், கிராம பொது மக்கள் குடிப்பதற்கும் கால்நடைகள் குடிப்பதற்கும், குடிநீர் ஆதாரம் பாதிக்கப்பட்டும், விவசாய தொழில் பாதிப்பு ஏற்பட்டும், மக்களின் வாழ்வாதாரம் பாதிப்படைந்துள்ளது.

மேலும் குறிப்பிட்டு கவனிக்க வேண்டிய முக்கிய விஷயம் என்னவென்றால், தொழிற்சாலை கழிவு நீரை மிகப் பெரிய பரப்பில் தேக்கிவைத்து, ஆற்றில் விடுவதால் நிலத்தடி நீர் மிகவும் மோசமான நிலையில் பாதிக்கப்பட்டுள்ளது.

இதனால் மேற்படி கிராமங்களில் உள்ள சுமார் 10 ஆயிரம் ஏக்கர் விவசாய நிலங்கள், இதை நம்பியுள்ள சுமார் 20 ஆயிரம் விவசாய குடும்பங்கள், பொதுமக்கள், குடிநீர் ஆதாரம் பாதிக்கப்பட்டு, விவசாய தொழில் பாதிக்கப்பட்டு, மக்களின் வாழ்வாதாரம் கேள்விக்குறியாகி உள்ளது. இதுகுறித்து பலமுறை சம்பந்தப்பட்ட அதிகாரிகளுக்கு புகார் மனு கொடுக்கப்பட்டும் எவ்வித நடவடிக்கையும் எடுக்கப்படவில்லை என்பதை வருத்தத்துடன் தெரிவித்துக்கொள்கிறோம்.

பாதிப்புகளின் சுருக்கம்

- ஆற்றுநீர் விவசாய பயன்பாட்டிற்கும் குடிநீருக்கும் பற்றாக்குறை.
- ரசாயன கழிவுநீர் பீனி ஆற்றில் விடுவது.
- ரசாயன கழிவு நீரால் கிணறு ஏரி குளம் ஆகியவைகளின் நீர் கெட்டுப்போதல்.
- கால்நடைகளுக்கு வியாதி மற்றும் உயிர்ச்சேதம்.
- கிராம மக்களுக்கு சரும வியாதி பேதி மற்றும் தொற்று நோய் பாதிப்பு.
- மண் வளம் மலட்டுத் தன்மை அடைதல்.
- விவசாய பயிர்கள் கருகி விளைச்சல் பாதிப்பு.
- நீர், மண்வளம் மற்றும் காற்று மாசுபடுதல்.

இதுபோல இன்னும் பல குறைபாடுகள்.

Date:05.03.2022

Place: Alarmelupuram

From,

Peeniyaru Farmers Safety Movement
Suresh (9361380047),
S/o. Pachaiappan,
Co-ordinator,
6/36, Alamelupuram Village & Post,
Papireddypatti Circle,
Dharmapuri District.

To,

The District Collector,
Collectorate Office,
Dharmapuri

Sub: Petition to take action against the draining of factory wastage water in the River peeni by the Varalakshmi Starch industries and to stop the contamination of lake and well water.

Respected Madam,

River Peeni is passing through Papireddipatti and Alameulupuram area. The Alamelupuram Vannan Lake, Pallipatti big lake, small lake, Adikarapatti Panamarathu Lake, Irulapatti pond are getting water from this river. The farmers are using this lake for farming and the water in these lakes are used for drinking purposes.

The Varalakshmi Starch Industries (P) Ltd. has unlawfully dug a pond of 70 feet depth spreading around 10 acres. They stored the river water in the pond for their industrial use. They drained the industrial wastage in the river Peeni. Hence, the livelihood of the people in the village is affected. More over the source of drinking water for the people and the cattle is also affected by this.

Moreover, they stored the industrial wastage water in the large surface and drained into the River Peeni. Hence, the quality of ground water is badly affected.

Hence, more than 10,000 acres of farming land in the above villages and 20,000 farmers and general public are badly affected.

We have raised this issue so many times to various officers. But it went in vain.

Brief Note on the damages:

- 1.Shortage of water for drinking and for Agriculture
- 2.Draining of chemical waste into the river
- 3.Contamination of water in the lake & pond due to the draining of industrial wastage
- 4.Disease in cattle and death of cattle.
- 5.People are getting skin allergies, vomiting and infectious disease .
- 6.Infertility in Soil
- 7.Crops are affected.
- 8.Water, soil and air are polluted.

Like this more defects.

The livelihood of the people in the villages are badly affected. Keeping in mind of these problems please take action on time. I request you to kindly inspect personally to protect the livelihood of the village people.

(Sd..)
Co-ordinator,
River Peeni Padukapu Farmers Safety Movement,
Alamelupuram

Encl:

1. Google Map with marking
2. Our Petition dated 10.10.2001
3. Our Petition dated 12.11.2007
4. Photograph of the damaged crops
5. Photo of the water wastage drained in River Peeni
6. Photograph of Check Dam with wastage
7. Photo graph of the dead Aquatic organisms

Copy to:

1. CM Cell
2. Minister of water resources department
3. DSP-Dharmapuri
4. District Revenue officer –Dharmapuri
5. Divisional Engineer-TN pollution control Board
6. Collector Papireddipatti
7. Block Development Officer-Papireddipatti
8. PWD-Papireddipatti
9. Special Officer Papireddipatti Municipality
10. Village Administrative Officer-Papireddipatti

Received on 20/07/23 By Register post with Acknowledgement

//பதிவுச்சல் ஒப்புதல் அட்டையுடன்//
மாவட்டப்பதிவாளர் அலுவலகம்,
தருமபுரி

//பதிவுத்துறை//

நக.எண். 3164/ 23 / 2023, நாள்: 18.07.2023

ஐயா/அம்மையர்,

பொருள் : தகவல் அறியும் உரிமைச்சட்டம் 2005 - தகவல் அறியும் உரிமைச்சட்டம் 2005-ன் கீழ் சில தகவல்கள் கோரியது - தொடர்பாக.

பார்வை : V.Sathyam, Manager, Varalakshmi Starch industries Private Limited,
Varalakshmi Towers, 127/1, Gandhi Road, Hushampatti, Salem
மனு நாள். 04/07/2023. (இவ்வலுவலகத்தில் பெறப்பட்ட நாள் 06.07.2023)

பார்வையில் காணும் தகவல் அறியும் உரிமைச்சட்டத்தின் கீழான தங்களது மனுவிற்கு கீழ்க்கண்டவாறு தகவல் வழங்கப்படுகிறது

கோரப்படும் தகவல் 1	We require the copy of the Registration certificate of the Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
கோரப்படும் தகவல் 2	We require the details of the list of office Bearers and Total Members of the Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
கோரப்படும் தகவல் 3	We require the copy of the Memorandum of Association and Bye Laws of the Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
கோரப்படும் தகவல் 4	We require the Subscription details of the members of the Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
கோரப்படும் தகவல் 5	We require the copies of the last year Annual General Body Meeting Minutes Book of the Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
கோரப்படும் தகவல் 6	We require the copy of the any other documents filed with Registrar of Societies by the of Alamelupuram Peeniyaru Vivasayigal Membattu Nala Sangam									
வழங்கப்படும் தகவல் 1 முதல் 7 வரை	<p>தமிழ்நாடு சங்கங்கள் பதிவுச்சட்டம் 1975 பிரிவு 17ன்படி சங்க உறுப்பினர்களுக்கு மட்டும் அவர்களுடைய சங்கங்களின் நகல் பெற வழிவகை உள்ளது. சங்க உறுப்பினராக இருப்பின் சங்கப்பதிவு சட்ட விதிகளின்படி உரிய கட்டணம்</p> <table border="1"> <tr> <td></td> <td>நகல் அல்லது படி</td> <td></td> </tr> <tr> <td>1</td> <td>கட்டணம்</td> <td>20 - பக்கம் ஒன்றுக்கு</td> </tr> <tr> <td>2</td> <td>தேடுதல் கட்டணம்</td> <td>200</td> </tr> </table> <p>செலுத்தி சான்றொப்பமிட்ட நகலை பெற்றுக்கொள்ளலாம் என்ற தகவல் மனுதாரருக்கு வழங்கப்படுகிறது.</p>		நகல் அல்லது படி		1	கட்டணம்	20 - பக்கம் ஒன்றுக்கு	2	தேடுதல் கட்டணம்	200
	நகல் அல்லது படி									
1	கட்டணம்	20 - பக்கம் ஒன்றுக்கு								
2	தேடுதல் கட்டணம்	200								

மேற்படி விபரங்கள் தொடர்பாக, மேல்முறையீடு ஏதும் இருப்பின், இக்கடிதம் கிடைக்கப்பெற்ற 30 நாட்களுக்குள் மேல்முறையீட்டு அலுவலர் "துணைப்பதிவுத்துறைத்தலைவர் அலுவலகம், ஒருங்கிணைந்த கட்டிட வளாகம், குமரகிரி பைபாஸ் ரோடு, உடையாப்பட்டி மின் நிலையத்திற்கு அருகில், அம்மாபேட்டை, சேலம் -636014" என்ற முகவரிக்கு மேல்முறையீடு செய்துகொள்ளுமாறு இதன் மூலம் தெரிவித்துக்கொள்ளப்படுகிறது.

பொதுத்தகவல் அலுவலர்/மாவட்டப்பதிவாளர் (நிருவாகம்)
தருமபுரி.

பெறுநர்
V.Sathyam, Manager,
Varalakshmi Starch industries Private Limited,
Varalakshmi Towers, 127/1, Gandhi Road,
Hushampatti, Salem-636905

18/7
original kept
in separate file

க. அனிதா,
மாவட்ட வருவாய் அலுவலர்,
தருமபுரி.

மாவட்ட ஆட்சித்தலைவர்,
தருமபுரி.

ந.க.எண். 0013/2022/த.நா.மா.க. வாரியம், நாள்: 23.01.2023

மதிப்பிற்குரிய அம்மையர்,

பொருள்: தமிழ்நாடு சட்டமன்றப் பேரவை மனுக்கள் குழு (2021-2023) ஆய்வு செய்த மனுக்களில் பாப்பிரெட்டிப்பட்டி வட்டம், அலமேலுபுரம் கிராமத்தில் செயல்பட்டு வரும் தி/ள். வரலட்சுமி ஸ்டார்ச் இன்டஸ்ட்ரிஸ் பி.லிட் தொழிற்சாலையின் கழிவு நீர் பீனியாற்றில் கலப்பதாக அளிக்கப்பட்ட மனு தொடர்பாக தொழிற்சாலையின் செயல்பாடுகள் குறித்து ஆய்வு செய்து அறிக்கை சமர்ப்பித்தல் தொடர்பாக

- பார்வை: 1. தமிழ்நாடு சட்டமன்றப் பேரவை மனுக்கள் குழு (2021-2023) – மனு எண். 6988, திரு. கரேஷ், த/பெ. பச்சையப்பன் என்பவரின் மனு
2. மாவட்ட ஆட்சித்தலைவரின் செயல்முறை ஆணை: ந.க.எண்.0013/த.நா.மா.க. வாரியம், நாள்: 18.11.2022

தருமபுரி மாவட்டத்திற்கு 09.11.2022 அன்று வருகை புரிந்த தமிழ்நாடு சட்டமன்றப் பேரவை மனுக்கள் குழு (2021-2023) ஆய்வு செய்த மனுக்களில் பேரில் திரு.ப.கரேஷ் த/பெ பச்சையப்பன், பீனி ஆறு பாதுகாப்பு விவசாயிகள் இயக்கம், ஒருங்கிணைப்பாளர், 6/36, அலமேலுபுரம் கிராமம் & அஞ்சல், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம் அவர்கள் அளித்த மனுவில் (மனு எண். 6988) தருமபுரி மாவட்டம், பாப்பிரெட்டிப்பட்டி வட்டம், அலமேலுபுரம் மற்றும் பாப்பிரெட்டிப்பட்டி கிராமத்தில் செயல்பட்டுவரும் தி/ள்.வரலட்சுமி ஸ்டார்ச் இன்டஸ்ட்ரிஸ் பி.லிட் தொழிற்சாலையின் கழிவுநீர் பீனியாற்றில் கலப்பதால் மீன்கள் இறப்பு, கால்நடைகள் மற்றும் விவசாயம் பாதிப்பு, பொதுமக்களுக்கு ஒவ்வாமை, தோல் அரிப்பு, செரிமான கோளாறு, தலைவலி, வாந்தி, பேதி மற்றும் புற்றுநோய் போன்ற பாதிப்புகள் ஏற்படுவதாக தெரிவித்திருந்தனர். மேலும் ஆற்றிலிருந்து சட்ட விரோதமாக நீர் எடுத்து குட்டை வெட்டி சேகரிப்பதாகவும், சீமைக் கருவேல மரங்கள் வளர்ப்பதால் அப்பகுதி நிலத்தடி நீர் பாதிப்பு, மற்றும் பீனியாறு ஆற்றங்கரை ஆக்கிரமிப்பு போன்ற தொழிற்சாலையின் செயல்பாடுகள் மீது நடவடிக்கை எடுக்க வேண்டி குழுவினின் முன் புகார் அளித்தது குறித்து சட்டமன்றப் பேரவை மனுக்கள் குழுவினர் தொழிற்சாலையை ஆய்வு செய்ய மாவட்ட வருவாய் அலுவலர் தலைமையில் குழு அமைத்து ஆய்வறிக்கையை ஒரு மாத காலத்திற்குள் சமர்ப்பிக்குமாறு பரிந்துரைத்தனர். அதனைத் தொடர்ந்து தமிழ்நாடு சட்டமன்றப் பேரவை மனுக்கள் குழுவினரின் பரிந்துரைக்கிணங்க மாவட்ட ஆட்சித்தலைவர் ஒப்புதலுடன் 18.11.2022 அன்று பார்வை 2-ல் காணும் செயல்முறை ஆணையின் படி அமைக்கப்பட்ட ஆய்வுக் குழு மாவட்ட வருவாய் அலுவலர் அவர்கள் தலைமையில் 11 துறைகளுடன் சேர்ந்து 30.11.2022 அன்று கூட்டுப் புலத்தணிக்கை செய்யப்பட்டதின் ஆய்வறிக்கையின் விபரங்கள்/ பரிந்துரைகள் பின்வருமாறு.



District Environmental Engineer (a/c)
Tamil Nadu Pollution Control Board
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1. வேளாண்மை துணை இயக்குநர் (உழவர் பயிற்சி நிலையம்), தருமபுரி

- ❖ தொழிற்சாலையில் சீமைக்கருவேல மரங்கள் வளர்ப்பதால் பல்லுயிரியம் (Biodiversity) பாதிப்படைய வாய்ப்புள்ளது.
- ❖ சீமைக்கருவேல மரங்களுக்கு மாற்றாகவும், தொழிற்சாலைகளிலிருந்து வரும் கழிவுநீரினை திறம்பட கையாளவும், தழைச்சத்தை மண்ணில் நிலைநிறுத்தவும் சவுக்கு மரங்களின் இரகமான TNAU Casurina MTP 1 மற்றும் TNAU Casurina MTP 2 வினை ஒவ்வொரு கட்டமாக நடவடிக்கை செய்யலாம் என பரிந்துரைக்கப்பட்டுள்ளது.

2. செயற்பொறியாளர், நீர் வளத்துறை, மேல்பெண்ணையாறு வடி நிலக்கோட்டம், தருமபுரி

ஆய்வில் கண்டறியப்பட்டவை

- ❖ கடந்த 1998 முதல் மேற்படி ஆலை இயங்கி வருவதாகவும், ஆலை பயன்பாட்டிற்கு தேவையான தண்ணீர் எடுக்க ஆலைக்கு சொந்தமாக ஆழ்துளை கிணறு அல்லது திறந்த வெளி கிணறு ஏதும் இருப்பதாக தெரியவில்லை.
- ❖ தி/ள்.வரலட்சுமி கிழங்கு அரவை ஆலை வளாகத்திற்குள் பீனியாற்றின் கரையை ஒட்டி சுமார் 160X88மீ, 106X26 மீ பரப்பளவில் குட்டை ஒன்று நீர்வளத்துறை அனுமதியில்லாமல் வெட்டப்பட்டுள்ளது.
- ❖ பீனியாற்றிலிருந்து சட்டவிரோதமாக தண்ணீர் எடுத்து ஆலையில் வெட்டப்பட்டுள்ள குட்டையில் குழாய் மூலம் தண்ணீர் நிரப்பப்பட்டு ஆலை பயன்பாட்டிற்கு பயன்படுத்தப்பட்டு வருகிறது.
- ❖ ஆற்றின் கரை ஆக்கிரமிப்பு செய்யப்பட்டுள்ளது.
- ❖ ஆலையில் இருந்து வெளியேறும் கழிவு நீர் பீனியாற்றில் கலக்குமாறு குழாய் பதிக்கப்பட்டுள்ளது.

3. செயற்பொறியாளர், நிலநீர் கோட்டம், நீர்வள ஆதார துறை, வேலூர்

ஆய்வில் கண்டறியப்பட்டவை

- ❖ தொழிற்சாலை நிலத்தடிநீரை தொழிற்சாலையின் பயன்பாட்டிற்கு பயன்படுத்தவில்லை எனவும், மேலும் தொழிற்சாலையின் வளாகத்திற்குள் 14702.98 ச.மீ அளவிற்கு குளம் வெட்டி மழைநீரை சேகரித்தும் பயன்படுத்தப்படுவதாக அறியப்பட்டது.
- ❖ நிலத்தடிநீர் உறிஞ்சுவதற்கு எவ்வித கட்டமைப்பும் தொழிற்சாலை வளாகத்திற்குள் அமைக்கப்படவில்லை.
- ❖ குளத்திலிருந்து மேற்பரப்பு நீரினை எடுப்பதற்கு அனுமதி பெறப்படவில்லை
- ❖ நிலத்தடிநீரின் தன்மை அறிவதற்கு 8 கிணறுகளில் இருந்து நீர் மாதிரிகள் சேகரிக்கப்பட்டுள்ளது.
- ❖ 8 கிணறுகள் மற்றும் அருகிலுள்ள கிணறுகளின் நீரின் அளவுகள் கண்டறியப்பட்டது.

4. வட்டாட்சியர், வருவாய்த்துறை, பாப்பிரெட்டிப்பட்டி

மேற்படி வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் ஆலையானது பாப்பிரெட்டிப்பட்டி மற்றும் அலமேலூரம் கிராமங்களில் கீழ்க்கண்ட புலங்களில் அமைந்துள்ளது.


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வ.எண்	கிராமம் மற்றும் பட்டா எண்	பரப்பு
1	அலமேலுபுரம் பட்டா எண். 18	1.31.50
2	அலமேலுபுரம் பட்டா எண். 25	13.72.00
3	அலமேலுபுரம் பட்டா எண். 37	6.89.00
4	பாப்பிரெட்டிப்பட்டி பட்டா எண். 287	9.98.50
5	பாப்பிரெட்டிப்பட்டி பட்டா எண். 1363	0.81.00
	மொத்தம்	32.72.00

(10)

மாவட்ட ஆட்சியரின் நேர்முக உதவியாளர் (நிலப்பிரிவு), தருமபுரி
தி/ள்.வரலட்சுமி ஸ்டார்ச் இன்டஸ்ட்ரீஸ் பிரைவேட் லிமிடெட் பாப்பிரெட்டிப்பட்டி
நில சீர்திருத்தம் (உச்சவரம்பை நிர்ணயித்தல்) சட்டப் பிரிவு 37(ஏ)

37(ஏ)ன் கீழ் அனுமதி கோரி விண்ணப்பித்த நாள்	:	07.06.20210
நிறுவனம் அமைந்துள்ள இடம்	:	பாப்பிரெட்டிப்பட்டி, அலமேலுபுரம்
பரப்பளவு	:	பாப்பிரெட்டிப்பட்டி 54.16 ஏக்கர் அலமேலுபுரம் 26.66 ஏக்கர்
மொத்த பரப்பு	:	80.82 ஏக்கர்
சென்னை நிலச்சீர்திருத்த ஆணையருக்கு முன்மொழிவு அனுப்பிய நாள்	:	30.09.2019
குறைகளைவு அறிக்கை கோரப்பட்ட விவரம்	:	பாப்பிரெட்டிப்பட்டி கிராம புல எண்:75/1பி விண்ணப்பிக்காமல் விடுப்பட்டது தொடர்பாக அரசுக்கு விண்ணப்பம் செய்ய அறிவுறுத்தப்பட்டது
அடமானம் வைத்திருக்கும் நிலத்தின் பரப்பளவு	:	21.25 ஏக்கர்

5. உதவி இயக்குநர்(சு/பொ), நிலஅளவை, தருமபுரி

தி/ள்.வரலட்சுமி ஸ்டார்ச் இன்டஸ்ட்ரீஸ் பிரைவேட் லிமிடெட், தர்மபுரி மாவட்டம் பாப்பிரெட்டிப்பட்டி வட்டம், பாப்பிரெட்டிப்பட்டி மற்றும் அலமேலுபுரம் கிராம புல எண்: 71,120,126,127,135/1,139,140-ல் புலத்தணிக்கை மற்றும் அளவு பணி மேற்கொண்டு, கிராம புலப்பட கட்டிடத்தில் உள்ள அளவுகளின் படி நிர்வகி ஆதாரத்துறை செயற்பொறியாளர் முன்னிலையில் பாப்பிரெட்டிப்பட்டி வட்டத்துணை ஆய்வாளர், அருர் கோட்ட ஆய்வாளரால் கூட்டு புலத்தணிக்கை மேற்கொண்டு அளந்து அத்து காண்பிக்கப்பட்டதில் மேற்படி புலங்களில் ஆக்கிரமிப்பு ஏதும் கண்டறியப்படவில்லை என தெரிவிக்கப்பட்டுள்ளது.

6. உதவி இயக்குநர், மின்வளத்துறை, தருமபுரி

❖ ஆய்வின் போது ஆற்றில் நீர் மாதிரிகள் சேகரிக்கப்பட்டு கிருஷ்ணகிரி மாவட்டம், பாநூரில் உள்ள தமிழ்நாடு ஜெ.ஜெயலலிதா மின்வள பல்கலைக்கழகத்தின் வளங்குன்றா நீருயிரி வளர்ப்பு மையத்தில் நீரின் தரம் ஆய்வு செய்யப்பட்டதில் நீரின் கடினதன்மை அதிகமாக இருப்பதாக கண்டறியப்பட்டுள்ளது. இவை மீளின் வளர்ச்சியை பாதிக்கக் கூடியதாகும்.

❖ மேலும் ஆய்வின் போது எவ்வித மீன்கள் இறப்பும் இல்லை என தெரிவிக்கப்பட்டுள்ளது.

7. துணை இயக்குநர், தொழிலக பாதுகாப்பு மற்றும் சுகாதாரம், தருமபுரி

16.02.2022 அன்று இணை இயக்குநர், தொழிலக பாதுகாப்பு மற்றும் சுகாதாரம், ஓசூர் அவர்களால் ஆய்வு மேற்கொண்டதில் சில பாதுகாப்பு குறைப்பாடுகளை சரி செய்ய தொழிற்சாலை நிர்வாகத்திற்கு அறிவுறுத்தப்பட்டது. 30.11.2022 அன்று மாவட்ட வருவாய் அலுவலர் அவர்கள்


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தலைமையில் ஆய்வு மேற்கொண்ட போது குறைபாடுகள் சரிசெய்யப்பட்டிருப்பதும், மேலும் கீழ்க்கண்ட கூடுதல் பாதுகாப்பு நடவடிக்கைகள் மேற்கொள்ள தொழிற்சாலைக்கு அறிவுறுத்தப்பட்டுள்ளது.

- ❖ தொழிற்சாலையில் Sago Plant Conveyor underground பகுதிக்கு செல்வதற்காக அமைக்கப்பட்டுள்ள படிக்கட்டிற்கு கைப்பிடி அமைக்க வேண்டும்.
- ❖ தொழிற்சாலையில் பயன்பாட்டிலுள்ள தொட்டி (Tank) மற்றும் இயந்திரங்களுக்கு மேலே ஏறி செல்ல அமைக்கப்பட்டுள்ள 2 மீட்டருக்கு மேல் உள்ள ஏணிகளுக்கு இருபுறமும் பிடித்து கொள்ள கைப்பிடி அமைக்க வேண்டும்.
- ❖ தொழிற்சாலையில் Machine Shop-ல் பயன்பாட்டிலுள்ள Lathe Motor Belt Drive மற்றும் உற்பத்தி அறையில் உள்ள அனைத்து இயந்திரங்களின் பாதுகாப்பு கவசம் இல்லாத Motor belt drive களுக்கு உறுதியான பாதுகாப்பு கவசம் பொருத்தப்பட வேண்டும். ETP நடைபாதைக்கு அருகிலுள்ள கழிவநீர் சேமித்து வைப்பதற்காக அமைக்கப்பட்டுள்ள 3 அடி தொட்டிக்கு 3 அடி உயரத்திற்கு சுற்றுச்சுவர் அல்லது கைப்பிடி அமைக்கப்பட வேண்டும்.
- ❖ Maize Plant-ல் பொருட்களை எடுத்து செல்லும் Lift நிறுவுவதற்காக அமைக்கப்பட்டுள்ள பள்ளத்திற்குள் தொழிலாளர்கள் விழாமல் இருக்க Lift opening பகுதிக்கு 3 அடி உயரத்திற்கு பாதுகாப்பு தடுப்பு அமைக்கப்பட வேண்டும்.
- ❖ தொழிற்சாலையில் புதிதாக கட்டப்பட்டு வரும் ETP-ன் கட்டுமானங்கள் மற்றும் Sago Plant-ல் புதிதாக நிறுவப்படும் இயந்திரங்களுக்கு கூடுதல் வரைபட ஒப்புதல் பெறப்பட வேண்டும்.

8. நிர்வாகப் பொறியாளர், தமிழ்நாடு குடிநீர் வடிகால் வாரியம், திட்டக் கோட்டம், கிருஷ்ணகிரி

பீனி ஆறு பாதுகாப்பு விவசாயிகள் இயக்க ஒருங்கிணைப்பாளர்கள் குறிப்பிட்ட 8 கிராமங்களில் இருந்து குடிநீர் சேகரித்து ஆய்வு செய்யும் படி கோரிக்கை வைத்தார்கள். இதன் அடிப்படையில் 06.12.2022 அன்று கீழ்க்கண்ட கிராமங்களில் குடிநீர் மாதிரிகள் சேகரித்து தமிழ்நாடு குடிநீர் வடிகால் வாரியத்தின் மூலம் செயல்பட்டு வரும் மாவட்ட குடிநீர் பகுப்பாய்வு மையத்தில் குடிநீரின் தரம் ஆய்வு செய்யப்பட்டது. ஆய்வு செய்யப்பட்டதின் அறிக்கை பின்வருமாறு

வ.எண்	கிராமங்களின் பெயர்கள்	குடிநீர் சேகரித்த இடங்கள்	பரிசோதனை முடிவுகள்
1.	அதிகாரப்பட்டி	மைல்கல் புளியமரம் சிறு விசை மின் பம்பு - M.P.P	குடிநீர் பயன்பாட்டிற்கு உகந்ததல்ல (புளுரைடு அதிகம்)
2.	அதிகாரப்பட்டி	குமரவேல் வீட்டிற்கு அருகில் துனி விலாச மின் பம்பு - IPP	குடிநீர் பயன்பாட்டிற்கு உகந்தது
3.	அபள்ளிப்பட்டி	காவல் நிலையம் அருகில் (மேல்நிலை நீர் தேக்க தொட்டி - OHT)	குடிநீர் பயன்பாட்டிற்கு உகந்தது
4.	கவுண்டம்பட்டி	தோழனூர் ரோடு (திறந்த வெளி கிணறு-O Well)	குடிநீர் பயன்பாட்டிற்கு உகந்தது
5.	புதுப்பட்டி	அங்கன்வாடி மையம் அருகில் (மேல்நிலை நீர் தேக்க தொட்டி - OHT)	குடிநீர் பயன்பாட்டிற்கு உகந்தது
6.	இருளப்பட்டி	காளியம்மன் கோயில் அருகில் (மேல்நிலை நீர் தேக்க தொட்டி - OHT)	குடிநீர் பயன்பாட்டிற்கு உகந்தது
7.	அலமேலுபுரம்	தேன்மொழி வீட்டின் அருகில் (கைப்பம்பு - HP)	குடிநீர் பயன்பாட்டிற்கு உகந்ததல்ல (குடிநீர் தன்மை)
8.	கோட்டைமேடு	மாரியம்மன் கோயில் பின்புறம் (மேல்நிலை நீர் தேக்க தொட்டி - OHT)	குடிநீர் பயன்பாட்டிற்கு உகந்தது

வரிசை எண் 1 மற்றும் 7 ஆகிய இரண்டு மாதிரிகள் குடிநீர் பயன்பாட்டிற்கு பயன்படுத்த முடியாதவைகளாக உள்ளது என தெரிவிக்கப்பட்டுள்ளது.

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தொழிற்சாலையில் சேமித்து வைக்கப்பட்டிருந்த மரவள்ளி கிழங்கு மாவு மற்றும் மக்கா சோளமாவு மாதிரிகள் சேகரிக்கப்பட்டு சென்னையிலுள்ள கிண்டி உணவு பகுப்பாய்வு கூடத்திற்கு ஆய்விற்காக அனுப்பப்பட்டது. ஆய்வின் முடிவில் உணவு பாதுகாப்பு மற்றும் தர சட்ட விதிகளின் படி உணவு மாதிரிகள் தரமானவை என அறிக்கை பெறப்பட்டுள்ளது.

10. துணை இயக்குநர், சுகாதாரப்பணிகள், தருமபுரி

- ❖ தொழிற்சாலையை சுற்றியுள்ள கிராமங்களில் வசிக்கும் பொதுமக்களிடம் பரிசோதனை மேற்கொண்டதில் தொழிற்சாலையின் கழிவுநீர் பீனியாற்றில் கலப்பதனால் பொதுமக்களுக்கு எவ்வித நோய் பாதிப்புகளும் இல்லை என தெரிவிக்கப்பட்டுள்ளது.
- ❖ இப்பகுதி மக்கள் நிலத்தடி நீர் மாசடைந்தும், உப்பு தன்மை அதிகமாக இருப்பதாலும் ஓகேனக்கல் குடிநீரை மட்டுமே பயன்படுத்தி வருவதாக தெரிவிக்கப்பட்டுள்ளது.

11. மாவட்ட சுற்றுச்சூழல் பொறியாளர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், தருமபுரி

- ❖ தி/ள்.வரலஷ்மி ஸ்டார்ச் இன்டஸ்ட்ரியல் பிலிட் என்ற தொழிற்சாலையானது மாதம் ஒன்றிற்கு 11,500 டன் மரவள்ளி கிழங்கு மற்றும் மக்காசோள மாவு, ஜவ்வரிசி மற்றும் அப்பளம் உற்பத்தி செய்ய தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவாணையை 31.03.2021 வரை பெற்றுள்ளது.
- ❖ இத்தொழிற்சாலையிலிருந்து நாளொன்றிற்கு 500.1 கிலோ லிட்டர் தொழிற்கழிவுநீரை வெளியேற்றி வருகிறது. இத்தொழிற்கழிவுநீரை சுத்திகரிப்பு நிலையத்தின் மூலம் சுத்திகரித்து தொழிற்சாலை வளாகத்தினுள் சுமார் 50 ஏக்கர் பரப்பளவில் உள்ள சீமை கருவேல மரங்களை வளர்ப்பதற்கு பயன்படுத்தி வருகிறது.
- ❖ மேலும் இத்தொழிற்சாலையில் சீமை கருவேல மரங்கள் வளர்ப்பது தொடர்பாக தமிழ்நாடு வேளாண் ஆராய்ச்சி மற்றும் பல்கலைக் கழகம், பாப்பாரப்பட்டியின் மூலம் ஆய்வு மேற்கொள்ளப்பட்டு, ஆய்வறிக்கையில் சீமை கருவேல மரங்களுக்கு மாற்றாக சவுக்கு மரம், தைலமரம், மலைவேம்பு போன்ற மரங்களை வளர்ப்பதற்கு அறிவுறுத்தப்பட்டது.
- ❖ இத்தொழிற்சாலையில் சுத்திகரிக்கப்பட்ட தொழிற்கழிவுநீர் மாதிரிகள் நவம்பர்-2021 டிசம்பர்-2021 ஆகிய மாதங்களில் சேகரிக்கப்பட்டு பகுப்பாய்வு செய்யப்பட்டது. ஆய்வறிக்கையில் Total Suspended Solids (TSS), Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD) ஆகிய அளவுருக்கள் வாரியம் நிர்ணயித்த தர அளவை விட (Inland Surface Water Standards) மிகுந்து இருப்பது கண்டறியப்பட்டது.
- ❖ மேலும் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் நிபந்தனைகளை பின்பற்றாத காரணத்தினால் 18.04.2022 தேதியிட்ட வாரிய வழிகாட்டுதல்கள் தொழிற்சாலையினருக்கு வழங்கப்பட்டது. இத்தொழிற்சாலையானது தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தால் தொடர்ந்து கண்காணிக்கப்பட்டு சுத்திகரிக்கப்பட்ட தொழிற்கழிவுநீர் மாதிரிகள் சேகரிக்கப்பட்டு பகுப்பாய்வு செய்யப்பட்டது. தொழிற்சாலையின் மீது தொடர்ந்து புகார் மனுக்களும் பெறப்பட்டு வந்தது.
- ❖ இத்தொழிற்சாலை வாரிய வழிகாட்டுதல்களை பின்பற்றாமல் தொடர்ந்து இயங்கிய காரணத்தினால், இணை தலைமை சுற்றுச்சூழல் பொறியாளர் (கண்காணிப்பு) வேலூர் அவர்கள் 04.08.2022 அன்று தொழிற்சாலையின் மீது ஆய்வு மேற்கொண்டதுடன், இத்தொழிற்சாலையின்



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இயக்கம் குறித்து நிர்வாகத்தினருடன் 22.08.2022 அன்று நேர்முக விசாரணை (Personal Hearing) மேற்கொள்ளப்பட்டது.

- ❖ ஜனவரி -2022 முதல் ஜூன்-2022 வரை சுத்திகரிக்கப்பட்ட தொழிற்கழிவுநீர் மாதிரிகள் சேகரித்து பகுப்பாய்வு செய்யப்பட்ட ஆய்வறிக்கையில் Total Suspended Solids (TSS), Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD) ஆகிய அளவுருக்கள், தொடர்ந்து வாரியம் நிர்ணயித்த தர அளவை விட (Inland Surface Water Standards) மிகுந்து இருப்பது கண்டறியப்பட்டது.
- ❖ தொடர்ந்து தொழிற்சாலையானது வாரிய வழிமுறைகளை கடைப்பிடிக்காமல் இயங்கியதால் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தால் மீண்டும் 17.10.2022 தேதியிட்ட வாரிய வழிகாட்டுதல்கள் தொழிற்சாலைக்கு வழங்கப்பட்டது.
- ❖ தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் வழிகாட்டுதல்களின் படி தொழிற்சாலை செயல்பாத காரணத்தினாலும், செல்லத்தக்க இசைவாணை இல்லாமல் இயங்கி வந்ததாலும் 08.11.2022 அன்று தொழிற்சாலையின் மின் இணைப்பு துண்டிக்கப்பட்டது.
- ❖ தொழிற்சாலை நிர்வாகத்தினரால் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திற்கு எதிராக மாண்புமிகு தேசிய பசுமை தீர்ப்பாயத்தில் வழக்கு தொடரப்பட்டது. மாண்புமிகு தேசிய பசுமை தீர்ப்பாயத்தின் ஆணையின் படி 12.12.2022 அன்று மீண்டும் தமிழ்நாடு மின்சார வாரியத்தின் மூலம் மின் இணைப்பு பெற்று தொழிற்சாலையானது இயங்கி வருகிறது.

தி/ள்.வரலஷ்மி ஸ்டார்ச் இன்டஸ்டிரிஸ் பிலிட். பாப்பிரெட்டிப்பட்டி தொழிற்சாலையின் உரிமையாளர் அவர்கள் கூறியதன் பேரில் 7 இராசாயன தொழிற்சாலைகளில் 30.11.2022 ஆய்வு மேற்கொண்ட விபரங்கள்

தருமபுரி மாவட்டம், பாப்பிரெட்டிப்பட்டி வட்டத்தில் அமைந்துள்ள 7 இராசாயன தொழிற்சாலைகளில் 30.11.2022 அன்று மாவட்ட வருவாய் அலுவலர் அவர்கள் தலைமையில் பாப்பிரெட்டிப்பட்டி வட்டாட்சியர், மாவட்ட சுற்றுச்சூழல் பொறியாளர் மற்றும் உதவி சுற்றுச்சூழல் பொறியாளர் ஆகியோரால் ஆய்வு மேற்கொள்ளப்பட்டது. ஆய்வு குறித்த விபரங்களின் பட்டியல் கீழ்க்கண்டவாறு

வ. எண்	தொழிற்சாலையின் பெயர் மற்றும் முகவரி	உற்பத்தி செய்யப்படும் பொருட்கள் மற்றும் அளவு	வெளியேற்றப்படும் தொழிற் கழிவுநீர் விபரம்	இசைவாணை குறித்த விபரம்	குறிப்பு
1.	தி/ள்.எஸ்ஸா கெம் இன்டஸ்டிரிஸ் (இந்தியா) பிலிட், புல எண் : 10 சின்னமஞ்சவாடி கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	பேரியம் கார்பனைட் - 600டன்/மாதம் சோடியம் சல்பேட் பிலேக்ஸ் - 350 டன்/மாதம் உப பொருட்கள் கழுவப்பட்ட மண் கட்டிட கற்கள் - 1200 கற்கள் /நாளொன்றுக்கு	100 லிட்டர்/ நாளொன்றுக்கு (Cooling Tower bleed off) சூரிய ஆவியாதல் தொட்டி மூலம் ஆவியாதல். கழிவுநீர் வெளியேற்ற படுவது இல்லை	31.03.20 25	இயக்கத்தில் உள்ளது (50% Production)
2.	தி/ள்.ஹைடெக் கெமிக்கல், புல எண் : 11/6A கல்லாதூப்பட்டி கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	பேரியம் நைட்ரேட் 150டன்/மாதம்	தொழிற் கழிவுநீர் உற்பத்தி இல்லை	31.03.20 25	01.03.2022 முதல் இயக்கத்தில் இல்லை
3.	தி/ள்.ஸ்ரீ அம்மன் கெமிக்கல், புல எண் : 11/6A	சோடியம் சல்பைடு பிலேக்ஸ் பிட்ஸ் அன்ட் சாலிட்ஸ்-	தொழிற் கழிவுநீர் உற்பத்தி	31.03.20 25	01.01.2022 முதல் இயக்கத்தில்

District Environmental Engineer (A/C)
Tamil Nadu Pollution Control Board
DHARMAPURI

4.	தி/ள்.லெதர் அன்ட் டெக்ஸ்டைல்ஸ் கெமிக்கல்ஸ், புல எண் : 11/6A கல்லாத்துப்பட்டி கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	சோடியம் சல்பேட் - 50 பின்/மாதம் பின் -15 பின்/மாதம் சாலிட் -10 பின்/மாதம்	243	தொழிற் கழிவுநீர் உற்பத்தி இல்லை	31.03.2025	01.01.2022 முதல் இயக்கத்தில் இல்லை
5.	தி/ள்.சிவா கெமிக்கல்ஸ், புல எண் : 11/6A கல்லாத்துப்பட்டி கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	பேரியம் கிரிஸ்டல்ஸ் - 99.450 பேரியம் குளோரைடு - 186.900 சொல்யூசன் பின்/மாதம்		10 லிட்டர்/நாளொன்றுக்கு (Scrubber Liquor) சூரிய ஆவியாதல் தொட்டி மூலம் ஆவியாதல். தொழிற் கழிவுநீர் வெளியேற்றப் படுவது இல்லை	31.03.2024	01.04.2022 முதல் இடையிடையே 6 நாட்கள் மட்டுமே இயக்கத்தில் இருந்தது.
6.	தி/ள்.சிவசக்தி கெமிக்கல்ஸ், புல எண் : 11/6A கல்லாத்துப்பட்டி கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	சோடியம் சல்பேட் பின்/மாதம் - 150 பின்/மாதம்		10 லிட்டர்/நாளொன்றுக்கு (Recycling condensate from evaporator) உற்பத்தியின் மறுசுழற்சிக்கு பயன்படுத்தப்பட்டு வருகிறது	31.03.2025	01.01.2022 முதல் இயக்கத்தில் இல்லை
7.	தி/ள்.அக்ரோ நீட்ஸ் புல எண் : 40/4 நொணங்கனூர் கிராமம், பாப்பிரெட்டிப்பட்டி வட்டம், தருமபுரி மாவட்டம்	மக்னீசியம் சல்பேட் - 250 பின்/மாதம்		தொழிற் கழிவுநீர் உற்பத்தி இல்லை	31.03.2022	01.01.2022 முதல் இயக்கத்தில் இல்லை

ஆய்வின் போது மேற்கண்ட இத்தொழிற்சாலைகளில் இருந்து எவ்வித தொழிற் கழிவு நீரும் வெளியேற்றப்படுவதில்லை என கண்டறியப்பட்டுள்ளது.

மாவட்ட ஆட்சித்தலைவர் ஒப்புதலுடன் அமைக்கப்பட்ட 11 துறைகள் கொண்ட குழுவில் 7 துறைகளின் ஆய்வறிக்கைகளின் அடிப்படையில் மேற்கண்ட தொழிற்சாலையின் செயல்பாடுகளில் விதிமீறல்கள் இருப்பது உறுதி செய்யப்பட்டுள்ளதால் உரிய நடவடிக்கை எடுக்கும்பொருட்டு அரசிற்கு அறிக்கை அனுப்பலாம். இத்துடன் குழு உறுப்பினர்கள் அளித்த ஆய்வறிக்கையை இணைத்துள்ளேன் என்பதையும் பணிவுடன் தெரிவித்துக்கொள்கிறேன்.

மாவட்ட வருவாய் அலுவலர்
தருமபுரி

District Environmental Engineer
Tamil Nadu Pollution Control Board
DHARMAPURI

Translated Copy

S. Anitha
District Revenue officer
Dharmapuri

District Collector
Dharmapuri

Na.Ka.No.0013/2022/TN Pollution Control Board Dated: 23.01.2023

Respected Sir/Madam

Sub: TN Legislative Assembly Petition Committee (2021-2022) Submission of reports based upon on the petition, inspection conducted on the draining of industrial wastage by Varalakshmi Starch Industries (P) Ltd., Alamelupuram Village, Papireddipatti.

Ref: No.1.: TN Legislative Assembly Petition Committee (2021-2022) Petition No.6988, given by Mr.Suresh, S/o. Pachaiyappan
2. District collector proceeding order, Na.Ka.0013/TN Pollution Control Board, dated: 18.11.2022

Based on the petition, the TN legislative assembly petition committee 2021-22 have visited the Alamelupuram Village on 09.11.2022. During their visit it was informed by Mr.Suresh Co-ordinator, Peeniaru Pathukapu Vivasaiyal Iyakam (Petition No.6988) that the industrial waste is discharged in the Peeni river by the Varalakshmi Starch Industries (P) Ltd., situated at Alamelupuram. Due to this people are getting allergies, digestion problem, headache, vomit, diarrhea and cancer. There are possibilities of death of fish in the river and cattle and farming are also affected. Moreover, they have grown Prosopis Juliflora (Seemai Karuvelam) and taking water unlawfully from the river by digging a very huge pond. Because of this the ground water level is affected. Moreover, the river is encroached by the industry.

The TN Assembly Committee have recommended to form a committee under the Revenue Officer and asked to submit a report regarding this petition within one month. On this basis, a committee is formed with the approval of the Collector on 18.11.2022. On 30.11.2022, under the District Revenue officer, 11 Departments jointly inspected the place and the recommendations and details are as follows.

1. Asst. Director of Agriculture (Farmer's Training Centre, Dharmapuri

The Biodiversity may be affected by the Prosopis Juliflora (Seema Karuvelam tree). It was recommended to plant TNAU Casurina MTP and TNAU Casurina MTP 2 of Pine Tree variety by step by step so as to manage the industrial waste more effectively and to retain the fertility of the soil.

2. Executive Engineer, Department of Water Resources: (Malpennyaru Basin Division, Dharmapuri

Findings in the inspection

The Industry has been functioning since 1998. There is no bore well or open well for the usage of water.

There is a pond digged measuring 160/88m,106x26m area near to the bank of the river Peeni without getting permission from Water Resources Department.

Water is filled in the Pond unlawfully from the river Peeni through pipe for the usage of the industry.

The River bank is encroached.

The wastage water is drained into the river by the pipes laid down by the industry.

3. Executive Engineer-Water Body Division, Vellore

Came to know that a pond is dug to store the rain water and there is no groundwater usage.

There is no provision to absorb ground water in the premises

No permission is obtained to take the ground water.

The samples of ground water from 8 wells are taken.

Apart from the 8 wells, the depth of the surrounding area wells are also noted.

4. Tashidar, Revenue Department, Papireddipatti

The above-mentioned industry is situated at Papireddipatti, Alamelupuram

S.No.	Village and Patta No.	Extent of
1	Alamelupuram,Patta No.18	1.31.50
2	Alamelupuram,Patta No.25	13.72.00
3	Alamelupuram,Patta No.37	6.89.00
4	Papireddipatti,Patta No.287	9.98.50
5	Papireddipatti,Patta No.1363	0.81.00
Total		32.72.00

District Collector's Personal Assistant, Land Division, Dharmapuri

M/S/Varalakshmi Starch Industries P Ltd, Papireddipatti,

Land Reform (Ceiling Regulation (Section 37A)

Application made for seeking permission under Sec.37A	;	07.06.2020
Address of the Industry		Papireddipatti, Alamelupuram
Extent		Papireddipatti 54.16 acres Alamelupuram 26.66 acres
Total extent		8082 acres

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Proposal date sent to the Commissioner of Land Reforms		30.09.2019
Report on rectification to the complaint		Advised to file an Application for the omitted survey No.75/1B, Pappireddireddy village to the Government
Total extent of the Mortgaged Land		21.25 acres.

5.Asst.Director (General) Survey, Dharmapuri

It is found that there is no encroachment of land by the Varalakshmi Starch Industries (P) Ltd. situated at Papireddipatti Dharmapuri District, Survey No.71,120,126,127,135/1,139,140 jointly by the Executive Engineer, Department of Water resources along with Circle Inspector, Arur Divisional Inspector

6.Asst.Director, Department of Fishers (Dharmapuri)

The water samples were collected and sent to the centre for Aquatic organism, Dr.J.Jayalatha Fisheries University. They found that the hardness in the water affects the growth of fish.

They added that there is no death of fish.

7.Asst.Director, Directorate of Industrial Safety and Health

The industry is advised to rectify the defects in the safety measures by the department during their visit on 16.02.2022. The District revenue officer found that the above defects were rectified during their visit on 30.11.2022. And they advised the below mentioned additional safety measures to be implemented:

- 1.Hand railing to be installed for the steps that leads to the Sago Plant Conveyor underground.
- 2.Hand railing to be installed for the ladder leading to the tank and other machines.
- 3.Advise to provide protective accessories for the Lathe Motor Belt drive.
- 4.To construct a wall or hand railing of 3 feet for the ETP pathway.
- 5.To construct a 3 feet barricade for the pit made for the construction of lift to carry maize plant materials.
- 6.To get additional plan approval for the newly constructed ETP plant.

8.Administrative Engineer,TWAD,Planning Division,Krishnagiri

The examination were conducted on the samples taken from 8 villages as per the request by the co-ordinator of Farmers movement on 06.12.2022 and the report is as under

S.No.	Name of the Villages	Water samples taken from	Result
1	Adikarapatti	Maikal puliyamaram M.P.P	not suitable for drinking purpose (more Fluoride)
2	Adikarapatti	Near Kumaravel's House IPP	Suitable for drinking purpose
3	A.Pallipatti	Near Police Station-OHT	Suitable for drinking purpose
4	Koundampatti	Tholanoor Road-O Well	Suitable for drinking purpose
5	Pudupatti	Near Angan vadi centre-OHT	Suitable for drinking purpose
6	Irulapatti	Near Kaliasman Temple- OHT	Suitable for drinking purpose
7	Alamelupuram	Near Thenmozhi's house-HP	not suitable for drinking purpose(hardness)
8	Kottaimedu	Behind Mariamman Temple- OHT	Suitable for drinking purpose

It was concluded that Row 1&7 are not suitable for drinking purpose.

The industry was visited on 30.11.2022 and it is not functioning. The samples of Sogo flour and the maize flour were sent to Food Analysis Laboratory, Guindy and found that the quality was good.

10.Asst.Director, Department of Health,Dharmapuri

On examination of the general public around the industry it was observed that there is no impact of any disease because of the draining of industrial waste in River peeni.

It was informed that the people of the village use Hogenekkal water because of the ground water contamination and high salt content.

11.District Environmental Engineer,TN pollution control Board

The industry has obtained permission to produce 11500 tones of sago Flour, maize flour, Sago and papad till 31.03.2021 from the Tamilnadu Pollution Control Board.

The industry discharges 500.1 kilo litre of industrial water waste and it is recycled to water the Prosopis Juliflora (Semai Karuvelam plant) which extents to 50 acres of land.

It is advised to grow tree and mala vembu in place of Prosopis Juliflora (Semai Karuvelam plant) by the TN Agriculture research centre.

The sample of recycled industrial waste was collected in the month of November 2021 and December 2021 and was found that Total Suspended Solids (TSS) ,Biological Oxygen demand(BOD), Chemical Oxygen Demand (COD) are greater than the Inland Surface Water Standards.

Since the conditions laid by the TN Pollution Control Board were not followed, guidelines dated 18.04.2022 were given.

The industry continuously monitored by the TN Pollution Control Board and samples were examined.

Complaints about the industry were also received.

Since the guidelines were not followed, Joint head Environment Engineer (Supervision) Vellore has personally visited on 04.08.2022 and conducted enquiry with the management on 22.08.2022.

The sample of recycled industrial waste was collected during the period Jan 2022 to June 2022 and was found that Total Suspended Solids (TSS), Biological Oxygen demand(BOD), Chemical Oxygen Demand (COD) are greater than the Inland Surface Water Standards.

Since the conditions laid by the TN pollution control Board were not followed, guidelines dated 17.10.2022 were given

Since the industry is operated without following the guidelines of TN Pollution Control and the non-renewal of license the EB connection was disconnected.

The management has filed a case in Hon'ble NGT against the TN Pollution Control and got the reconnection of Electricity on 12.12.2022 and the industry is running.

As per the request by the Management of Varalakshmi Starch Industries survey was conducted on 30.11.2022 of 7 chemical industries.

The below information is derived from the examination conducted by the Tahsildar of Papireddipatti, District Environment Engineer and Asst.Environmental Engineer.

S.No.	Name and Address of the industry	Product details	Industrial Discharge details	License	Notes
1	Ella Chem Industries (India) Pvt. Ltd. Survey No.10, Chinnamanjavai Village, Pappireddy Taluk Dharmapuri District	Bariumcarbonate- 600 tons per month Sodium Sulphate flakes-350 ton per month others-cleaned sand brick-1200 brick per day	100 ltrs per day (Cooling tower bleed off) Vaporation due to Sun. Hence no discharge of waste	31.03.2025	Working (50% Production)
2	Hy Tech Chemical Survey No.11/6A, Kallathupatti Village, Papireduipati Taluk	Barium Nitrate- 150 ton per month	No industrial waste	31.03.2025	Not working from 01.03.2023

3	Sri Amman Chemicals Survey No.11/6A, Papiraddipatti Dharmapuri District	Sodium Sulphide flakes bits and solids	No industrial wastage	31.03.2025	Not working from 01.01.2022
4	Leather and textile chemicals	Sodium Sulphide flaks-50 ton per month bits-15 ton per month Solid -10 ton per month	No industrial wastage	31.03.2025	Not working from 01.01.2022
5	Siva Chemicals Survey No.11/6A Kallathupatti Village,Papiredui pati Taluk	Barium chloride crstal-99.450 ton per month Barium chloride solution-186.900 ton per month	10 ltrs per day (Scrubber liquor) Vaporation due to Sun.Hence no discharge of waste	31.03.2024	from 01.04.2022 worked 6 days on and off
6	Sivasakthi chemicals Survey No.11/6A Kallathupatti Village, Papireduipati Taluk	Sodium Sulphide flakes bits and solids-150 ton per month	10 lts per day (Recyling condensate from evaporator and used for production)	31.03.2025	Not working from 01.01.2022
7	Agro needs Survey 40/4, Nonganur Village, Papiraddipatti, Dharmapuri District	Magnesium Sulphate-250 ton per month	No industrial wastage	31.03.2022	Not working from 01.01.2022

Upon inspection, it was found that no industrial waste is drained by the above-mentioned factories. The Committee formed by the 11 Departments with the District Collector approval submitted their report. As per their report it was confirmed that there is violation of law in the industrial functioning. A report regarding this violation can be sent to the Government for taking action.

We herewith enclose the reports submitted by the committee members.

District Revenue Officer,
Dharmapuri

23

14

**GOVERNMENT OF TAMIL NADU****Abstract**

ENVIRONMENT CONTROL – Control of Pollution of Water Sources – Location of industries within 1 K.M. from the embankments of rivers, streams, dams etc. – Imposition of restrictions – Orders – Issued.

ENVIRONMENT AND FORESTS (EC-I) DEPARTMENT

G.O. Ms. No: 213
Dated the 30th March, 1989.

Read:

- (1) G.O. Ms. No:1 Environment Control Dated: 6.2.84
- (2) From the Member Secretary, Tamil Nadu Pollution Control Board Lr. No:BMS(1)/18878/88 Dated: 23.8.88.
- (3) From the Chairman, Tamil Nadu Pollution control Board Lr. BMS(1) / 44365/88 Dated: 3.1.88 and letter of even no. Dated: 30.12.88.

ORDER:-

In the Government Order first read above, the Government have ordered, among other things, that no industry causing serious water pollution should be permitted within one kilometer from the embankments of rivers, streams, dams etc. and that the Tamil Nadu Pollution Control Board should furnish a list of such industries to all local bodies. It has been suggested that it is necessary to have a sharper definition for water sources so that ephemeral water collections like rain water ponds, drains, sewerages (bio-degradable) etc. may be excluded from the purview of the above order. The Chairman, Tamil Nadu Pollution Control Board has stated that the scope of the Government Order may be restricted to reservoirs, rivers and public drinking water sources. He has also stated that there should be a complete ban on location of highly polluting industries within 1 kilometre of certain water sources.

2. The Government have carefully examined the above suggestions. The Government improve a total ban on the setting up of the highly polluting industries mentioned in Annexure – I to this order within one kilometer from the embankments of the water sources mentioned in Annexure II to this order.

3. The Government also direct that under any circumstance if any highly polluting industry is proposed to be set up within one kilometer from the embankments of water sources other than those mentioned in Annexure-II to this order, the Tamil Nadu Pollution Control Board should examine the case and obtain the approval of the Government for it.

4. The receipt of this order may be acknowledged.

(BY ORDER OF THE GOVERNOR)

**D.SUNDARESAN,
COMMISSIONER AND SECRETARY TO GOVERNMENT**

To

The Chairman, Tamil Nadu Pollution Control Board 32, Santhome High road, Madras – 600 004.

All Heads of Departments

All Departments of Secretariat, Madras – 9.

ANNEXURE – I

LIST OF HIGHLY POLLUTING INDUSTRIES

1. Distilleries
2. Tanneries, Sago, Sugar, Dairies and Glue
3. Fertilizer
4. Pulp & Paper (with digester)
5. Chemical units generating trade effluent containing such pollutants which may to pollute air, water and land before treatment and those chemicals which may alter the environmental quality by under going physical, chemical and biological transformation.
6. Petroleum Refinery

7. Textile Dyeing Units
8. Steel Plant (Electroplating, heat treatment etc.)
9. Ceramics
10. Thermal Power Station
11. Basic Drug Manufacturing Units
12. Pesticide
13. Asbestos
14. Foundries

ANNEXURE II OF G.O. Ms.No:213 E&F (EC-I) Dept. Dated:30.3.89

LIST OF RIVERS, STREAMS, RESERVOIRS, ETC.

S.No	Rivers	Tanks and Reservoirs	Canals
1.	2.	3.	4.
MADRAS & CHENGALPATTU DISTRICTS			
	Araniyaru	Chembarambakkam Tank	Upper supply Channel (Poondi to Cholavaram)
		Thenneri Hissa Tank	Lower supply Channel (Cholavaram to Redhills)
2.	Koaratalaiyar	Uthiramerur Tank	Cheyyar Anicut Main Channel
3.	Cooum		
4.	Adayar	Maduranthagam Tank	
5.	Palar		
6.	Nagari	Parayankalathur Tank	
7.	Nandiyaru		
8.	Cheyyar	Cooum Tank	
9.	Kiliyaru		
10.	Ongur	Manimangalam Tank	
		Poondi Reservoir	
		Cholavaram Lake	
		Red Hills Lake	

SOUTH ARCOT DISTRICT			
1.	Varahanadhi	Wellington Reservoir	Sathanur Reservoir Project Canal
2.	Malattaru	Vidur Reservoir	Sathanur Reservoir Project Right Bank Canal
3.	Pennaiaru	Gomuki Reservoir	Pambai Channel
4.	Gadilam	Manimukthanadhi Reservoir	Malattar Channel
5.	Vellar		Raghavian Channel
6.	Coleroon	Veeranam Tank Perumal Tank	Thirukkoilur anaicut
7.	Tundiaru		Sithalingamadam Channel
			Vadamarudur Channel
8.	Pambaiyar		
9.	Gomuki		Maragadapuram Channel
10.	Manimukthanadhi		Alargal Channel
11.	Musukunda Nachi		Kandapakkam Channel
			Eralur Channel
12.	Thurinjaral		Wellington Reservoir Supply Channel (From Toludur Regulator)
13.	Vasistanadhi		Wellington Reservoir Main Canal
14.	Vadavar		Wellington Reservoir Low Level Canal.
			Pelandorai Anicut Main Channel
			North Rajan Channel
			South Rajan Channel
			Kunukkumanniyar Channel
			Vellar Rajan Channel
			Veeranam and New Supply Channel
			Gomuki Reservoir Main Canal
			Manimukthanadhi Reservoir Main

			Canal		
			Vridhachalam Anaicut Main channels (North & South)		
			Mehamathur Anaicut Channel		
THANJAVUR DISTRICT					
1.	Cauvery		Grand Anaicut Canal		
2.	Coleroon		Lower Coleroon Anaicut Canals		
3.	Kodamurutty				
4.	Arasalar				
5.	Veerasholan				
6.	Vikramanar				
7.	Vennar				
8.	Vettar				
9.	Vadavar				
10.	Koraiyar				
11.	Paminar				
12.	Pandavayar				
13.	Vellayar				
14.	Mulliyar				
15.	Ayyanar				
TRICHY DISTRICT					
1.	Cauvery	Ponnaiyar Reservoirs	North bank Canal	Kattalai Bed Regulator	
			South Bank Canal		
			Kattalai Right-Left Canal		
			Uyyakondan Channel		
2.	Amaravathi		Nanganur channel		
3.	Coleroon		Pullambadi Channel		
			Ponnaniyar Reservoir new Canal		
PUDUKKOTTAI DISTRICT.					
1.	Vellar	-	Grand Anicut Canal		
2.	Ambuliyaru				
3.	Agniceru				
4.	Koraiar				
MADURAI DISTRICT					
1.	Vaigai	Vaigai Reservoir	Gungun Valley Anaicut Canals		
2.	Suriliyar	Sathiar Odai Reservoir	Periyar Main Canal		
3.	Kottakudiar		Manjalar Canal		
			Thirumangalam Main Canal		
			Sathiar Odai Reservoir Canals		

ANNA DISTRICT			
1.	Shanmughanathi	Palar Porandalar	Palar-Porandalar Main Canal Thadakulam Tank canals
2.	Koduvanaru	Parappalar	Ramasandram Anicut Channel (Posappalam) Vardamahadhi Reservoirs System
3.	Manjalaru	Vardamanadhi	Vardamahadhi Reservoirs System
4.	Mamdanadhi	Manjalar	Thirumangalam Main Channel
5.	Palar-Porandalar	Kodaikanal Lake	Periyar Main Canals
6.	Parajipalar	Berijam Lake	Murudanadhi Reservoir Left & Right Side
7.	Vaigai River	Kamaraj Sagar	Mayalaru Reservoir Canals
RAMANATHAPURAM DISTRICT			
1.	Vaigai	R.S. Mangalam Tank	--
2.	Vaipparu	Ramanad Big Tank	--
3.	Vembaru	Kanoor Tank	--
4.		Maranadu Tank	--
PASUMPON MUTHURAMALINGAM DISTRICT			
1.	Vaigai	--	Periyar Main Canals
2.	Manimuthar		
KAMARAJAR DISTRICT			
1.	Vaipparu	Kullur Sandai Reservoir	--
2.	--	Vembokottai Reservoir	
THIRUNELVELI KATTABOMMAN DISTRICT			
1.	Thamaraparani	Manimuthar	North Kodamelagian Channel
2.	Karuppanadhi		
3.	Chettiar	Karuppanadhi	Nadiyunni Channel
4.	Servalar		
5.	Manimuthar	Ramanadhi	Kannadian Channel
		Gatana	Kodayan Chennel
		Papanasam	Palayam Channel
			Tirunelveli Channel
		Kadamba Tank	
		Vijayanarayar	Tenkal Channel
		Periyakulam	Vadakkal Channel
		Tenkanai Tank	Manimuthar Reservoir main
			Ramanathi Reservoir

			Channel-Gatana Reservoir
			Arasapattu Channel
			Vadakuruvaipathu Channel Gatana Reservoirs
			Radhapuram Channel
VOC CHIDAMBARANAR DISTRICT			
1.	Tambaraparani	Korampallam Tank	Marudur Melakkal Channel
2.	Vaippar		South Main Channel of Srivaikundam Anicut
			North Main Channel of Srivaikundam Anicut
KANYAKUMARI DISTRICT			
1.	Kodaiyaru	Pechiparai	Padmanabhapuram Puthen Channel
2.	Valliar	Perunchani	Pandiankal
3.	Palayaru	Chittarl	Thovala Channel
			N.P. Channel
			Pazhayaru
			E.K. Kal System
			A.V.M. Channel
			Thiruvithancode Canal System
			Pechiparai Left Bank Canal
			Pattanamkal System
			Radhapuram Canal
COIMBATORE DISTRICT			
1.	Bhavani	Parambikulam	Ramakulan Channel
2.	Noyyal	Sholayar	Kallapuram Channel
3.	Amaravathi	Amaravathi	Parambikulam Right Left Canal
			Parambikulam Main Canal
			Bhalli Channel system
4.	Aliyar	Aliyar	Vettaikaranpudur Canal
		Poruvanpallar	Sethumadai Canal
		Thunnokhadam	Udumalpet Canal
		Upper Nivan	Aliyar Feeder Canal
		Lower Nivan	Pollachi canal
		Thirumathi	
NILGIRIS DISTRICT			
1.	Moyar	Upper Bhavani	Avara Halla Canal
2.	Bhavani	Emerald	
3.	Pillur Pallam	Avalanche	

4.	Kulkathurai Halla	Pillur		
5.	Dedarahalla	Kundah		
6.	Avarai Halla	Paikara		
7.	Paikara	Ooty Halla		
8.	Amkour halla	Parson Valley		
9.	Singar	Glemergon		
		Singara		
PERIYAR DISTRICT				
1.	Cauvery	Bhavani Sagar	Modineri Anicut Canals	
2.	Bhavani	Uppar	Thadappalli Channel	
			Lower Bhavani Channel	
			Kalingarayan Anicut Canal	
3.	Moyar	Uttamalaikarai Odai	Upper Reservoirs canal	
4.	Noyyal	Varattappallam	Vattamalai Kaveri odai Reservoirs Canal	
		Gunderipallam	Varattappallam Keshmir Canal	
			Gunderipallam Reservoirs right side and left side canals	
SALEM DISTRICT				
1.	Cauvery	Mettur Reservoir	Mettur Canals (East & West Bank canals)	
2.	Thirumanimuthar	Yercadu Lake		
3.	Vashishtanadhi			
DHARMAPURI DISTRICT				
1.	Cauvery	Krishnagiri Reservoir	Krishnagiri Reservoir Main Canal	
2.	Pennaiyaru	Chinnar Reservoir	Bargur Tank Supply Channel (West & East)	
3.	Palar	Thunvalahalli Reservoir	Nedungal Anicut Channel	
4.	Chinnar I	Bargur Big Tank	Devarahalli Tank Supply Channel	
5.	Chinnar II	Mettur Reservoir	Chinnar Reservoir Right Side Channel	
6.	Bargur river	Pambar		
7.	Pambar			
8.	Vaniar			
9.	Chinnaru			
10.	Palaru			
NORTH ARCOT DISTRICT				
1.	Palar	Sathanur Reservoir	Mahendravadi Channel	Palar Anaicut
2.	Poiney	Dusi Mamandur Tank		
3.	Cheyyar	Kaveripakkam Tank		

			Kaveri pakkam Channel	
4.	Pennaiyar			
5.	Thurinjilaru		Sukkiramallur Channel	
			Dari (Temmampattu) Channel	
			Kavai Channel	
			Govindavadi Channel	
			Poiney Eastern Main Channel	Poiney Anicut
			Poiney Western Main Channel	
			Sathanur Reservoir Project Canal	Sathanur Reservoir
			Sathanur Reservoir Project Right Bank Canal	

D.SUNDARESAN,
COMMISSIONER AND SECRETARY TO GOVERNMENT

True copy

PUBLIC WORKS DEPARTMENT

From,

To,

Er.K.P.Mohamed Abdul Kadir, B.E.,
Executive Engineer, P.W.D.,
Ground Water Division,
Vellore -6.

Varalakshmi Starch Industrial (P) Ltd.,
Varalakshmi Tower,
2nd Floor, 127/1, Gandhi Road,
Salem - 636007.

Lr.No. AGP / F555 / 998 M / Vlr / dated: 03 .12.2008

Sir,

Sub: Ground Water clearance - requested - reg.

- Ref : 1. Your Lr. No.VSIPL / TNPCB / GW / 2008 / 0944
dt.24.10.2008
2. AGP / F555 / 970M / Vlr / dt.21.11.2008
3. Your Lr.No.VSIPL / TNPCB / GW / 2008 / dt.25.11.2008
..*.*

With above reference, It is came to know that for running the industry the requirement of water is fulfilled with rain water collected in 'rainwater harvesting pond', existing in your industrial area. Hence, there is 'No Objection' from our department to give clearance for taking stored harvested rainwater from your collection pond for running the industry throught the year. However this NOC is not for tapping of ground water, if any by your industry.

It is requested that after industrial use, the waste water i.e., effluent should be treated before letting out from the factory and necessary arrangement may be made for not polluting ground water sources in and around the industrial area.

[Signature]
Executive Engineer, P.W.D.,
Ground Water Division, Vellore -6.



Government Of Tamilnadu

ABSTRACT

RULES - Provision of Rain Water Harvesting Structures in buildings - Amendments to Building Rules - Issued.

MUNICIPAL ADMINISTRATION AND WATER SUPPLY (MA.I) DEPARTMENT

G.O. Ms. No.56

Dated : 21.7.2003

Read :

1. G.O. Ms. No.138, Municipal Administration & Water Supply Department, dated 11.10.2002.
2. G.O. Ms. No.140, Municipal Administration & Water Supply Department, dated 11.10.2002.

ORDER:

The appended Notifications will be published in the Tamil Nadu Government Gazette - Extra-ordinary dated the 21st July, 2003.

(BY ORDER OF THE GOVERNOR)

L.N. VIJAYARAGHAVAN,

SECRETARY TO GOVERNMENT.

To

The Works Manager, Government Central Press, Chennai-79

(for publication of notification in the Tamil Nadu Government Gazette Extraordinary and to supply 50 copies to Government)

The Director of Town Panchayats, Chennai-108

The Commissioner of Municipal Administration, Chennai-5.

The Commissioners of all Municipal Corporations except Chennai.

All Regional Directors of Municipal Administration.

All Assistant Directors of Town Panchayats.

All Municipal Commissioners.

All Executive Officers of Town Panchayats.

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Copy to:-

The Managing Director, Tamil Nadu Water Supply and Drainage Board,

Chennai-5.

The Law Department, Chennai-9.

The Municipal Administration & Water Supply (Budget) Department, Chennai-9.

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/Forwarded by order/

Section Officer

(Continuation of G.O.Ms.No.56, Municipal Administration & Water Supply Department, dated 21.7.2003).

APPENDIX

NOTIFICATION - I

In exercise of the powers conferred by section 191 and section 303 of the Tamil Nadu District Municipalities Act, 1920 (Tamil Nadu Act V of 1920), the Governor of Tamil Nadu hereby makes the following amendment to the Tamil Nadu District Municipalities Building Rules, 1972.

AMENDMENT

In the said Rules, for rule 3-B, the following rule shall be substituted, namely:-

"3-B, Provision of Rain Water Harvesting Structure.- Notwithstanding anything contained in these rules,-

(1) in every building owned or occupied by the Government or a statutory body or a company or an institution owned or controlled by the Government rain water harvesting structure shall be provided in the manner specified in rule 3-A on or before the 10th October 2003;

(2) (a) subject to sub-rule (1) every owner or occupier of a building shall provide rain water harvesting structure in such building in the manner specified in rule 3-A on or before the 31st August 2003. If the owner or occupier of the building fails to provide the said rain water harvesting structure by the said date, the Executive Authority or any person authorised by him in this behalf may after giving notice to the owner or occupier of the building, cause rain water harvesting structure to be provided in such building and recover the cost of such provision along with the incidental expense thereof in the same manner as property tax. This however, does not absolve the liability of the owner or occupier of the building from providing the rain water harvesting structure before the 10th October 2003.

(b) if the owner or occupier of the building fails to provide rain water harvesting structure on or before the 10th October 2003, the water supply connection provided to such building shall be disconnected till rain water harvesting structure is provided".

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NOTIFICATION - II

In exercise of the powers conferred by section 191 and section 303 of the Tamil Nadu District Municipalities Act, 1920 (Tamil Nadu Act V of 1920), the Governor of Tamil Nadu hereby makes the following amendment to the Multi-storeyed and Public Building Rules, 1973.

AMENDMENT

In the said Rules, for Rule 16-B, the following rule shall be substituted, namely:-

"16-B. Provision of Rain Water Harvesting Structure.- Notwithstanding anything contained in these rules,-

(1) in every building owned or occupied by the Government or a statutory body or a company or an institution owned or controlled by the Government rain water harvesting structure shall be provided in the manner specified in rule 7-A on or before the 10th October 2003.

(2) (a) subject to sub-rule (1) every owner or occupier of a building shall provide rain water harvesting structure in such building in the manner specified in rule 7-A on or before the 31st August 2003. If the owner or occupier of the building fails to provide the said rain water harvesting structure by the said date, the Executive Authority or any person authorised by him in this behalf may after giving notice to the owner or occupier of the building, cause rain water harvesting structure to be provided in such building and recover the cost of such provision along with the incidental expense thereof in the same manner as property tax. This however, does not absolve the liability of the owner or occupier of the building from providing the rain water harvesting structure before the 10th October 2003.

(b) if the owner or occupier of the building fails to provide rain water harvesting structure on or before the 10th October 2003, the water supply connection provided to such building shall be disconnected till rain water harvesting structure is provided".

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NOTIFICATION - III

In exercise of the powers conferred by section 268 and section 431 of the Madurai City Municipal Corporation Act, 1971 (Tamil Nadu Act 15 of 1971), the Governor of Tamil Nadu hereby makes the following amendment to the Madurai City Municipal Corporation Building (Water Conservation) Rules, 2002.

AMENDMENT

In the said Rules, for Rule 4, the following rule shall be substituted, namely:-

"4. Provision of Rain Water Harvesting Structure.- Notwithstanding anything contained in these rules,-

(1) in every building owned or occupied by the Government or a statutory body or a company or an institution owned or controlled by the Government rain water harvesting structure shall be provided in the manner specified in rule 3 on or before the 10th October 2003.

(2) (a) subject to sub-rule (1) every owner or occupier of a building shall provide rain water harvesting structure in such building in the manner specified in rule 3 on or before the 31st August 2003. If the owner or occupier of the building fails to provide the said rain water harvesting structure by the said date, the Commissioner or any person authorised by him in this behalf may after giving notice to the owner or occupier of the building, cause rain water harvesting structure to be provided in such building and recover the cost of such provision along with the incidental expense thereof in the same manner as property tax. This however, does not absolve the liability of the owner or occupier of the building from providing the rain water harvesting structure before the 10th October 2003.

(b) if the owner or occupier of the building fails to provide rain water harvesting structure on or before the 10th October 2003, the water supply connection provided to such building shall be disconnected till rain water harvesting structure is provided".

-

L.N. VIJAYARAGHAVAN,

SECRETARY TO GOVERNMENT

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/TRUE COPY/

SECTION OFFICER

அனுப்பநர்
திரு. ப. யோகராஜா பி.இ.,
நகர் ஊரமைப்பு துணை இயக்குநர் (பொ)
தருமபுரி மண்டலம்,
83, பிடமனேரி ரோடு,
அப்பாவு நகர்,
தருமபுரி - 636 703.

பெறுநர்
பொது மேலாளர்,
மாவட்ட தொழில்மையம்,
தருமபுரி.

ந.க. எண் : 669/2010/தம

நாள் : 02.05.2011

ஐயா,

- பொருள் : பலமாடி கட்டிடம் - நகர் ஊரமைப்பு துறை - தருமபுரி மண்டலம் - தருமபுரி மாவட்டம், பாப்பிரெட்டிபட்டி வட்டம், பாப்பிரெட்டிபட்டி பேரூராட்சி/கிராமம் சர்வே எண்கள் 77/1B, 2A2, 2B2, 78/2, 168/1 மற்றும் அலுமேலுபுரம் கிராமம் சர்வே எண்கள் 130/7, 8, 131/1, 2 & 132/1A1 (பரப்பு 14.20.0 Hec)ல் ஏற்கனவே 1540 குதிரை வேக மின்திறன் கொண்ட நிறுவன அனுமதி பெறப்பட்டது. கூடுதலாக 31.33 மீ உயரம் கொண்ட தொழில் கூட கட்டிடம்(பலமாடி) கூடுதலாக 2930 HP மின் திறனுடன் தொழில்நுட்ப அனுமதி வழங்குதல் - தொடர்பாக.
- பார்வை : 1. நகர் ஊரமைப்பு துணை இயக்குநர், வேலூர் மண்டலம் அவர்கள் கடிதம் ந.க. எண் 3344/95 வேம 2, நாள் 15.09.1995
2. நகர் ஊரமைப்பு துணை இயக்குநர், வேலூர் மண்டலம் அவர்கள் கடிதம் ந.க. எண் 951 / 2003 வேம 3, நாள் 04.06.2003
3. பொது மேலாளர் மாவட்ட தொழில்மையம் தருமபுரி அவர்களின் கடிதம் ந.க.எண் 1825/அ3/2010 நாள் : 29.06.2010
4. செயல் அலுவலர், பாப்பிரெட்டிபட்டி தேர்வு நிலை பேரூராட்சி கடித ந.க.எண். 265/2010/அ1 நாள் : 07.06.2010
5. பாப்பிரெட்டிபட்டி பேரூராட்சி மன்ற தீர்மானம் எண் : 38, நாள்: 07.06.2010
6. தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் (பி)லிட் அவர்களின் கடிதம் நாள் : 12.08.2010
7. நகர் ஊரமைப்பு இயக்குநர் சென்னை அவர்களின் செயலாணை ந.க. எண் 21338/2010 Spl.Cell நாள் : 23.10.2010 மற்றும் 18.11.2010
8. அரசாணை எண் 754 ஊரக வீளர்ச்சி மற்றும் உள்ளாட்சி துறை நாள் : 07.05.1979

9. அரசாணை எண் 169 தொழிற்சாலை (MIE-2) துறை
நாள் : 12.09.1996.

10. அரசாணை எண் 161 வீட்டு வசதி மற்றும் நகர்ப்புற வளர்ச்சி துறை
நாள் : 9.9.2009ன் படி மனுதாரர் உட்கட்டமைப்பு மற்றும் அடிப்படை
வசதி கட்டணம் செலுத்திய விபரம் பெறப்பட்ட நாள் : 02.05.2011.

தருமபுரி மாவட்டம், பாப்பிரெட்டிப்பட்டி வட்டம், பாப்பிரெட்டிப்பட்டி பேரூராட்சிக்குட்பட்ட பாப்பிரெட்டிப்பட்டி கிராமம் சர்வே எண்கள் 77/1B, 2A2, 2B2, 78/2, 168/1 மற்றும் அலுமேலுபுரம் கிராமம் சர்வே எண்கள் 130/7, 8, 131/1, 2, 132/1A1 (பரப்பு 14.20.0 ஹெக்டார்) ஆகியவற்றில் ஏற்கனவே 1540 பரிதிருடன் இயங்கும் நிறுவனத்திற்கு பார்வை 1 மற்றும் 2ல் காணும் நகர் ஊரமைப்பு துணை இயக்குநர் வேலூர் மண்டலம் அலுவலர்கள் கடிதம் மூலம் அனுமதி அளிக்கப்பட்டது.

பார்வை 3ல் கண்டுள்ள நகர் ஊரமைப்பு இயக்குநர் சென்னை அலுவலர்களின் செயலாளையில் 31.33 மீட்டர் உயரம் கொண்ட Maize Plant கட்டிடத்தில் கூடுதலாக 2930 பரிதிருடன் கொண்ட இயந்திரங்களுடன் நிறுவனம் கட்டிடத்திற்கு க.வ. ந.ஊ.இ. எண் 208/2010 என்ற எண்ணில் ஒப்புதல் வழங்கப்பட்டுள்ளது.

ஒப்புதலளிக்கப்பட்ட கட்டிட பரப்பு விவரம்

<u>Maize Starch Plant</u>	<u>Built up Area</u>
0.45 m Level Floor Area	- 3066.04 ச.மீ ✓
6.80 m Level Floor Area	- 3066.04 ச.மீ ✓
13.15 m Level Floor Area	- 2514.59 ச.மீ ✓
19.15 m Level Floor Area	- 2387.02 ச.மீ
Total	- 11033.69 ச.மீ
Godown	- 1587.44 ச.மீ
Generator Room Expansion Area	- 199.01 ச.மீ
Total	- 1786.45 ச.மீ

பிரெஸ்தாப வரலட்சுமி ஸ்டாட்ச் இன்டஸ்ட்ரிஸ் பி.லிட் நிறுவன வரையடங்களுக்கு ஊராட்சி சட்டபிரிவு 112ன் கீழ் உரிமங்களையும், அனுமதிகளையும் வழங்குவதை தடுப்பதற்கான அல்லது முறைப்படுத்துவதற்கான விதி 8(அ)ன் கீழ் 1950 ஆம் ஆண்டின் தொழிற்சாலைகளுக்கான விதி 3 (IX)சி ன் கீழ் மற்றும் பார்வை (8)ல் கூடிய அரசாணையின் படியும் பின்வரும் நிபந்தனைகளுடன் தொ.வ.ப. ந.ஊ. து. இ. (கும) எண் : 24 (அ முதல் ஓ வரை) / 2011 என எண்ணிட்டும் மனையிடத்திற்கு A1 to A24 என எல்லையிட்டு ம.வ./ ந. ஊ. து.இ. (கும) எண் 33/2011 என எண்ணிட்டும் மனை ஒப்புதலுடன் கீழ்க்கண்ட நிபந்தனைகளுடன் தொழில் நுட்ப அனுமதி வழங்கப்படுகிறது.

நிபந்தனைகள் :

-3-

1. உத்தேச கூடுதல் தொழில் நிறுவன உபயோகக் கட்டுமானத்திற்கு Solar Water Heating System அமைக்கப்பட வேண்டும்.
2. வரைபடத்தில் உத்தேசிக்கப்பட்டவாறு வாகன நிறுத்துமிடம் அந்த பயனுக்காவே பயன்படுத்த வேண்டும்.
3. மனையில் காட்டப்பட்டுள்ள திறவிடங்கள் அதன்படியே நிலைநிறுத்தப்பட வேண்டும்.
4. தற்போது ஒப்புதல் பெறப்பட்ட வரைபடத்திற்கு மாறாக கட்டிடத்தில் எவ்வித மாற்றமும் செய்தல் கூடாது. மாற்றங்கள் ஏதேனும் செய்வதாக இருந்தால் இவ்வலுவலகத்தின் முன் அனுமதி பெறப்படவேண்டும்.
5. மழைநீர் சேகரிப்பு வசதிகள் வரைபடத்தில் காட்டப்பட்டுள்ளவாறு அரசாணை எண்.138, நகராட்சி நிர்வாகம் மற்றும் குடிநீர் வழங்கல் துறை நாள் : 11.10.2002 ன் படி கட்டிடத்தில் செயல்படுத்தப்பட வேண்டும்.
6. உத்தேச கட்டிடத்தில் இருந்து வெளியேரும் கழிவு நீர் தனியார் வாகனங்கள் மூலம் வெளியேற்றவும், உபயோகிப்போருக்கு பாதுகாக்கப்பட்ட குடிநீர் வசதிகள் மற்றும் இதர தேவைக்கான நீர் வசதிகள் ஆகியவை மனுதாரர் தனது சொந்த செலவில் செய்து தரவேண்டும்.
7. மனையில் அமையும் குடிநீர் மேல்நிலைத்தொட்டி மற்றும் கிணறு ஆகியவற்றுக்கு கொசு தடுப்பு சாதனம் பொருத்தப்படவேண்டும்.
8. உத்தேச கட்டுமானத்தில் விதிப்படித் தேவையான அளவுக்கு தீத்தடுப்பு மற்றும் தீயணைப்பு சாதனங்கள் அமைக்கப்படவேண்டும்.
9. அரசாணை எண் 341/ந.நி. மற்றும் குடிநீர் வழங்கல் (ந.நி.1) துறை, நாள் : 03.11.2004ன் படி செட்டிக் டேங்க்கில் "U" Trap அமைத்தல் வேண்டும்.
10. சுற்றுச்சூழல் மற்றும் வனத்துறை அறிவிக்கையின்படி உத்தேச கட்டிடத்திற்கு FLYASH BRICKS மற்றும் MATERIALS பயன்படுத்தப்படவேண்டும்.
11. அங்கீகரிக்கப்பட்ட வரைபடத்தின் அசல் நகலுடன் ஏற்கனவே அளிக்கப்பட்ட உத்தரவு மற்றும் இவ்வாணையின் நகல் அலுவலகத்தில் பார்வைக்காக வைக்கப்பட வேண்டும்.

முத்திரை இடப்பட்ட வரைபடங்கள் இத்துடன் இணைத்து அனுப்பப்படுகிறது.



நகர் ஊரமைப்பு துணை இயக்குநர் (பொ),

தருமபுரி மண்டலம், தருமபுரி.

50/11

இணைப்பு :

1. ஒப்புதலளிக்கப்பட்ட வரைபடங்கள் இரண்டு தொகுப்புகள்.
2. பார்வை 7-ல் கட்டிய ந.ஊ.இ. ன் செயலாணை.

நகல் :

வரலட்சுமி ஸ்டார்ச் இன்டஸ்ட்ரீஸ் (பி) லிட்.
7/114-126 பொம்மிடி மெயின் ரோடு,
பாப்பிரெட்டிபட்டி (அஞ்சல்)
தருமபுரி மாவட்டம்.



பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி செயல் அலுவலர் அவர்களின் நடவடிக்கைகள்

முன்னிலை திருமதி. ஆ. ஆயிஷா

மு. மு. எண் 283 /2011 அர்

நாள் 18.7.2011

பொருள்

பலமாடி கட்டிடம் - கட்டிட அனுமதி - தர்மபுரி மாவட்டம் - பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி - கிராம சர்வே எண்கள் 77/19,2ஏ2,292,292,78/2,168/1 மற்றும் அலமேலுபுரம் கிராம சர்வே எண்கள் 130/7,8,131/1,2,132/1ஏ1 (பரப்பு 14.20.0ஹெக்டேர்)ல் ஏற்கனவே 1540 குதிரைவேகம் மின் திறன் கொண்ட நிறுவன அனுமதி பெறப்பட்ட கட்டிடத்தில் கூடுதலாக 31.33 மீட்டர் உயரம் கொண்ட தொழில்சூட்டம் கட்டிடம் மற்றும் கூடுதல் நிறுவன பலமாடி கட்டிடம் மற்றும் கூடுதலாக (2930 HP திறன்) கட்டிடம் கட்ட அனுமதி அளிக்கப்படுகிறது.

பார்வை

1. தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிட் சேலம் மெயின்ரோடு அலமேலுபுரம்
2. இப்பேரூராட்சி மன்ற தீர்மான எண் 38 நாள் 7.6.2010
3. நகர் ஊரமைப்பு இயக்குநர், சென்னை அவர்களின் செயல்முறை ஆணை ந.க.எண் 21338/2010/சி.பி நாள் 18.11.2010

உத்திரவு

தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிட் சேலம் மெயின்ரோடு அலமேலுபுரம் அவர்களுக்கு தர்மபுரி மாவட்டம் பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி வார்டு எண் 7 அலமேலுபுரம் சர்வே எண்கள் 77/19,2ஏ2,292,292,78/2,168/1 மற்றும் அலமேலுபுரம் கிராம சர்வே எண்கள் 130/7,8,131/1,2,132/1ஏ1 ல் உள்ள இடத்தில் கூடுதலாக 31.33 மீட்டர் உயரம் கொண்ட தொழில் சூட்டக் கட்டிடம் மற்றும் கூடுதல் நிறுவன பலமாடி கட்டிடம் மற்றும் கூடுதலாக (2930 HP திறன்) கட்டிடம் கட்டிக் கொள்ள பார்வை 3 ல் காணும் நகர் ஊரமைப்பு இயக்குநர் சென்னை அவர்களின் செயல்முறை ஆணையில் உள்ள நிபந்தனைகளுக்கு உட்படுத்தியும், 1920 -ம் ஆண்டு சென்னை முனிசிபாலிட்டிகள் சட்டவிரிவு 2012/10 ன் படி இத்துடன் சேர்த்திருக்கும் வரைபடத்தின் படியும் இதனடியில் கண்ட நிபந்தனைகளுக்குட்பட்டும் கட்டிடம் கட்டிக் கொள்ள அனுமதி வழங்கப்படுகிறது.

நிபந்தனைகள்

1. கட்டிடத்திற்கு எந்த புறம் வீதியிலிருந்தாலும் அந்த வீதியை ஒட்டி 4 அடி காலியிடம் விட்டு வீடு கட்டப்பட வேண்டும்.
2. பொதுத் தெருவில்படி சாக்கடை, சாக்கடைத்தொட்டி தட்டி சார்வு முதலான எந்தவிதமான ஆக்கிரமிப்பும் செய்யக் கூடாது.
3. கட்டிடத்திற்கு வைக்கப்படும் நிலை கதவுகள் அளவும் ஜன்னல்கள் அளவும் வரைபடத்தில் உள்ளவாறு அமைக்கப்பட வேண்டும்.
4. சமையல் அறையில் அடுப்பு மேல்புகைப் போக்கி ஒன்று அமைக்கப்பட வேண்டும்.
5. குறிப்பிட்ட இடத்தில் சிமெண்ட் கான்கிரீட் தளம் போட்ட நீரடிக் கழிவுறை ஒன்றும் சாக்கடைத் தொட்டி ஒன்றும் அமைக்கப்பட வேண்டும்.
6. கட்டிடம் கட்டி முடிந்த விபரம் இவ்வலுவலத்திற்குத் தெரியப்படுத்தித் தமிழ்நாடு பொது சுகாதார சட்டம் 25 மற்றும் 33 வது பிரிவுகளின் படியும் தகுதிச் சான்று பெற்ற பின்புதான் கட்டிடத்தில் குடியேற வேண்டும்.

7. அங்கீகரிக்கப்பட்ட வரைபடங்களுக்கு மாறுதலாகவோ அல்லது அதில் கட்டிட நிபந்தனைகளுக்கு விரோதமாகவோ கட்டிடம் கட்டப்படுமாயின் கண்டிப்பாக பிராக்கிச்சூசன் செய்வதோடு அப்படி கட்டின கட்டிடங்கள் இலாகா மூலம் இடித்து அப்புறப்படுத்தப்படும்.
8. அங்கீகரிக்கப்பட்ட வரைபடங்களை எப்பொழுதும் வேலை செய்யும் இடத்தில் வைக்க வேண்டும். இவ்வலுவலக தணிக்கை செய்யும் அதிகாரிகள் எப்பொழுது கேட்டாலும் மேலே குறிப்பிட்ட வரைபடங்களை காண்பிக்க வேண்டும்.
9. தேர்வுநிலைப் பேரூராட்சி நிலங்களிலோ அல்லது அரசாங்க நிலங்களிலோ எவ்வித ஆக்கிரமிப்பும் செய்திடக் கூடாது.
10. லைசன்ஸ் காலம் முடிவடைவதற்கு 30 நாட்களுக்கு முன்னதாகவே லைசன்ஸ் புதுப்பித்துக்கொள்ள வேண்டும். லைசன்ஸ் புதுப்பிக்கும் வரையில் எவ்வித வேலையும் செய்யக்கூடாது.
11. சுற்றுச்சுவர் தெரு மண்டபத்திலிருந்து 5 அடியில் இருந்து 9 அடி உயரத்திற்கு குறையாமல் இருக்க வேண்டும். கேட்டுகள் தெருபக்கம் திறக்காமல் அமைக்கப்பட வேண்டும்.
12. தெருக்களில் ஒரு புறத்திலோ கடைகள் இருக்கும் விஸ்தீர்ணத்திலோ பொது இடங்களிலோ புறம்போக்கு இடங்களிலோ கட்டிடமோ கவரோ கட்டுவதால் எவ்வித ஈட்டுத் தொகையும் சம்மந்தப்பட்டவர்கள் கேட்கக் கூடாது.
13. தேர்வுநிலை பேரூராட்சி அல்லது அரசாங்கத்தில் சொத்தை ஆக்கிரமிப்பு செய்து கொள்வதற்கு இந்த அனுமதியினால் எவ்வித உரிமையும் கிடையாது. ஆக்கிரமிப்பு என கண்டறியப்பட்டால் இந்த உத்திரவு பொருந்தாது.
14. இடத்தின் சம்மந்தமாக ஏற்படும் செலவுகளுக்கு பேரூராட்சி பொறுப்பாகாது.
15. சாலை ஓரங்களினில் கட்டுமானப் பொருட்களை இருப்பு செய்யக் கூடாது. தவறினால் டிபார்ட் மெண்ட் மூலம் அப்புறப்படுத்தி அதற்குண்டான கட்டணம் உம்மிடமிருந்து வசூல் செய்யப்படும்.
16. கட்டிடம் (சீ. 7. 2011) முதல் 17. 7. 2014 தேதிக்குள் கட்டி முடிக்க வேண்டும்.
17. வரைபடத்தில் காட்டியதுபோல் கட்டிட இடத்தில் மழை நீர் சேமிப்பு தொட்டி கட்டி முடிக்க வேண்டும். தவறினால் கட்டிட உரிமம் ரத்து செய்து உரிய நடவடிக்கை எடுக்கப்படும்.
18. வரைபடத்தில் கண்டுள்ள வரிசை எண் 1 முதல் 17 வரைக்கும் உள்ள நிபந்தனைகளுக்குட்பட்டும் வரைபடங்களை ஒப்புதல் அளிக்கப்பட்ட தேதிக்கு பின்னர் ஏற்படும் சகலவிதமான ஆட்சேபணைகளும் வில்லங்கங்களும் இவ்வுத்தரவினை கட்டுப்படுத்தாது அவ்வாறு ஏற்படும் விளைவுகளுக்கு நிர்வாகம் பொறுப்பாகாது என்றும் ஏற்கனவே பிறப்பித்த உத்தரவை ரத்து செய்து ஆணை பிறப்பிக்கப்படும்.


 செயல் அலுவலர்,
 தேர்வுநிலைப் பேரூராட்சி,
 பாப்பிரெட்டிப்பட்டி,
 தருமபுரி மாவட்டம்

பெறுகல்

இம் தலைகீழின்படி கண்ணன் ஐ.சி.டி.
 கணம் குறிக்கோடு
 அங்கீகரிக்கப்பட்ட வரைபடம்.

18/11

நகல்

கட்டிட ஆய்வாளருக்கு செய்திக்களை அனுப்பப்படுகிறது. அனுமதிக்கப்பட்டுள்ள கட்டிடம் வரைபடங்களின்படி கட்டப்படுகிறது என்றும் இக்கட்டிடப் பணியினை நிலை குறித்தும் மாதாந்திர அறிக்கை சமர்ப்பிக்கப்பட வேண்டும்.

பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி செயல் அலுவலர் அவர்களின் செயல்முறைகள்

பிறப்பிப்பவர் கிருமகி அ.ஆயிஷா

ந.க.எண்.62/2018/அ1

நாள்.19.8.2020

பொருள்

பலமாடி கட்டிடம் - கட்டிட அனுமதி - தர்மபுரி மாவட்டம் - பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி - அலமேலுபுரம் கிராமம் ச.எண்கள் 130/7,8,131/1,2,132/1A1 மற்றும் பாப்பிரெட்டிப்பட்டி கிராமம் ச.எண்கள் 77/1B, 77/2A2, 2B2, 78/2, 168/1ல் 35.07 ஏக்கர் தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிமிடெட் நிறுவனத்தின் கூடுதல் கட்டிடத்திற்கு அனுமதி அளிக்கப்படுகிறது.

பார்வை

1. தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிட் சேலம் மெயின்ரோடு அலமேலுபுரம்
2. நகர் ஊரமைப்பு துணை இயக்குநர், தருமபுரி அவர்களின் ந.க.எண் 1281/2013/தம/ நாள் 23.01.2018

உத்திரவு

தி/ள் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பிரைவேட் லிட் சேலம் மெயின்ரோடு அலமேலுபுரம் அவர்களுக்கு தர்மபுரி மாவட்டம் பாப்பிரெட்டிப்பட்டி தேர்வுநிலைப் பேரூராட்சி அலமேலுபுரம் கிராமம் ச.எண்கள் 130/7,8,131/1,2,132/1A1 மற்றும் பாப்பிரெட்டிப்பட்டி கிராமம் ச.எண்கள் 77/1B, 77/2A2, 2B2, 78/2, 168/1ல் உள்ள இடத்தில் 11411.07 ச.மீ கொண்ட சிறப்பு மற்றும் 3546.50 குதிரைத்திறன் (ஏற்கனவே அனுமதியளித்த) கட்டிடம் கட்டிக் கொள்ள பார்வை 3 ல் காணும் நகர் ஊரமைப்பு துணை இயக்குநர் அவர்களின் கடிதத்தில் உள்ள நிபந்தனைகளுக்கு உட்படுத்தியும், 1920-ம் ஆண்டு சென்னை முனிசிபாலிட்டிகள் சட்டபிரிவு 201,210 ன் படி இத்துடன் சேர்த்திருக்கும் வரைபடத்தின் படியும் இதனடியில் கண்ட நிபந்தனைகளுக்குட்பட்டும் கட்டிடம் கட்டிக் கொள்ள அனுமதி வழங்கப்படுகிறது.

நிபந்தனைகள்

1. கட்டிடத்திற்கு எந்த புறம் வீதியிலிருந்தாலும் அந்த வீதியை ஒட்டி 4 அடி காலியிடம் விட்டு கட்டடம் கட்டப்பட வேண்டும்.
2. பொதுத் தெருவில் சாக்கடை, சாக்கடைத்தொட்டி தட்டி சார்வு முதலான எந்தவிதமான ஆக்கிரமிப்பும் செய்யக் கூடாது.
3. கட்டிடத்திற்கு வைக்கப்படும் நிலை கதவுகள் அளவும் ஜன்னல்கள் அளவும் வரைபடத்தில் உள்ளவாறு அமைக்கப்பட வேண்டும்.
4. சமையல் அறையில் அடுப்பு மேல்புகைப் போக்கி ஒன்று அமைக்கப்பட வேண்டும்.
5. குறிப்பிட்ட இடத்தில் சிமெண்ட் கான்கிரீட் தளம் போட்ட நீரூக் கழிவறை ஒன்றும் சாக்கடைத் தொட்டி ஒன்றும் அமைக்கப்பட வேண்டும்.

6. கட்டிடம் கட்டி முடிந்த விபரம் இவ்வலுவலத்திற்குத் தெரியப்படுத்தித் தமிழ்நாடு பொது சுகாதார சட்டம் 25 மற்றும் 33 வது பிரிவுகளின் படியும் தகுதிச் சான்று பெற்ற பின்புதான் கட்டிடத்தில் குடியேற வேண்டும்.
7. அங்கீகரிக்கப்பட்ட வரைபடங்களுக்கு மாறுதலாகவோ அல்லது அதில் கட்டிட நிபந்தனைகளுக்கு விரோதமாகவோ கட்டிடம் கட்டப்படுமாயின் கண்டிப்பாக பிராக்சிக்யூசன் செய்வதோடு அப்படி கட்டின கட்டிடங்கள் இலாகா மூலம் இடித்து அப்புறப்படுத்தப்படும்.
8. அங்கீகரிக்கப்பட்ட வரைபடங்களை எப்பொழுதும் வேலை செய்யும் இடத்தில் வைக்க வேண்டும். இவ்வலுவலக தணிக்கை செய்யும் அதிகாரிகள் எப்பொழுது கேட்டாலும் மேலே குறிப்பிட்ட வரைபடங்களை காண்பிக்க வேண்டும்.
9. தேர்வுநிலைப் பேரூராட்சி நிலங்களிலோ அல்லது அரசாங்க நிலங்களிலோ எவ்வித ஆக்கிரமிப்பும் செய்திடக் கூடாது.
10. லைசன்ஸ் காலம் முடிவடைவதற்கு 30 நாட்களுக்கு முன்னதாகவே லைசன்ஸ் புதுப்பித்துக்கொள்ள வேண்டும். லைசன்ஸ் புதுப்பிக்கும் வரையில் எவ்வித வேலையும் செய்யக்கூடாது.
11. சுற்றுச்சுவர் தெரு மண்டபத்திலிருந்து 5 அடியில் இருந்து 9 அடி உயரத்திற்கு குறையாமல் இருக்க வேண்டும். கேட்டுகள் தெருபக்கம் திறக்காமல் அமைக்கப்பட வேண்டும்
12. தெருக்களில் ஒரு புறத்திலோ கடைகள் இருக்கும் விஸ்தீர்ணத்திலோ பொது இடங்களிலோ புறம்போக்கு இடங்களிலோ கட்டிடமோ சுவரோ கட்டுவதால் எவ்வித ஈட்டுத் தொகையும் சம்மந்தப்பட்டவர்கள் கேட்கக் கூடாது.
13. தேர்வுநிலை பேரூராட்சி அல்லது அரசாங்கத்தில் சொத்தை ஆக்கிரமிப்பு செய்து கொள்வதற்கு இந்த அனுமதியினால் எவ்வித உரிமையும் சிண்டியாது. ஆக்கிரமிப்பு என் கண்டறியப்பட்டால் இந்த உத்தரவு பொருந்தாது.
14. இடத்தின் சம்மந்தமாக ஏற்படும் செலவுகளுக்கு பேரூராட்சி பொறுப்பாகாது.
15. சாலை ஓரங்களில் கட்டுமானப் பொருட்களை இருப்பு செய்யக் கூடாது. தவறினால் டிபார்ட் மெண்ட் மூலம் அப்புறப்படுத்தி அதற்குண்டான கட்டணம் உம்மிடமிருந்து வசூல் செய்யப்படும்.
16. கட்டிடம் 19.08.2020 முதல் 18.08.2025ம் தேதிக்குள் கட்டி முடிக்க வேண்டும்.
17. வரைபடத்தில் காட்டியதுபோல் கட்டிட இடத்தில் மழை நீர் சேமிப்பு தொட்டி கட்டி முடிக்க வேண்டும். தவறினால் கட்டிட உரிமம் ரத்து செய்து உரிய நடவடிக்கை எடுக்கப்படும்.
18. தொழிற்கூடங்களில் CCTV கேமரா பொருத்தப்பட வேண்டும்.
19. சூரிய ஒளியினை பயன்படுத்தி தண்ணீரை சூடாக்கும் உபகரணம் பொருத்தப்பட வேண்டும்.
20. குடிநீர் மேல்நிலை நீர்த்தேக்கத் தொட்டி (M) கிணறுகளுக்கு கொசு தடுப்பு சாதனம் பொருத்தப்பட வேண்டும்.
21. அங்கீகரிக்கப்பட்ட வரைபடத்தின் நகல் கட்டுமானங்கள் நடைபெறும் பொழுது அனைவருக்கும் தெரியும் வகையில் பலகையில் நிறுவப்பட்டிருக்க வேண்டும்.
22. இக்கட்டத்தின் உறுதி தன்மை குறித்து சம்மந்தப்பட்ட மனுதாரரும், பொறியாளரும் முழு பொறுப்பு ஏற்றுக்கொள்ளப்பட வேண்டும்.

23. அனுமதிக்காக வழங்கப்பட்ட ஆவணங்களில் தவறுகள் ஏதும் பின்னாளில் கண்டறியப்பட்டால் தங்களது கட்டிட உரிம அனுமதி எவ்வித முன்னறிவிப்பும் இன்றி ரத்து செய்யப்படும்.
24. வரைபடத்தில் கண்டுள்ள வரிசை எண் 1 முதல் 15 வரைக்கும் உள்ள நிபந்தனைகளுக்குட்பட்டும் மற்றும் சிறப்பு நிபந்தனைகள் 1 முதல் 10 வரை உள்ள நிபந்தனைகளுக்குட்பட்டும் மற்றும் வரைபடங்களை ஒப்புதல் அளிக்கப்பட்ட தேதிக்கு பின்னர் ஏற்படும் சகலவிதமான ஆட்சேபணைகளும் வில்லங்கங்களும் இவ்வுத்தரவினை கட்டுப்படுத்தாது அவ்வாறு ஏற்படும் விளைவுகளுக்கு நிர்வாகம் பொறுப்பாகாது என்றும் ஏற்கனவே பிறப்பித்த உத்தரவை ரத்து செய்து ஆணை பிறப்பிக்கப்படும்.

ச. சண்முகம் 19/8/20
 செயல் அலுவலர்
 தேர்வுநிலைப் பேரூராட்சி
 பாப்பிரெட்டிப்பட்டி
 தருமபுரி மாவட்டம்

பெறுதல்

நிறுவனர்,
 வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ்
 பிரைவேட் லிமிடெட்,
 சேலம் மெயின் ரோடு,
 அலமேலுபுரம்,
 பாப்பிரெட்டிப்பட்டி.

நகல்

கட்டிட ஆய்வாளருக்கு செய்திக்கென அனுப்பப்படுகிறது. அனுமதிக்கப்பட்டுள்ள கட்டிடம் வரைபடங்களின்படி கட்டப்படுகிறதா என்றும் இக்கட்டிடப் பணியினை நிலை குறித்தும் மாதாந்திர அறிக்கை சமர்ப்பிக்கப்பட வேண்டும்.



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Mfrs. & Exporters - SUPER HIGH GRADE TAPIOCA STARCH, MAIZE STARCH, MODIFIED STARCHES & SAGO

To

13.01.2017

The Executive Engineer,
PWD, WRO,
Collectorate Compound,
Dharmapuri.

BY Regd post

Dear Sir,

Sub: PWD – raw water requirement for our plant – Request – Reg.

We are running a rural agro-based food industry at Pappireddipatty, Dharmapuri District which is an industrially backward area. Our raw material is Tapioca and Maize. More than 20000 tiny and dry land small farmers from neighbouring areas and tribal farmers from Kalrayan hills and Jawathu hills are depending upon our industry for supplying their tapioca. This is a water intensive industry and we require raw water for processing. Without water, the industry cannot process the raw materials.

Our industry is the first Hi-tech, automated, medium scale industry in the field of Tapioca and after our industry was set up, the raw material price had increased manifold to the benefit of the thousands of farmers. It provides direct employment for about 300 and indirect employment for about 400 rural work force in and around our factory.

This industry was promoted by SIPCOT under the control of the TN Government by providing Term loan of 250 Lakhs with a view to promote the welfare of the rural dry land farmers in this backward district of Tamilnadu. With the advent of this industry, the farmers get assured market and remunerative price for their produce.

The entire factory land was formed by clay soil of around 6 to 7 feet which was not suitable for putting up civil structures. So, initially we had excavated the gravel soil from our own land and replaced the clay soil for erecting the civil foundation. In the excavated area, the rain water from our factory area and adjoining our own agricultural lands both comprising of about 70 acres is harvested which is used for processing of our raw material. Due to poor rainfall, the ground water level deleted and our pond does not get rejuvenated.

Now, we would like to obtain necessary permission from the competent authority for receiving water from this peniar river and fulfil the requisite procedural formalities thereof.

Regd. Office : "Varalakshmi Tower", II Floor, No. 127/1, Gandhi Road, Salem - 636 007. T.N. India.
Ph. (Off.): 0427-2316280, 2316281, 2312854 Fax : 0427-2318854, 2316186 e-mail : varastarch@gmail.com
Factory : No. 7/114-126, Bommidu Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.
CIN No. U01532TZ1995PTC006136 www.varalakshmistarch.com

IS : 1319



CM/L-6299891



Varalakshmi Starch Industries (P) Ltd.,

Continuation Sheet

We request to be advised suitably as to the guidelines and the application to be filed if any for getting permission from the competent authority.

We are prepared to pay charges/fees payable in this regard.

Our request may be considered favourably in the light of the genuine water problems faced by us and also in the interest of the thousands of farmers who depend upon our industry to earn their livelihood.

Yours faithfully,
(Signature)
(A. Vinodh Kumar)
DIRECTOR

Copy to

The Assistant Executive Engineer,
PWD, WRQ, Harur sub-Division,
Harur,
Dharmapuri Dt.

Advance copy to
The Superintending Engineer,
PWD, WRQ,
Tiruvannamalai Circle
Tiruvannamalai for favour of information.

RE SALEM IN RAS BOOKING NUMBER 1-436900
A RT579792015 IN
Counter No:1.OP-Code:MAN
To:EXECUTIVE ENGINEER, DOLLERA
Dharmapuri Collectorate S. PIN:636705
From:VARALAKSHMI STARCH INDUS LTD . SALEM
Wt:140gms.
Amt:25.00 (L.Fee:Rs.3.00). 13/01/2017 21:46
<<Track on www.indiapost.gov.in>>

RE SALEM IN RAS BOOKING NUMBER 1-436900
A RT579792015 IN
Counter No:1.OP-Code:MAN
To:SUPERINTENDENT ENGINEER, TIRUVANNAMALAI
Tiruvannamalai U.O. PIN:606601
From:VARALAKSHMI STARCH INDUS LTD . SALEM
Wt:140gms.
Amt:25.00 (L.Fee:Rs.3.00). 13/01/2017 21:46
<<Track on www.indiapost.gov.in>>

25/1/2017

RE SALEM IN RAS BOOKING NUMBER 1-436900
A RT579792015 IN
Counter No:L.OP-Code:MAN
To:ASST EXECUTIVE ENGIN HARUR
Harur S.O. PIN:636903
From:VARALAKSHMI STARCH INDUS LTD . SALEM
Wt:140gms.
Amt:25.00 (L.Fee:Rs.3.00). 13/01/2017 21:47
<<Track on www.indiapost.gov.in>>

பொதுப்பணித்துறை / நீர்வள ஆதார அமைப்பு

அனுப்புதல்

பெ.நி. சி. பாலசுப்பிரமணியன், பி.இ.,
செயற்பொறியாளர், பொ.ப.து., நீ.ஆ.அ.,
மேல்பெண்ணையாறு வடிநில கோட்டம்,
தருமபுரி -5. Ph: 04342-230990.

பெறுதல்,

திருவாளர். வரலட்சுமி ஸ்டார்ச்
தொழிற்சாலை (பி) லிமிடட்,
வரலட்சுமி டவர், 2^{வது} தளம்,
நெ.127/1, காந்தி ரோடு,
சேலம்- 636 007.

க.எண். 95^{ம்} / கோ. 180 / 2017 / வ.2 / நாள்: 14.02.2017

அய்யா,

பொருள் : பொதுப்பணித்துறை - ஆற்றிலிருந்து தனது ஆலைக்கு தண்ணீர்
எடுத்துக் கொள்ள நடைமுறைகள் - கோரியது - குறித்து.

பார்வை : தங்கள் கடித எண்: VSIPL / PWD / 2016-17 / 528 / நாள்: 25.01.2017.

பார்வையில் காணும் தங்கள் கடிதத்தில் தருமபுரி மாவட்டம், பாப்பிரெட்டிப்பட்டி
வட்டத்தில் உள்ள தங்கள் ஆலைக்கு தொழிற்சாலை பயன்பாட்டிற்காக தண்ணீர் ஆற்றிலிருந்து
எடுத்துக்கொள்ள அனுமதி பெற, மேற்கொண்டு கீழ்க்கண்ட விபரங்கள் அளிக்காமாறு
கோரப்படுகிறது.

1. வட்டாட்சியர் அவர்களிடமிருந்து பெற்ற தங்கள் தொழிற்சாலை அமைந்துள்ள FMB
வரைபடம்.
2. தொழிற்சாலை இயக்குவதற்கு அரசிடம் பெறப்பட்ட அனுமதி கடிதம்.
3. தொழிற்சாலை பயன்பாட்டிற்கு தேவைப்படும் தண்ணீர் அளவு விவரம் மற்றும்
நீர்வளையிலிருந்து தொழிற்சாலை உள்ள தூரம்.
4. மற்றுள் குழல் துறையிடமிருந்து பெறப்பட்ட அனுமதி கடிதம்.
5. மாவட்ட ஆட்சித் தலைவர், தருமபுரி அவர்களிடமிருந்து பெறப்பட்ட பரிந்துரை கடிதம்.
6. அரசாணை எண். (நிலை) 1073 பொ.ப.து./ நாள்: 29.05.1982 - படி தண்ணீர் கட்டணம்
ரூ.500 / 1000 க.மீக்கு கட்ட சம்மத கடிதம்.
7. ஆலை பயன்பாட்டிற்கு முழு அளவு தண்ணீரும் அரசு நீர் ஆதாரத்திலிருந்து வழங்க
இயலாது, பாதி மட்டுமே வழங்கி மீதமுள்ள பாதி தேவையை தங்கள் சொந்த
ஆதாரத்திலிருந்து தீர்த்து செய்து கொள்ள சம்மத கடிதம்.

01.02.17
செயற்பொறியாளர், பொ.ப.து., நீ.ஆ.அ.,
மேல்பெண்ணையாறு வடிநில கோட்டம், தருமபுரி-5.

14.02.17

Public Works Department/Water Resources Department
--

From

C. Balasubramanian, B.E.,
Executive Engineer
PWD, WRD
Melpennaiyaru Drainage Basin Division,
Dharmapuri 043242-230990

To

M/s. Varalakshmi Starch Factory (P) Ltd.,
Varalakshmi Towers, 2nd Floor,
No.127/1, Gandhi Road,
Salem - 636 007

Ka.No.95m/ko.180/2017/va.2/dated 15.02.2017

Sir,

Sub: Public Works Department-Seeking procedure for taking water from river to your factory- reg.

Ref: Your letter VSIPL/PWD/2016-17/528/dated 25.01.2017

As the reference above, your letter for permitting to take water from the river to your factory situated at Papireddypatti Circle, Dharmapuri District-Asked to provide the following information:

- 1.FMB Map of your factory received from the Tahsildar
- 2.Permission letter from the Government to run the factory
- 3.Details regarding the consumption of water for the factory use and distance between the water body and your factory
- 4.Permission letter from the department of Environment
5. Letter of Recommendation from the District Collector, Dharmapuri
- 6.Consent letter for the payment of fees for the water usage as Rs.500/1000 per cubic meter as the G.O.No.1073/PWD/29.05.1982.
- 7.Consent letter for arranging own resources for the water since the Govt can't give the entire water consumption from the Govt. Water resources.

(Sd..)

Executive Engineer/PWD/WRD
Melpennaiyaru Drainage Division,
Dharmapuri



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VS IPL/PWD/2016-17/

28.02.2017

To
The District Collector,
Dharmapuri Dt.
Dharmapuri.

Respected Sir,

Sub: Raw water requirement for our agro-based rural industry in Pappireddipatty,
Dharmapuri Dt. – Request – Reg.

As the Hon'ble District Collector may be aware of, our medium scale agro-based rural food industry is located in Pappireddipatty, Dharmapuri District and is engaged in processing of Tapioca and Maize in this backward District.

Amidst the circumstances where the entire Tapioca Starch and Sago food Industry in Tamilnadu conventional depending upon very old manual and conventional type processing with no quality consistency prior to the year 1995 with the result the farmers were not getting assured market and remunerative price for their Tapioca which is their source of livelihood, we started this the 1st high-tech medium scale tapioca processing industry in our District and first of its kind in India in Year 1995 as a 100% Export Oriented Unit with the installed crushing capacity of 400 tons of Tapioca per day in this industrially backward area with all imported technology and machineries with the financial support provided by SIPCOT, Chennai. Our unit introduced several value-added modified starches substituting imports in addition to the regular product of Starch and Sago. The benefits reached the farmers also particularly in the District of Dharmapuri by the increase of the price of Tapioca manifold. Due to direct procurement of Tapioca from the farmers, the middle-men have been totally eliminated and the due and fair price reached the farmers in full. The benefit is recognised and our industry is being appreciated by the Dharmapuri District farmers themselves as the Revered District Collector is aware of.

Tapioca Industry is a seasonal industry running for only 4 months of peak season and 2 months of lean season every year. Hence, in the Year 2012 we had expanded our factory and put up a Maize Starch unit with huge investment with an installed capacity to crush 375 tons of maize per day with minimal water consumption and majority of the equipments were imported. With this unit, all the Dharmapuri District corn growing farmers are getting fair price for their maize without any middle-men.

Also we had put up a renewable energy based power project(waste to power) with a capacity to generate upto 2000 kwh of power and 1500 Kw of Thermal energy out of Biogas recovered out of our starch processing waste water. This project has the multiple advantages of 100% waste water treatment, reducing green house gas emission and capturing renewable energy viz electricity from the starch processing waste.

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Factory : No. 7/114-126, Bommidi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.
www.varalakshmistarch.com

IS : 1319



CM/L-6299891



Advantages of our Industry:

With all our sincere efforts and due support of the District Authorities and the Government, our Industry has emerged as one of the largest agro factories in the backward District of Dharmapuri with proportionate benefits both to the Government as well as the farmers and rural work force. Our contribution to the Government exchequer through VAT, Central Excise duty, Service tax, Income tax and other statutory fees is substantial all put together to the extent of about Rs.10 crores per annum.

With the arrival of this industry, about 50,000 tiny and dry land small farmers from entire Dharmapuri District and tribal farmers from Kalrayan and Jawathu hills around 100 KMs started getting an assured market and remunerative price and spot payment for their produce namely tapioca and corn(Cash Crops). In addition, our industry provides direct employment to about 200 rural workforce and indirect employment to about 500 rural workforce. Our salary, wages, PF, bonus and gratuity paid to rural workers and employees is around Rs. 3.50 crores per annum.

Rain harvesting System:

Our both units Tapioca and Maize units are water intensive and currently we require 108000 M3 of fresh water per annum for our full capacity crushing. So far we have been meeting 75% of our above requirement out of our own rain water harvesting system as detailed below.

The entire factory land was formed by clay soil of around 4 to feet which was not suitable for heavy vehicle movement. Also, in keeping in view our Hon'ble Ex. CM Amma's much cherished programme launched during the year 1995 to promote rain water harvest to replenish ground water, while first putting up the plant, we had excavated gravel soil from the middle of our own factory lands and filled the same over the clay soil for laying road for the entire factory constructed area. The excavated area developed into a proper rain water harvesting system whereby we harvest all runoff rain water from the roofs of our industrial buildings, open land area. Concrete canals, pipes and trenches have been put up in and around the buildings for collecting the rain water flowing from pipes from the roof of the factory buildings/sheds and passing it to the pond for storage. Likewise the factory area around 30 acres and the agricultural lands has also been levelled in such a way that the entire rain water drains into the pond (photos enclosed). Thus the entire rain water in our factory precincts is harvested and collected in this pond. We have also obtained NOC from the PWD, Ground water Division, Vellore to give clearance for taking stored harvested rain water from the above collection pond vide the letter No.AGP/F555/998M/Vlr/dt.03.12.2008 of the Executive Engineer which was given after site inspection. About 50% of the pond was made in the year 1998 while putting up the Tapioca plant and another 50% made in the year 2011 while construction the maize plant. The size of the pond at present is 175 X 110 M X 5 M (water holding size).

The above rain water harvesting system is adequate to cater to our fresh water requirement. However, only about 50% of the stored water in the collection pond goes to our processing only. During dry season, the water stored in the collection pond is lost substantially due to seepage around 50%. However, this seepage leads to regeneration of ground water table in and around the factory area for about 1 kilometer to the benefit of the neighbouring farmers as in the case of lakes.



The fresh water from the pond used to process raw material namely Tapioca and Maize gives rise to generation of waste water containing 100 % organic substances which are easily Bio-degradable. We have put up bio-methanation plant for recovering the Methane Gas emanating out of 100% bio-degradation process which is used as a fuel for generation of renewable energy for our captive use. This project has multiple advantages for environment protection as detailed below:

1. Waste water properly treated
2. By adopting NJIT, USA technology as approved by GOI, the bio-degradation is achieved at 98 %.
3. After proper bio-degradation, 100% BOD reduction is achieved by aeration process.
4. The treated water is again reusable.
5. Control of Green house Gas emission.
6. Tapping of renewable energy (power) from waste water.

After proper treatment using Anaerobic digesters, Aerators the organic waste contained in the process waste water is bio-degraded, sent through Clarifiers and the treated water which is more or less equal to fresh water is discharged into our own agricultural lands of around 80 acres surrounding the pond. This treated water penetrates and recharge the ground water and the through seepage recharges the collection pond also.

Despite all the above, the stored harvested water is not adequate for meeting out our requirement of fresh water due to seepage during dry season and non crushing period of the plant as explained above

At present, our raw water requirement for the plant based on full capacity crushing per day for the whole year is as follows:

Tapioca	280 m3 per day X 150 days	=	42000 Cub. Mtr. Per annum
Maize	220 m3 per day X 300 days	=	66000 Cub. Mtr. per annum
	Total	=	108000 Cub. Mtr per annum

We are able to meet 75% of our requirement from our own sources as explained above leaving a deficit of about 27000 M3 per annum at times whenever there is poor rainfall. We are facing shortage of water during the plant full capacity utilisation time and many a time we happen to shut down our production activity for prolonged periods which has its own impact on our farmers.

We have the Peniar jungle stream passing adjacent to our factory area. It is not a perennial stream and excessive water from the catchment areas during heavy rainfall flows through this stream for a few days/months of a year. This stream flows to recharge the nearby lakes and ponds.

In this scenario, we have addressed the Executive Engineer , PWD, WRO, Collectorate Compound, Dharmapuri vide our letter explaining our water problems and requesting necessary guidelines for getting permission from the competent authority for drawing water from this peniar stream on payment to recoup our storage pond on payment of charges to Government, whenever the need arises.

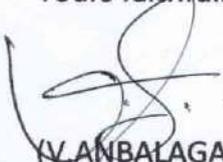
In this context, we have been required by the AEE, PWD, WRO to produce the recommendation letter from the District Collector in this regard.



It is pertinent to mention in this context that the Union as well as the State Government is encouraging foreign investors to start industries in our country for the benefit of all. But no one comes forward to invest in agro-based industries here due to several negative factors. However, we ventured in starting this agro-based industry with huge investment in the industrially backward District of Dharmapuri for the benefit of the district farmers, rural work-force as may be appreciated by the stake holders.

We therefore request the reverend District Collector to consider our request in the light of what we have enumerated above and in the light of the benefits accruing to the farmers and rural work force and issue us a recommendation letter so as to enable us to obtain permission from the competent authorities.

Yours faithfully,


(V. ANBALAGAN)
MANAGING DIRECTOR

Enclosure:

1. Our letter No.VSIPL/PWD/2016-17/528 dated 13.01.2017 addressed to The Executive Engineer, PWD,WRO,Dharmapuri requesting permission for receiving water from Peniar river for our agro processing industrial use.
2. Letter No.95/K.180/2027/V.2 dated 15.02.2017 from The Executive Engineer, PWD, Dharmapuri requesting us to submit a recommendation letter from the District Collector.

அருர்

குற்ற விசாரணைமுறைச் சட்டம்-1973 பிரிவு 133-ன் கீழ் அறிவிப்பு

பொருள் : தருமபுரி மாவட்டம் - பாப்பிரெட்டிப்பட்டி வட்டம் -
பாப்பிரெட்டிப்பட்டி சாமியாபுரம் கூட்டுறவு வரை செல்லும்
நெடுஞ்சாலையில் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரியல் பிரவேட்
லிமிட்டட் நிறுவனம் முறைகேடாக ஆற்றில் நீர் எடுப்பது -
தொடர்பாக.

பார்வை : 1.ஊர் பொதுமக்கள் புகார்
2. பாப்பிரெட்டிப்பட்டி வட்டாட்சியரின் ந.க.20/2020/அ1
நாள்: 1.10.2020

தருமபுரி மாவட்டம் பாப்பிரெட்டிப்பட்டி வட்டம் பாப்பிரெட்டிப்பட்டி சாமியாபுரம் கூட்டுறவு
வரை செல்லும் நெடுஞ்சாலையில் இயங்கி வரும் வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரியல் பிரவேட்
லிமிட்டட் நிறுவனம் அலமேலுபுரம் கிராம பட்டா எண்.25 புல எண். 139 பரப்பு 0.45.6-ல் ஏல்
அரசு புறம்போக்கு ஆற்றில் முறைகேடாக வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரியல் பிரவேட்
லிமிட்டட் நிறுவனத்திற்கு சொந்தமான பட்டா எண்.25-ல் புல எண்.131 பரப்பு 1.75.0 ஹெக்டேர்
உள்ள இடத்தில் பெரிய குட்டை வெட்டி அரசுக்கு சொந்தமான புல எண். 139 பரப்பு 0.45.6-ல்
உள்ள ஆற்றிலிருந்து நீர் எடுப்பது இந்திய குற்றவியலவிசாரணை முறைச் சட்டம் பிரிவு 133
(அ) -ல் பொது மக்களுக்கு சட்ட பூர்வமாக பயன்படுத்தப்படும் அல்லது பயன்படுத்தக்கூடிய
எந்த பொது இடத்திலிருந்தேனும் அல்லது வழி, ஆறு அல்லது கால்வாய் எதிலிருந்தேனும் சட்ட
விரோதமான இடையூறு அல்லது தொல்லை எதுவும் நீக்க வேண்டும் என்ற விதிகளினால் கீழ்
நடவடிக்கை எடுக்க வழிவகை செய்யப்பட்டுள்ளது. பொதுமக்களுக்கு பயன்படக் கூடிய ஆற்று
நீரை தனிநபர் எடுப்பது தொடர்பாக பொதுமக்களிடம் இருந்து வந்த புகாரின் அடிப்படையில்
எனது புலத்தணிக்கையில் அது உறுதி செய்யப்பட்டுள்ளது. இதனை 4.10.2020-க்குள் மூட
உத்தரவிடப்படுகிறது. அதற்கு மறுக்கும்படி தங்கள் விளக்கத்தினை 5.10.2020 அன்று
காலை 10.00 மணியளவில் சார்ஆட்சியர் அலுவலகத்தில் அளிக்க இதன் மூலம்
தெரிவிக்கப்படுகிறது.

M. P. Jeyaraj
உட்கோட்ட நிர்வாக நடுவர்/
சார் ஆட்சியர்,
அருர்.

பெறுதல்:

திரு. அன்பழகன் த/பெ.வரதராஜ் ✓
வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரியல் பிரவேட் லிமிட்டட் நிறுவனம்
சாமியாபுரம் கூட்டுறவு,
பாப்பிரெட்டிப்பட்டி வட்டம்

நகல்:- வட்டாட்சியர், பாப்பிரெட்டிப்பட்டி
(சார்வு செய்து சார்வு நகல் திரும்ப பெற)



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

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MRFS. & EXPORTERS : SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

VSISPL/SUB COLLECTOR/PWD/2020-21/235

பெறுதல்

உட்கோட்ட நிர்வாக நடுவர்,
சார் ஆட்சியார்,
அருநர்,
தருமபுரி



ஐயா,

பொருள்: குற்ற விசாரணை முறைச் சட்டம் 1973 பிரிவு 133 ன் கீழ் அறிவிப்பு

பார்வை: 1. தங்களது அறிவிப்பு கடித எண் : ந.க.எண்.2561/2020/அ3, நாள்-1.10.2020
2. எங்களது கடிதம் நாள்.05.10.2020
3. தங்களது / கடித எண்: ந.க.எண்.2561/2020/அ3, நாள்- .10.2020

தங்களது கடிதத்தில் பொது மக்கள் பயன்படுத்தும் ஆற்று நீரை தனி நபர் எடுப்பது தொடர்பாக பொதுமக்களிடம் இருந்து வந்த புகாரின் அடிப்படையிலும், தங்களது புலத்தணிக்கையின் அடிப்படையிலும் தாங்கள் பார்வை 1ல் கண்ட அறிவிப்புக் கடிதத்தை எங்களுக்கு அனுப்பி இருந்தீர்கள். அது 02.10.2020 அன்று கிடைக்கப் பெற்றுள்ளது.

பார்வை 2ல் காட்டப்பட்டுள்ள எங்கள் கடிதத்தில் நாங்கள் விளக்கம் அளிக்க கால அவகாசமும் மற்றும் பொதுமக்கள் புகார் நகலும் கேட்டதின் பேரில் தாங்கள் நாங்கள் விளக்கமளிக்க 09.10.2020 வரை கால அவகாசம் அளித்துள்ளீர்கள் கால அவகாசம் கொடுத்தமைக்கு நன்றி தெரிவித்துக் கொள்கின்றோம். ஆனால் பார்வை 1ல் கண்ட தங்களது அறிவிப்பு கடிதத்தில் குறிப்பிட்டுள்ள பொதுமக்கள் புகாரின் நகல் கேட்டிருந்தோம் இதற்கு பார்வை 3ல் கண்ட தங்களது கடிதத்துடன் புகார் நகல் ஏதும் இணைக்கப்படவில்லை. அது கொடுக்கப்படாததற்கான காரணமும் தெரிவிக்கவில்லை. ஆகையால் புகார்தாரர்கள் எவர் மற்றும் அவர்களின் உண்மையான பாதிப்பு என்ன என்று எங்களுக்கு தெரியாததால் இன்னும் தங்களுக்கு முழுமையான விளக்கம் அளிக்க முடியாத நிலையில் உள்ளோம். ஆகையால் இது சம்பந்தமாக தங்களது அறிவிப்பு

கடிதத்தின்படி தங்களது இறுதி நடவடிக்கை எடுக்கும் முன் எங்களுக்கு பொது மக்களது புகார் நகலை கொடுத்து அதன்படி தங்களுக்கு எங்களது பதிலினை அளிக்க 15 நாட்கள் கால அவகாசம் அளிக்குமாறு கேட்டுக்கொள்கிறோம்.

இந்நிலையில் தங்களது அறிவிப்பின் படி எங்களது பகுதி (Partly) விளக்கத்தை கீழ்க்கண்டவாறு கொடுக்கின்றோம்.

தாங்கள் குறிப்பிட்டுள்ள காட்டாற்றில் எப்போதாவது ஒரு முறை தான் தண்ணீர் வரும் அதிக மழை பெய்து நிலத்தடி நீர் உயர்ந்துள்ள சில காலங்களில் மழை பெய்ததின் சில நாட்களுக்கு மட்டும் நீர் வரும். கடந்த 10 மாதங்களாக இந்த காட்டாற்றில் நீர் வரத்து ஏதும் இல்லை. மற்றும் தற்போது நாளை வரை தண்ணீர் ஏதும் வரத்து இல்லை. கடந்த 10 மாதங்களாக எங்களால் இந்த காட்டாற்றிலிருந்து தண்ணீர் எதுவும் எடுக்கப்படவில்லை. 13.01.2017 தேதியில் செயற்பொறியாளர், பொதுப்பணித் துறை, தர்மபுரி அவர்களுக்கு

1

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CML-6109012759



CML-6299891



இந்த காட்டாற்றிலிருந்து தண்ணீர் எடுப்பதற்கு அனுமதி பெற என்னென்ன தஸ்தாவேஜிகள் கொடுக்க வேண்டும் என கேட்டுக்கொண்டிருந்தோம். அதற்கு 15.02.2017 அன்று என்னென்ன தஸ்தாவேஜிகள் நாங்கள் கொடுக்க வேண்டும் என்று பட்டியலிட்டு எங்களுக்கு செயற்பொறியாளர், பொதுப் பணித் துறை அவர்களிடமிருந்து கடிதம் பெறப்பட்டது. அதன்படி நாங்கள் ஆவணங்களை தயார் செய்து கொண்டிருந்த வேளையில் 20.01.2017 தேதியன்று உதவி செயற்பொறியாளர், பொ.ப.து, நீ.ஆ.அ. மேல் பெண்ணையாறு வடிநில உபகோட்டம், அரூர் அவர்களிடமிருந்து எங்களுக்கு ஒரு அறிவிப்பு கடிதம் கிடைக்கப் பெற்றோம். மற்றும் இது சம்பந்தமாக 01.02.2017 தேதியில் தமிழ் நாடு அரசின் பொதுப் பணித்துறை செயலாளர் அவர்களுக்கும், 03.02.2017 தேதியில் தருமபுரி மாவட்ட ஆட்சித் தலைவர் அவர்களுக்கும், 28.02.2017 தேதியில் அப்போதைய உள்ளூர் அமைச்சராகிய ~~செ.பி.சி. சீமா~~ அவர்களுக்கும் இது சம்பந்தமாக கோரிக்கை கடிதம் கொடுத்துள்ளோம். அதற்கு மேற்கண்ட மூவரிடமிருந்தும் நாளை வரை எந்த பதிலும் பெறப்படவில்லை. மேற்கண்ட 20.01.2017 தேதியிட்ட பொதுப்பணித்துறையின் அறிவிப்பிற்கு 25.03.2017 தேதியில் எங்களது விளக்கத்தை உதவி செயற்பொறியாளர், பொதுப்பணித் துறை, அரூர் அவர்களுக்கும், பொதுப்பணித் துறை செயற்பொறியாளர், தர்மபுரி அவர்களுக்கும் கொடுத்திருக்கின்றோம். அதில் மேற்படி காட்டாற்றிலிருந்து எங்களது ஆலைக்கு நாங்கள் எடுத்துக்கொண்ட நீரின் அளவையும் பட்டியலிட்டு விளக்கி எங்களது மழை நீர் சேமிப்பு குட்டையில் நீர் தேங்குவதால் நாங்கள் ஒருவர் மட்டுமின்றி அரசின் ஏரி, மற்றும் குட்டைகள் போல் சுற்றியுள்ள அனைத்து விவசாயிகளுக்கும் பொதுமக்களுக்கும் நிலத்தடி நீர் உயர்ந்து அவர்களும் பயன் பெறுகிறார்கள் என்றும், எங்களது தொழிற்சாலையின் முக்கியத்துவத்தினையும் அதனால் தர்மபுரி மாவட்டத்தில் மரவள்ளி கிழங்கு பயிரிடும் சிறு, குறு, மானாவாரி மற்றும் மலைவாழ் விவசாய மக்கள் மற்றும் தொழிலில் பின் தங்கிய தர்மபுரி மாவட்டத்தில் எங்களது தொழிற்சாலையின் தேவையையும், அதனால் ஏற்பட்டுள்ள கிராமப்புற வேலைவாய்ப்பினையும், அரசுக்கு எங்களது தொழிற்சாலையால் கிடைக்கும் வருவாய் மற்றும் அரசுக்கு அந்நிய செலவாணி பெற்றுத் தரும் எங்களது ஏற்றுமதியையும் எடுத்துக்கூறி, இவ்வாறாக எங்கள் தொழிற்சாலையால் பலர் பயன் பெறுவதால் இது ஒரு பொது பயன்பாட்டு (Public Utility) தொழிற்சாலையாகும் எனத் தெரிவித்து நாங்கள் கீழ்க்கண்ட இரண்டு கோரிக்கைகளை கேட்டிருந்தோம் அவை பின் வருமாறு :

1. மேலே குறிப்பிட்டுள்ளபடி எங்கள் தொழிற்சாலையால் விளையும் நன்மைகளை கருத்தில் கொண்டு இது ஒரு பொதுப்பயன்பாட்டு தொழிற்சாலை (Public Utility Industry) என்ற அடிப்படையில் அவரது 20.01.2017 தேதியிட்ட கடிதத்தில் தெரிவித்திருந்த நடவடிக்கைகள் மற்றும் கேட்புத் தொகையையும் (Demand) விளக்கிக்கொள்ள வேண்டும் என்றும்

அல்லது

2. எங்களால் உண்மையாக பீனியாறு என்ற காட்டாற்றிலிருந்து எவ்வளவு தண்ணீர் எடுக்கப்பட்டது என்பதற்கான ஆவணங்களின் அடிப்படையில் எடுக்கப்பட்டு எங்களால் இணைக்கப்பட்டுள்ள பட்டியலின் அடிப்படையில் அதற்கான கேட்புத் தொகையை கணக்கிட்டு எவ்வளவு என்று தாங்கள் தெரிவிக்கும் பட்சத்தில் அதை நாங்கள் செலுத்த தயார் என்றும் கேட்டிருந்தோம்.

எங்களது மேற்கண்ட இரண்டு கோரிக்கைகளை உதவி செயற்பொறியாளர், பொதுப்பணித் துறை, அரூர் அவர்கள் 28.03.2017 அன்று பெற்றுக் கொண்டபின்



எங்களுக்கு பொதுபணித் துறையிலிருந்து இது சம்பந்தம்மாக கடந்த மூன்றரை ஆண்டுகளாகவும், நாளதுவரையும் பதில் கிடைக்கப்பெறவில்லை இதனால் அக்கடிதத்தில் எங்களது முதல் கோரிக்கையான தொழிற்சாலையின் முக்கியத்துவத்தை அரசு ஏற்றுக் கொண்டு (DEEMED ACCEPTED) முழு விளக்கு அளித்துவிட்டதாக எடுத்துக்கொண்டுவிட்டோம் இருப்பினும் 01.02.2017, 03.02.2017, 28.02.2017 தேதிகளில் முறையாக செயலர், பொதுப்பணித் துறை, தருமபுரி மாவட்ட ஆட்சித் தலைவர், உள்ளூர் அமைச்சர் ஆகியோர்களுக்கு சட்டப் படியும், முறைப் படியும் தண்ணீர் எடுக்க ஆவண செய்யும் படி நாங்கள் கேட்டதற்கும் மறுப்பேதும் தெரிவிக்கப்படவில்லை. மேற்கண்ட இவைகளால் எங்களது கோரிக்கை ஏற்றுக் கொள்ளப் பட்டதாகக் கருதப்பட்டு (DEEMED ACCEPTED) விட்டது.

இவ்வாறு இருக்கையில் இந்த சம்பவம் அரசு துறைகளுக்குத் தெரிவிக்கப் பட்டு பல ஆண்டுகளானது என்ற அடிப்படையிலும், பொது மக்களால் புகார் தரப்பட்டதாகக் கூறப்படும் இந்த நேரத்திலும், மற்றும் தங்களது புலத் தணிக்கையின் போதும் தண்ணீர் ஏதும் எடுக்கப்படவில்லை என்பதால் இந்திய குற்றவியல் விசாரணை முறைச் சட்டம் - பிரிவு 133 (அ)ல் பொது மக்களுக்கு சட்டபூர்வமாக பயன்படுத்தப்படும் அல்லது பயன்படுத்தக் கூடிய எந்த பொது இடத்திலிருந்தேனும் அல்லது ஏரி, ஆறு, கால்வாய் எதிலிருந்தேனும் சட்ட விரோதமான இடையூறு அல்லது தொல்லை ஏதும் இருந்தால் நீக்க வேண்டும் என்ற விதிகளின் கீழ் நடவடிக்கை எடுக்க வழிவகை செய்யப்பட்டபடி தாங்கள் உடனடி நடவடிக்கை எடுக்க வேண்டிய கட்டாயம் ஏதும் இல்லை என்பதாலும் இச்சூழ்நிலையில் இந்திய குற்றவியல் விசாரணை முறைச் சட்டம் - பிரிவு 133 (அ) இதற்கு பொருந்தாது எனக் கருதுகின்றோம்.

நமது தமிழக அரசு 1995ம் ஆண்டு, தமிழ்நாட்டில் சிறந்த தொழில் அதிபர் என்ற விருதினை எனக்கு அளித்து கவுரவித்து, பொருளாதார ரீதியாகவும், தொழில் ரீதியாகவும் மிகவும் பின் தங்கியுள்ள தர்மபுரி மாவட்டத்தின் மலை வாழ் மற்றும் சிறு, குறு விவசாயிகளின் வாழ்வாதாரமான மரவள்ளிக் கிழங்கிற்கு நிலையான விற்பனை மற்றும் உரிய, நியாயமான, கட்டுப்படியாகும் விலை கிடைக்க வேண்டுமென்ற நோக்கத்தில், இந்தியாவில் முதல் முதலாக மேம்படுத்தப்பட்ட தொழில் நுட்பத்தில் ஒரு மரவள்ளிக் கிழங்கு அரவை ஆலையை என் மூலம் அமைக்க வேண்டுமென முடிவு செய்து அதன்படி தமிழ்நாடு அரசு தொழில் முன்னேற்றக் கழகம் (State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT), Government of Tamil Nadu) மூலமாக ரூ.2.5 கோடியும் பஞ்சாப் நேஷனல் வங்கி மூலம் ரூ.6.5 கோடியும் கொடுக்கப்பட்டு ஆரம்பிக்கப்பட்ட தொழிற்சாலை இது. ஆகவே இது ஒரு பொது மக்களின் பயன்பாட்டிற்காக தனி நபரை முன்னிறுத்தி அரசாங்கத்தின் தொழில் முன்னேற்றக் கழகம் மூலம் ஏற்படுத்தப்பட்ட நிறுவனம். ஆகையில் இது பொது பயன்பாட்டு (Public Utility) தொழிற்சாலையாகும்.

எங்களது ஆலை அமைந்த பின் தான் இன்றைய தர்மபுரி மாவட்டத்தை சேர்ந்த பல ஆயிரம், சிறு, குறு, மானாவாரி மற்றும் மலைவாழ் விவசாயிகள் தங்களது மரவள்ளிக் கிழங்கினை நல்ல விலைக்கு விற்று உடனடியாக பணம் பெற்று வருகின்றனர். எங்களது ஆலை இல்லாத காலத்தில் இவர்கள் தங்களது மரவள்ளிக் கிழங்கினை இம்மாவட்டத்தை விட்டு வெளி மாவட்டங்களுக்கு டன் ஒன்றுக்கு ரூ500/- அதிக லாரி வாடகை கொடுத்து எடுத்துச் சென்று அங்குள்ள சிறு தொழிற்சாலைகளுக்கு அவர்கள் கேட்கும் விலைக்கு விற்று அவர்கள் கொடுக்கும் போது பணத்தை பெற்றுக் கொள்ள வேண்டிய அவல நிலையில் இருந்தார்கள். நிறைய விவசாயிகள் பணத்தை பெற முடியாமல் தவித்தார்கள்.



எங்களது ஆலை மரவள்ளி கிழங்கு அறுவடை பருவத்தில் நாள் ஒன்றுக்கு முழு அளவான 800 டன் மரவள்ளிக் கிழங்குகளை அரவை செய்ய தினமும் 500 கிலோ லிட்டர் நீர் தேவைப்படுகின்றது. அதாவது மணிக்கு 20 முதல் 25 கிலோ லிட்டர்தான். இது ஒர் 5 குதிரைத் திறன் கொண்ட மின்சார பம்பின் மூலம் 5 ஏக்கர் விவசாயம் செய்யும் விவசாயி ஒரு நாளைக்கு பயன்படுத்தும் நீர்தான். இந்த நீர்த் தேவையை பூர்த்தி செய்ய எங்களது தொழிற்சாலையிலிருந்து 5 கி.மீ தொலைவில் அமைந்துள்ள வாணியாறு அணையிலிருந்தும் மற்றும் காட்டாறாகிய பீனியாற்றிலிருந்தும் சட்டப் படி அனுமதி பெற்று அதற்கான தொகையை செலுத்தி நீர் எடுக்க அனுமதி பெறுவதற்கு நாங்கள் பல ஆண்டுகளாக எடுத்த நடவடிக்கைகள் மேலே கூறியவாறு ஏற்றுக் கொள்ளப்பட்டதாக (DEEMED ACCEPTED) கருதப்பட்டது.

எங்களது ஆலை தொடர்ந்து இயங்க நாங்கள் எங்களது நிலத்தில் ஒரு மழை நீர் சேமிப்பு குட்டையை அமைத்து எங்களுக்கு சொந்தமான சுமார் 80 ஏக்கர் பரப்பளவில் பெய்யும் அனைத்து மழை நீரையும் மற்றும் எங்களது தொழிற்சாலையில் உள்ள அனைத்து கட்டிடங்களின் கூரைகளிலிருந்து வடியும் மழை நீரையும் முழுவதுமாக இந்த குட்டையில் சேகரித்து வருகிறோம். இந்த எங்களது மழை நீர் சேகரிப்பு திட்டம் காலம் சென்ற முந்நாள் முதல்வர் மாண்புமிகு புரட்சித் தலைவி அம்மா ஜெயலலிதா அவர்கள் நாட்டு மக்களின் நலனுக்காக கட்டாயமாக அமல் படுத்த வேண்டுமென அறிவுறுத்திய மழைநீர் சேகரிப்பு திட்டத்தின் அடிப்படையிலும் இன்றைய முதல்வர், விவசாயிகளின் காவலர், மாண்புமிகு எடப்பாடி பழனிசாமி அவர்களின் குடிமராமத்து திட்டத்தின் நன்மைகள் படியும் தான் ஏற்படுத்தப்பட்டுள்ளது. இந்த எங்களது மழை நீர் சேகரிப்பு குட்டையில் மழை நீர் சேமிக்க நாங்கள் அமைத்துள்ள மழை நீர் வடிகால் வாய்க்கால்கள், குழாய்கள் ஆகியவற்றின் புகைப்படங்களை தங்களது பார்வைக்கு Pen Drive மூலமாக இத்துடன் இணைத்துள்ளோம். இக்குட்டையில் கடந்த வருடங்களில் தண்ணீர் அதிகமாக தேங்கியதை அடுத்து அதன் கரை உடைபடாமல் இருக்க ஆற்றின் மட்டத்தில் அந்த உபரி நீர் மேற்கண்ட பீனியாற்றில் வெளியேறும் வகையில் குழாய்கள் அமைத்துள்ளோம். இவ்வாறு அமைக்கப்பட்ட குழாய்களில் சில சமயம் எங்கள் தண்ணீர் மட்டம் கீழே இருந்து ஆற்றில் தண்ணீர் வரும் போது அந்த குழாய்கள் வழியாக ஆற்று தண்ணீர் உள்ளே வரும். எங்கள் குட்டையில் தண்ணீர் உபரியாக இருந்தால் அந்த தண்ணீர் ஆற்றுக்கு செல்லும். இதை தங்கள் ஆய்வின் போது பார்த்திருப்பீர்கள். இக்குழாய்கள் இல்லையென்றால் கன மழை காலங்களில் எங்களது குட்டையின் கரை உடைந்து விடும். அக்குழாய்களில் ஆற்றிலிருந்து மட்டுமே தண்ணீர் உள்ளே வரும்படியும் எங்கள் குட்டை தண்ணீர் வெளியே செல்லாமலிருக்கும்படியும் எந்த உபகரணங்களும் (Non Return Valve) அமைக்கப்படவில்லை என்பதை தங்கள் ஆய்வில் பார்த்திருப்பீர்கள்.

இந்த காட்டாற்றில் ஓடும் மழை நீரில் 10 சதவிகிதத்திற்கு மேற்படாத ஒரு பகுதி நீர் மட்டுமே இந்த குழாய்களில் வரும். இது தமிழக அரசின் பொதுப்பணித் துறைக்கும் பாப்பிரெட்டிப்பட்டி தாசில்தார், வருவாய் ஆய்வாளர், கிராம நிர்வாக அலுவலர் ஆகியோருக்கும் பல வருடங்களாகத் தெரியும். இந்த காட்டாறு ஒரு வற்றாத ஆற்று பட்டியலில் இல்லை. மேலும் மழை காலங்களில் எப்போதாவது இந்த காட்டாற்றில் ஓடும் நீர் 4 அல்லது 5 கி.மீ தொலைவிலுள்ள ஏரிக்கு செல்கிறது. [எங்கள் தொழிற்சாலை அமைந்துள்ள இடத்திலிருந்து சுமார் 2 கிலோ மீட்டருக்கு எந்த ஏரியும் இல்லை. எங்களது மழைநீர் சேமிப்புக் குட்டையில் தேங்கும் நீர் எங்களது தொழிற்சாலை பயன்பாட்டிற்கு மட்டுமின்றி சுமார் 2 கிலோ மீட்டர் சுற்றளவிற்கு நிலத்தடிநீர் உயர ஏதுவாக உள்ளது. இதனால் எங்களது நிறுவனத்தை சுற்றியுள்ள விவசாயிகளின் கிணற்றிலும் நல்ல நீர் வளம் பெற்று உபயோகித்து வருகின்றனர். இதன் மூலம் அரசுக்கு சொந்தமான ஏரி, குட்டைகள் போல் மழை நீர் தேக்கப்பட்டு அதனால் நிலத்தடி நீர் உயரப்பெற்று தங்களால்



தனி நபர் என்று சொல்லப்படும் எங்களது பொது பயன்பாட்டு (Public Utility) தொழிற்சாலை மட்டுமின்றி எங்கள் தொழிற்சாலையை சுற்றியுள்ள விவசாயிகளான பொதுமக்களும், சாமியாபுரம் ஊர் மக்களும் அவரவர் கிணறு மற்றும் ஆழ்துளை கிணறு நீர் உயரப் பெற்று உபயோகித்து அனுபவித்து வருவதாலும் மற்றும் எங்களது தொழிற்சாலையானது கடந்த 22 ஆண்டுகளாக தர்மபுரி மாவட்டத்தில் சுமார் 20000 விவசாயிகளின் மரவள்ளி கிழங்கை நேரடியாக கொள்முதல் செய்து அதற்கான பண பட்டுவாடா அடுத்த நாளே செய்து வருவதால் நாள்துவரை அனைத்து விவசாயிகளும் எங்களுடன் நல்லுறவில் இருப்பதாலும் எங்கள் தொழிற்சாலையை பற்றி தங்கள் அறிக்கையில் கூறிய படி எந்த ஒரு விவசாயியும் குற்றம் சொல்ல முகாந்திரம் இல்லை இந்த காட்டாற்றின் ஓரத்தில் விவசாயிகளைத் தவிர வேறு எந்த பொதுமக்கள் குடியிருப்பும் இல்லை.

உண்மை இவ்வாறிருக்க ஊர் பொது மக்கள் என்ற பெயரில் புகார் அளித்துள்ளார்கள் என பார்வை 1ல் கண்ட தங்களது கடிதத்தில் குறிப்பிட்டிருந்தீர்கள் தங்களுக்கு பொதுமக்கள் என்ற பெயரில் புகார் கொடுத்த புகார்தாரர்கள் பெயர் மற்றும் அப்புகார்தாரர்களின் உண்மையான பாதிப்பு என்ன என்பதை நாங்கள் அவர்கள் மூலமாக அறிந்துக் கொண்டால் அவர்களின் அப்பாதிப்பை நாங்கள் உடனடியாக நிவர்த்தி செய்ய தயாராக உள்ளோம். மற்றும் தங்கள் அறிவிப்பில் தெரிவித்துள்ளபடி எங்களது விளக்கத்தினை கொடுக்கவும் சரியாக இருக்குமென்று நினைத்து ஊர் பொதுமக்கள் கொடுத்த புகார் நகல் ஒன்றை எங்களுக்கு வழங்குமாறு பார்வை 2ல் கண்டுள்ள எங்கள் கடிதத்தில் கேட்டிருந்தோம் பார்வை 3ல் கண்ட தங்களது அறிவிப்பில் நாங்கள் பதிலளிக்க கால அவகாசம் கொடுக்கப்பட்டுள்ளது ஆனால் பொதுமக்கள் புகார் நகல் கொடுக்கப்படவில்லை அந்த புகார் தங்களிடம் இருந்தும் அதன் நகல் எங்களுக்கு கொடுக்கப்படாததற்கான காரணமும் தங்களது பார்வை 3ல் கண்ட அறிவிப்பு கடிதத்தில் கொடுக்கப்படவில்லை.

எங்களது தொழிற்சாலைக்கு சொந்தமான நிலத்தில் 6 கிணறுகள் மற்றும் 7 ஆழ்துளைக் குழாய் கிணறுகள் உள்ளன. ஆனால் செயற் பொறியாளர், பொதுப்பணித் துறை, நிலத்தடி நீர் கோட்டம், வேலூர் அவர்களின் 03.12.2008 தேதியிட்ட உத்திரவின் படி இவற்றிலிருந்து நாங்கள் நீரை எடுத்து எங்களது தொழிற்சாலைக்கு உபயோகித்தால் அரசின் உத்தரவை மீறிய குற்றமாகும். மேலும் எங்களது ஆலையைச் சுற்றியுள்ள பல விவசாய நிலங்களின் நிலத்தடி நீர் மட்டம் வெகுவாகக் குறைந்து சுற்றியுள்ள பொது மக்கள் குடிப்பதற்கே நீர் கிடைக்காத துழ்நிலை ஏற்பட்டுவிடும்.

1996ம் ஆண்டு இந்த மிகவும் பிற்படுத்தப்பட்ட மாவட்டத்தில் அரசின் வேண்டுகோளின் படியும், விவசாயக் குடும்பத்தில் பிறந்து, விவசாயிகளின் மேம்பாட்டில் கொண்டிருந்த அக்கரையின் படியும், நான் தர்மபுரி மாவட்டத்தில் பாப்பிரெட்டிப்பட்டி கிராமத்தில் செய்த முதலீட்டினை மாறாக சேலம் மாநகர்ப் பறத்தில் நான் முதலீடு செய்திருந்தால் எனது முதலீடு பல மடங்கு உயர்ந்திருக்கும். இப்படிப் போன்ற அதிகாரிகளிடம் அவமானமும் பட்டிருக்க மாட்டேன். எனது 40 ஆண்டு கால விவசாயம் சார்ந்த தொழில் அதிபர் என்ற அனுபவத்தில் எனக்கு எந்த ஒரு அரசு அதிகாரிகளாலும் குற்ற நடவடிக்கை அறிவிப்பு வழங்கப்பட்டதில்லை. மாறாக அரசு எனக்கு பல விருதுகளையும், பாராட்டுகளையும், கவுரவ பதவிகளையும் (CODEX COMMITTEE MEMBER, GOVERNMENT OF INDIA, மற்றும் தமிழ் நாடு மின் வாரியத்தின் மாவட்ட உறுப்பினர்) வழங்கி கவுரவித்துள்ளது.

விவசாயிகளின் நலன் கருதி, அரசாங்கத்தின் தூண்டுதலால் நாங்கள் அமைத்துள்ள இந்த தொழிற்சாலை தொடர்ந்து முழு அளவில் இயங்க வேண்டுமெனில் மேற்படி காட்டாற்றில் எப்போதாவது ஓடும் மழை நீரின் ஒரு பகுதியை உபயோகிக்க நாங்கள் மேற்படி காட்டாற்றில் இருந்து தண்ணீர் எடுக்க வேண்டிய அவசியத்தை தங்களுக்கு மேலே



விவரித்துள்ளோம். இருந்தும் பெயர் குறிப்பிடாமல் பொதுமக்கள் என்ற போர்வையில் கொடுக்கப்பட்ட புகாரின் அடிப்படையில் தாங்கள் மேற்படி குழாய்களை மூட உத்தரவிட்டால் அதனால் எங்களது ஆலைக்கு தேவையான நீர் கிடைப்பது வெகுவாகப் பாதிக்கப்பட்டு எங்களது அரவைத் திறனை 50 சதவிகிதமாகக் குறைத்துக் கொள்ள நேரிடும். அவ்வாறு குறைத்தால் தொழிற்சாலையை இலாபகரமாக நடத்த முடியாமல் நஷ்டம் ஏற்படும். இதனால் எங்களது ஆலையை நம்பியுள்ள சுமார் 10000 தர்மபுரி மாவட்ட விவசாயிகளிடமிருந்து நாங்கள் கொள்முதல் செய்யும் மரவள்ளிக் கிழங்கின் அளவும் வெகுவாகக் குறையும். இதனால் ஏற்படும் உபரி கிழங்கினை இங்குள்ள விவசாயிகள் வெளி மாவட்டங்களுக்கு, டன் ஒன்றுக்கு ரூ.500/- அதிக லாரி வாடகை கொடுத்து எடுத்துச் சென்று அங்குள்ள சிறு தொழிற்சாலைகளுக்கு அவர்கள் கேட்கும் விலைக்கு விற்று அவர்கள் கொடுக்கும் போது பணத்தை பெற்றுக் கொள்ள வேண்டிய சூழ்நிலை மீண்டும் ஏற்படும். அதன் பாதிப்பால் சுமார் 10000 தர்மபுரி மாவட்ட விவசாயிகளுக்கு வருடம் ஒன்றிற்கு சுமார் ரூ.30 கோடி வரை இழப்பு ஏற்படும். மேலும் வெளி மாவட்டங்களின் தேவைக்கு அதிகமாக அங்கு கிழங்கு வரத்து இருக்கும் போது அங்கும் மரவள்ளிக் கிழங்கிற்கு கிடைக்கும் விலை குறையும். இதனால் நம் மாவட்டத்தில் மட்டுமின்றி தமிழ் நாடு முழுவதிலும் மரவள்ளிக் கிழங்கின் விலை வீழ்ச்சி அடையும். எனவே தங்களது நடவடிக்கை சட்டப்படி சரியாகத் தோன்றினாலும் அதன் விளைவு பல ஆயிரக் கணக்கான விவசாயிகளின் நலனுக்கு எதிரானது. நிலத்தடி நீர் மற்றும் ஆற்று நீரை உறிஞ்சி அரசுக்கு விட்டருக்கு 50 பைசா கொடுத்துவிட்டு லிட்டர் 20 ரூபாய்க்கு விற்கும் பன்னாட்டு நிறுவனங்களுக்கு அனுமதியளிக்கும் அரசு, விவசாயிகளின் நலன் கருதி தொடர்ந்து விவசாயிகளுக்கு பலனளித்து வரும், ஓர் பின் தங்கிய மாவட்டத்தின் வருவாய்க்கும், மத்திய மாநில அரசுகளின் வருவாய்க்கும் பல கோடி ரூபாய் வரியாகவும், கட்டணமாகவும் செலுத்தி பல கோடி ரூபாய் அந்நிய செலவாணி ஈட்டித்தரும் மற்றும் எடுத்துக்கொண்ட தண்ணீரை விற்பனை செய்யாத நிறுவனத்தை புகார்தாரரின் பெயர் குறிப்பிடாமல் மற்றும் எவ்வாறான பாதிப்பு என்றும் கூறப்படாத புகாரை வைத்து முடக்குவது சரியல்ல. எனவே இதற்கு உண்மையான இயற்கை நீதியை அனுசரித்து முடிவெடுப்பீர்கள் என நம்புகின்றோம்.

மக்களுக்காக சட்டம், சட்டத்திற்காக மக்களல்ல என்ற தத்துவத்தின் படி தங்களை போன்ற உயர் அதிகாரிகள் ஒரு செயலின் விளைவுகளால் பலன் பெறுபவர்கள் அதிகமா (சுமார் 10000 விவசாயிகள்) அல்லது பாதிப்பவர்கள் அதிகமா (பாதிக்கப்பட்டோர் எவ்வளவு பேர் என்பது தெரிவிக்கப்படவில்லை) என்ற அடிப்படையில் ஆராய்ந்து பார்த்து பெயரே தெரிவிக்காத மிகக் குறைந்த எண்ணிக்கையில் உள்ள பாதிப்பைத் தெரியப்படுத்தாமல் பாதிக்கப்பட்டவர்கள் எனக் கூறுவதை விட்டுவிட்டு இந்த நீர் குட்டையை அரசின் ஏரி குளங்களை போலவே நிலத்தடி நீரை உயர் செய்யும் ஒரு ஏரியைப் போல் புவியியல் படித்த தாங்கள் எடுத்துக் கொண்டு தொழிற்சாலையை சுற்றியுள்ள 100 விவசாயிகள், பொதுமக்கள் பயனடையும் பொது நன்மைக்கானதுதான் என்றும் சுமார் 10000 விவசாயிகள் தங்கள் குறுகிய காலத்தில் அழுகி விடும் விளைப்பொருளான மரவள்ளிக் கிழங்கை எங்களது தொழிற்சாலையில் உறுதியான விற்பனை மூலம் நல்ல விலைக்கு விற்று பயனடைகிறார்கள் என்ற அடிப்படையிலும் மற்றும் மேற்கண்ட தண்ணீர் எடுப்பது அரசுக்கு நிறுவனத்தால் தெரிவிக்கப்பட்டு அது பொதுப்பயன்பாடு (Public Utility) என ஏற்றுக்கொள்ளப்பட்டு அனுமதிக்கப்பட்டது (DEEMED ACCEPTED) தான் என்ற அடிப்படையின் பார்வை 1ல் கண்ட தங்கள் அறிவிப்பில் "இதனை 04.10.2020க்குள் மூட உத்தரவிடப்படுகிறது. அதற்கு மறுக்கும் பட்சத்தில் தங்கள் விளக்கத்தினை 05.10.2020 காலை 10 மணி அளவில் கொடுக்கப்பட வேண்டும்" கண்டபடி மேற்கண்ட தண்ணீர் எடுப்பது அரசின் கவனத்திற்கு எடுத்துச் சென்று அதன் மீது அரசால் மேல் நடவடிக்கை எடுக்கப்பட்டு அதற்கு எங்களால் ஆதாரங்களுடன் விளக்கம் அளிக்கப்பட்டு அனைத்து



நடவடிக்கைகளும் அரசால் கைவிடப் பட்டதால் DEEMED ACCEPTED என்று ஏற்றுக் கொள்ளப்பட்டதால் அதனை 04.10.2020க்குள் மூடாமல் அதற்கான எங்களது விளக்கத்தினை இதன் மூலம் தெரிவித்து தாங்கள் மேல் நடவடிக்கையை கைவிடக் கேட்டுக்கொள்கிறோம். மற்றும் சட்டப்பூர்வமாக பொதுப் பணித்துறை செயற் பொறியாளர் அவர்களது 15.02.2017 தேதியிட்ட கடிதப்படி "மாவட்ட ஆட்சித் தலைவர், தருமபுரி அவர்களிடமிருந்து பெறப்பட்ட பரிந்துரைக் கடிதம்" கிடைக்கும்படி ஆவன செய்யும்படியும் கேட்டுக் கொள்கின்றோம் மற்றும் அதன் படி நாங்கள் எடுக்கும் தண்ணீருக்கான தொகையையும் செலுத்த தயாராக உள்ளோம் என்றும் இதன் மூலம் தெரிவித்துக்கொள்கின்றோம். மாறாக தாங்கள் கூறியபடி அதை உடனடியாக ஒரு மரவள்ளி கிழங்கு அரவை பருவத்திற்கான (ஒவ்வொரு வருடமும் மரவள்ளி அரவை பருவம் அக்டோபர் முதல் மார்ச் ஆகும்) கால அவகாசம் கூட இன்றி மூட வேண்டுமென்ற கட்டாயத்தை ஏற்படுத்தினால் எங்களது தொழிற்சாலையின் முழு அரவையையும் நிறுத்தி தொழிற்சாலையை மூடவேண்டிய கட்டாயத்திற்கு நாங்கள் தள்ளப்படுவோம். இதனால் தினமும் மழை பெய்து வரும் இத்தருணத்தில் விவசாயிகள் அவர்களது மரவள்ளிக் கிழங்கினை விற்பனை செய்ய முடியாமல் அவர்களது நிலத்தில் விளைந்த கிழங்கை அறுவடை செய்யாவிட்டால் மண்ணிற்குள் அழுகி வீணாகிவிடும். அதனால் அவர்கள் பெருந்த நஷ்டத்திற்கு ஆளாகுவார்கள்.

இந்த சூழ்நிலையில் மேலே கூறிய படி நாங்கள் தகுந்த சட்டப்படி அரசிடமிருந்து அனுமதி பெற அனைத்து நடவடிக்கைகளையும் எடுத்திருந்தும் அது அரசு அதிகாரிகள் வசம் நிலுவையாகிவிட்டது என்பதால் தங்களது அறிவிப்பு கடிதத்தில் குறிப்பிட்டுள்ள எங்களது செயல் தண்ணீர் திருட்டு அல்ல என்பதன் அடிப்படையிலும் எங்களது இந்த செயலால் புகார்தாரர்களுக்கு உண்மையாக ஏற்பட்டுள்ள பாதிப்பினை நாங்கள் நிவர்த்தி செய்ய தயாராக இருப்பதாலும் தர்மபுரி மாவட்டத்தில் சுமார் 10000 விவசாயிகளையும் பொதுமக்களையும் எங்களது பொது பயன்பாட்டு (Public Utility) தொழிற்சாலையையும் பாதிக்காத வண்ணம் மேற்கண்ட பிரச்சனைக்கு ஒரு நல்ல தீர்வை எடுக்குமாறு கேட்டுக்கொள்கிறோம்.

இப்படிக்கு

வரலட்சுமி ஸ்டார்ச் இண்டஸ்ட்ரீஸ் பி லிமிடெட்

(வ. அன்பழகன்) 9/10/20
மேலாண்மை இயக்குனர்

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- 3 உதவி செயற்பொறியாளர், பொ.ப.து., நீஆஅ, மேல் பெண்ணையாறு வடிநில உபகோட்டம், அருர் அவர்களிடமிருந்து எங்களுக்கு வரப்பெற்ற கடிதம் க.எண். கோ 9/2016 உசெபொ (அருர்), நாள் 20.01.2017 ன் நகல்.



4. செயற் பொறியாளர், பொதுப்பணித் துறை, நிலத்தடி நீர் கோட்டம், வேலூர் அவர்களின் கடித எண்.AGP/F555/998M/Vir/ நாள் 03.12.2008. கடிதத்தின் நகல்
5. உள்ளூர் அமைச்சர், செயலர் பொதுப் பணித்துறை, மற்றும் தருமபுரி மாவட்ட ஆட்சியர் ஆகியோருக்கு கொடுக்கப்பட்ட விண்ணப்பங்களின் நகல்கள்
6. உதவி செயற்பொறியாளர், பொ.ப.து., நீஆஅ., மேல் பெண்ணையாறு வடிநில உபகோட்டம், அருர் அவர்களின் மேற்படி கடிதத்திற்கு நாங்கள் அனுப்பிய பதில் கடிதம் எண். VSIPL/PWD/2016-17/528 நாள் 25.03.2017 ன் நகல்.
7. Pen Drive containing photos and videos evidencing rain water harvesting process.
8. இத்தொழிற்சாலையின் நிறுவனருக்கு அரசாலும் பொது நிறுவனங்களாலும் கொடுக்கப்பட்ட விருதுகளின் புகைப்படங்கள்.

 9/10/2017

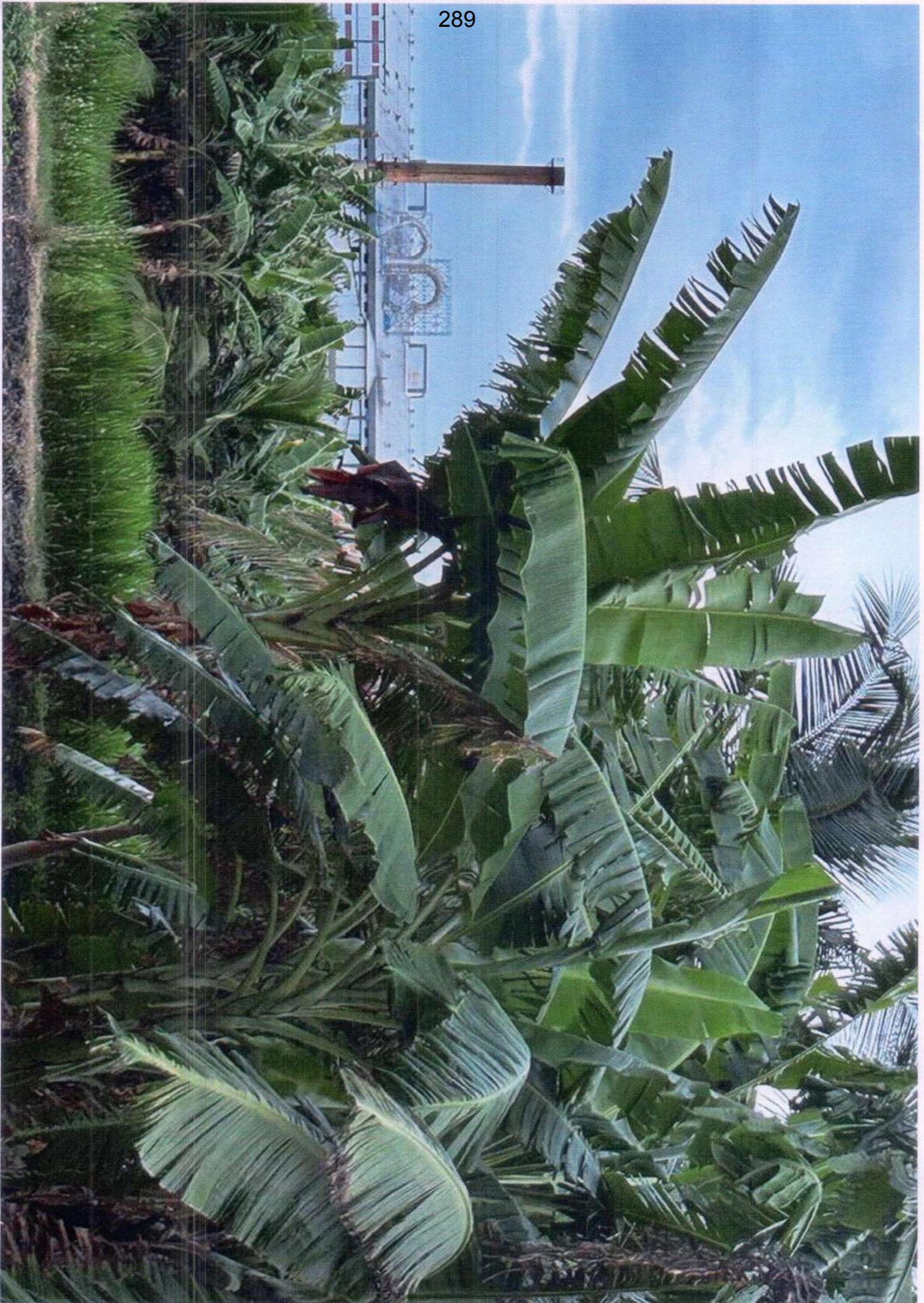
**Photographs of the trees surrounding
the Industry dated 30.04.2023**



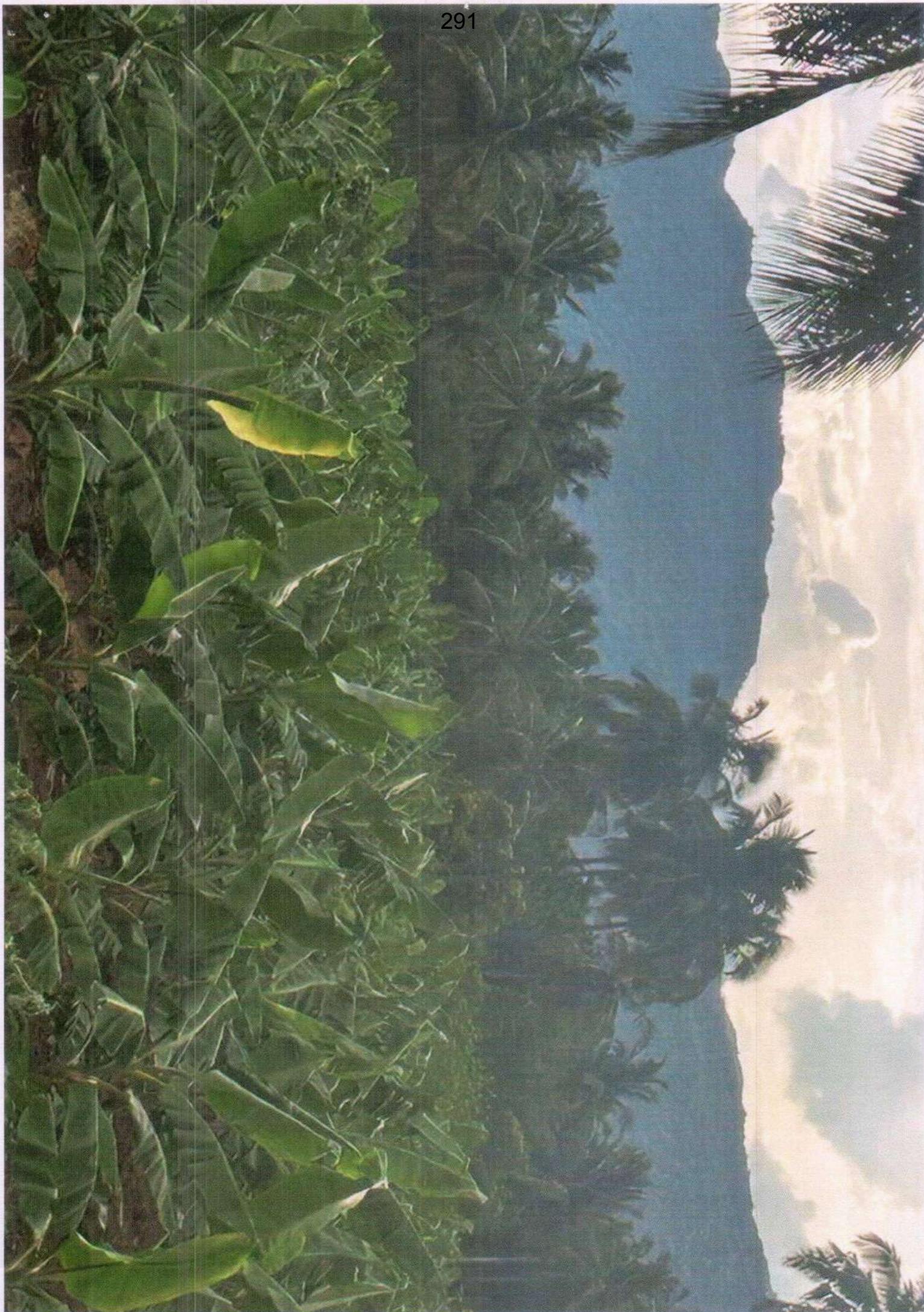


















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ABSTRACT

Ground Water – Dynamic Ground Water Resources Assessment for Tamil Nadu as on March, 2020 – Categorization of Firkas as Over Exploited, Critical, Semi-Critical, Safe and Saline/ Poor Quality based on the Assessment in Tamil Nadu – Approved – Orders issued.

PUBLIC WORKS (R1) DEPARTMENT

G.O.(Ms).No.155

Dated:28.10.2021

பிலை, ஜப்பசி 11,
திருவள்ளூர் ஆண்டு 2052

Read:

1. G.O.(Ms).No.326, Public Works Department, Dated 23.11.1993.
2. G.O.(Ms).No.51, Public Works Department, Dated 11.02.2004.
3. G.O.(Ms).No.52, Public Works Department, Dated 02.03.2012
4. G.O.(Ms).No.142, Public Works Department, Dated 23.07.2014
5. G.O.(Ms).No.113, Public Works Department, Dated 09.06.2016
6. G.O.(Ms).No.257, Public Works Department, Dated 1.10.2018
7. G.O.(Ms).No.161, Public Works Department, Dated 23.10.2019
8. From the Chief Engineer, State Ground and Surface Water Resources Data Centre, Letter No. DD (G)/GWRA-2020/2021, Dated 23.8.2021.

ORDER:

Based on the development of the ground water resources, the Panchayat Union Blocks in Tamil Nadu were categorized as Dark and Grey areas as on January 1992 and January 1997 (Projected development at year 5) in the Government Order first read above. The Blocks with ground water development between 85% to 100% were categorized as "Dark Blocks" and the Blocks with ground water development between 65% to 85% were categorized as "Grey Blocks". The Government directed that no Scheme should be formulated in the Dark Blocks and in the Grey Blocks, Schemes should be formulated in consultation with the Ground Water Wing of the Public Works Department only. The above categorisation was done in accordance with the then prevailing Ground Water Estimation Committee – 1984 (GEC-1984) Norms. Thereafter, the Committee constituted by the Ministry of Water Resources, Government of India, has recommended to adopt the GEC-1997 Norms for estimation of the ground water resources in all the States.

2. In the Government Order second read above, the Government approved the categorization of the Panchayat Union Blocks in Tamil Nadu as Over-Exploited, Critical, Semi-Critical and Safe Blocks for ground water development as on January, 2003. The Government directed that no Schemes should be formulated in the Over Exploited and Critical Blocks and in the Semi-Critical and Safe Blocks, all the Schemes should be formulated in consultation with the State Ground and Surface Water Resources Data Centre of the Water Resources Organisation in the Public

Works Department. It was also ordered therein that the term "Scheme" excludes energisation of agricultural pump sets by the Tamil Nadu Electricity Board. The Government further directed that appropriate rain water harvesting and artificial recharge schemes be carried out in all the categories of Blocks and while carrying out the above Schemes, priority should be given to the Over Exploited and Critical Blocks so as to avoid further deterioration.

3. In the Government Order third read above, the Government approved the categorization of the Panchayat Union Blocks as Over-Exploited, Critical, Semi-Critical and Safe Blocks based on the assessment of the State Ground Water Resources as on March 2009. All the Over Exploited and Critical Blocks were notified as A Category Blocks (where the stage of ground water extraction is 90% and above) and all the Semi Critical and Safe Blocks were notified as B Category Blocks (where the stage of ground water extraction is below 89%). The Government directed that no Schemes should be formulated in Over Exploited and Critical blocks "Notified as A Category Blocks" and in the Semi-Critical and Safe Blocks "Notified as B Category Blocks", all the Schemes should be formulated through the State Ground and Surface Water Resources Data Centre of the Water Resources Department and the Chief Engineer, State Ground and Surface Water Resources Data Centre, would issue "No Objection Certificate" for ground water clearance. The Government further directed to exclude the ground water drawal for domestic purpose by individual household; domestic Infrastructure Project (Housing); Government's Drinking Water Supply Schemes and Non Water based Industries (i.e., the industries which do not require and use water, either as raw material or for other processing). The Chief Engineer, State Ground and Surface Water Resources Data Centre, would permit domestic use of water by these Non Water based Industries by issuing "No Objection Certificate" based on the hydro-geological conditions. The Government further directed that appropriate Rain Water Harvesting and Artificial Recharge Schemes should be carried out in the categories viz, Over exploited, Critical, Semi Critical and Safe Blocks of Tamil Nadu and while carrying out the above Schemes, priority should be given to marginal quality and bad quality areas so as to avoid further deterioration. The Government further directed that all the Schemes and Proposals based on ground water would have to adhere to the Government Orders and Conditions detailed in the Annexure-II to the above mentioned Government Order. This Government Order had been upheld by the Hon'ble Bench of Madras High Court, in its Common Judgement dated 18.09.2013, in WA Nos. 923 to 926 of 2009, WP Nos 23116 of 2006, 23896 to 23900 of 2016, 4711 of 2004 and 12375 of 2008. The Hon'ble High Court had made it clear that even with the repealing of the Tamil Nadu Ground Water (Development and Management) Act, 2003, this G.O. would govern the interest of the parties and the State in the matter of regulating the business of the Writ Appellants.

4. In furtherance of the Orders and Instructions issued in the Government Order third read above, the Regulations for management of ground water and issue of No Objection Certificate / License for extraction of groundwater in the State were approved in the Government Order fourth read above.

5. Subsequently, in the Government Order fifth read above, the Dynamic Groundwater resources in the State were estimated taking a Revenue Firka as an unit of assessment by the State Level Technical Co-ordination Committee as on

March 2011 and accordingly the Government had approved categorization of the Over-Exploited, Critical, Semi-Critical, Safe and Saline Firkas based on the above assessment. Thereafter, the Government, in the Government Orders sixth and seventh read above, the Government have approved the categorisation of the Firkas in the State as Over-Exploited, Critical, Semi-Critical, Safe and Saline / Poor Quality Firkas based on the Ground Water Resources Assessment as on March 2013 and March 2017 respectively.

6. In the letter eight read above, the Chief Engineer (State Ground and Surface Water Resources Data Centre) has sent a proposal to the Government for approval of Estimation of the Dynamic Groundwater Resources in Tamil Nadu as on March 2020 and Categorisation of Firkas and requested for approval of the Ground Water Assessment 2020 and notification of the Categorization of the Firkas of Tamil Nadu based on the above assessment.

7. The Government have decided to approve the categorization of the Revenue Firkas in the State based on the Estimation of the Dynamic Ground Water Resources as on March 2020. Accordingly, the Government approve the categorisation of the Revenue Firkas in the State as Over-Exploited, Critical, Semi-Critical, Safe and Saline/Poor Quality as detailed in the Annexure of this Order, based on the Dynamic Ground Water Resources Assessment as on March 2020 which shall be notified in the Tamil Nadu Government Gazette.

8. The Chief Engineer (State Ground and Surface Water Resources Data Centre), Water Resources Department is further directed that appropriate rain water harvesting and Artificial recharge schemes shall be carried out in the categories viz, Over exploited, Critical, Semi Critical, Safe and saline/Poor quality Firkas of Tamil Nadu. While carrying out the above Schemes, priority shall be given to marginal quality and bad quality areas so as to avoid further deterioration.

(By Order of the Governor)

**Sandeep Saxena,
Additional Chief Secretary to Government**

To
The Works Manager, Government Central Press, Chennai-79
The Chief Engineer, State Ground and Surface Water Resources Data Centre, Taramani, Chennai-113.
The Engineer-in-Chief, Water Resources Department and Chief Engineer (General), Public Works Department, Chennai-5.
The Additional Chief Secretary and Commissioner of Land Administration, Chennai-5.
All the Regional and Functional Chief Engineers, Water Resources Department.
All District Collectors.
The Director of Rural Development, Chennai-15.
The General Manager, National Bank for Agriculture and Rural Development, Chennai-34.
The Registrar of Co-operative Societies, Chennai-10.
The Chief Engineer (Agricultural Engineering), Chennai-35.

~ 4 ~

The Director of Agriculture, Chennai-5.
The Director of Horticulture, Chennai-5.
The Commissioner / Managing Director, Sugar Corporation, Chennai-35.
The Managing Director, Tamil Nadu Water Supply and Drainage Board, Chennai-5.
The Engineering Director, Tamil Nadu Water Supply and Drainage Board,
Chennai-5.
The Managing Director, Chennai Metropolitan Water Supply and Sewerage Board,
Chennai-2.
The Chairman, Tamil Nadu Electricity Board, Chennai-2.
The Regional Director, Central Ground Water Board , Rajaji Bhavan, Chennai-90.

Copy to

The Agriculture and Farmers Welfare Department, Secretariat, Chennai-9.
The Revenue and Disaster Management Department, Secretariat, Chennai-9.
The Environment, Climate Change and Forests Department, Secretariat, Chennai-9.
The Municipal Administration and Water Supply Department, Secretariat, Chennai-9.
The Rural Development and Panchayat Raj Department, Secretariat, Chennai-9.
The Energy Department, Secretariat, Chennai-9.
The Industries Department, Secretariat, Chennai-9.
Stock File / Spare Copy.

// FORWARDED / BY ORDER //

R. K. Rajapandian
1.11.2021
Section Officer.

FFWS
1.11.2021

ANNEXURE

G.O. (Ms.) No. 155, Public Works (R1) Department, Dated 28.10.2021

Categorisation of Firkas in Tamil Nadu as on -2020

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
ARIYALUR DISTRICT (Total Firkas-15)									
ARIYALUR TALUK									
						1	ARIYALUR		
						2	ELAKURICHI		
						3	KEELAPALUR		
						4	NAGAMANGALAM		
						5	THRUMANUR		
SENDURAI TALUK									
				6	SENDURAI	7	PONPARAPPI		
						8	MATHUR		
UDAYARPALAYAM TALUK									
						9	T. PALUR		
						10	SUTHAMALLI		
						11	KUNDAVELI		
						12	UDAYARPALAYAM		
						13	JAYANKONDAM		
ANDIMADAM TALUK									
						14	ANDIMADAM		
						15	KUVAGAM		
CHENGALPATTU DISTRICT (Total Firkas-40)									
CHENGALPATTU TALUK									
1	APPUR			2	KATTANKULATHUR				
3	CHENGALPATTU			4	PALUR(K)				
				5	SINGAPERUMAL KOIL				
THIRUKAZHUKUNDRAM TALUK									
		6	THIRUKAZHU KUNDRAM	7	MAMALLAPURAM				
		8	NERUMBUR	9	PONVILAYANTHAKALATHUR				
THIRUPORUR TALUK									
				10	KARUMBAKKAM	11	THIRUPORUR		
						12	NELLIKUPPAM		
						13	KELAMBAKKAM		
						14	MANAMBATHY		
						15	PAIANUR		
MADURANTHAKAM TALUK									
16	ORATHI			17	ACCHIRUPAKKAM	18	KARUGKUZHI		
				19	ONAMPAKKAM	20	MADHURANTHAGAM		
				21	JAMEENENDATHUR	22	VAIYAVUR		
				23	PERUMPAKKAM				
				24	LENDATHUR				
CHEYYUR TALUK									
				25	CHEYYUR	26	KADAPAKKAM		
				27	CHITHAMUR	28	LATHUR		
				29	KAYAPAKKAM	30	SUNAMPEDU		
				31	KODUR				
TAMBARAM TALUK									
						32	CHITLAPAKKAM		
						33	MADAMBAKKAM		
						34	TAMBARAM		
						35	MEDAVAKKAM		
PALLAVARAM TALUK									
						36	PAMMAL		
						37	PALLAVARAM		

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
8	SARAVANAM PATTI								
COIMBATORE SOUTH TALUK									
9	COIMBATORE								
10	SINGANALLUR								
KINATHUKATAVU TALUK									
11	VADACHITTUR								
12	KINATHUKATAVU								
13	KOVILPALAYAM								
MADUKKARAI TALUK									
14	OTTAKKAL MANDABAM			15	KURICHI				
16	MADUKKARAI								
17	THIRUMALAIAMPALAYAM								
METTUPALAYAM TALUK									
18	METTUPALAYAM								
19	KARAMADAI								
PERUR TALUK									
20	ALANDURAI			21	KUNIAMUTHUR				
22	MADAMPATTI								
23	THONDAMUTHUR								
24	VADAVALLI								
25	PERUR								
ANAMALAI TALUK									
		26	KOTTUR	27	MARCHINAICKENPALAYAM				
				28	ANAMALAI				
POLLACHI TALUK									
29	RAMAPATTINAM								
30	POLLACHI(N)								
31	POLLACHI(S)								
32	PERIANEGAMAM								
33	KOLARPATTI								
SULUR TALUK									
34	KARUMATHAM PATTI	35	SULUR						
36	SELAKKARICHAL								
37	VARAPATTI								
VALPARAI TALUK									
						38	VALPARAI		
CUDDALORE DISTRICT(Total Firkas-32)									
BHUVANAGIRI TALUK									
						1	BHUVANAGIRI		
						2	SETHIYATHOPPU		
						3	PARANGIPETTAI		
CHIDAMBARAM TALUK									
						4	ORATHUR		
						5	THIRUVAKULAM		
						6	CHIDAMBARAM		
CUDDALORE TALUK									
7	RETTY CHAVADI			8	THIRUVANTHI PURAM				
				9	MANJAKKUPPAM				
KATTUMANNARKOIL TALUK									
				10	UDAIYARKUDI	11	PUTHUR		
						12	KUMARACHI		
						13	KATTUMANNARKOIL		
SRIMUSHNUM TALUK									
						14	SRIMUSHNAM		

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 80% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 80%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
KURINJIPADI TALUK									
				15	KURINJIPADI				
				16	KULLANCHAVADI				
PANRUTI TALUK									
17	NELLIKUPPAM			18	PANRUTI	19	MARUNGUR		
				20	KADAMPULIYUR				
TITTAGUDI TALUK									
21	PENNADAM	22	THOZHUDUR	23	TITTAGUDI (E)				
				24	TITTAGUDI (W)				
VEPPUR TALUK									
				25	SIRUPAKKAM	26	VEPPUR		
VIRUDHACHALAM TALUK									
27	KAMMAPURAM(E)			28	UMANGALAM	29	KO-MANGALAM		
30	KAMMAPURAM(W)			31	VIRUDHACHALAM (N)				
32	VIRUDHACHALAM (S)								
DHARMAPURI DISTRICT (Total Firkas -23)									
DHARMAPURI TALUK									
				1	DHARMAPURI				
				2	KRISHNAPURAM				
HARUR TALUK									
				3	HARUR	4	THEERTHAMALAI		
				5	MORAPPUR				
KARIMANGALAM TALUK									
6	PERIANAHALLI								
7	KARIMANGALAM								
8	KAMBAINALLUR								
NALLAMPALLI TALUK									
9	INDUR			10	NALLAMPALLI				
11	PALAYAM								
PALACODE TALUK									
12	MARANDAHALLI			13	PALACODE				
14	PULIKARAI								
15	VELLICHANDAI								
PAPPIREDDIPATTY TALUK									
16	BOMMIDI			17	PAPPIREDDI PATTY				
18	KADATHUR								
19	THENKARAIKOTTAI								
PENNAGARAM TALUK									
20	PAPPARAPATTY					21	SUNJALNATHAM		
22	PENNAGARAM								
23	PERUMBALAI								
DINDIGAL DISTRICT (Total Firkas 40)									
DINDIGAL EAST TALUK									
1	SHANARPATTI	2	KAMBILIAMPATTI	3	DINDIGUL EAST				
4	SILVATHUR								
DINDIGAL WEST TALUK									
5	REDDIARCHATRAM								
6	PALAKKANOOTHU								
7	DHARMATHUPATTI								
8	DINDIGUL WEST								
ATHOOR TALUK									
9	AYYAMPALAYAM	10	ATHOOR						
11	CHINNALPATTI								
NATHAM TALUK									

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
PERUNDURAI TALUK									
24	CHENNIMALAI			25	KANJIKOIL				
26	PERUNDURAI								
27	VELLODE								
28	THINGALUR								
SATHYAMANGALAM TALUK									
29	BHAVANISAGAR			30	KUTHYALATHUR				
31	PUNJAIPULIAM PATTI								
32	ARASUR								
33	SATHYA MANGALAM								
THALAVADI TALUK									
				34	THALAVADI				
KALLAKURICHI DISTRICT (Total Firkas-23)									
KALLAKURICHI TALUK									
1	INDILI	2	NAGALUR						
3	THIYAGADURGAM	4	KALLAKURICHI						
SANKARAPURAM TALUK									
				5	ALATHAUR	6	ARIYALUR (V)		
				7	SANKARAPURAM	8	VADAPONPARAPI		
						9	RISHIVANDHIYAM		
CHINNA SALEM TALUK									
10	NAINARPALAYAM	11	CHINNASALEM	12	VADAKANANDAL				
KALVARAYAN HILLS TALUK									
		13	KALVARAYAN HILLS			14	VELLIMALAI		
THIRUKOILUR TALUK									
15	THIRUPPALA PANDAL			16	MANALURPETTAI	17	THIRUKOILUR		
ULUNDURPETTAI TALUK									
18	ELAVANASUR KOTTAI	19	KALAMARUDUR	20	SENGURICHI	21	THIRUNAVALLUR		
22	ERAIYUR	23	ULUNDURPETTAI						
KANCHEEPURAM DISTRICT (Total Firkas-25)									
KANCHEEPURAM TALUK									
		1	GOVINDHAVADI	2	THIRUPPU KUZHI	3	KANCHEEPURAM		
				4	SIRUKAVERIPAKKAM	5	CHITTIAMBAKKAM		
						6	PARANDUR		
UTHIRAMERUR TALUK									
7	ARUMPULIYUR			8	KALIYAMPOONDI	9	SALAVAKKAM		
10	THIRUPULIVANAM			11	KUNNAVAKKAM				
				12	UTHIRAMERUR				
WALAJABAD TALUK									
13	WALAJABAD					14	MAHARAL		
						15	THENNERI		
SRIPERMPUDUR TALUK									
						16	MADURAMANGALAM		
						17	SRIPERMPUDUR		
						18	SUNKUVARCHATRAM		
						19	THANDALAM		
						20	VALLAM		
KUNDRATHUR TALUK									
				21	KOLLAPAKKAM	22	KUNDRATHUR		
						23	MANGADU		
						24	PADAPPAI		
						25	SERAPPANACHI IERI		
KANYAKUMARI DISTRICT (TOTAL FIRKAS-18)									
AGATHEESWARAM TALUK									

(10)

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
		1 RAJAKKA MANGALAM	2 KANNIYAKUMARI	
			3 NAGERCOB	
			4 SUCHENDRAM	
THIRUVATTAR TALUK				
			5 KULASEKARAM	
			6 THIRUVATTAR	
KALKULAM TALUK				
			7 COLACHEL	
			8 KURUNTHENCODE	
			9 THIRUVITHANCODE	
			10 THUCKALAY	
THOVALAI TALUK				
			11 AZHAIPANDIPURAM	
			12 BHOOHPANDY	
			13 THOVALAI	
VILVANCODE TALUK				
			14 ARUMANAI	
			15 EDAICODE	
			16 VILAVANCODE	
KILLIYOOR TALUK				
			17 MIDALAM	
			18 PAINKULAM	
KARUR DISTRICT (Total Firkas- 20)				
ARAVAKURICHI TALUK				
1 PALLAPATTI		2 CHINNADHARA PURAM		
		3 ARAVAKURICHI		
KADAVUR TALUK				
4 KADAVUR				
5 MAILAMPATTI				
KARUR TALUK				
6 THORANAKALPATTI				
7 VELLIYANAI				
8 KARUR				
KRISHINARAYAPURAM TALUK				
9 PANJAPATTI		10 CHINTHALAVADI		
11 KATTALAI				
KULITHLAI TALUK				
12 THOGAIMALAI			13 KULITHALAI	
			14 NANGAVARAM	
MANMANGALAM TALUK				
15 VANGAL		16 MANMANGALAM		
17 THALAPATTI				
PUGALUR TALUK				
18 KPARAMATHY				
19 THENNILAI				
20 PUGALUR				
KRISHNAGIRI DISTRICT (Total Firkas -29)				
BARGUR TALUK				
1 BARGUR				
2 PALEPALLI				
ANJETTI TALUK				
			3 ANJETTI	
DENKANIKOTTAI TALUK				
	4 RAYAKOTTAI	5 KELAMANGALAM	6 ANDEVANAPALLI	

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
						7	DENKANIKOTTA		
						8	KAKKADASAM		
						9	THALLY		
HOSUR TALUK									
				10	BAGALUR				
				11	MATHIGIRI				
				12	HOSUR				
KRISHNAGIRI TALUK									
13	ALAPATTI			14	PERIYAMUTHUR	15	KAVERIPATTINAM		
16	GURUPARAPALLI			17	KRISHNAGIRI				
18	VEPPANAPALLI								
POCHAMPALLI TALUK									
19	MATHUR			20	POCHAMPALLI	21	BARUR		
22	NAGARASAMPATTI								
SHOOLAGIRI TALUK									
23	BERIGAI					24	SHOOLAGIRI		
						25	UTHANAPALLI		
UTHANGARAI TALUK									
26	KALLAVI								
27	SAMALPATTI								
28	SINGARAPETTAI								
29	UTHANGARAI								
MADURAI DISTRICT (Total Firkas-51)									
MADURAI EAST TALUK									
						1	APPAN THIRUPATHI		
						2	ARUMABANUR		
						3	KALLANDI IIRI		
						4	KUNNATHUR		
						5	OTHAKKADAI		
						6	RAJAKKUR		
						7	SAKKIMANGALAM		
MADURAI NORTH TALUK									
						8	CHATHRAPATTI		
						9	KOOLAPANDI		
						10	KURAMANGALAM		
						11	SAMAYANALLUR		
						12	SATHAMANGALAM		
MADURAI SOUTH TALUK									
				13	MADURAI EAST	14	AVANIYAPURAM		
						15	VIRATHANUR		
MADURAI WEST TALUK									
16	NAGAMALALI PUDUKOTTA	17	MADURAI WEST						
MELUR TALUK									
18	A VELLALAPATTI					19	KARUNGALAKUDI		
20	KOTTAMPATTI					21	KEELAVALAVU		
22	VELLALUR					23	MELAVALAVU		
						24	MELUR		
						25	THIRUVATHAVUR		
PERAIYUR TALUK									
26	SEDAPATTI			27	ELUMALAI	28	ATHIPATTI		
				29	PERAIYUR	30	MOTHAGAM		
						31	T.KALLUPATTI		
KALLIGUDI TALUK									
				32	KALLIGUDI	33	KURAIYUR		

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
						34	SIVARAKKOTTAI		
THIRUMANGALAM TALUK									
35	KOKKILAM	36	THIRUMANGALAM	37	PANNIKKUNDU				
THIRUPPARAN KUNDRAM TALUK									
				38	VALAYANKULAM	39	THIRUPPARAN KUNDRAM		
USILAMPATTI TALUK									
40	USILAMPATTI	41	KARUMATHUR	42	VALANTHUR				
43	UTHAPPA NAICKANUR								
44	SINDHUPATTI								
VADIPATTI TALUK									
45	MUDUVARPATTI					46	ALANGANALLUR		
47	PALAMEDU					48	SOLAVANDHAN		
						49	THANICHAM		
						50	NEERATHAN		
						51	THENKARAI		
NAGAPATTINAM DISTRICT (Total Firkas-31)									
KILVELUR TALUK									
								1	KEELAIYUR
								2	KILVELUR
								3	THEVOOR
								4	VELANGANNI
KUTTALAM TALUK									
5	KUTTALAM								
6	MANGANALLUR								
7	PALAIYUR								
MAYILADUTHURAI TALUK									
8	MAYILADUTHURAI					9	MANALMEDU		
10	PATTAVARTHI								
NAGAPATTINAM TALUK									
								11	THIRUKANNAPURAM
								12	KANGALAN CHERI
								13	NAGAPPATTINAM
								14	THERKUPOIGAI NALLUR
								15	THIRUMARUGAL
SIRKALI TALUK									
16	PUTHUR								
17	VAITHEESWARAN KOIL								
18	SIRKALI								
19	MADHANAM								
20	THIRUVENGADU								
THARANGAMPADI TALUK									
21	MELAIYUR							22	THILLAYADI
23	SEMBANARKOIL								
24	THIRUVILAIYATTAM								
THIRUKKUALAI TALUK									
								25	NIRMULAI
								26	THIRUKKUALAI
								27	VALIVALAM
VEDARANYAM TALUK									
								28	KARIYA PATTINAM
								29	THAGATUR
								30	THALAINAYAR
								31	VEDARANYAM
NAMAKKAL DISTRICT (Total Firkas-30)									

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
NAMAKKAL TALUK									
1	NALLIPALAYAM								
2	NAMAKKAL								
3	PUDUCHATTRAM								
4	SELLAPPAMPATTI								
SENTHAMANGALAM TALUK									
5	ALANGANATHAM								
6	ERUMAIPATTI								
7	KALAPPANAKAN PATTI								
8	SENTHAMANGALAM								
MOHANUR TALUK									
9	MOHANUR			10	PALLAPATTI				
11	VALAIYAPATTI								
KOLIMALAI TALUK									
						12	THIRUPULI NADU		
						13	VALAVANTHI NADU		
PARAMATHI VELUR TALUK									
14	NALLUR			15	JEDARPALAYAM				
16	PARAMATHI								
17	PANDAMANGALAM								
RASIPURAM TALUK									
18	MANGALAPURAM								
19	MULLUKURICHI								
20	NAMAGIRIPETTAI								
21	RASIPURAM								
22	VENNANDUR								
KUMARAPALAYAM TALUK									
23	KUMARAPALAYAM					24	PALLIPALAYAM		
THIRUCHENGODE TALUK									
25	MALLASAMUDRAM	26	ELACHIPALAYAM	27	MANICKAM PALAYAM				
28	VAIYAPPAMALAI			29	MOLASI				
30	TIRUCHENGODE								
PERAMBALUR DISTRICT (Total Firkas-11)									
ALANDUR TALUK									
1	CHETTICKULAM			2	KOOTHUR	3	KOLAKANATHAM		
VEPPANTHATTAI TALUK									
4	VENGALAM								
5	PASUMBALUR								
6	VALIKANDAPURAM								
PERAMBALUR TALUK									
7	KURUMBALUR								
8	PERAMBALUR								
KUNNAM TALUK									
9	KEELAPULIYUR					10	VADAKKALUR		
						11	VARAGUR		
PUDUKKOTTAI DISTRICT (Total Firkas-45)									
ALANGUDI TALUK									
				1	KEERAMANGALAM	2	ALANGUDI		
				3	VENNAVALKUDI	4	VALLANADU		
ARANTHANGI TALUK									
				5	ARASARKULAM	6	ARANTHANGI		
						7	ATHANI		
						8	NAGUDI		
						9	POOVATHAKUDI		

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OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY		
			10	SILATTUR		
AVUDAIYARKOIL TALUK						
			11	AVUDAIYARKOIL		
			12	EMBAL		
			13	PONPETTE		
			14	MIMISAL		
GANDARVAKOTTAI TALUK						
			15	GANDARVAKOTTAI		
			16	KALLAKKOTTAI		
			17	PUDUNAGAR		
ILLUPPUR TALUK						
			18	VEERAPATTY		
			19	KUDUMIYANMALAI		
			20	ILLUPPUR		
			21	SITHANAVASAL		
KARAMBAKUDI TALUK						
			22	MALAIYUR		
			23	KARAMBAKUDI		
KULATHUR TALUK						
		24	NARTHAMALAI	25	KEERANUR	
				26	KILLUKKOTTAI	
				27	KUNNANDARKOIL	
				28	MATHOOR	
MANAMELKUDI TALUK						
			29	MANAMELKUDI	30	PERUMARUTHUR
					31	KOTTAI PATTINAM
					32	SINKAVANAM
PONNAMARAVATHY TALUK						
		33	ARASAMALAI			
		34	KARAIYUR			
		35	PONNAMARAVATHY			
PUDUKKOTTAI TALUK						
			36	VARAPPUR		
			37	PUDUKKOTTAI		
THIRUMAYAM TALUK						
		38	KOTTUR	39	KEELANILAI	
				40	SENCEERAI	
				41	THIRUMAYAM	
				42	VIRACHILAI	
VIRALIMALAITALUK						
		43	KODUMBALUR	44	NEERPALANI	
		45	VIRALIMALAI			
RAMANATHAPURAM DISTRICT (Total Firkas-38)						
KADALADI TALUK						
			1	AAPPANUR	2	KADALADI
					3	MELACHELVANUR
					4	S.THARAIKUDI
					5	SAYALKUDI
					6	SIKKAL
KAMUTHI TALUK						
			7	ABRAMAM		
			8	KAMUTHI EAST		
			9	KAMUTHI WEST		
			10	KOVILANKULAM		

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
						11	PERUNAAZHI		
KEELAKKARAI TALUK									
						12	T.U.MANGAI	13	THIRUPULLANI
						14	KEELAKKARAI		
MUDUKULATHUR TALUK									
						15	KAKKUR	16	MUDUKULATHUR SOUTH
						17	KEELATHUVAL		
						18	MELAKODUMALUR		
						19	MUDUKULATHUR NORTH		
						20	THERIRUVELI		
PARAMAKUDI TALUK									
						21	BOGALUR		
						22	KILYUR		
						23	MANJUR		
						24	NANARKOIL		
						25	PARAMAKUDI		
						26	PARTHIPANOR		
RAMANATHAPURAM TALUK									
						27	DEVIPATTINAM		
						28	MANDAPAM		
						29	RAMANATHAPURAM		
						30	PERUNKULAM		
RAMESHWARAM TALUK									
						31	RAMESWARAM		
R.S.MANGALAM TALUK									
						32	AANANDHUR		
						33	R.S.MANGALAM		
						34	SHOLANDHUR		
THIRUVADANAI TALUK									
						35	PULLUR	36	MANGALAKUDI
						37	THIRUVADANI	38	THONDI
RANIPET DISTRICT (Total Firkas-18)									
WALAJAH TALUK									
1	WALAJAH			2	VISHARAM				
				3	RANIPET				
ARAKKONAM TALUK									
				4	PALLUR	5	ARAKONAM (NORTH)		
				6	ARAKONAM (SOUTH)				
				7	PARANJI				
ARCOT TALUK									
8	TIMIRI								
9	ARCOT								
10	PUDUPADI								
NEMILI TALUK									
		11	NEMILI (V)	12	KAVERIPAKKAM				
				13	PANAPAKKAM				
SHOLINGHUR TALUK									
				14	SHOLINGHUR				
				15	VELAM				
				16	BANAVARAM				
KALAVAI TALUK									
		17	KALAVAI	18	MAMBAKKAM				
SALEM DISTRICT (Total Firkas-44)									
ATTUR TALUK									

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
1	MALLIYAKARAI								
2	ATTUR								
3	KATTUKKOTTAI								
4	THALAVASAI								
EDAPPADI TALUK									
5	EDAPPADI								
6	KONGANAPURAM								
7	POOLAMPATTI								
GANGAVALLI TALUK									
8	VEERAGANNOOR								
9	GANGAVALLI			10	PATCHMALAI				
KADAYAMPATTI TALUK									
11	KADAYAMPATTI								
12	SEMMANDAPPATTI								
METTUR TALUK									
13	MECHERI			14	KOLATHUR				
15	NANGAVALLI								
16	PALAMALAI								
17	METTUR								
18	POTTANERI								
OMALUR TALUK									
19	OMALUR	20	KARUPUR						
21	THARAMANGALAM								
PETHANAICKAN PALAYAM TALUK									
22	PETHANAICKAN PALAYAM					23	KALRAYANMALAI		
24	YETHAPUR								
SALEM TALUK									
25	SALEM_TOWN	26	PANAMARATHUP PATTI						
27	VALASAIYUR								
SALEM SOUTH TALUK									
28	VEERAPANDI								
29	VEMBADITHALAM								
30	KONDALAMPATTI								
SALEM WEST TALUK									
31	THIRUMALAIGIRI								
32	ALAGAPURAM								
33	SURAMANGALAM								
SANKARI TALUK									
34	ERNAPURAM					35	THEVUR		
36	SANKARI EAST								
37	SANKARI WEST								
VAZHPPADI TALUK									
38	VAZHAPPADI					39	ARUNOOTHUMALAI		
40	KARIPPATTI								
41	BELUR								
YERCAUD TALUK									
						42	PUTHUR		
						43	VELLAKKADAI		
						44	YERCAUD		
SIVAGANGA DISTRICT (Total Firkas-39)									
DEVAKOTTAI TALUK									
						1	DEVAKOTTAI		
						2	KANDADEVU		
						3	KANNANGUDI		

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OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
			4 PUZHAYAL	
			5 SARUGANI	
ILYANGUDI TALUK				
			6 ILYANGUDI	
			7 SOORANAM	
			8 THAYAMANGALAM	
			9 A THIRUVUDUR PURAM	
			10 SALAIGRAMAM	
KALAYARKOVIL TALUK				
			11 NATTARASANKOTTAI	
			12 KALAYARKOVIL	
			13 MARAVAMANGALAM	
			14 SILUKAPATTI	
			15 MALLAL	
KARAIKUDI TALUK				
			16 KALLAL	
			17 KARAIKUDI	
			18 PALLATHUR	
			19 SAKKOTTAI	
			20 MITHRAVAYAL	
MANAMADURAI TALUK				
			21 SEIKALATHUR	
			22 MUTHANENTHAL	
			23 MANAMADURAI	
SIVAGANGAI TALUK				
			24 MATHAGUPATTI	
			25 OKKUR	
			26 PERIAKOTTAI	
			27 SIVAGANGAI	
			28 THAMARAKKI	
SINGAMPUNARI TALUK				
			29 S. S. KOTTAI	
			30 SINGAMPUNARI	
			31 VARAPPUR	
THIRUPPATHUR TALUK				
			32 NATCHIYAPURAM	
			33 THIRUKOSTIYUR	
			34 THIRUPPATHUR	
			35 ILAYATHAKUDI	
			36 NERKUPPAI	
THIRUPUVANAM TALUK				
			37 KONTHAGAI	
			38 THIRUPPUVANAM	
			39 THIRUPPACHETHY	
TENKASI DISTRICT (Total Firkas -31)				
TENKASI TALUK				
1	KALLURANI		2	ALWARKURICHI
			3	KADAYAM
			4	TENKASI
KADAYANALLUR TALUK				
5	AYIKUDI	6	KADAYANALLUR	
7	PULIYANKUDI			
SENGOTTAI TALUK				
			8	ELATHUR

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
						9	PANPOLI		
						10	SCHENCOTTAI		
VEERAKERALAMPUDUR TALUK									
11	KARUVANTHA	12	VEERAKERALAMPUDUR						
13	SURANDAI								
14	UTHUMALAI								
THIRUVENGADEM TALUK									
15	KARISAL KULAM			16	THIRUVENGADEM				
17	PAZHANKOTTAI								
SANKARANKOIL TALUK									
18	KARIVAKLAMVANDANALLUR								
19	KURUKKALPATTI								
20	SANKARANKOIL								
21	SERNTHA MANGALAM								
22	VEERASIGAMANI								
ALANKULAM TALUK									
23	KEEZHAPAVOOR			24	ALANKULAM	25	PUDUPATTI		
26	NETTUR								
27	VENKADAMPATTI								
SIVAGIRI TALUK									
28	GUDALUR			29	VASUDEVANALLUR	30	SIVAKIRI		
CHERANMAHADEVI TALUK									
						31	PAPPAKUDI		
THANJAVUR DISTRICT (Total Firkas-50)									
BUDHULUR TALUK									
1	AGARAPETTAI			2	BUDALUR	3	SENGIPATTI		
4	THIRUKKATTU PALLI								
KUMBAKONAM TALUK									
5	DEVANANCHERI					6	CHOLANMALIGAI		
7	KUMBAKONAM								
8	MURUKKANGUDI								
9	NACHIYARKOIL								
ORATHANAD TALUK									
10	THONDARAM PATTU	11	ULUR	12	ORATHANAD	13	EACHANKOTTAI		
14	KAVALIPATTI			15	THEKKUR				
16	THIRUMANGALA KOTTAI								
17	SILLATHUR								
PAPANASAM TALUK									
18	AYYAMPETTAI			19	SALIYAMANGALAM				
20	MELATTUR								
21	PAPANASAM								
22	AMMAPET								
23	KABISTHALAM								
PATTUKKOTTAI TALUK									
24	TIRUCHITRAM BALAM	25	NAMBIVAYAL	26	KURICHI				
27	THUVARANKURICHI	28	PERIYAKOTTAI						
29	ANDIKKADU	30	THAMBIKOTTAI						
31	MADUKKUR								
32	PATTUKKOTTAI								
33	ADIRAMPATTINAM								
PERAVURANI TALUK									
34	AVANAM			35	PERAVURANI	36	PERUMAGALUR		
37	KURUVIKARAMBAI								
THANJAVUR TALUK									

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤ 100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
38	NANJIKOTTAI			39	PERAMBUR				
40	VALLAM			41	THANJAVUR				
42	PAMAPURAM								
THIRUVAIYARU TALUK									
43	KANDIYUR								
44	NADUKAVERI								
45	THIRUVAIYARU								
THIRUVIDAMARUDUR TALUK									
46	ADUTHURAI								
47	KATHIRA MANGALAM								
48	THIRUVIDA MARUDUR								
49	TIRUPPANANDAL								
50	PANDANALUR								
THE NILGIRIS DISTRICT (Total Firkas-15)									
COONOOR TALUK									
						1	COONOOR		
						2	KETTI		
						3	MELUR		
GUDALUR TALUK									
						4	DEVARSHOLA		
						5	GUDALUR		
KOTHAGIRI TALUK									
						6	KILKOTAGIRI		
						7	NEDUGULA		
						8	KOTAGIRI		
PANDALUR TALUK									
						9	CHERAMBADI		
						10	PANDALUR		
KUNDAH TALUK									
				11	ITHALAR				
				12	KUNDAH				
UDHAGAMANDALAM TALUK									
						13	SHOLUR		
						14	THUNERI		
						15	UDHAGAMANDALAM		
THENI DISTRICT (Total Firkas-17)									
ANDIPATTI TALUK									
		1	KANDAMANUR	2	ANDIPATTI				
		3	RAJATHANI	4	MAYLADUMPARAI				
BODINAYAKANUR TALUK									
				5	KODANGIPATTI	6	BODINAYAKANUR		
						7	RASINGAPURAM		
PERIYAKULAM TALUK									
				8	DEVATHANAPATTI				
				9	THENKARAI				
THENI TALUK									
				10	THENI				
				11	KODIVILARPATTI				
UTHAMAPALAYAM TALUK									
12	ERASAKKA NAICKANUR			13	UTHAMAPALAYAM	14	CHINNAMANUR		
15	THEVARAM					16	MARKAYANKOTTAI		
						17	CHIMRAM		
THRUCHIRAPPALLI DISTRICT (Total Firkas-43)									
LALGUDI TALUK									

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OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
				1	PERUVALPUR	2	VALADI		
						3	JANBIL		
						4	KALLAKKUDI		
						5	LALGUDI		
						6	PULLAMBADI		
MANAPPARAI TALUK									
7	VAIYAMPATTI								
8	MANAPPARAI								
9	PANNAPPATTI								
10	V.PEIRYAPATTI								
MANNACHANALLUR TALUK									
11	KARIYAMANICKAM			12	MANNACHA NALLUR				
				13	SIRUGAMBUR				
MARUNGAPURI TALUK									
14	MARUNGAPURI			15	VALANADU				
15	THUVARANGURICHI								
MUSIRI TALUK									
17	THUMBALAM			18	MUSIRI	19	AAMUR		
20	PULIVALAM								
21	THATHAIYANGAR PETTAI								
22	VALAIEDUPPU								
SRIRANGAM TALUK									
23	MANIKANDAM					24	ANDANALLUR		
						25	KULUMANI		
						26	SOMARASAN PETTAI		
						27	SRIRANGAM		
THOTTIYAM TALUK									
				28	EALURPATTI				
				29	KATTUPUTHUR				
				30	THOTTIYAM				
THURAIYUR TALUK									
31	KOPPAMPATTI	32	UPPILYAPURAM						
33	THURAIYUR								
34	KANNANUR								
35	ERAGUDI								
36	SENGATTUP PATTI								
TIRUVERUMBUR TALUK									
						37	NAVALPATTU		
						38	TIRUVERUMBUR		
						39	VENGUR		
TIRUCHIRAPPALLI EAST TALUK									
						40	TIRUCHIRAPPALLI NORTH		
						41	TIRUCHIRAPPALLI SOUTH		
TIRUCHIRAPPALLI WEST TALUK									
						42	TIRUCHIRAPPALLI NORTH		
						43	TIRUCHIRAPPALLI SOUTH		
TIRUPATHUR DISTRICT (Total Firkas-11)									
TIRUPATHUR TALUK									
1	KANDHILI	2	ANDIYAPPANUR	3	JOLARPET				
4	KORATTI			5	PUDURNADU				
6	TIRUPATHUR								
VANIYAMBADI TALUK									
7	VANIYAMBADI	8	ALANGAYAM	9	AMBALUR				
NATRAMPALLI TALUK									

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
10	ERAIYUR								
CHETPET TALUK									
11	THACHAMBADI			12	DEVIKAPURAM				
13	KOLAPPALUR								
14	NEDUNGUNAM								
CHEYAR TALUK									
		15	VADA THANDALAM	16	VAKKADAI				
				17	ANAKAVOOR				
				18	CHEYYAR				
				19	THETHURAI				
KALASAPAKKAM TALUK									
20	KADALADI			21	KALASAPAKKAM				
22	KETTAVARAM PALAYAM								
KILPENNATHUR TALUK									
23	SOMASPADI	24	KILPENNATHUR						
25	VETTAVLAM								
POLUR TALUK									
26	KELUR	27	MODAYUR	28	MANDAKOLATHUR				
29	SANTHAVASAL			30	POLUR				
THANDARAMPATTU TALUK									
31	THANIPADI			32	THANDARAMPAT				
				33	VANAPURAM				
TIRUVANAMALAI TALUK									
34	THURINJIPURAM	35	VERAIYUR	36	T.V.MALAI (NORTH)				
37	THATCHAM PATTU	38	MANGALAM	39	T.V.MALAI (SOUTH)				
				40	NAYADUMANGALAM				
VANDAVASI TALUK									
41	MALAIYUR	42	VANDAVASI	43	THELLAR				
44	OSUR			45	PERANAMALLUR				
46	CHENNAVARAM								
47	DESUR								
48	KILKODUNGALUR								
VEMBAKKAM TALUK									
				49	NATERI				
				50	PERUNGATTUR				
				51	VEMBAKKAM				
				52	DUSI				
THIRUVARUR DISTRICT (Total Firkas-27)									
KODAVASL TALUK									
1	KODAVASAL								
2	THIRUVIZHI MAZHALAI								
NIDAMANGALAM TALUK									
3	KORADACHERI					4	NIDAMANGALAM		
						5	VADUVUR		
MANNARGUDI TALUK									
						6	KOTTUR		
						7	MANNARGUDI		
						8	PALAIYUR		
						9	THALAIYA MANGALAM		
						10	ULLIKOTTAI		
KOOTHANALLUR TALUK									
11	KULIKKARAI (KAMALABHIRAM)	12	VADAPATHI MANGALAM	13	KOOTHANALLUR				
NANNILAM TALUK									
14	AGARATHIRU MALAM			15	SANNANALLUR				

(xx)

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
18	PERAIAM			17	NANNILAM				
THIRUTHURAIPOONDI TALUK									
								18	EDAIYUR
								19	MUTHUPET
								20	THIRUTHURAI POONDI
								21	ALATHAMPADI
THIRUVARUR TALUK									
22	THIRUKKANNA MANGAI					23	THIRUVARUR		
						24	KUNNIYUR		
VALANGAIMAN TALUK									
25	ALANGUDI								
26	AVOOR								
27	VALANGAIMAN								
THOOTHUKKUDI DISTRICT (Total Firkas-41)									
ETTAYAPURAM TALUK									
						1	CHOLAPURAM		
						2	ETTAYAPURAM		
						3	KADALIYUR		
						4	MUTHULAPURAM		
						5	PADARNTHAPULI		
KOVILPATTI TALUK									
6	ILAYASANENDAL					7	KALUGUMALAI		
						8	NALLATIN PUTHUR		
						9	KOVILPATTI		
KAYATHAR TALUK									
				10	KAYATHAR	11	KAMANAICKEN PATTI		
						12	KADAMBUR		
OTTAPIDARAM TALUK									
		13	PARIVALLIKOTTAI			14	EPPODUMVENDRAN		
						15	MANIYACHI		
						16	PASUVANTHANAI		
						17	VEDANATHAM		
						18	OTTAPIDARAM		
SATTANKULAM TALUK									
19	PALLAKURICHI			20	SATTANKULAM	21	SRIVENKATES WARAPURAM		
ERAL TALUK									
						22	ARUMUGA MANGALAM		
						23	PERUNGULAM		
						24	ALVARTHIRU NAGARI		
SRIVAIKUNDAM TALUK									
						25	DEIVASEYALPURAM		
						26	SEIDUNGANALLUR		
						27	SRIVAIKUNDAM		
						28	VALLANAD		
THOOTHUKUDI TALUK									
						29	KEELATHATTA PARAI		
						30	MUDIYAITHANENDAL		
						31	PUDUKOTTAI		
						32	THOOTHUKUDI		
TIRUCHENDUR TALUK									
33	UDANGUDI					34	AUTHOOR		
						35	TIRUCHENDUR		
VILATHIKULAM TALUK									
						36	KADALKUDI		

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
						37	KULATHUR		
						38	PUDUR		
						39	SIVAGNANA PURAM		
						40	VEMBAR		
						41	VELATHIKULAM		
TIRUNELVELI DISTRICT (Total Firkas -29)									
AMBASAMUDRAM TALUK									
						1	AMBASAMUDRAM		
						2	SINGAMPATTI		
CHERANMAHADEVI TALUK									
						3	CHERAN MAHADEVI		
						4	MELASVAL		
						5	MUKKUDAL		
MANUR TALUK									
6	VANNIKONENTHAL			7	MANUR				
				8	THALAIYUTHU				
NANGUNERI TALUK									
				9	MOOLAKARAIPATTI	10	ERUVADI		
						11	KALAKADU		
						12	NANGUNERI		
						13	POOLAM		
PALAYAMKOTTAI TALUK									
				14	SIVANTHIPATTI	15	MELAPATTAM		
						16	MUNEER PALLAM		
						17	PALAYAMKOTTAI		
RADHAPURAM TALUK									
18	PAZHAVOOR	19	RADHAPURAM	20	LEVINJIPURAM	21	SAMUGARENGA PURAM		
						22	PANAGUDI		
						23	VALLIYOOR		
TISAYANVILAI TALUK									
				24	VIJAYARAYANA PURAM	25	TISAYANVILAI		
TIRUNELVELI TALUK									
						26	GANGAIKONDAN		
						27	MADHAVAKURICHI		
						28	NARANAMMAL PURAM		
						29	TIRUNELVELI		
TIRUPPUR DISTRICT (Total Firkas-33)									
AVINASHI TALUK									
1	AVINASHI(E)								
2	AVINASHI(W)								
3	CHEYUR								
4	PERUMANALLUR								
DHARAPURAM TALUK									
5	MULANUR	6	ALANGAYAM	7	DHARAPURAM				
8	KUNDADAM	9	SANKARANDAM PALAYAM						
10	KANNIVADI								
11	PONNAPURAM								
KANGEYAM TALUK									
12	KANGEYAM	13	NATHAKADAIYUR						
14	UTHYUR								
15	VELLAKOIL								
MADATHUKULAM TALUK									
				16	THUNGAVI	17	MADATHUKULAM		
PALLADAM TALUK									

(Xxii)

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
18	KARADIVAMI								
19	PALLADAM								
20	PONGALUR								
21	SAMALAPURAM								
TIRUPPUR (N) TALUK									
22	VELAMPALAYAM	23	TIRUPPUR (N)						
TIRUPPUR (S) TALUK									
24	AVINASHIPALAYAM(S)			25	NALLUR				
26	TIRUPPUR (S)								
UDUMALPETTAI TALUK									
27	GUDIMANGALAM			28	UDUMALPET				
29	PERIAVALAVADI			30	KURICHIKOTTAI				
31	PETHAPPAMPATTI								
UTHUKULI TALUK									
32	KUNNATHUR								
33	UTHUKULI								
VELLORE DISTRICT (Total Firkas-23)									
AMBUR TALUK									
1	AMBUR								
2	MADHANUR								
3	THUTHIPATTU								
4	MELASANNAN KUPPAM								
GUDIYATHAM TALUK									
5	GUDIYATHAM(WEST)								
6	GUDIYATHAM(EAST)								
7	VALATHUR								
KADPADI TALUK									
				8	KATPADI	9	MELPADI		
				10	THIRUVALAM				
ANAICUT TALUK									
11	ANAICUT	12	USSOOR						
13	PALLIKONDA								
14	ODUGATHUR								
15	AGARAM								
VELLORE TALUK									
16	SATHUVACHARI	17	PENNATHUR	18	KANIYAMBADI				
19	VELLORE								
PERNAMPATTU TALUK									
20	MELPATTI			21	PERNAMPATTU				
K.V.KUPPAM TALUK									
22	K.V.KUPPAM								
23	VADUGANTHANGAL								
VILUPPURAM DISTRICT (Total Firkas-34)									
VILUPPURAM TALUK									
		1	KANDAMANGALAM	2	KANAI				
		3	VALAVANUR	4	VILUPPURAM				
THIRUVENNAIALLUR TALUK									
5	CHITHALINGA MADAM								
6	T.V.NALLUR								
7	ARASUR								
KANDACHIPURAM TALUK									
				8	MUGAIYUR	9	ARAKANDANALLUR		
VIKKIRAVANDI TALUK									
10	ANNIYUR	11	VIKKIRAVANDI						

(XXiii)

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
12	KANJANUR								
13	SITHALAMPATTU								
VANUR TALUK									
14	NEMILI	15	KILIYANUR			16	VANUR		
17	UPPUVELUR								
TINDIVANAM TALUK									
18	OLAKKUR			19	TINDIVANAM	20	MAILAM		
21	VADASIRUVALUR			22	AVANIPUR	23	DEEVANUR		
						24	RETTANAI		
GINGEE TALUK									
25	GINGEE								
26	MELOLAKKUR								
27	SATHIYA MANGALAM								
28	VALLAM								
MELMALAIYANUR TALUK									
29	AVALURPETTAI								
30	MELMALAIYANUR								
31	SATHAMPADI								
MARAKKANAM TALUK									
32	BRAMMADESAM			33	MARAKKANAM				
34	SIRUVADI								
VIRUDHUNAGAR DISTRICT (Total Firkas-39)									
ARUPPUKOTTAI TALUK									
						1	ARUPPUKOTTAI		
						2	PALAYAMPATTI		
						3	PANDALKUDI		
						4	PARALATCHI		
						5	MANDAPASALAI		
KARIAPATTI TALUK									
		6	MALLANKINAR			7	KALKURUCHI		
						8	KARIAPATTI		
						9	MUDUKKAN-KULAM		
RAJAPALAYAM TALUK									
10	CHOLAPURAM			11	IYANKOLLAN KONDAN	13	SEITHUR		
				13	RAJAPALAYAM				
SATTUR TALUK									
						14	PADANTHAL		
						15	NENMEMI		
						16	SATTUR		
						17	NALLI		
SIVAKASI TALUK									
		18	MANGALAM	19	SIVAKASI	20	THIRUTHANGAL		
				21	SALWARPATTI				
SRIVILLIPUTTUR TALUK									
22	PILLAIYARKULAM			23	MALLI				
				24	SRIVILLIPUTTUR				
WATRAP TALUK									
25	NATHAMPATTI			26	KOTTAIYUR				
				27	WATRAP				
THIRUCHULI TALUK									
						28	A.MUKKULAM		
						29	NARIKUDI		
						30	THIRUCHULI		
						31	VEERACHOLAN		

(X*IV)

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤ 100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
VIRUDHUNAGAR TALUK				
	32 AMATHUR	33 ONDIPULINAICKANUR	34 VIRUDHUNAGAR	
	35 VATCHAKARA PATTI			
VEMBAKOTTAI TALUK				
36 KEELARAJAKULA RAMAN	37 ALANGULAM	38 ELAYIRAM-PANNAI		
39 VEMBAKOTTAI				
OVER EXPLOITED	CRITICAL	SEMI CRITICAL	SAFE	SALINE
435	63	225	409	34

Sandeep Saxena
Additional Chief Secretary to Government

//True Copy//

S. Sandeep Saxena
Section Officer
1.11.2021

S. Sub
1-11-2021

(XV)

ABSTRACT

G.O. (Ms.) No. 155, Public Works (R1) Department, Dated 28.10.2021

Dynamic Ground Water Resources of Tamil Nadu, March - 2020

Sl. No	District	Total No. of Firkas	Over Exploited	Critical	Semi Critical	Safe	Saline / Poor Quality
1	Ariyalur	15	-	-	1	14	-
2	Chengalpattu	40	3	2	17	18	-
3	Chennai	30	26	-	1	3	-
4	Coimbatore	38	30	2	5	1	-
5	Cuddalore	32	6	1	12	13	-
6	Dharmapuri	23	14	-	7	2	-
7	Dindugal	40	26	5	5	4	-
8	Erode	34	20	1	10	3	-
9	Kallakurichi	23	6	6	5	6	-
10	Kancheepuram	25	3	1	6	15	-
11	Kanyakumari	18	-	-	1	17	-
12	Karur	20	14	-	4	2	-
13	Krishnagiri	29	12	1	7	9	-
14	Madurai	51	11	3	7	30	-
15	Nagappattinam	31	13	-	-	1	17
16	Namakkal	30	22	1	4	3	-
18	Perambalur	11	7	-	1	3	-
19	Pudukottai	45	-	-	10	32	3
20	Ramanathapuram	38	-	-	-	29	9
21	Ranipet	18	4	2	11	1	-
22	Salem	44	34	2	2	6	-
23	Sivagangai	39	-	-	-	39	-
24	Tenkasi	31	17	1	4	9	-
25	Thanjavur	50	34	4	8	4	-
17	The Nilgiris	15	-	-	2	13	-
26	Theni	17	2	2	8	5	-
33	Thiruchirappalli	43	17	1	8	17	-
34	Thirupathur	11	6	2	3	-	-
27	Thiruvallur	47	7	2	17	20	1
32	Thiruvannamalai	52	23	6	23	-	-
31	Thiruvarur	27	10	1	3	9	4
28	Thoothukudi	41	3	1	2	35	-
29	Tirunelveli	29	2	1	6	20	-
30	Tiruppur	33	23	4	5	1	-
35	Vellore	23	16	2	4	1	-
36	Villupuram	34	19	4	6	5	-
37	Virudhunagar	39	5	5	10	19	-
	Total	1166	435	63	225	409	34

Sandeep Saxena,

Additional Chief Secretary to Government

//True Copy//

D. A. S. Saxena
 Section Officer
 1.11.2021



ABSTRACT

Water Resources Department– Dynamic Ground Water Resources Assessment for Tamil Nadu as on March, 2022 – Categorization of Firkas as Over Exploited, Critical, Semi-Critical, Safe and Saline/ Poor Quality based on the Assessment in Tamil Nadu – Approved – Orders issued.

Water Resources (R1) Department

G.O. (Ms.) No.15

Dated. 28.03.2023

சுபகிருது, பங்குனி 14,

திருவள்ளூர்வரஆண்டு 2054

Read:-

- 1) G.O. (Ms.) No.326, Public Works Department, Dated 23.11.1993.
- 2) G.O. (Ms.) No.51, Public Works Department, Dated 11.02.2004.
- 3) G.O. (Ms.) No.52, Public Works Department, Dated 02.03.2012.
- 4) G.O. (Ms.) No.142, Public Works Department, Dated 23.07.2014.
- 5) G.O. (Ms.) No.113, Public Works Department, Dated 09.06.2016.
- 6) G.O. (Ms.) No.257, Public Works Department, Dated 1.10.2018.
- 7) G.O. (Ms.) No.161, Public Works Department, Dated 23.10.2019.
- 8) G.O.(Ms.) No.155, Public Works (R1) Department, Dated 28.10.2021.
- 9) From the Chief Engineer, State Ground and Surface Water Resources Data Centre, Letter No. DD (G)/GWRA-2022/2022-10, Dated. 21.11.2022 and 04.01.2023.

ORDER:

Based on the development of the ground water resources, the Panchayat Union Blocks in Tamil Nadu were categorized as Dark and Grey areas as on January 1992 and January 1997 (Projected development at year 5) in the Government Order first read above. The Blocks with ground water development between 85% to 100% were categorized as "Dark Blocks" and the Blocks with ground water development between 65% to 85% were categorized as "Grey Blocks". The Government directed that no Scheme should be formulated in the Dark Blocks and in the Grey Blocks, Schemes should be formulated in consultation with the Ground Water Wing of the Public Works Department only. The above categorisation was done in accordance with the then prevailing Ground Water Estimation Committee – 1984 (GEC-1984) Norms. Thereafter, the Committee constituted by the Ministry of Water Resources, Government of India, has recommended to adopt the GEC-1997 Norms for estimation of the ground water resources in all the States.

2. In the Government Order second read above, the Government approved the categorization of the Panchayat Union Blocks in Tamil Nadu as Over-Exploited,

Critical, Semi-Critical and Safe Blocks for ground water development as on January, 2003. The Government directed that no Schemes should be formulated in the Over Exploited and Critical Blocks and in the Semi-Critical and Safe Blocks, all the Schemes should be formulated in consultation with the State Ground and Surface Water Resources Data Centre of the Water Resources Organisation in the Public Works Department. It was also ordered therein that the term "Scheme" excludes energisation of agricultural pump sets by the Tamil Nadu Electricity Board. The Government further directed that appropriate rain water harvesting and artificial recharge schemes be carried out in all the categories of Blocks and while carrying out the above Schemes, priority should be given to the Over Exploited and Critical Blocks so as to avoid further deterioration.

3. In the Government Order third read above, the Government approved the categorization of the Panchayat Union Blocks as Over-Exploited, Critical, Semi-Critical and Safe Blocks based on the assessment of the State Ground Water Resources as on March 2009. All the Over Exploited and Critical Blocks were notified as A Category Blocks (where the stage of ground water extraction is 90% and above) and all the Semi Critical and Safe Blocks were notified as B Category Blocks (where the stage of ground water extraction is below 89%). The Government directed that no Schemes should be formulated in Over Exploited and Critical blocks "Notified as A Category Blocks" and in the Semi-Critical and Safe Blocks "Notified as B Category Blocks", all the Schemes should be formulated through the State Ground and Surface Water Resources Data Centre of the Water Resources Department and the Chief Engineer, State Ground and Surface Water Resources Data Centre, would issue "No Objection Certificate" for ground water clearance. The Government further directed to exclude the ground water drawal for domestic purpose by individual household; domestic Infrastructure Project (Housing); Government's Drinking Water Supply Schemes and Non Water based Industries (i.e., the industries which do not require and use water, either as raw material or for other processing). The Chief Engineer, State Ground and Surface Water Resources Data Centre, would permit domestic use of water by these Non Water based Industries by issuing "No Objection Certificate" based on the hydro-geological conditions. The Government further directed that appropriate Rain Water Harvesting and Artificial Recharge Schemes should be carried out in the categories viz, Over exploited, Critical, Semi Critical and Safe Blocks of Tamil Nadu and while carrying out the above Schemes, priority should be given to marginal quality and bad quality areas so as to avoid further deterioration. The Government further directed that all the Schemes and Proposals based on ground water would have to adhere to the Government Orders and Conditions detailed in the Annexure-II to the above mentioned Government Order. This Government Order had been upheld by the Hon'ble Bench of Madras High Court, in its Common Judgement dated 18.09.2013, in WA Nos. 923 to 926 of 2009, WP Nos 23116 of 2006, 23896 to 23900 of 2016, 4711 of 2004 and 12375 of 2008. The Hon'ble High Court had made it clear that even with the repealing of the Tamil Nadu Ground Water (Development and Management) Act, 2003, this G.O. would govern the interest of the parties and the State in the matter of regulating the business of the Writ Appellants.

4. In furtherance of the Orders and Instructions issued in the Government Order third read above, the Regulations for management of ground water and issue of No Objection Certificate / License for extraction of groundwater in the State were

approved in the Government Order fourth read above. In the year 2014, many water based industries filed Writ Petition and batch cases before the Hon'ble Madras High Court praying for directions to quash the G.O. (Ms.) No. 142, Public Works (R2) Department, Dated 23.7.2014. The Hon'ble High Court in its Judgement dated 03.10.2018 in W.P. No. 28535 of 2014 and batch cases, has upheld the G.O (Ms) No. 142, Public Works (R2) Department, dated 23.07.2014.

5. Subsequently, in the Government Order fifth read above, the Dynamic Groundwater resources in the State were estimated taking a Revenue Firka as an unit of assessment by the State Level Technical Co-ordination Committee as on March 2011 and accordingly the Government had approved categorization of the Over-Exploited, Critical, Semi-Critical, Safe and Saline Firkas based on the above assessment. Thereafter, the Government, in the Government Orders sixth, seventh and eighth read above, have approved the categorisation of the Firkas in the State as Over-Exploited, Critical, Semi-Critical, Safe and Saline / Poor Quality Firkas based on the Ground Water Resources Assessment as on March, 2013 and March, 2017 and March, 2020 respectively.

6. In the letters ninth read above, the Chief Engineer, Water Resources Department, State Ground and Surface Water Resources Data Centre, Chennai has stated as follows:-

- a) The Dynamic Groundwater Resources of Tamil Nadu has been estimated periodically by the Chief Engineer, Water Resources Department, State Ground and Surface Water Resources Data Centre, Tharamani, Chennai in coordination with the Regional Director, Central Groundwater Board (CGWB), Government of India, South Eastern Coastal Region, Chennai, based on the Methodology evolved by the Groundwater Resources Estimation Committee in 2015 (GEC-2015).
- b) From the year 2020, the Groundwater Resources Estimation has been carried out through In-GRES (INDIA - Ground Water Resources Estimation System) software developed by IIT, Hyderabad in co-ordination with CGWB and other State Governments.
- c) Revenue Firka is being taken as the unit of assessment and the Firkas are categorized as Over Exploited, Critical, Semi Critical and Safe based on the percentage of the groundwater extraction. The Poor Quality/Saline category was also assessed based on the quality parameter.

Sl. No.	Stage of Groundwater Extraction(as per GEC -2015)	Firka Categorization
1.	Firkas with more than 100% extraction of Groundwater	Over Exploited
2.	Firkas with the extraction of Groundwater between 90 and 100%	Critical
3.	Firkas with the extraction of Groundwater between 70 and 90%	Semi Critical

4.	Firkas with the extraction of Groundwater less than 70%	Safe
5.	Poor quality (or) Saline	Saline

- d) The Report of "National Compilation on Dynamic Ground Water Resources of India 2022" was approved by the Ministry of Jal Shakti, Department of Water Resource, River Development & Ganga Rejuvenation, Government of India and the same was officially released by the Honourable Minister of Jal Shakti, Government of India on 10.11.2022.
- e) The categorization of the Re-Estimation of Dynamic Ground Water Resources of the State as on March - 2022 are as follows:-

Sl. No.	Categorization	No. of Firkas
1.	Over Exploited	360
2.	Critical	78
3.	Semi Critical	231
4.	Safe	463
5.	Saline	34
TOTAL		1166

(The total No of firkas assessed are 1166 Nos.Firkas based on the revenue records of the year 2017)

7. The Chief Engineer, State Ground and Surface Water Resources Data Centre, Water Resources Department has therefore requested the Government for the approval of the Ground Water Resources Assessment as on March, 2022 and notification of the categorization of the Firkas of Tamil Nadu based on the above Resource Assessment.

8. The Government, after careful examination, have decided to approve the categorization of the Revenue Firkas in the State based on the Estimation of the Dynamic Ground Water Resources as on March 2022. Accordingly, the Government approve the categorization of the Revenue Firkas in the State as Over-Exploited, Critical, Semi-Critical, Safe and Saline/Poor Quality as detailed in the Annexure of this Order, based on the Dynamic Ground Water Resources Assessment as on March, 2022 which shall be notified in the Tamil Nadu Government Gazette.

9. The Government also direct that all the Over Exploited and Critical Firkas as on March - 2022 Resource Assessment to be declared as Notified Firka - A Category (Stage of Groundwater extraction is 90% and above) and all the Semi critical and Safe Firkas to be declared as Notified Firka - B Category (Stage of Groundwater extraction is below 90%).

10. The Chief Engineer, State Ground and Surface Water Resources Data Centre, Water Resources Department is directed that appropriate rain water

harvesting and Artificial recharge schemes shall be carried out in the categories viz, Over exploited, Critical, Semi Critical, Safe and saline/Poor quality Firkas of Tamil Nadu. While carrying out the above Schemes, priority shall be given to marginal quality and bad quality areas so as to avoid further deterioration.

11. Other technical circulars issued by the Chief Engineer, State Ground and Surface Water Resources Data Centre, Water Resources Department, Chennai in this regard are to be adhered to, as and when issued.

(By Order of the Governor)

**Sandeep Saxena,
Additional Chief Secretary to Government**

To

The Works Manager, Government Central Press, Chennai-79

The Engineer-in-Chief and Chief Engineer (General),

WaterResourcesDepartment,Chennai-5.

The Chief Engineer, State Ground and Surface Water Resources Data Centre,
Taramani, Chennai-113.

The Commissioner of Land Administration, Chennai-5.

All the Regional and Functional Chief Engineers, Water Resources Department.

All District Collectors.

The Director of Rural Development, Chennai-15.

The General Manager,

National Bank for Agriculture and Rural Development,Chennai-34.

The Registrar of Co-operative Societies, Chennai-10.

The Chief Engineer (Agricultural Engineering), Chennai-35.

The Director of Agriculture, Chennai-5.

The Director of Horticulture, Chennai-5.

The Commissioner / Managing Director, Sugar Corporation, Chennai-35.

The Managing Director, Tamil Nadu Water Supply and Drainage Board, Chennai-5.

The Engineering Director, Tamil Nadu Water Supply and Drainage Board, Chennai-5.

The Managing Director,

Chennai Metropolitan Water Supply and Sewerage Board,Chennai-2.

The Chairman, Tamil Nadu Electricity Board, Chennai-2.

The Regional Director, Central Ground Water Board, Rajaji Bhavan, Chennai-90.

Copy to

The Agriculture and Farmers Welfare Department, Secretariat, Chennai-9.

The Revenue and Disaster Management Department, Secretariat, Chennai-9.

The Environment, Climate Change and Forests Department, Secretariat, Chennai-9.

The Municipal Administration and Water Supply Department, Secretariat, Chennai-9.

The Rural Development and Panchayat Raj Department, Secretariat, Chennai-9.

The Energy Department, Secretariat, Chennai-9.

The Industries Department, Secretariat, Chennai-9.

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// Forwarded / By Order //

J. m. m. m.
28-03-2023

Section Officer

28/3/2023

ABSTRACT OF ANNEXURE

G.O. (Ms.)No.15, Water Resources (R1) Department, Dated. 28.03.2023

Dynamic Ground Water Resources of Tamil Nadu, March - 2022							
Sl.No	District	Total No.of Firkas	Over Exploited	Critical	Semi Critical	Safe	Saline / Poor Quality
1	Ariyalur	15			1	14	
2	Chengalpattu	40	3	2	15	20	
3	Chennai	30	26		3	1	
4	Coimbatore	38	23	4	5	6	
5	Cuddalore	32	6	4	11	11	
6	Dharmapuri	23	13	1	6	3	
7	Dindigal	40	27	3	4	6	
8	Erode	34	11	2	11	10	
9	Kallakurichi	23	3	4	6	10	
10	Kancheepuram	25	2	1	6	16	
11	Kanyakumari	18			1	17	
12	Karur	20	14		2	4	
13	Krishnagiri	29	10	1	8	10	
14	Madurai	51	4	7	19	21	
15	Nagappattinam	31	13			1	17
16	Namakkal	30	21	2	2	5	
18	Perambalur	11	7		1	3	
19	Pudhukottai	45			6	36	3
20	Ramanadhapuram	38				29	9
21	Ranipet	18	4		11	3	
22	Salem	44	32	3	4	5	
23	Sivagangai	39				39	
24	Tenkasi	30	11	5	4	10	
25	Thanjavur	50	34	4	8	4	
17	The Nilgiris	15				15	
26	Theni	17	2	2	7	6	
27	Thiruvallur	47	2	4	16	24	1
31	Thiruvarur	27	10	1	3	9	4
28	Thoothukudi	41	1	2	3	35	
33	Thiruchirappalli	43	17	1	5	20	
29	Tirunelveli	30	1	1	6	22	
34	Thirupathur	15	12		3		
30	Tiruppur	33	10	9	7	7	
32	Thiruvannamalai	52	13	8	19	12	
35	Vellore	19	12	1	5	1	
36	Villupuram	34	12	5	11	6	
37	Viruthunagar	39	4	1	12	22	
Total		1166	360	78	231	463	34

Sandeep Saxena,
Additional Chief Secretary to Government

//True copy//

J. Manojan

28-03-2023

Section Officer

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28/3/2023

ANNEXURE				
G.O.(Ms.) No.15, Water Resources (R1) Department, Dated. 28.03.2023				
Categorisation of Firkas in Tamil Nadu as on -2022				
OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
ARIYALUR DISTRICT (Total Firkas-15)				
ARIYALUR TALUK				
			1	ARIYALUR
			2	ELAKURICHI
			3	KEELAPALUR
			4	NAGAMANGALAM
			5	THRUMANUR
SENDURAI TALUK				
		6	SENDURAI (A)	7
				8
UDAYARPALAYAM TALUK				
			9	T. PALUR
			10	SUTHAMALLI
			11	KUNDAVELI
			12	UDAYARPALAYAM
			13	JAYANKONDAM
ANDIMADAM TALUK				
			14	ANDIMADAM
			15	KUVAGAM
CHENGALPATTU DISTRICT (Total Firkas-40)				
CHENGALPATTU TALUK				
1	APPUR		2	KATTANKULATHUR
4	CHENGALPATTU		5	SINGAPERUMAL KOIL
THIRUKAZHUKUNDRAM TALUK				
	6	THIRUKAZHU KUNDRAM	7	MAMALLAPURAM
	8	NERUMBUR	9	PONVILAYANTHAKALATHUR
THIRUPORUR TALUK				
		10	KARUMBAKKAM	11
				12
				13
				14
				15
MADURANTHAKAM TALUK				
16	ORATHI		17	ACCHIRUPAKKAM
			19	ONAMPAKKAM
			21	JAMEENENDATHUR
			23	PERUMPAKKAM
			24	L.ENDATHUR
CHEYUR TALUK				
		25	CHITHAMUR	26
		27	KAYAPAKKAM	28
		29	KODUR	30
				31
TAMBARAM TALUK				
			32	CHITLAPAKKAM
			33	MADAMBAKKAM
			34	TAMBARAM
			35	MEDAVAKKAM
PALLAVARAM TALUK				
			36	PAMMAL
			37	PALLAVARAM
VANDALUR TALUK				
		38	VANDALUR	39
		40	GUDUVANCHERI	
CHENNAI DISTRICT (Total Firkas-30)				
EGMORE-NUNGAMBAKKAM TALUK				
1	EGMORE-NUNGAMBAKKAM -I			
2	EGMORE-NUNGAMBAKKAM-II			
3	EGMORE-NUNGAMBAKKAM-III			
4	EGMORE-NUNGAMBAKKAM-IV			
KOTTAI - THONDIARPET TALUK				
5	KOTTAI - THONDIARPET-I			

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
6 KOTTAI - THONDIARPET-II				
7 KOTTAI - THONDIARPET-III				
8 KOTTAI - THONDIARPET- IV				
MAMBALAM - GUINDY TALUK				
9 MAMBALAM - GUINDY-I				
10 MAMBALAM - GUINDY-II				
11 MAMBALAM - GUINDY-III				
12 MAMBALAM - GUINDY-IV				
MYLAPORE - TIRUVALLIKENI TALUK				
13 MYLAPORE - TIRUVALLIKENI-I				
14 MYLAPORE - TIRUVALLIKENI-II				
15 MYLAPORE - TIRUVALLIKENI-III				
16 MYLAPORE - TIRUVALLIKENI-IV				
PURASAWALKAM-PERAMBUR TALUK				
17 PURASAWALKAM-PERAMBUR-I				
18 PURASAWALKAM-PERAMBUR-II				
19 PURASAWALKAM-PERAMBUR-III				
20 PURASAWALKAM-PERAMBUR-IV				
SHOLINGANALLUR TALUK				
		21 PALLIKARANAI	21 SHOLINGANALLUR	
ALANTHUR TALUK				
		23 ALANTHUR		
AMBATTUR TALUK				
24 AMBATTUR				
25 KORATTUR				
MADHAVARAM TALUK				
		26 MADHAVARAM		
MADURAVOYAL TALUK				
27 MADURAVOIL				
28 PORUR				
THIRUVOTRIYUR TALUK				
29 THIRUVOTTIYUR				
30 MANALI				
COIMBATORE DISTRICT(Total Firkas- 38)				
ANNUR TALUK				
1 ANNUR (S)				
2 ANNUR (N)				
3 SARKAR SAMAKULAM				
COIMBATORE NORTH TALUK				
4 GANAPATHI		5 THUDIALUR		
6 ANUPPAR PALAYAM				
7 PERIYANAICKEN PALAYAM				
8 SARAVANAM PATTI				
COIMBATORE SOUTH TALUK				
9 COIMBATORE SOUTH				
10 SINGANALLUR				
KINATHUKATAVU TALUK				
11 VADACHITTUR				
12 KINATHUKATAVU				
13 KOVILPALAYAM				
MADUKKARAI TALUK				
14 OTTAKKAL MANDABAM	15 MADUKKARAI		16 KURICHI	
	17 THIRUMALAIAMPALAYAM			
METTUPALAYAM TALUK				
18 METTUPALAYAM		19 KARAMADAI		

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
PERUR TALUK									
20	MADAMPATTI	21	ALANDURAI			22	KUNIYAMUTHUR		
23	THONDAMUTHUR	24	PERUR						
25	VADAVALLI								
ANAMALAI TALUK									
				26	KOTTUR	27	ANAMALAI		
						28	MARCHINAICKENPALAY AM		
POLLACHI TALUK									
29	RAMAPATTINAM			30	POLLACHI(N)				
31	PERIANEGAMAM			32	POLLACHI(S)				
33	KOLARPATTI								
SULUR TALUK									
34	KARUMATHAM PATTI					35	SULUR		
36	SELAKKARICHAL								
37	VARAPATTI								
VALPARAI TALUK									
						38	VALPARAI		
CUDDALORE DISTRICT (Total Firkas-32)									
BHUVANAGIRI TALUK									
				1	BHUVANAGIRI	2	SETHIYATHOPE		
						3	PARANGIPETTAI		
CHIDAMBARAM TALUK									
						4	ORATHUR		
						5	THIRUVAKULAM		
						6	CHIDAMBARAM		
CUDDALORE TALUK									
		7	RETTY CHAVADI	8	MANJAKUPPAM				
		9	THIRUVANTHI PURAM						
KATTUMANNARKOIL TALUK									
				10	UDAIYARKUDI	11	PUTHUR		
				12	KATTUMANNARKOIL	13	KUMARACHI		
SRIMUSHNUM TALUK									
						14	SRIMUSHNAM		
KURINJIPADI TALUK									
				15	KURINJIPADI				
				16	KULLANCHAVADI				
PANRUTI TALUK									
17	NELLIKUPPAM			18	PANRUTI	19	MARUNGUR		
				20	KADAMPULIYUR				
TITTAGUDI TALUK									
21	PENNADAM	22	TITTAGUDI (E)	23	TITTAGUDI (W)				
24	THOZHUR								
VEPPUR TALUK									
				25	SIRUPAKKAM				
				26	VEPPUR				
VIRUDHACHALAM TALUK									
27	KAMMAPURAM(E)	28	VIRUDHACHALAM (N)			29	UMANGALAM		
30	KAMMAPURAM(W)					31	KO-MANGALAM		
32	VIRUDHACHALAM (S)								
DHARMAPURI DISTRICT (Total Firkas -23)									
DHARMAPURI TALUK									
				1	DHARMAPURI				
				2	KRISHNAPURAM				
HARUR TALUK									
				3	HARUR	4	THEERTHAMALAI		
				5	MORAPPUR				
KARIMANGALAM TALUK									
6	PERIANAHALLI								
7	KARIMANGALAM								
8	KAMBAINALLUR								

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤ 90%)		SEMI CRITICAL (Extraction > 70% and ≤ 90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
NALLAMPALLI TALUK									
9	INDUR					10	NALLAMPALLI		
11	PALAYAM (D)								
PALACODE TALUK									
12	MARANDAHALLI			13	PALACODE				
14	PULIKARAI								
15	VELLICHANDAI								
PAPPIREDDIPATTY TALUK									
16	BOMMIDI			17	PAPPIREDDI PATTY				
18	KADATHUR								
19	THENKARAIKOTTAI								
PENNAGARAM TALUK									
20	PENNAGARAM	21	PAPPARAPATTY			22	SUNJALNATHAM		
23	PERUMBALAI								
DINDIGAL DISTRICT (Total Firkas 40)									
DINDIGAL EAST TALUK									
1	SHANARPATTI	2	KAMBILIAMPATTI						
4	SILVATHUR	3	DINDIGUL EAST						
DINDIGAL WEST TALUK									
5	REDDIARCHATRAM								
6	PALAKKANOOTHU								
7	DHARMATHUPATTI								
8	DINDIGUL WEST								
ATHOOR TALUK									
9	ATHOOR								
10	AYYAMPALAYAM								
11	CHINNALPATTI								
NATHAM TALUK									
				12	REDDIAPATTI	13	SENTHURAI		
				14	NATHAM				
NILAKOTTAI TALUK									
15	NILAKOTTAI	16	PILLAIYAR NATHAM						
17	VATLAGUNDU								
18	VIRUVEEDU								
19	ORUTHATTU								
PALANI TALUK									
20	THOPPAMPATTI			21	NEIKKARAPATTAI	22	PALANI		
23	AYAKUDI			24	KORIKADAVU	25	PAPPAMPATTI		
ODDANCHATHRAM TALUK									
26	PULIYURNATHAM								
27	CHINNAKKAMPATTI								
28	DEVATHUR								
29	KALLIMANTHAYAM								
30	ODDANCHATHRAM								
VEDASANDUR TALUK									
31	AYYALUR								
32	ERIODU								
33	VADAMADURAI								
34	VEDASANDUR								
GUJILIAMPARAI TALUK									
35	KOTTANATHAM								
36	KOVILUR								
37	PALAYAM								
KODIAKANAL TALUK									
						38	KODIAKANAL		
						39	PANNAIKADU		
						40	THANDIKUDI		
ERODE DISTRICT (Total Firkas -34)									
ANTHIUR TALUK									
1	ANTHIYUR			2	AMMAPETTAI	3	BURGUR		
4	ATHANI (E)								

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤ 100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
BHAVANI TALUK				
			5 BHAVANI	
			6 KAVANDAPADI	
			7 KURICHI (E)	
ERODE TALUK				
		8 ERODE EAST		
		9 ERODE NORTH		
		10 ERODE WEST		
NAMBIYUR TALUK				
11 NAMBIYUR				
12 ELATHUR (E)				
GOBICHETTIPALAYAM TALUK				
13 SIRUVALUR		14 KASIPALAYAM	15 GOBICHETTIPALAYAM	
			16 VANIPUTHUR	
			17 KUGALUR	
KODUMUDI TALUK				
		18 KODUMUDI		
		19 SIVAGIRI (E)		
		20 KILAMPADI		
MODAKURICHI TALUK				
	21 MODAKURICHI	22 POONDURAI		
		23 ARACHALUR		
PERUNDURAI TALUK				
24 CHENNIMALAI			25 KANJIKOIL	
26 PERUNDURAI				
27 VELLODE				
28 THINGALUR				
SATHYAMANGALAM TALUK				
29 BHAVANISAGAR	30 ARASUR (E)	31 SATHYA MANGALAM	32 KUTHIYALATHUR	
33 PUNJAIPULIAM PATTI				
THALAVADI TALUK				
			34 THALAVADI	
KALLAKURICHI DISTRICT (Total Firkas-23)				
KALLAKURICHI TALUK				
1 INDILI	2 THIYAGADURGAM	3 NAGALUR		
		4 KALLAKURICHI		
SANKARAPURAM TALUK				
	5 SANKARAPURAM		6 ALATHAUR	
			7 ARIYALUR (V)	
			8 VADAPONPARAPI	
			9 RISHIVANDHIYAM	
CHINNA SALEM TALUK				
10 CHINNASALEM	11 NAINARPALAYAM	12 VADAKANANDAL		
KALVARAYAN MALAI TALUK				
	13 KALVARAYAN MALAI		14 VELLIMALAI	
THIRUKOILUR TALUK				
			15 THIRUPPALA PANDAL	
			16 MANALURPETTAI	
			17 THIRUKOILUR	
ULUNDURPETTAI TALUK				
18 ELAVANASUR KOTTAI		19 KALAMARUDUR	20 SENGURICHI	
		21 ERAIYUR	22 THIRUNAVALLUR	
		23 ULUNDURPETTAI		
KANCHEEPURAM DISTRICT (Total Firkas-25)				
KANCHEEPURAM TALUK				
		1 GOVINDHAVADI	2 KANCHEEPURAM	
		3 THIRUPPU KUZHI	4 CHITTIAMBAKKAM	
		5 SIRUKAVERIPAKKAM	6 PARANDUR	
UTHIRAMERUR TALUK				
7 ARUMPULIYUR		8 UTHIRAMERUR	9 KALIYAMPOONDI	
10 THIRUPULIVANAM			11 SALAVAKKAM	
			12 KUNNAVAKKAM	

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
WALAJABAD TALUK				
	13 WALAJABAD		14 MAHARAL	
			15 THENNERI	
SRIPERMPUDUR TALUK				
			16 MADURAMANGALAM	
			17 SRIPERUMPUDUR	
			18 SUNKUVARCHATRAM	
			19 THANDALAM	
			20 VALLAM (K)	
KUNRATHUR TALUK				
		21 KOLLAPAKKAM	22 KUNRATHUR	
		23 MANGADU	24 PADAPPAI	
			25 SERAPPANACHERI	
KANYAKUMARI DISTRICT (TOTAL FIRKAS-18)				
AGATHEESWARAM TALUK				
		1 RAJAKKA MANGALAM	2 KANNIYAKUMARI	
			3 NAGERCOIL	
			4 SUCHINDRAM	
THIRUVATTAR TALUK				
			5 KULASEKARAM	
			6 THIRUVATTAR	
KALKULAM TALUK				
			7 COLACHEL	
			8 KURUNTHENCODE	
			9 THIRUVITHANCODE	
			10 THUCKALAY	
THOVALAI TALUK				
			11 AZHAIPANDIPURAM	
			12 BHOOTHAPANDY	
			13 THOVALAI	
VILVANCODE TALUK				
			14 ARUMANAI	
			15 EDAICODE	
			16 VILAVANCODE	
KILLIYOOR TALUK				
			17 MIDALAM	
			18 PAINKULAM	
KARUR DISTRICT (Total Firkas- 20)				
ARAVAKURICHI TALUK				
1 PALLAPATTI (K)		2 CHINNADHARA PURAM		
		3 ARAVAKURICHI		
KADAVUR TALUK				
4 KADAVUR				
5 MAILAMPATTI				
KARUR TALUK				
6 THORANAKALPATTI				
7 VELLIYANAI				
8 KARUR				
KRISHINARAYAPURAM TALUK				
9 PANJAPATTI			10 CHINTHALAVADI	
11 KATTALAI				
KULITHALAI TALUK				
12 THOGAIMALAI			13 KULITHALAI	
			14 NANGAVARAM	
MANMANGALAM TALUK				
15 VANGAL			16 MANMANGALAM	
17 THALAPATTI				
PUGALUR TALUK				
18 K.PARAMATHY				
19 THENNILAI				
20 PUGALUR				
KRISHNAGIRI DISTRICT (Total Firkas -29)				
BARGUR TALUK				
1 BARGUR	2 PALEPALLI			

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
ANJETTI TALUK				
			3 ANJETTI	
DENKANIKOTTAI TALUK				
		4 RAYAKOTTAI	6 ANDEVANAPALLI	
		5 KELAMANGALAM	7 DENKANIKOTTA	
			8 KAKKADASAM	
			9 THALLY	
HOSUR TALUK				
		10 BAGALUR	11 MATHIGIRI	
		12 HOSUR		
KRISHNAGIRI TALUK				
13 ALAPATTI		14 PERIYAMUTHUR	15 KAVERIPATTINAM	
16 GURUPARAPALLI		17 KRISHNAGIRI		
18 VEPPANAPALLI				
POCHAMPALLI TALUK				
19 MATHUR		20 BARUR	21 POCHAMPALLI	
22 NAGARASAMPATTI				
SHOOLAGIRI TALUK				
		23 BERIGAI	24 SHOOLAGIRI	
			25 UTHANAPALLI	
UTHANGARAI TALUK				
26 KALLAVI				
27 SAMALPATTI				
28 SINGARAPETTAI				
29 UTHANGARAI				
MADURAI DISTRICT(Total Firkas-51)				
MADURAI EAST TALUK				
		1 OTHAKKADAI	2 APPAN THIRUPATHI	
			3 ARUMABANUR	
			4 KALLANDHIRI	
			5 KUNNATHUR (M)	
			6 RAJAKKUR	
			7 SAKKIMANGALAM	
MADURAI NORTH TALUK				
		8 SATHAMANGALAM	9 CHATHRAPATTI	
		10 KOOLAPANDI	11 KULAMANGALAM	
			12 SAMAYANALLUR	
MADURAI SOUTH TALUK				
	13 MADURAI EAST		14 AVANIYAPURAM	
			15 VIRATHANUR	
MADURAI WEST TALUK				
16 MADURAI WEST	17 NAGAMALALI PUDUKOTTA			
MELUR TALUK				
	18 A.VELLALAPATTI	19 KARUNGALAKUDI	20 KEELVALAVU	
	21 KOTTAMPATTI	22 VELLALUR	23 MELUR (M)	
		24 MELAVALAVU	25 THIRUVATHAVUR	
PERAIYUR TALUK				
	26 SELLAPATTI	27 ELUMALAI	28 MUTTAGAM	
		29 ATHIPATTI	30 T.KALLUPATTI	
		31 PERAIYUR		
KALLIGUDI TALUK				
			32 KALLIGUDI	
			33 KURAIYUR	
			34 SIVARAKKOTTAI	
THIRUMANGALAM TALUK				
	35 KOKKULAM	36 THIRUMANGALAM	37 PANNIKUNDU	
THIRUPPARAN KUNDRAM TALUK				
		38 VALAYANKULAM	39 THIRUPPARAN KUNDRAM	
USILAMPATTI TALUK				
40 SINDHUPATTI	41 VALANTHUR	42 USILAMPATTI		
		43 KARUMATHUR		
		44 UTHAPPA NAICKANUR		
VADIPATTI TALUK				
45 MUDUVPATTI		46 ALANGANALLUR		
47 PALAMEDU		48 SOLAVANDHAN		
		49 THANICHAM		

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤ 100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
		50	NEERATHAN	
		51	THENKARAI (M)	
NAGAPATTINAM DISTRICT (Total Firkas-31)				
KILVELUR TALUK				
				1 KEELAIYUR
				2 KILVELUR
				3 THEVOOR
				4 VELANGANNI
KUTTALAM TALUK				
5	KUTTALAM			
6	MANGANALLUR			
7	PALAIYUR			
MAYILADUTHURAI TALUK				
8	MAYILADUTHURAI		9	MANALMEDU
10	PATTAVARTHI			
NAGAPATTINAM TALUK				
				11 THIRUKANNAPURAM
				12 KANGALAN CHERI
				13 NAGAPPATTINAM
				14 THERKUPOIGAI NALLUR
				15 THIRUMARUGAL
SIRKALI TALUK				
16	PUTHUR			
17	VAITHEESWARAN KOIL			
18	SIRKALI			
19	MADHANAM			
20	THIRUVEKADU			
THARANGAMPADI TALUK				
21	MELAIYUR			22 THILLAYADI
23	SEMBANARKOIL			
24	THIRUVILAIYATTAM			
THIRUKKUALAI TALUK				
				25 NIRMULAI
				26 THIRUKKUALAI
				27 VALIVALAM
VEDARANYAM TALUK				
				28 KARIYA PATTINAM
				29 THAGATUR
				30 THALAINAYAR
				31 VEDARANYAM
NAMAKKAL DISTRICT (Total Firkas-30)				
NAMAKKAL TALUK				
1	NALLIPALAYAM			
2	NAMAKKAL			
3	PUDUCHATRAM			
4	SELLAPPAMPATTI			
SENTHAMANGALAM TALUK				
5	ALANGANATHAM			
6	ERUMAI PATTI			
7	KALAPPANAIKAN PATTI			
8	SENTHAMANGALAM			
MOHANUR TALUK				
9	MOHANUR		10	PALLAPATTI
11	VALAIYAPATTI			
KOLIMALAI TALUK				
			12	THIRUPULI NADU
			13	VALAVANTHI NADU
PARAMATHI VELUR TALUK				
14	NALLUR	15	JEDARPALAYAM	
16	PARAMATHI			
17	PANDAMANGALAM			
RASIPURAM TALUK				
18	MANGALAPURAM			
19	MULLUKURICHI			
20	NAMAGIRIPETTAI			

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
21	RASIPURAM								
22	VENNANDUR								
KUMARAPALAYAM TALUK									
23	KUMARAPALAYAM					24	PALLIPALAYAM		
THIRUCHENGODE TALUK									
25	MALLASAMUDRAM	26	TIRUCHENGODE	27	MOLASI	28	MANICKAM PALAYAM		
29	VAIYAPPAMALAI			30	ELACHIPALAYAM				
PERAMBALUR DISTRICT (Total Firkas-11)									
ALANDUR TALUK									
1	CHETTIKULAM			2	KOOTHUR	3	KOLAKANATHAM		
VEPPANTHATTAI TALUK									
4	VENGALAM								
5	PASUMBALUR								
6	VALIKANDAPURAM								
PERAMBALUR TALUK									
7	KURUMBALUR								
8	PERAMBALUR								
KUNNAM TALUK									
9	KEELAPULIYUR					10	VADAKKALUR		
						11	VARAGUR		
PUDUKKOTTAI DISTRICT (Total Firkas-45)									
ALANGUDI TALUK									
				1	KEERAMANGALAM	2	ALANGUDI (P)		
				3	VALLANADU	4	VENNAVALKUDI		
ARANTHANGI TALUK									
						5	ARASARKULAM		
						6	ARANTHANGI		
						7	ATHANI		
						8	NAGUDI		
						9	POOVATHAKUDI		
						10	SILATTUR		
AVUDAIYARKOIL TALUK									
						11	AVUDAIYARKOIL		
						12	EMBAL		
						13	PONPETTE		
						14	MIMISAL		
GANDARVAKOTTAI TALUK									
						15	GANDARVAKOTTAI		
						16	KALLAKKOTTAI		
						17	PUDUNAGAR		
ILLUPPUR TALUK									
						18	VEERAPATTY		
						19	KUDUMIYANMALAI		
						20	ILLUPPUR		
						21	SITHANAVASAL		
KARAMBAKUDI TALUK									
						22	MALAIYUR (P)		
						23	KARAMBAKUDI		
KULATHUR TALUK									
						24	NARTHAMALAI		
						25	KEERANUR		
						26	KILLUKKOTTAI		
						27	KUNNANDARKOIL		
						28	MATHOOR		
MANAMELKUDI TALUK									
						29	MANAMELKUDI	30	PERUMARUTHUR
								31	KOTTAI PATTINAM
								32	SINKAVANAM
PONNAMARAVATHY TALUK									
				33	ARASAMALAI	34	KARAIYUR		
				35	PONNAMARAVATHY				

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
PUDUKKOTTAI TALUK				
			36 VARAPPUR (P)	
			37 PUDUKKOTTAI	
THIRUMAYAM TALUK				
			38 KOTTUR (P)	
			39 KEELANILAI	
			40 SENGEERAI	
			41 THIRUMAYAM	
			42 VIRACHILAI	
VIRALIMALAI TALUK				
		43 KODUMBALUR	44 NEERPALANI	
		45 VIRALIMALAI		
RAMANATHAPURAM DISTRICT (Total Firkas-38)				
KADALADI TALUK				
			1 AAPPANUR	2 KADALADI
				3 MELACHELVANUR
				4 S THARAIKUDI
				5 SAYALKUDI
				6 SIKKAL
KAMUTHI TALUK				
			7 ABIRAMAM	
			8 KAMUTHI EAST	
			9 KAMUTHI WEST	
			10 KOVILANKULAM	
			11 PERUNAAZHI	
KEELAKKARAI TALUK				
			12 T.U.MANGAI	13 THIRUPULLANI
			14 KEELAKKARAI	
MUDUKULATHUR TALUK				
			15 KAKKUR	16 MUDUKULATHUR SOUTH
			17 KEELATHUVAL	
			18 MELAKODUMALUR	
			19 MUDUKULATHUR NORTH	
			20 THERIRUVELI	
PARAMAKUDI TALUK				
			21 BOGALUR	
			22 KILIYUR	
			23 MANJUR	
			24 NAINARKOIL	
			25 PARAMAKUDI	
			26 PARTHIPANOR	
RAMANATHAPURAM TALUK				
			27 DEVIPATTINAM	
			28 MANDAPAM	
			29 RAMANATHAPURAM	
			30 PERUNKULAM	
RAMESHWARAM TALUK				
			31 RAMESHWARAM	
R.S.MANGALAM TALUK				
			32 AANANDHUR	
			33 R.S.MANGALAM	
			34 SHOLANDHUR	
THIRUVADANAI TALUK				
			35 PULLUR	36 MANGALAKUDI
			37 THIRUVADANI	38 THONDI
RANIPET DISTRICT (Total Firkas-18)				
WALAJAH TALUK				
1 WALAJAH		2 VISHARAM		
		3 RANIPET		
ARAKONAM TALUK				
		4 ARAKONAM (SOUTH)	5 PALLUR	
		6 PARANJI	7 ARAKONAM (NORTH)	
ARCOT TALUK				
8 TIMIRI				
9 ARCOT				
10 PUDUPADI				

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
NEMILI TALUK				
		11 NEMILI (V)		
		12 KAVERIPAKKAM		
		13 PANAPAKKAM		
SHOLINGHUR TALUK				
		14 SHOLINGHUR	15 VELAM	
		16 BANAVARAM		
KALAVAI TALUK				
		17 KALAVAI		
		18 MAMBAKKAM		
SALEM DISTRICT (Total Firkas-44)				
ATTUR TALUK				
1 MALLIYAKARAI				
2 ATTUR				
3 KATTUKKOTTAI				
4 THALAVASAL				
EDAPPADI TALUK				
5 EDAPPADI				
6 KONGANAPURAM				
7 POOLAMPATTI				
GANGAVALLI TALUK				
8 VEERAGANOR				
9 GANGAVALLI		10 PATCHMALAI		
KADAYAMPATTI TALUK				
11 KADAYAMPATTI				
12 SEMMANDAPPATTI				
METTUR TALUK				
13 MECHERI	14 POTTANERI	15 KOLATHUR		
16 NANGAVALLI		17 METTUR		
18 PALAMALAI				
OMALUR TALUK				
19 OMALUR	20 KARUPUR			
21 THARAMANGALAM				
PETHANAICKAN PALAYAM TALUK				
22 PETHANAICKAN PALAYAM			23 KALRAYANMALAI	
24 YETHAPUR				
SALEM TALUK				
25 SALEM_TOWN	26 PANAMARATHUP PATTI			
27 VALASAIYUR				
SALEM SOUTH TALUK				
28 VEERAPANDI				
29 VEMBADITHALAM				
30 KONDALAMPATTI				
SALEM WEST TALUK				
31 THIRUMALAI GIRI				
32 ALAGAPURAM				
33 SURAMANGALAM				
SANKARI TALUK				
34 ERNAPURAM		35 THEVUR		
36 SANKARI EAST				
37 SANKARI WEST				
VAZHAPPADI TALUK				
38 VAZHAPPADI			39 ARUNOOTHUMALAI	
40 KARIPPATTI				
41 BELUR				
YERCAUD TALUK				
			42 PUTHUR (S)	
			43 VELLAKKADAI	
			44 YERCAUD	

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY	
SIVAGANGA DISTRICT (Total Firkas-39)					
DEVAKOTTAI TALUK					
			1	DEVAKOTTAI	
			2	KANDADEVU	
			3	KANNANGUDI	
			4	PUZHIAL	
			5	SARUGANI	
ILYANGUDI TALUK					
			6	ILYANGUDI	
			7	SOORANAM	
			8	THAYAMANGALAM	
			9	A.THIRUVUDUR	
			10	SALAIGRAMAM	
KALAYARKOVIL TALUK					
			11	NATTARASANKOTTAI	
			12	KALAYARKOVIL	
			13	MARAVAMANGALAM	
			14	SILUKKAPATTI	
			15	MALLAL	
KARAIKUDI TALUK					
			16	KALLAL	
			17	KARAIKUDI	
			18	PALLATHUR	
			19	SAKKOTTAI	
			20	MITHRAVAYAL	
MANAMADURAI TALUK					
			21	SEIKALATHUR	
			22	MUTHANENTHAL	
			23	MANAMADURAI	
SIVAGANGAI TALUK					
			24	MATHAGUPATTI	
			25	OKKUR	
			26	PERIYAKOTTAI (S)	
			27	SIVAGANGAI	
			28	THAMARAKKI	
SINGAMPUNARI TALUK					
			29	S.S.KOTTAI	
			30	SINGAMPUNARI	
			31	VARAPPUR	
THIRUPPATHUR TALUK					
			32	NATCHIYAPURAM	
			33	THIRUKOSTIYUR	
			34	THIRUPPATHUR	
			35	ILAYATHAKUDI	
			36	NERKUPPAI	
THIRUPUVANAM TALUK					
			37	KONTHAGAI	
			38	THIRUPUVANAM	
			39	THIRUPPACHETHY	
TENKASI DISTRICT (Total Firkas -30)					
TENKASI TALUK					
	1	KALLURANI	2	ALWARKURICHI	
			3	KADAYAM	
			4	TENKASI	
KADAYANALLUR TALUK					
5	PULIYANKUDI	6	AYIKUDI	7	KADAYANALLUR
SENGOTTAI TALUK					
			8	ELATHUR	
			9	PANPOLI	
			10	SCHENCOTTAI	
VEERAKERALAMPUDUR TALUK					
11	KARUVANTHA	12	SURANDAI	13	VEERAKERALAM PUDUR
14	UTHUMALAI				
THIRUVENGADEM TALUK					
15	KARISAL KULAM			16	THIRUVENGADEM
17	PAZHANKOTTAI				

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
SANKARANKOIL TALUK									
18	KARIVAKLAMVANDANALLUR	19	SANKARANKOIL						
20	KURUKKALPATTI								
21	SERNTHA MANGALAM								
22	VEERASIGAMANI								
ALANKULAM TALUK									
23	KEEZHAPAVOOR			24	ALANKULAM	25	PUDUPATTI		
26	VENKADAMPATTI			27	NETTUR				
SIVAGIRI TALUK									
		28	GUDALUR			29	VASUDEVANALLUR		
						30	SIVAKIRI		
THANJAVUR DISTRICT (Total Firkas-50)									
BUDHULUR TALUK									
1	AGARAPETTAI			2	BUDALUR	3	SENGIPATTI		
4	THIRUKKATTU PALLI								
KUMBAKONAM TALUK									
5	DEVANANCHERI					6	CHOLANMALIGAI		
7	KUMBAKONAM								
8	MURUKKANGUDI								
9	NACHIYARKOIL								
ORATHANAD TALUK									
10	THONDARAM PATTU	11	ULUR	12	ORATHANAD	13	EACHANKOTTAI		
14	KAVALI PATTI			15	THERKKUR				
16	THIRUMANGALA KOTTAI								
17	SILLATHUR								
PAPANASAM TALUK									
18	AYYAMPETTAI			19	SALIYAMANGALAM				
20	MELATTUR								
21	PAPANASAM								
22	AMMAPET								
23	KABISTHALAM								
PATTUKKOTTAI TALUK									
24	TIRUCHITRAM BALAM	25	NAMBIVAYAL	26	KURICHI				
27	THUVARANKURICHI	28	PERIYAKOTTAI						
29	ANDIKKADU	30	THAMBIKKOTTAI						
31	MADUKKUR								
32	PATTUKKOTTAI								
33	ADIRAMPATTINAM								
PERAVURANI TALUK									
34	AVANAM			35	PERAVURANI	36	PERUMAGALUR		
37	KURUVIKARAMBAI								
THANJAVUR TALUK									
38	NANJIKOTTAI			39	PERAMBUR				
40	VALLAM			41	THANJAVUR				
42	RAMAPURAM								
THIRUVAIYARU TALUK									
43	KANDIYUR								
44	NADUKAVERI								
45	THIRUVAIYARU								
THIRUVIDAMARUDUR TALUK									
46	ADUTHURAI								
47	KATHIRA MANGALAM								
48	THIRUVIDA MARUDUR								
49	TIRUPPANANDAL								
50	PANDANALLUR								
THE NILGIRIS DISTRICT (Total Firkas-15)									
COONOOR TALUK									
						1	COONOOR		
						2	KETTI		
						3	MELUR		

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
GUDALUR TALUK				
			4 DEVARSHOLA	
			5 GUDALUR	
KOTHAGIRI TALUK				
			6 KILKOTAGIRI	
			7 NEDUGULA	
			8 KOTAGIRI	
PANDALUR TALUK				
			9 CHERAMBADI	
			10 PANDALUR	
KUNDAH TALUK				
			11 ITHALAR	
			12 KUNDAH	
UDHAGAMANDALAM TALUK				
			13 SHOLUR	
			14 THUNERI	
			15 UDHAGAMANDALAM	
THENI DISTRICT (Total Firkas-17)				
ANDIPATTI TALUK				
	1 KANDAMANUR	2 ANDIPATTI		
	3 RAJATHANI	4 MAYLADUMPARAI		
BODINAYAKANUR TALUK				
			5 KODANGIPATTI	
			6 BODINAYAKANUR	
			7 RASINGAPURAM	
PERIYAKULAM TALUK				
		8 DEVATHANAPATTI		
		9 THENKARAI		
THENI TALUK				
		10 THENI	11 KODIVILARPATTI	
UTHAMAPALAYAM TALUK				
12 ERASAKKA NAICKANUR		13 UTHAMAPALAYAM	14 CHINNAMANUR	
15 THEVARAM		16 MARKAYANKOTTAI	17 CUMBAM	
THIRUVALLUR DISTRICT (Total Firkas-47)				
THIRUVALLUR TALUK				
		1 VENGATHUR	2 POONDI	
		3 MAPPEDU	4 AMMANAM BAKKAM	
		5 VELLIYUR	6 TIRUR	
			7 PANDUR	
			8 THIRUVALLUR	
			9 KADAMBATHUR	
AVADI TALUK				
10 TIRUMULLAVAYAL	11 THIRUNINRAVUR	12 AVADI		
	13 VELLANUR	14 MORAI		
UTHUKKOTTAI TALUK				
		15 UTHUKKOTTAI	16 PENNALURPETT	
		17 KANNIGAIPAIR	18 PERIYAPALAYAM	
			19 VELAKAPURAM	
POONAMALLEE TALUK				
20 VAYANALLUR	21 POONAMALLEE	22 NEMAM	23 THIRUMAZHISAI	
PONNERI TALUK				
			24 PUZHAL	
			25 ARANI	26 MINJUR
			27 GNAYIRU	
			28 PONNERI	
			29 SHOLAVARAM	
			30 THIRUPALAIVANAM	
			31 KATTUR	
			32 KOLUR	
R.K.PET TALUK				
	33 R.K.PET	34 ERUMBI		
		35 BALAPURAM		
PALLIPATTU TALUK				
		36 PALLIPATTU	37 POTHATTUR PETTAI	

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
GUMMIDIPONDI TALUK									
						38	ELAVUR		
						39	MADHARPAKKAM		
						40	POOVALAMBEDU		
						41	GUMMIDIPONDI		
TIRUTTANI TALUK									
				42	TIRUTTANI	43	THIRUVALANGADU		
				44	CHERUKKANNOOR				
				45	POONIMANGADU				
				46	MANAVOR				
				47	KANAGAMMACHATTRAM				
THIRUVARUR DISTRICT (Total Firkas-27)									
KODAVASL TALUK									
1	KODAVASAL								
2	THIRUVIZHI MAZHAI								
NIDAMANGALAM TALUK									
3	KORADACHERI					4	NIDAMANGALAM		
						5	VADUVUR		
MANNARGUDI TALUK									
						6	KOTTUR (T)		
						7	MANNARGUDI		
						8	PALAIYUR (T)		
						9	THALAIYA MANGALAM		
						10	ULLIKOTTAI		
KOOTHANALLUR TALUK									
11	KULIKKARAI (KAMALAPURAM)	12	VADAPATHI MANGALAM	13	KOOTHANALLUR				
NANNILAM TALUK									
14	AGARATHIRU MALAM			15	SANNANALLUR				
16	PERALAM			17	NANNILAM				
THIRUTHURAIPOONDI TALUK									
								18	EDAIYUR
								19	MUTHUPET
								20	THIRUTHURAI POONDI
								21	ALATHAMPADI
THIRUVARUR TALUK									
22	THIRUKKANNA MANGAI					23	THIRUVARUR		
						24	KUNNIYUR		
VALANGAIMAN TALUK									
25	ALANGUDI								
26	AVOOR								
27	VALANGAIMAN								
THOOTHUKKUDI DISTRICT (Total Firkas-41)									
ETTAYAPURAM TALUK									
						1	CHOLAPURAM		
						2	ETTAYAPURAM		
						3	KADALIYUR		
						4	MUTHULAPURAM		
						5	PADARNTHAPULI		
KOVILPATTI TALUK									
		6	ILAYARASANENDAL			7	KALUGUMALAI		
						8	NALLATIN PUTHUR		
						9	KOVILPATTI		
KAYATHAR TALUK									
				10	KAYATHAR	11	KAMANAICKEN PATTI		
						12	KADAMBUR		
OTTAPIDARAM TALUK									
				13	PARIVALLIKOTTAI	14	EPPODUMVENDRAN		
						15	MANIYACHI		
						16	PASUVANTHANAI		
						17	VEDANATHAM		
						18	OTTAPIDARAM		
SATTANKULAM TALUK									
19	PALLAKURICHI			20	SATTANKULAM	21	SRIVENKATES WARAPURAM		
ERAL TALUK									
						22	ARUMUGA MANGALAM		
						23	PERUNGULAM		

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
			24 ALWARTHIRU NAGARI	
SRIVAIKUNDAM TALUK				
			25 DEVASEYALPURAM	
			26 SEIDUNGANALLUR	
			27 SRIVAIKUNDAM	
			28 VALLANAD	
THOOTHUKUDI TALUK				
			29 KEELATHATTA PARAI	
			30 MUDIVAITHANENDAL	
			31 PUDUKOTTAI (T)	
			32 THOOTHUKUDI	
TIRUCHENDUR TALUK				
	33 UDANGUDI		34 AUTHOOR	
			35 TIRUCHENDUR	
VILATHIKULAM TALUK				
			36 KADALKUDI	
			37 KULATHUR	
			38 PUDUR	
			39 SIVAGNANA PURAM	
			40 VEMBAR	
			41 VILATHIKULAM	
TIRUCHIRAPPALLI DISTRICT (Total Firkas-43)				
LALGUDI TALUK				
		1 PERUVALPUR	2 VALADI	
			3 ANBIL	
			4 KALLAKKUDI	
			5 LALGUDI	
			6 PULLAMBADI	
MANAPPARAI TALUK				
7 VAIYAMPATTI				
8 MANAPPARAI				
9 PANNAPPATTI				
10 V.PERIYAPATTI				
MANNACHANALLUR TALUK				
11 KARIYAMANICKAM		12 SIRUGAMBUR	13 MANNACHA NALLUR	
MARUNGAPURI TALUK				
14 MARUNGAPURI		15 VALANADU		
16 THUVARANGURICHI				
MUSIRI TALUK				
17 THUMBALAM		18 MUSIRI	19 AAMUR	
20 PULIVALAM				
21 THATHAIYANGAR PETTAI				
22 VALAIEDUPPU				
SRIRANGAM TALUK				
23 MANIKANDAM			24 ANDANALLUR	
			25 KULUMANI	
			26 SOMARASAN PETTAI	
			27 SRIRANGAM	
THOTTIYAM TALUK				
		28 KATTUPUTHUR	29 EALURPATTI	
			30 THOTTIYAM	
THURAIYUR TALUK				
31 KOPPAMPATTI	32 UPPILIYAPURAM			
33 THURAIYUR				
34 KANNANUR				
35 ERAGUDI				
36 SENGATTUP PATTI				
TIRUVERUMBUR TALUK				
			37 NAVALPATTU	
			38 TIRUVERUMBUR	
			39 VENGUR	

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
TIRUCHIRAPPALLI EAST TALUK				
			40	TIRUCHIRAPPALLI NORTH
			41	TIRUCHIRAPPALLI SOUTH
TIRUCHIRAPPALLI WEST TALUK				
			42	TIRUCHIRAPPALLI NORTH
			43	TIRUCHIRAPPALLI SOUTH
TIRUNELVELI DISTRICT (Total Firkas -30)				
AMBASAMUDRAM TALUK				
			1	AMBASAMUDRAM
			2	SINGAMPATTI
CHERANMAHADEVI TALUK				
			3	PAPPAKUDI
			4	CHERAN MAHADEVI
			5	MELASEVAL
			6	MUKKUDAL
MANUR TALUK				
7	VANNIKONENTHAL	8	MANUR	
		9	THALAYUTHU	
NANGUNERI TALUK				
			10	MOOLAKARAIPATTI
			11	ERUVADI
			12	KALAKADU
			13	NANGUNERI
			14	POOLAM
PALAYAMKOTTAI TALUK				
			15	SIVANTHIPATTI
			16	MELAPATTAM
			17	MUNEER PALLAM
			18	PALAYAMKOTTAI
RADHAPURAM TALUK				
	19	PAZHAVOOR	20	RADHAPURAM
			22	LEVINJIPURAM
			21	SAMUGARENGA PURAM
			23	PANAGUDI
			24	VALLIYOOR
TISAYANVILAI TALUK				
			25	VIJAYANARAYANA PURAM
			26	TISAYANVILAI
TIRUNELVELI TALUK				
			27	GANGAIKONDAN
			28	MADHAVAKURICHI
			29	NARANAMMAL PURAM
			30	TIRUNELVELI
TIRUPATHUR DISTRICT (Total Firkas-15)				
AMBUR TALUK				
1	AMBUR			
2	MADHANUR			
3	THUTHIPATTU			
4	MELASANNAN KUPPAM			
TIRUPATHUR TALUK				
5	KANDHILI	6	JOLARPET	
7	ANDIYAPPANUR	8	PUDURNADU	
9	KORATTI			
10	TIRUPATHUR			
VANIYAMBADI TALUK				
11	VANIYAMBADI	12	AMBALUR	
13	ALANGAYAM			
NATRAMPALLI TALUK				
14	AMMANANKOIL			
15	NATRAMPALLI			

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤ 100%)	SEMI CRITICAL (Extraction > 70% and ≤ 90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY				
TIRUPPUR DISTRICT (Total Firkas-33)								
AVINASHI TALUK								
	1	AVINASHI(E)						
	2	AVINASHI(W)						
	3	CHEYUR						
	4	PERUMANALLUR						
DHARAPURAM TALUK								
5	MULANUR	6	KUNDADAM	7	SANKARANDAM PALAYAM	8	ALANGIYAM	
				9	KANNIVADI	10	DHARAPURAM	
				11	PONNAPURAM			
KANGEYAM TALUK								
12	KANGEYAM	13	UTHIYUR	14	NATHAKADAIYUR			
				15	VELLAKOIL			
MADATHUKULAM TALUK								
						16	THUNGAVI	
						17	MADATHUKULAM	
PALLADAM TALUK								
18	KARADIVAVI	19	PONGALUR					
20	PALLADAM							
21	SAMALAPURAM							
TIRUPPUR (N) TALUK								
22	VELAMPALAYAM			23	TIRUPPUR (N)			
TIRUPPUR (S) TALUK								
24	AVINASHI PALAYAM(S)					25	INALLUR	
26	TIRUPPUR (S)							
UDUMALPETTAI TALUK								
27	PERIAVALAVADI	28	PETHAPPAMPATTI	29	GUDIMANGALAM	30	UDUMALPET	
						31	KURICHIKOTTAI	
UTHUKULI TALUK								
32	KUNNATHUR	33	UTHUKULI					
TIRUVANNAMALAI DISTRICT (Total Firkas-52)								
ARANI TALUK								
1	MULLIPATTU			2	KANNAMANGALAM	3	ARNI	
						4	AGRAPALAYAM	
						5	SATHYAVIJAYA NAGARAM	
CHENGAM TALUK								
6	MELPALLIPATTU	7	CHENGAM					
8	PACHAL	9	ERAIYUR (T)					
10	PUDUPALAYAM							
CHETPET TALUK								
11	THACHAMBADI	12	KOLAPPALUR	13	DEVIKAPURAM			
		14	NEDUNGUNAM					
CHEYAR TALUK								
				15	ANAKAVOOR	16	VADA THANDALAM	
						17	VAKKADAI	
						18	CHEYAR	
						19	THETHURAI	
KALASAPAKKAM TALUK								
20	KETTAVARAM PALAYAM			21	KADALADI (T)			
				22	KALASAPAKKAM			
KILPENNATHUR TALUK								
		23	KILPENNATHUR	24	SOMASPADI			
				25	VETTAVLAM			
POLUR TALUK								
26	KELUR	27	MODAYUR	28	MANDAKOLATHUR			
				29	SANTHAVASAL			
				30	POLUR			
THANDARAMPATTU TALUK								
		31	THANIPADI	32	THANDARAMPAT			
				33	VANAPURAM			
TIRUVANMALAI TALUK								
34	MANGALAM	35	NAYADUMANGALAM	36	THURINJIPURAM			
37	THATCHAM PATTU			38	VERAIYUR			
				39	T.V.MALAI (NORTH)			
				40	T.V.MALAI (SOUTH)			

OVER EXPLOITED (Extraction Greater than 100%)		CRITICAL (Extraction > 90% and ≤100%)		SEMI CRITICAL (Extraction > 70% and ≤90%)		SAFE (Extraction Less than 70%)		SALINE / POOR QUALITY	
VANDAVASI TALUK									
41	MALAIYUR			42	THELLAR	43	PERANAMALLUR		
44	CHENNAVARAM			45	OSUR				
46	DESUR			47	VANDAVASI				
48	KILKODUNGALUR								
VEMBAKKAM TALUK									
						49	NATERI		
						50	PERUNGATTUR		
						51	VEMBAKKAM		
						52	DUSI		
VELLORE DISTRICT (Total Firkas-19)									
GUDIYATHAM TALUK									
1	GUDIYATHAM(EAST)								
2	GUDIYATHAM(WEST)								
3	VALATHUR								
KADPADI TALUK									
				4	KATPADI	5	THIRUVALAM		
				6	MELPADI				
ANAICUT TALUK									
7	ANAICUT			8	USSOOR				
9	PALLIKONDA								
10	ODUGATHUR								
11	AGARAM								
VELLORE TALUK									
12	SATHUVACHARI	13	KANIYAMBADI	14	PENNATHUR				
15	VADAVELLORE								
PERNAMPATTU TALUK									
16	MELPATTI			17	PERNAMPATTU				
K.V.KUPPAM TALUK									
18	K.V.KUPPAM								
19	VADUGANTHANGAL								
VILUPPURAM DISTRICT (Total Firkas-34)									
VILUPPURAM TALUK									
		1	VALAVANUR	2	KANDAMANGALAM	3	KANAI		
				4	VILLUPPURAM				
THIRUVENNAIALLUR TALUK									
5	CHITHALINGA MADAM								
6	T.V.NALLUR								
7	ARASUR (V)								
KANDACHIPURAM TALUK									
				8	MUGAIYUR	9	ARAKANDANALLUR		
VIKKIRAVANDI TALUK									
10	ANNIYUR			11	VIKKIRAVANDI				
12	KANJANUR			13	SITHALAMPATTU				
VANUR TALUK									
14	NEMILI	15	UPPUVELUR	16	KILIYANUR	17	VANUR		
TINDIVANAM TALUK									
		18	VADASIRUVALUR	19	OLAKKUR	20	MAILAM		
				21	TINDIVANAM	22	DEEVANUR		
				23	AVANIPUR	24	RETTANAI		
GINGEE TALUK									
25	MELOLAKKUR			26	GINGEE				
27	SATHIYA MANGALAM								
28	VALLAM (V)								
MELMALAIYANUR TALUK									
29	MELMALAIYANUR	30	AVALURPETTAI						
		31	SATHAMPATI						
MARAKKANAM TALUK									
32	BRAMMADESAM			33	MARAKKANAM				
34	SIRUVADI								
VIRUDHUNAGAR DISTRICT (Total Firkas-39)									
ARUPPUKOTTAI TALUK									
						1	ARUPPUKOTTAI		
						2	PALAYAMPATTI		
						3	PANDALKUDI		
						4	PARALATCHI		
						5	MANDAPASALAI		

OVER EXPLOITED (Extraction Greater than 100%)	CRITICAL (Extraction > 90% and ≤100%)	SEMI CRITICAL (Extraction > 70% and ≤90%)	SAFE (Extraction Less than 70%)	SALINE / POOR QUALITY
KARIAPATTI TALUK				
		6 MALLANKINAR	7 KALKURUCHI	
			8 KARIAPATTI	
			9 MUDUKKAN-KULAM	
RAJAPALAYAM TALUK				
10 CHOLAPURAM (V)		11 IYANKOLLAN KONDAN	13 SEITHUR	
		13 RAJAPALAYAM		
SATTUR TALUK				
			14 PADANTHAL	
			15 NENMENI	
			16 SATTUR	
			17 NALLI	
SIVAKASI TALUK				
		18 MANGALAM (V)	19 THIRUTHANGAL	
		20 SIVAKASI		
		21 SALWARPATTI		
SRIVILLIPUTTUR TALUK				
	22 PILLAIYARKULAM	23 SRIVILLIPUTTUR	24 MALLI	
WATRAP TALUK				
25 NATHAMPATTI		26 WATRAP	27 KOTTAIYUR	
THIRUCHULI TALUK				
			28 A.MUKKULAM	
			29 NARIKUDI	
			30 THIRUCHULI	
			31 VEERACHOLAN	
VIRUDHUNAGAR TALUK				
		32 AMATHUR	33 VIRUDHUNAGAR	
		34 VATCHAKARA-PATTI		
		35 ONDIPULINAICKANUR		
VEMBAKOTTAI TALUK				
36 KEELARAJAKULA RAMAN		37 ALANGULAM	38 ELAYIRAM-PANNAI	
39 VEMBAKOTTAI				
OVER EXPLOITED	CRITICAL	SEMI CRITICAL	SAFE	SALINE
360	78	231	463	34

Note: The above categorisation approved by the State Level Committee (SLC) based on the data available in IN-GRES.

Sandeep Saxena,
Additional Chief Secretary to Government
 //True copy//

S. M. S.
 28.03.2023
Section Officer
5256
 28/3/2023

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(d) Appropriate rain water harvesting and Artificial recharge schemes should be carried out in the categories viz, Over-exploited, Critical, Semi-Critical and Safe blocks of Tamil Nadu. While carrying out the above schemes, priority should be given to marginal quality and bad quality areas so as to avoid further deterioration.

(e) All the schemes and proposals based on the Ground Water will have to adhere to the Government Orders and conditions as detailed in the Annexure-II to the Government Order 1st read above.

2. In the letters 2nd read above, the Chief Engineer, Water Resources Department, State Ground and Surface Water Resources Data Centre, has reported that in order to safeguard the groundwater aquifers and sustain the ground water potential, the State Ground and Surface Water Resources Data Centre, Water Resources Department, issues No Objection Certificate / Licence / Permit for extraction of groundwater by different users and Circulars issued by him from time to time should also be followed. He has also reported that for the effective management of ground water and environment on water sector and to maintain the sustainability on ecology, the Chief Engineer, Water Resources Department, State Ground and Surface Water Resources Data Centre, has sought for approval of the draft Regulations for Management of Groundwater and Issue of No Objection Certificate / Licence for extraction of Groundwater in State of Tamil Nadu suggested by him.

3. The Government after careful consideration of the proposal of the Chief Engineer, State Ground and Surface Water Resources Data Centre, Chennai, have decided to accept it. Accordingly, in furtherance of the orders and instructions issued in the Government Order first read above, the Government approve the following Regulations for the Management of Ground Water and issuance of No Objection Certificate for extraction of Ground Water in Tamil Nadu. These Orders and Regulations should be scrupulously followed by the authorities concerned.

**REGULATIONS FOR MANAGEMENT OF GROUND WATER
AND ISSUE OF NO OBJECTION CERTIFICATE / LICENCE FOR EXTRACTION
OF GROUND WATER IN TAMIL NADU STATE**

In G.O.(Ms.) No. 52, Public Works Department, dated 2.3.2012, the Government of Tamil Nadu have approved the categorisation of the Blocks in Tamil Nadu as Over-Exploited, Critical, Semi-Critical and Safe for ground water development and notified the same. The categorisation will be done periodically by the Government of Tamil Nadu and will be notified. In continuation of the orders issued in the said Government Order, the Government issue the following Regulations for issue of NO OBJECTION CERTIFICATE for extraction and transportation of ground water. These Regulations will come into force immediately.

These Regulations extend to the whole of the State of Tamil Nadu except the areas to which the Chennai Metropolitan Area Ground Water (Regulation) Act, 1987 extends.

(i) **The following Categories are exempted from applying for NO OBJECTION CERTIFICATE for drawal and transportation of ground water:**

For MAHALAKSHMI AQUA FARM

V. M. Srinivasan
Proprietor

- (a) Drawal and transportation of ground water for domestic and drinking purposes for individual houses and housing infrastructure projects limited up to the Projects with six dwelling units in any area.
- (b) Drawal and transportation of ground water for drinking purposes to educational institutions. While issuing No Objection Certificate, the Competent Authority may ensure that water from surface source is not available from Chennai Metropolitan Water Supply and Sewerage Board, Tamil Nadu Water Supply and Drainage Board, Local Body or New Tiruppur Area Development Corporation Limited.
- (c) Drawal and transportation of ground water for agricultural and horticultural purposes in the State of Tamil Nadu. However, the existing spacing norms of 50 metres from unlined canal and 200 metres from river bed and water bodies will continue.
- (d) Drawal and transportation of ground water by Local Bodies, Government Institutions, Government Undertakings for drinking water purposes, subject to the clearance by the Water Utilisation Committee as per rules in force.
- (II) **NO OBJECTION CERTIFICATE is required for drawal and transportation of Ground water for the following Categories:**
- (1) For drawal and transportation of ground water for Housing Infrastructure Projects with more than six dwelling units.
- (2) For drawal and transportation of ground water for all other Infrastructure Projects / buildings.
- (3) Drawal and transportation of ground water for Industries (However, this will not apply to the existing Industries)
- (4) Water based Industries (i.e., those industries which use water as raw material like water bottling units, etc.) are eligible for No Objection Certificate in Safe and Semi-Critical Blocks only and not in any other category of Blocks.
- (5) In case of industries, which have already been established and functioning in Critical and Over-exploited Blocks, keeping in view the investment already made in plant and machinery, renewal of No Objection Certificate will be done after the concerned District Collector / Chief Engineer, State Ground and Surface Water Resources Data Centre, satisfies himself about the provisions of the Artificial Recharge Scheme Structures to recharge the ground water. While issuing No Objection Certificate, the Competent Authority may ensure that water from surface source is not available from Chennai Metropolitan Water Supply and Sewerage Board, Tamil Nadu Water Supply and Drainage Board, Local Body or New Tiruppur Area Development Corporation Limited.

For MAHALAKSHMI AQUA FARM


Proprietor

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(III) Non Permissible Categories:

- (1) Drawal and transportation of ground water for Water based industries (ie., those industries which use water as raw material) is not permitted from Critical and Over-exploited Blocks. Hence, water based Industries are not eligible to get No Objection Certificate in Over-exploited and Critical Blocks.
- (2) Highly Polluting Industries (14 types – as categorised by the Tamil Nadu Pollution Control Board) are not eligible to extract ground water within 5 km radius from Cauvery, Pennaiyar, Palar, Vaigai, Thamiraparani and all the major rivers and tributaries as specified vide G.O.(Ms) No. 213, Environment & Forest (EC-I) Department, dated: 30.3.89.
- (3) In coastal areas, proposal for extraction of ground water within 10 km from the coast (However the distance criteria may be relaxed based on the geological formation which ensures that the geological formation is not susceptible for sea water intrusion due to extraction of ground water in that area)
- (4) The areas falling under the Palar Basin Rules, where the spacing prescribed is not available vide G.O.(Ms.) No.1766, Public Works Department, dated: 31.10.88.
- (5) The extraction point falling within 50 meters from the canal are not eligible for extraction of ground water.

(IV) Submission of application for availing No Objection Certificate:

Four sets of application have to be submitted to the Chief Engineer, State Ground and Surface Water Resources Data Centre, Chennai, in the prescribed format only with the following Annexures:

- (1) Attested copy of registered land ownership document in the name of the applicant (or) lease agreement in the name of the applicant.
- (2) The latest Encumbrance Certificate showing the name of the applicant for ascertaining the ownership or lease of the area.
- (3) Field Measurement Book Sketch.
- (4) Not to scale topo sketch showing the location of wells and the industry.
- (5) Chitta and Adangal copy.
- (6) Copy of Electricity Board Card.
- (7) The distance between the well proposed for groundwater extraction and nearest wells and the depth of the wells to be certified by the Revenue Inspector concerned.

For MAHALAKSHMI AQUA FARM



Proprietor

- (8) The distance between the well proposed for ground water extraction and nearest surface water body such as tank, canal, stream, river, etc., to be certified by the Revenue Inspector concerned.
- (9) The distance between the well proposed for ground water extraction and the bank of Palar River (Palar Basin Rules) to be certified by the Revenue Inspector concerned.
- (10) "No Objection Certificate" from the Village Panchayat concerned for the proposed quantity of ground water extraction and transportation of groundwater, if any, (The application form and annexures are notified in the website of the Department and Government) along with the Service Charges as prescribed by the Government then and there.

(V) Conditions for Processing of Application Forms:

The land in which the drawal wells have been proposed by an industry / organization for issue of No Objection Certificate for drawal of Ground Water should either be own property of the owner / proprietor of the industry / organization registered in his name or a leased property taken on lease by the owner / proprietor of the industry / organization in his name and duly and properly registered. No other mode of accessibility or permissibility of Land and Well will be entailed to claim for issue of No Objection Certificate to industry / organization. The request of the applicant will be processed by the Chief Engineer, State Ground and Surface Water Resources Data Centre and final orders on No Objection Certificate / Licence will be issued after adhering to the Consolidated Guidelines, 2011, dated 28.01.2011. The Chief Engineer, State Ground and Surface Water Resources Data Centre, is empowered to issue No Objection Certificate / Licence observing the Regulations and conditions laid down in the Government Order and guidelines. The Chief Engineer, State Ground and Surface Water Resources Data Centre, is the authority to issue No Objection Certificate / Licence by imposing conditions and also empowered to reject or decline any of the request on technical grounds after scrutiny.

(VI) GENERAL CONDITIONS:

- (1) Since Ground Water is a State subject, the Tamil Nadu Pollution Control Board and ISI should issue the permission only after obtaining the licence from the State Ground and Surface Water Resources Data Centre.
- (2) The Chief Engineer, State Ground and Surface Water Resources Data Centre, will examine the proposals, case by case, in accordance with the guidelines issued by the Government and the Chief Engineer, State Ground and Surface Water Resources Data Centre, is empowered to issue technical circulars then and there as warranted.
- (3) The Chief Engineer, State Ground and Surface Water Resources Data Centre, should ensure that due to drawal of ground water based on the issue of No Objection Certificate / Licence for drawal of ground water, the categorisation in the Block / Revenue Firka should not alter its position downwards. Necessary conditions should be imposed to construct adequate Artificial Recharge Structures to recharge stipulated quantity of water with respect to drawal of ground water.

For MAHALAKSHMI AQUA FARM

V. M. Shinde
Proprietor

- (4) The No Objection Certificate / Licence for drawal of ground water should be compulsorily renewed every year for the water based Industries and to be renewed once in three years for the non-water based industries.
- (5) All the existing Guidelines imposed by the Chief Engineer, State Ground and Surface Water Resources Data Centre and guidelines issued then and there by the Government are to be followed by the existing and also proposed users.

(BY ORDER OF THE GOVERNOR)

M. SAI KUMAR
PRINCIPAL SECRETARY TO GOVERNMENT.

To
The Engineer-in-Chief, Water Resources Department & Chief Engineer (General),
Public Works Department, Chennai-5.
The Chief Engineer, State Ground and Surface Water Resources Data Centre,
Taramani, Chennai-113.
All Regional Chief Engineers.
All District Collectors.
The Director of Rural Development, Chennai-15.
The General Manager, National Bank for Agriculture and Rural Development, Chennai-34.
The Registrar of Co-operative Societies, Chennai.
The Chief Engineer (Agricultural Engineering), Chennai-35.
The Director of Agriculture, Chennai - 5.
The Director of Horticulture, Chennai-5.
The Commissioner / Managing Director, Sugar Corporation, Chennai-35.
The Managing Director, Tamil Nadu Water Supply and Drainage Board, Chennai-5.
The Engineering Director, Tamil Nadu Water Supply and Drainage Board, Chennai-5.
The Managing Director, Chennai Metropolitan Water Supply and Sewerage Board, Chennai-2.
The Chairman, Tamil Nadu Electricity Board, Chennai-2.
The Managing Director, New Tiruppur Area Development Corporation Limited, Chennai-32.
Copy to:
The Secretary to the Hon'ble Chief Minister, Chennai-9.
The Senior Personal Assistant to Hon'ble Minister for Finance & Public Works, Chennai-9.
The Energy Department, Chennai-9.
The Agriculture Department, Chennai-9.
The Revenue Department, Chennai-9.
The Environment and Forest Department, Chennai-9.
The Municipal Administration and Water Supply Department, Chennai-9.
The Rural Development and Panchayat Raj Department, Chennai-9.
The Co-operation, Food and Consumer Protection Department, Chennai-9.
The Industries Department, Chennai-9.
The Home (GI) Department, Chennai-9.
The Bureau of Indian Standards, Southern Regional Office, CIT Campus Road, Taramani,
Chennai -113.
SF/SC.

// FORWARDED / BY ORDER //

5
SECTION OFFICER
23/7/14
23/7/14

For MAHALAKSHMI AQUA FARM

[Signature]
Proprietor

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நீர்வளத்துறை

விளக்கம் கேட்கும் குறிப்பானை

33

விடுநர்,
திரு.ச.லெனின்,M.Sc.,
உதவி இயக்குநர் (நி), (சூ/பொ).,
நிலநீர் நிலவியல் உபகோட்டம்,
வேலூர்-6.

பெறுநர்,
M/s.Varalakshmi starch Industries Pvt Ltd
Varalakshmi towers, 2 floor ,
No. 127/1 Gandhi Road,
Salem- 636 007.

க.எண். 985 /உஇ(நி)/வே/2023/நாள்: 30/5/2023.

அய்யா,

பொருள்: M/s Varalakshmi Starch Industries Private Limited-Alamelupuram Village-Pappireddipatti Firka and Taluk- Dharmapuri District- முறையான தடையில்லா சான்றிதழ் இன்றி நிலத்தடி நீர் எடுத்தல் -விளக்கம் கோரும் அறிவிப்பு அனுப்புதல் - தொடர்பாக

பார்வை: 1. Lr.No. JDO/ F-NOC Pollution/977m/VLR/2022 Dated: 29.12.2022.
2. தேசிய பசுமை தீர்ப்பாயம் மனு எண்: 47 of 2023 (S.Z), dated:21.04.2023

====*

பார்வை எண்-1ல் குறிப்பிட்டுள்ளவாறு 30.11.2022 அன்று M/s Varalakshmi Starch Industries Private Limited, Alamelupuram Village, Pappireddipatti Firka and Taluk, Dharmapuri District நிறுவனத்தில் கள ஆய்வு செய்யப்பட்டு அறிக்கை சமர்ப்பிக்கப்பட்டது. அப்போது தங்கள் நிறுவனம் நிலத்தடி நீர் எடுக்க வேண்டாமானால் நிலத்தடி நீர் தடையில்லா சான்று பெற வேண்டும் என்று தங்களிடம் நேரில் அறிவுறுத்தப்பட்டது.

மற்றும் பார்வை எண்-2ல் குறிப்பிட்டுள்ளவாறு தேசிய பசுமை தீர்ப்பாயம் ஆணையின் மனு எண் 47 of 2023 (S.Z) படி, 16.05.2023 அன்று M/s Varalakshmi Starch Industries Private Limited, Alamelupuram Village, Pappireddipatti Firka and Taluk, Dharmapuri District இல் கள ஆய்வு மேற்கொள்ளப்பட்டது. கள ஆய்வின்போது தாங்கள் நிலத்தடி நீர் தடையில்லா சான்றுக்கு விண்ணப்பம் செய்ய படிமங்கள் தயார் செய்துகொண்டு இருப்பதாக தெரிவித்துள்ளீர்கள். இனியும் கால தாமதம் செய்யாமல் இக்கடிதம் கிடைத்த 15 நாட்களுக்குள் நிலத்தடி நீர் தடையில்லா சான்று பெற வேண்டி விண்ணப்பிக்க அறிவுறுத்தப்படுகிறீர்கள். தவறும் பட்சத்தில் தங்கள் நிறுவனத்தின் மீது ஆவணங்கள் அடிப்படையில் மற்றும் மாண்மை சென்னை உயர்நீதிமன்ற வழங்கிய ஆணைகளின் படியும் மாவட்ட கண்காணிப்பு குழு மூலம் உரிய நடவடிக்கை எடுக்க பரிந்துரை செய்யப்படும் என்பதை தெரியப்படுத்துகிறோம்

உதவி இயக்குநர் (நி), (சூ/பொ).,
நிலநீர் நிலவியல் உபகோட்டம்,
வேலூர்-6.

30/5/23

Department of water Resources**Show cause Notice****From**

Mr.C.Lenin, M.Sc.,
Asst. Director,
Groundwater Geology Sub Division,
Vellore

To

M/s. Varalakshmi Starch Industries (P) Ltd.
Varalakshmi Towers, 2nd Floor,
No.127/1, Gandhi Road,
Salem - 636 007

Ka.No.385/U.En/Ve/2023/Date:30.05.2023

Sir

Sub: M/s. Varalakshmi Starch Industries Private Limited-Alamelupuram Village-Pappireddyipatti Firka And Taluk-Dharmapuri District-Asking explanation about the using of ground water without No Objection Certificate – reg.

Ref: 1. Lr. No./00/F-NDC pollution/977m/VLR/2022 dated 29.12.2022
2. NGT Petition No.47 of 2023(SZ) dated 21.04.2023

As mentioned in the above reference, on 30.11.2022, inspection has been conducted in Varalakshmi Starch Industries P Ltd., Alamelupuram Village, Pappireddipatti Firka and Taluk, Dharmapuri District. That time it was insisted to get No Objection Certificate for using groundwater.

And as mentioned in the reference 2, as per the NGT Petition No.47 of 2023(S.Z.), on 16.05.2023, inspection was conducted in Varalakshmi Starch Industries Private Ltd., Alamelupuram Village, Pappireddipatti Firka and Taluk, Dharmapuri District. During inspection, it was informed that the application for No Objection Certificate is getting ready. You are advised to apply for No Objection Certificate within 15 days from the date of receipt without further delay. In case of failing this, it is recommended to take action against your industry with reference to the documents and orders by the Hon'ble High court of Madras by the District monitoring group.

(Sd..)

Asst. Director,
Groundwater Geology Sub Division,
Vellore-6

Reg Post

இந்திய அரசு மார்ட்டர் டிபோ



360

புறநகர்

புது தலைநகர் இ. நகரம்
நகர் இ. நகரம்
கோட்டை - 6.

புறநகர்

M/s Venakalshmi Starch Industries (P) Ltd
Venakalshmi tower,
2 floor, No - 127/1, Gandhi Road
Salem - 636 007.



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

An ISO 9001 : 2008, 14001 : 2004, BS OHSAS 18001 : 2007 Certified Company



MRFS & EXPORTERS - SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

VS IPL/ SG&SWRDC, WRD /2023-24/59

26.06.2023

To
The Chief Engineer,
State Ground and Surface Water Resources Data Centre,
Tharamani, Chennai - 600113.

Received: Application with DD
Date: 26.07.2023
O/o. Chief Engineer,
SG & SWRDC, Taramani,
Chennai - 113.
Sign: S. B. [Signature] 26/7/23

Respected sir,

Sub: Requisition of No Objection Certificate to extract Ground water from our own Open wells and Borewells for use in our Existing Industry - reg.

Ref: 1) Letter No. க.எண். 385/உ.இ(நி)/வே /2023/நாள் 30.05.2023 received from the Assistant Director, Vellore asking us to submit application for grant of NOC for drawal of water.
2) Our Letter No.VSIPL/WRD/VELLORE/2023-24/41 dt 07.06.23 to Executive Engineer, Vellore

With reference to the above, at the outset we would like to state that as per the advice of the Assistant Director, Vellore vide his letter 1st cited in reference, we are herewith applying for issuance of No Objection Certificate (NOC) for extraction of Ground Water for use in our existing industry.

Our factory is a Rural Agro based medium scale Export oriented Public Utility Industry engaged in the manufacture and export of Tapioca Starch, Tapioca Sago, Pappad and Maize Starch to more than 20 countries, with us being the only exporter of Tapioca Starch from India. Our unit is located at No.7/114-126, Bommidi Main Road, Pappireddipatti PO & Taluk, Dharmapuri district, an Industrially Backward area. In order to provide remunerative price and assured market for around 10000 Tapioca cultivating Small, Tiny, Dryland & Tribal farmers (from Javadhu, Sitheri & Kalrayan hills) and to promote production of International Quality Tapioca Starch using world hi-tech machineries in Tamilnadu, our Unit was promoted by the State Government through State Industrial Promotion Corporation of Tamilnadu (SIPCOT) by providing financial assistance of Rs.2.50 crores with another Rs.6.50 crores provided by Punjab National Bank for setting up the Unit in the Year 1995.

The setting up of our factory started in the year 1995 and commercial production commenced from the year 1997 onwards. Our production processes are completely mechanised using latest technology to manufacture Starch products of international quality standards. We are the only exporter of Tapioca starch and Sago products from India. In the production process, sufficient water is required to process the Tapioca tubers and Maize kernels for extraction of Starch.

More than 10000 tiny and dry land small farmers and tribal farmers from Kalrayan and Jawathu hills of Dharmapuri District within around 100 KMs had started getting an assured market and remunerative price and spot payment for their produce namely tapioca and Maize (Cash Crops) due to the operation of our unit, without which the Tapioca growing farmers from Dharmapuri district will be forced to sell their produce to traders in Salem and Namakkal districts incurring additional transportation costs and trader's brokerage cost all of which decreases their income by Rs.1000/- per ton of Tapioca (or nearly Rs.15,000 per acreage of Tapioca cultivation). Moreover, this leads to surplus supply of Tapioca in Salem and Namakkal districts causing a glut in the market thereby pulling down the Tapioca prices for all farmers in all districts. Further since being the only manufacturer-

Regd. Office : " Varalakshmi Tower ", II Floor, No. 127/1, Gandhi Road, Salem - 636 007. T.N. India.

Ph. (Off.) : 0427 - 4031073

Email : office@varalakshmistarch.com

Factory : No. 7/114-126, Bommidi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.

CIN No. U01532TZ1995PTC006136

www.varalakshmistarch.com

IS : 899

IS : 1319



CML-6100012769



CML-6299891



exporter of International Standard Tapioca Starch from India, we are able to prevent oversupply of Tapioca products in India thereby preventing drop in domestic prices for Starch which ultimately benefits the farmers to get remunerative price for their produce.

In spite of the presence of our industry, there is demand from farmers to set up an additional Tapioca processing plant in Dharmapuri district to fulfil the needs of the Tapioca cultivating farmers. The Government had promised to set up a Tapioca processing industry in their 2021 election manifesto.

In addition, our industry provides direct employment to about 300 rural workforces and indirect employment to about 500 rural workforces, earns foreign exchange through exports of our products and provides revenue to Government through direct and indirect taxes. Our contribution to the Government exchequer through GST, Income Tax and other statutory fees is substantial all put together to the extent of about Rs.15 crores per annum.

Our Managing Director V. Anbalagan is a first-generation entrepreneur and has received more than 20 awards from Central Government, State Government and from public organisations. The Ministry of Agricultural, Central Government had appointed him as a committee member in the CODEX COMMITTEE for his expertise and knowledge in food processing.

We are herewith enclosing our application for issuance of No Objection Certificate to extract Ground water from our 7 Nos. of own open wells and 2 Nos. of own borewells located respectively in Survey Nos. 121/2A, 121/2B, 125/1A, 125/1C2, 125/1D, 129/1, 132/1D of Alamelupuram Village within our own industrial premises for our usage.

Along with our application, we are herewith enclosing the following documents.

1. Attested copy (Notary Public) of registered land ownership Document (Pages 1 to 435)
2. FMB Sketch (for Well and Industry locations) (Pages 436 to 480)
3. Topo Sketch showing the location of the wells and industry surrounding wells
4. Patta Copies (Pages 481 to 486)
5. Latest Encumbrance Certificates (Pages 487 to 595)
6. EB tariff paid last 3 Months details.
7. Annexure II – Obtained from concerned Panchayat President.
8. Annexure III – Certificate of Assurance.
9. Undertaking of the pumping test for issuing NOC.
10. Indemnity Bond Attested by Notary Public.
11. Demand Draft bearing No. 697301 for Rs.54000/- Date:26.06.2023 (Rs.6000/- per Groundwater abstraction Structure) in favour of Executive Engineer, Ground Water Division, Chennai -113.
12. Copy of Certificate of Incorporation, Inspector of Factories, ISI Certificate, TNPCB Certificate, NGT Order, Food Safety Certificate, EB Approval, MSME certificate.

For getting the Certificates as per prescribed format Annexure I, we have requested the Revenue Inspector of Pappiredipatti through Tasildhar for issuance of Certificates as per Annexure I of the application. As soon as we receive them, we will submit it to your good office.

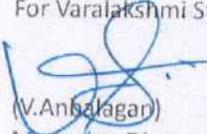
Therefore, we request you to kindly process our application for issuance of No Objection Certificate to extract Ground water for use in our existing industry In light of the common benefits accruing to the small, medium and tribal farmers and rural workforce. And once we receive the Certificates from Revenue Inspector, we will send them immediately. We assure you to pay the necessary charges stipulated by the Government for drawing such water for our Industrial utilisation.



Varalakshmi Starch Industries (p) Ltd.

Continuation Sheet

Thanking you,
Yours faithfully,
For Varalakshmi Starch Industries Private Limited,


(V. Anbalagan)
Managing Director

Enclosure:

1. Our request submitted to Tashildar, Pappireddipatti & RI, Pappiredipatti for issuance of Certificates as per Annexure – I.
2. All the above mentioned 12 documents.

35

WATER SOURCES DEPARTMENT

From
Er.S.Kumar, B.E.,
Executive Engineer, PWD., WRO.,
Upper Pennaiyar Basin Division,
Dharmapuri-5 (Ph : 04342- 230990).

To
The Managing Director,
Varaakshmi Starch Industries (p) Ltd.,
No.7/114-126, Bommiidi Main Road,
Pappireddypatti post,
Dharmapuri District - 636 905.

Lr.No. 295 / 2023 / F. 180 / J.D.O.3 / Date. 16.05.2023.

Sir,

Sub : Water Resources Department - Drawal of Raw water from river, -
Certain particulars called for - Reg.

Ref : Your letter no. VSIPL / DCOL / PCB / 2023-24 / 023 / Date.
09.05.2023. (Addressed to the District Collector, Dharmapuri with a
copy marked to this office).

With reference to the above letter, the for particulars may please be
sent to this Division for according Government order to drawal of water from
peeniyar river for you Industry purpose.

1. Copy of approved Industrial plan with FMB.
2. Government order for functioning of the Industry.
3. Water requirement for running the Industry.
4. Environmental Clearance Certificate.
5. Collector Concurrence for drawal of water.
6. Concern letter for fees to drawal of water as per the G.O.MS.No. 253 /
PWD / Date. 28.09.2018 @ Rs.1.50 / 1000 liter.
7. As per the G.O. 50 % only to draw water from Government source in
total requirement.

On receipt of the above particular, neccsary action will be taken to get
Government permission to draw the water.

For *Er. S. Kumar*
Executive Engineer, WRD,
Upper Pennaiyar Basin Division, Dharmapuri-5.



VARALAKSHMI STARCH INDUSTRIES (P) LTD.

An ISO 9001 : 2008, 14001 : 2004, BS OHSAS 18001 : 2007 Certified Company



MRFS & EXPORTERS : SUPER HIGH GRADE TAPIOCA SAGO, TAPIOCA STARCH, MAIZE STARCH & MODIFIED STARCHES

VS IPL/COLL/2023-24/

31.05.2023

To

The Honourable District Collector,
Dharmapuri District.

Respected Madam,

Sub: Recommendation to PWD Water Resources Department with regard to drawing water from Peniyaru Jungle Stream to our industrial shortfall.

Ref: i) VSIL/Collector/2004/dated 29.10.2004.
ii) VS IPL/PWD/2016-17 dated 28.02.2017.
iii) PWD Lr No.295M/F 180/2022/D3/ dated 16.05.2023.

As the Hon'ble District Collector may be aware of, our Rural Medium Scale Agro based Export oriented Starch industry is located in Pappireddipatti, Dharmapuri District engaged in the processing of Tapioca, Maize starch and Modified starches. Our Industry was first in India to set up this type of Hi tech starch manufacturing industry to the international standards and we are the pioneers in the manufacture and export of Tapioca Starch, Sago and Maize starch products in India.

At present, our raw water requirement for the plant based on full capacity crushing of Tapioca tubers and Maize kernels per day for the whole year is as follows:

Tapioca 380 m ³ per day X 150 days	=	57,000 Cubic mtr. Per annum
Maize 350 m ³ per day X 200 days	=	70,000 Cubic mtr. Per annum
Total	=	1,27,000 Cubic mtr. Per annum

We are able to meet 75% of our raw water requirement through Rainwater harvesting and from existing 3 wells and 2 borewells. This leaves a deficit of 25% about 31,750 m³ per annum leads to shut down of industry. We had requested the PWD to provide water from local surface water resources i.e from Peniyaru Jungle Stream as due to seasonal raw material we need more water in the month of October to February every year in this period the water is also flowing in the Peniyaru jungle stream. For this reason, we are requesting PWD to provide permission to take water from the

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Email : office@varalakshmistarch.com

Factory : No. 7/114-126, Bommidi Main Road, Pappireddipatti (Po), Dharmapuri Dt. - 636 905.

CIN No. U01532TZ1995PTC006136 www.varalakshmistarch.com

IS : 899

IS : 1319



CML-6100012769



CML-6299891



Peniyaru during rainy season (i.e during peak season for crushing Tapioca Tubers) not for the entire year (**water flows in the Peniyar jungle stream during heavy rainy season only**). For that we assure you to pay the necessary charges stipulated by The Government for drawing such water for our agro based rural Industrial utilisation. This will be very much helpful mainly to the small, medium and tiny tribal farmers from Kalrayan Hills and Jawadhu hills around 100 kms from our factory cultivating Tapioca Tubers in and around Dharmapuri District for getting assured market / sale with remunerative price and spot payment for their agricultural produces.

Due to direct procurement of Tapioca tubers by our Factory from the farmers, the middlemen have been totally eliminated and the entire Tapioca sale price directly provided to the farmers and the settlement amount directly credited to their bank accounts. This benefit is recognised and our industry is being appreciated by the Dharmapuri District farmers themselves as the Revered District Collector is aware of this process.

Till the year 1995, Tapioca Sago and Starch were produced by small-scale industries using conventional method of manufacturing and the demand for these products were low and available in surplus in the domestic Indian market resulting in lesser prices for these products. Due to this, the price of the raw material Tapioca tubers was also reduced to the extent of being lower than the cost of cultivation by the farmers. Amidst this scenario, farmers represented to the Government of Tamil Nadu to setup a modern factory for producing Starch of international quality standards to enable the farmers to get assured remunerative price for their agricultural produce of Tapioca tubers. In this situation, the Tamil Nadu Government through SIPCOT identified Mr. V. Anbalagan, who was a leading entrepreneur in the Tapioca industry at that time and invited him to promote a High-tech Medium scale Export Oriented Tapioca Industry by providing financial assistance of Rs.2.50 crores. Based on SIPCOT's commitment another Rs.5.50 crores of Term Loan and Rs.3.00 crore of Working Capital Cash Credit was provided by Punjab National Bank. As such our industry was setup in the Year 1995 with the assistance of Tamil Nadu Government for the benefit of Tapioca cultivating farmers is a Public Utility Industry.

Our industry was started in the year 1995 and commercial production commenced from the year 1997. Our factory has been exporting Starch to various countries and provides substantial amount of taxes to the tune of Rs.10-15 crores every year to the Central and State Government and earns foreign exchange through our exports. More than 500 rural workforces and more than 10000 + farmers of Dharmapuri District who were cultivating Tapioca Tubers and Maize Kernels are



dependent on our factory for their livelihood. Before our medium scale industry was setup, the Tapioca tuber price was only around Rs.0.50 per kg but after our industry in Pappireddipatti commenced commercial production, the Tapioca tuber prices have been continuously increasing each year reaching to Rs.12-14 per kg currently. This industry is running for the past 26 years with all regular statutory licenses and permissions from the Government.

Our Managing Director V. Anbalagan is an honest industrialist recognized by the Central Government, State Government, Punjab National Bank and from the Public through around 20 awards. The Ministry of Agricultural, Central Government had appointed him as a committee member in the International CODEX COMMITTEE recognizing his expertise in agro based food product manufacturing.

Since the year 1997, from the commencing of our industry, we were fulfilling our water requirement through the wells and borewells. Following the Tamil Nadu Government's directive in the year 2001 to install rainwater harvesting systems at all houses, offices, industries, and government offices and since at that period Pappireddipatti Firka was categorized as "Ground water over-exploited area" by the Tamil Nadu Government, we constructed a large pond for the collection of rainwater at our factory. The rainwater during rainy monsoon season was collected from the entire factory premises, roofs of the industrial sheds and buildings and open lands in the factory through storm water channels and stored in the pond having size of 175 m x 110 m x 5 m. We had obtained NOC from the PWD, Ground Water Division, Vellore for taking stored harvested rainwater from our collection pond for our industrial use vide the letter No.AGP/F555/998M/Vlr/ dt 03.12.2008 of the Executive Engineer.

However, only about 50% of the stored rainwater in this collection pond is used for our industrial processing needs. During dry season, around 50% of the water stored in the pond is lost substantially due to seepage to the ground. However, this seepage leads to regeneration of ground water table in and around the factory area for about 1 km radius to the benefit of the neighbouring farmers and village people surrounding our factory perfectly achieving the motive of the Rainwater Harvesting to increase the Ground Water table.

The fresh water from the pond used to process raw material namely Tapioca and Maize gives rise to generation of wastewater containing 100% organic substances which are easily Bio-degradable. We have put up bio-methanation plant for recovering the Methane Gas emanating out of 100% bio-degradation process which is used as a fuel for generation of renewable energy for our captive use.



The technology adopted is HUSMAR which is provided by New Jersey Institute of Technology, New York, USA approved by MNRE Government of India. And now we had recently installed MBR (Membrane Bio Reactor) technology to upgrade our existing ETP with a huge investment of Rs. 4 crores for Treated wastewater again further treatment. After completing the MBR project for the wastewater treatment, the treated outlet water can be discharged in the own irrigated land.

If the Government permits to draw water from nearby water bodies to our factory upto the deficit quantity of water i.e., 31,750 m³ for 4 months requirements (265 m³ per day) then our production will automatically increase. If the production increases our export sales will also increase so our country will earn huge foreign exchange. Our products are import substitute products. For 25% of deficit shortfall of water for our industry we had requested PWD but still our shortfall requirement of water not fulfilled by the Government. Because of this shortfall we had closed our industry many times. Main loss to the Government and mainly loss to the Farmers who are largely cultivating Tapioca Tubers and Maize Kernels in the Districts of Dharmapuri and Salem.

In this scenario, we have addressed to The Executive Engineer, PWD, Water Resources Department, Dharmapuri vide our letter explaining our water problems and requesting necessary guidelines for getting permission from the competent authority for drawing water from this Peniyar Jungle Stream. In this context, we have been required by the Executive Engineer, PWD, Water Resources Department to provide the recommendations from the District Collector in this regard.

We therefore requesting the revered District Collector to consider our request in the light of what we have enumerated above and in the light of the benefits accruing to the Dharmapuri District Farmers who are cultivating the Tapioca tubes and Maize kernels and rural work force and provide us a recommendation letter so as to enable us to draw water from the near water bodies by paying the prescribed fees from the competent authorities.

Thanking you,

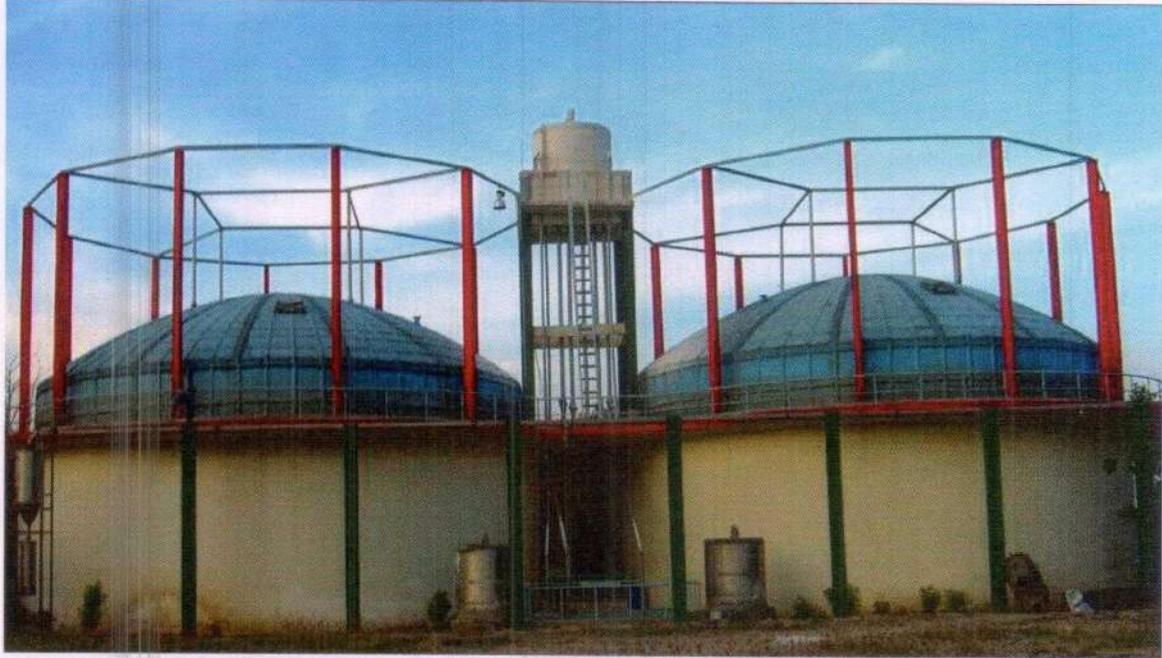
Yours faithfully,

(V. Anbalagan)
Managing Director.

Photographs of ETP dated 29.01.2023

ETP COMPONENTS

ANAEROBIC DIGESTERS – 6 NOS



ETP COMPONENTS

ANAEROBIC LAGOONS – 2 NOS



ETP COMPONENTS**DIFFUSED AERATORS – 8 NOS WITH SETTLING TANKS**

ETP COMPONENTS**CLARIFIER – 1 NO with Chemical Dosing Tanks &
SLUDGE DRYING BEDS**

ETP COMPONENTS

**NEW - SECONDARY TREATMENT PLANT
MEMBRANE BIOREACTOR**



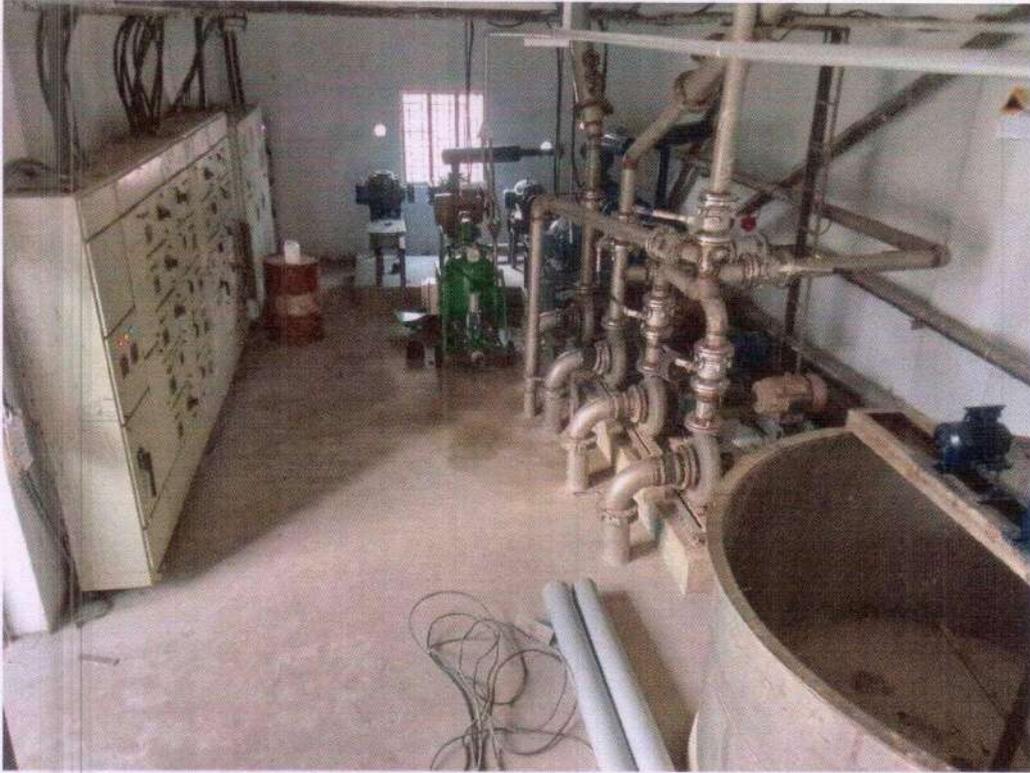
ETP COMPONENTS

**NEW - SECONDARY TREATMENT PLANT
MEMBRANE BIOREACTOR**



ETP COMPONENTS

**NEW - SECONDARY TREATMENT PLANT
MEMBRANE BIOREACTOR**





letter received

person.

from post office by a road office

Received date & Time: 10.11.2022 @ 12.30 PM

TAMIL NADU POLLUTION CONTROL BOARD

From

Dr.A.SamuelRajkumar., M.Tech., M.B.A., Ph.D.,
District Environmental Engineer
Tamil Nadu Pollution Control Board
Adiyamankottai-Hosurbyepass Road,
A.Reddihalli Village,
Dharmapuri -636 809
Tamil Nadu.

To

Managing Director
VARALAKSHMI STARCH
INDUSTRIES LTD
Bommidi Road-Pappireddipatti
Pappireddipatti Tk - 636 905
Dharmapuri Dt

Lr. No. : F.DMP0013/OL/DEE/TNPCB/ DMP/2022 dated 28/10/2022

Sir,

Sub: TNPC Board – Industries – Analysis of Effluent Samples – Report of Analysis communicated – Analytical charges to be remitted – Action to be taken - Reg.

Ref: Effluent samples collected from your unit on 04.08.2022

I am to furnish the Report of Analysis of the effluent samples collected from your unit and inform that the following parameters are within the standards prescribed by the Board.

Sl.No	Date of Collection	Code No of Sample	ETP/STP	Parameters in excess of the standards
1.	04.08.2022	SSR/04/04-08-2022	ETP	within the standards
2.	20.9.2022	DEE/19/20-09	ETP	within the standards

I also request you to remit the analytical charges for the samples collected and analysed up to date to this office as detailed below.

Sl.No	Date of collection	No.of samples	Rate (Rs)	Analytical charges to be paid (Rs)
1	04.08.2022			19000
2	20.9.2022			19000 19280/-
			Total	38000 33380/-

33380/-

The above amount of Rs. 38000/- may be remitted to this office through a Demand Draft drawn in favour of "District Environmental Engineer" Tamil Nadu Pollution Control Board" payable at Dharmapuri within 10 days from the date of receipt of this letter.

The receipt of this letter may be acknowledged

[Signature]
2/11/2022
District Environmental Engineer,
Tamil Nadu Pollution Control Board
Dharmapuri.



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.



Accredited by NABL - (ISO/IEC 17025:2017)

ULR-TC98992200001040 F

ULR-TC98992200001041 F

ROA NO.300/TNPCB/AEL - SLM/2022-23 Dt. 30.08.2022

1.	Name and address of the sender	The District Environmental Engineer, Tamilnadu Pollution Control Board, Dharmapuri.
2.	Date and time of collection	04.08.2022 at 1.40 PM - 1.45 PM
3.	Date and time of receipt at Lab.	05.08.2022 at 10.10 AM
4.	Condition of seal, fastening and Container	Sealed/Unfastened Condition in Polythene carbuoy 2.5 lits X 2 Nos.
5.	Nature and Number of samples	2 Nos. of Trade Effluent Samples.

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
SSR/01/04-08	1027	ETP Inlet	--
SSR/02/04-08	1028	Anaerobic reactor outlet	--

Parameter to be Analysed:

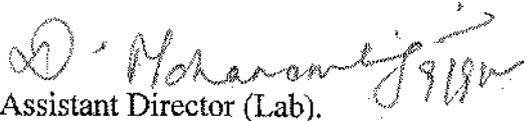
Sl. No.	Parameters	Unit	Test Sample Code No.		Method
			1027/ SSR/01/04-08	1028/ SSR/02/04-08	
01.	p ^H at 25°C	Number	4.60	7.52	APHA 23 rd Edi.2017 4500 - H
02.	Total Suspended Solids at 103°C - at 105°C	mg/l	1200	140	APHA 23 rd Edi.2017 - 2540 - D
03.	Total Dissolved Solids at 180°C	mg/l	1620	2448	APHA 23 rd Edi.2017 2540 - C
04.	Chloride as Cl	mg/l	325	450	APHA 23 rd Edi.2017 4500-CIB
05.	Sulphates as SO ₄	mg/l	157	24	APHA 23 rd Edi.2017 - 4500 E
06.	Oil & Grease	mg/l	29	10	APHA 23 rd Edi.2017 5520 - D
07.	BOD (at 27°C for 3 days)	mg/l	3900	145	IS3025 (P44) 1993 Reaffirmed 2009
08.	COD	mg/l	12600	1504	APHA 23 rd Edi.2017 5220
09.	Cyanide	mg/l	<0.05	<0.05	APHA 23 rd Edi.2017 4500-CN-E
10.	Total Kjeldahl Nitrogen	mg/l	184.8	67.2	APHA 23 rd Edi. 2017 4500 - N _{org} B

Note: <= Indicates Less than Minimum Detectable Limit.

- End of Test Report -
Checked by


Chief Scientific Officer
Dy. Quality Manager.

Authorized Signatory


Assistant Director (Lab.)
Quality Manager.

ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.



Accredited by NABL - (ISO/IEC 17025:2017)

ULR-TC98992200001042 F
ULR-TC98992200001043 F

ROA NO.300/TNPCB/AEL - SLM/2022- 23 Dt. 30.08.2022

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board, Dharmapuri.
2.	Date and time of collection	04.08.2022 at 1.30 PM - 1.35 PM
3.	Date and time of receipt at Lab.	05.08.2022 at 10.10 AM
4.	Condition of seal, fastening and Container	Sealed/Unfastened Condition in Polythene carbuoy 2.5 lits X 2 Nos.
5.	Nature and Number of samples	2 Nos. of Trade Effluent Samples.

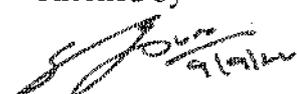
DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
SSR/03/04-08	1029	Aeration outlet	--
SSR/04/04-08	1030	ETP Outlet	--

Parameter to be Analysed:

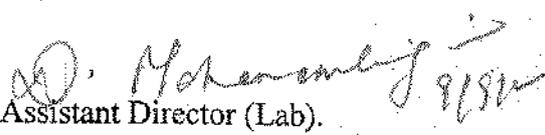
Sl. No.	Parameters	Unit	Test Sample Code No.		Method
			1029/ SSR/03/04-08	1030/ SSR/04/04-08	
01.	p ^H at 25°C	Number	7.82	7.80 ✓	APHA 23 rd Edi.2017 4500 - H
02.	Total Suspended Solids at 103°C - at 105°C	mg/l	800	32 ✓	APHA 23 rd Edi.2017 - 2540 - D
03.	Total Dissolved Solids at 180°C	mg/l	2024	1672 ✓	APHA 23 rd Edi.2017 2540 - C
04.	Chloride as Cl	mg/l	450	290 ✓	APHA 23 rd Edi.2017 4500-CI/B
05.	Sulphates as SO ₄	mg/l	46	32 ✓	APHA 23 rd Edi.2017 - 4500 E
06.	Oil & Grease	mg/l	7	<4 ✓	APHA 23 rd Edi.2017 5520 - D
07.	BOD (at 27°C for 3 days)	mg/l	108	30	IS3025 (P44) 1993 Reaffirmed 2009
08.	COD	mg/l	912	224	APHA 23 rd Edi.2017 5220
09.	Cyanide	mg/l	<0.05	<0.05	APHA 23 rd Edi.2017 4500-CN-E
10.	Total Kjeldahl Nitrogen	mg/l	38.08	3.36	APHA 23 rd Edi. 2017 4500 - N _{org} B

Note: < = Indicates Less than Minimum Detectable Limit.

- End of Test Report -
Checked by


Chief Scientific Officer
Dy. Quality Manager.

Authorized Signatory


Assistant Director (Lab).
Quality Manager.



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 686 004.

Accredited by NABL - (ISO/IEC 17025:2017)



TC 9899

ROA NO.411/TNPCB/AEL - SLM/2022- 23 Dt. 30.09.2022

ULR-TC98992200001533

ULR-TC98992200001534

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board, Dharmapuri.
2.	Date and time of collection	20.09.2022 at 4.35 PM to 4.40 PM
3.	Date and time of receipt at Lab.	21.09.2022 at 4.50 PM
4.	Condition of seal, fastening and Container	Sealed/Unfastened Condition in Polythene carbuoy 2.5 lits X 2 Nos.
5.	Nature and Number of samples	2 Nos. of Trade Effluent Samples
6.	Date of Analysis	21.09.2022 - 30.09.2022

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/17/20-09	1504	ETP Inlet	-
BLA/18/20-09	1505	Anaerobic tank outlet	-

TEST REPORT

Sl. No.	Parameters	Unit	Test Sample Code Nos.		Method
			1504/ BLA/17/ 20-09	1505/ BLA/18/ 20-09	
01.	p ^H at 25°C	Number	4.53	7.55	APHA 23 rd Edn 2017 (4500 H+)
02.	Total Suspended Solids at 103°C - at 105°C	mg/l	2600	460	APHA 23 rd Edn 2017 (2540 -D)
03.	Total Dissolved Solids at 180°C	mg/l	628	2988	APHA 23 rd Edn.2017 (2540 C)
04.	Chloride as Cl	mg/l	260	725	APHA 23 rd Edn.2017 (4500 ClB)
05.	Sulphates as SO ₄	mg/l	<5	39	APHA 23 rd Edn.2017 (4500 SO4-E)
06.	Oil & Grease	mg/l	8	10	APHA 23 rd Edn.2017 (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	1230	168	IS 3025 (Part-44)
08.	COD	mg/l	4480	1440	APHA 23 rd Edn 2017 (5220 B)
09.	Cyanide	mg/l	<0.05	<0.05	APHA 23 rd Edn.2017 (4500-CNE)
10.	Total Kjeldahl Nitrogen	mg/l	172	146.72	APHA 23 rd Edn. 2017 (4500-Norg-B)

Note: < = Indicates Less than Minimum Detectable Limit.

* Results relate only to the tested samples.

** The report shall not be reproduced except in full without approval of the laboratory can provide assurance that parts of a report are not taken out of context.

Checked by

Authorized Signatory


Chief Scientific Officer
Dy. Quality Manager.


Assistant Director (Lab).
Quality Manager.

- End of Test Report -



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,

SALEM – 636 004.

Accredited by NABL – (ISO/IEC 17025:2017)



TC 9899

ROA NO.411/TNPCB/AEL – SLM/2022– 23 Dt. 30.09.2022

ULR-TC98992200001535

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board, Dharmapuri.
2.	Date and time of collection	20.09.2022 at 4.35 PM to 4.40 PM
3.	Date and time of receipt at Lab.	21.09.2022 at 4.50 PM
4.	Condition of seal, fastening and Container	Sealed/Unfastened Condition in Polythene carbuoy 2.5 lits X 2 Nos.
5.	Nature and Number of samples	1 No. of Trade Effluent Sample.
6.	Date of Analysis	21.09.2022 - 30.09.2022

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/19/20-09	1506	ETP Outlet	-

TEST REPORT

Sl. No.	Parameters	Unit	Test Sample Code Nos.	Method
			1506/ BLA/19/20-09	
01.	p ^H at 25°C	Number	7.64	APHA 23 rd Edn 2017 (4500 H+)
02.	Total Suspended Solids at 103°C – at 105°C	mg/l	24	APHA 23 rd Edn 2017 (2540 -D)
03.	Total Dissolved Solids at 180°C	mg/l	664	APHA 23 rd Edn.2017 (2540 C)
04.	Chloride as Cl	mg/l	150	APHA 23 rd Edn.2017 (4500 Cl B)
05.	Sulphates as SO ₄	mg/l	<5	APHA 23 rd Edn.2017 (4500 SO4-E)
06.	Oil & Grease	mg/l	<3	APHA 23 rd Edn.2017 (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	8.7	IS 3025 (Part-44)
08.	COD	mg/l	72	APHA 23 rd Edn 2017 (5220 B)
09.	Cyanide	mg/l	<0.05	APHA 23 rd Edn.2017 (4500-CNE)
10.	Total Kjeldahl Nitrogen	mg/l	2.24	APHA 23 rd Edn. 2017 (4500-Norg-B)

Note: < = Indicates Less than Minimum Detectable Limit.

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Checked by


Chief Scientific Officer
Dy. Quality Manager.

Authorized Signatory


Assistant Director (Lab)
Quality Manager.

- End of Test Report -



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.



TC9899

ULR-TC98992200002688

ULR-TC98992200002689

ROA NO. 738/AEL - SLM/2022 - 23 Dt. 30.01.2023

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board Dharmapuri.
2.	Date and time of collection	19.01.2023 at 05.20 PM to 05.25 PM
3.	Date and time of receipt at Lab.	20.01.2023 at 04.00 PM
4.	Condition of seal, fastening and Container	Sealed / Unfastened Condition in Polythene carbuoy 2.5 Lits X 2Nos.
5.	Nature and Number of samples	2 No. of Trade Effluent Samples.
6.	Date of Analysis	20.01.2023 - 30.01.2023

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/17/19-01	2579	ETP Inlet	-
BLA/18/19-01	2580	Anaerobic tank outlet	-

Test Report

Sl. No.	Parameters	Unit	Test Sample Code Nos.		Test Method
			2579/ BLA/17/ 19-01	2580/ BLA/18/ 19-01	
01.	pH at 25°C	mg/l	4.35	7.40	APHA 23 rd Edn (4500H+)
02.	TSS at 103°C - at 105°C	mg/l	560	320	APHA 23 rd Edn (2540 D)
03.	Total Dissolved Solids at 180°C	mg/l	1684	3288	APHA 23 rd Edn (2540 C)
04.	Chloride as Cl	mg/l	200	600	APHA 23 rd Edn (4500 Cl B)
05.	Sulphates as SO ₄	mg/l	16	83	APHA 23 rd Edn (4500 SO ₄)
06.	Oil & Grease	mg/l	20	10	APHA 23 rd Edn (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	3450	276	IS3025 (Part -44)
08.	COD	mg/l	5600	880	APHA 23 rd Edn (5220 B)
09.	Ammonical Nitrogen as NH ₃ -N	mg/l	268.8	78.4	APHA 23 rd Edn(4500-NH ₃)
10.	Total Kjeldahl Nitrogen	mg/l	806.4	235.2	APHA 23 rd Edn (4500-Norg)
11.	Cyanide	mg/l	<0.08	<0.08	APHA 23 rd Edn (4500- CN)

Note: 1) < Indicates Less than Minimum Detectable Limit.

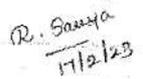
* Results relate only to the items tested samples.

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Checked by


 Env. Scientist

Authorized Signatory


 Chief Scientific Officer
 Dy. Quality Manager.



ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.



TC9899

ULR-TC98992200002690

ROA NO. 738/AEL - SLM/2022 - 23 Dt. 30.01.2023

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board Dharmapuri.
2.	Date and time of collection	19.01.2023 at 05.35 PM
3.	Date and time of receipt at Lab.	20.01.2023 at 04.00 PM
4.	Condition of seal, fastening and Container	Sealed / Unfastened Condition in Polythene carbuoy 2.5 Lits X 1 No.
5.	Nature and Number of samples	1 No. of Trade Effluent Sample.
6.	Date of Analysis	20.01.2023 - 30.01.2023

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/19/19-01	2581	ETP outlet	

Test Report

Sl. No.	Parameters	Unit	Test Sample Code No.	Test Method
			2581/ BLA/19/19-01	
01.	pH at 25°C	mg/l	8.06 ✓	APHA 23 rd Edn (4500H+)
02.	FSS at 103°C -- at 105°C	mg/l	44 ✓	APHA 23 rd Edn (2540 D)
03.	Total Dissolved Solids at 180°C	mg/l	856 ✓	APHA 23 rd Edn (2540 C)
04.	Chloride as Cl	mg/l	145 ✓	APHA 23 rd Edn (4500 Cl B)
05.	Sulphates as SO ₄	mg/l	<5 ✓	APHA 23 rd Edn (4500 SO ₄ -E)
06.	Oil & Grease	mg/l	8 ✓	APHA 23 rd Edn (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	46 ✗	IS3025 (Part -44)
08.	COD	mg/l	256 +	APHA 23 rd Edn (5220 B)
09.	Ammonical Nitrogen as NH ₃ -N	mg/l	11.2 ✓	APHA 23 rd Edn(4500-NH ₃ C)
10.	Total Kjeldahl Nitrogen	mg/l	33.6 ✓	APHA 23 rd Edn (4500-Norg-B)
11.	Cyanide	mg/l	<0.08 ✓	APHA 23 rd Edn (4500- CN E)

Note: 1) < Indicates Less than Minimum Detectable Limit.

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Checked by

S/a
17/1/23
Env. Scientist

Authorized Signatory

R. Ganja
17/1/23
for Chief Scientific Officer
Dy. Quality Manager.

- End of Test Report -

(Page No. 1 of 1)



TC9899

ROA NO. 845/AEL - SLM/2022 - 23 Dt. 08.03.2023

ULR-TC98992200003085

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board Dharmapuri.
2.	Date and time of collection	23.02.2023 at 03.45 PM
3.	Date and time of receipt at Lab.	24.02.2023 at 01.30 PM
4.	Condition of seal, fastening and Container	Sealed / Unfastened Condition in Polythene carbuoy 2.5 Lits X 1 No.
5.	Nature and Number of samples	1 No. of Trade Effluent Sample.
6.	Date of Analysis	24.02.2023 - 06.03.2023

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
SSR/04/23-02	2964	ETP outlet	-

Test Report

Sl. No.	Parameters	Unit	Test Sample Code No.	Test Method
			2964/ SSR/04/23-02	
01.	pH at 25°C	mg/l	8.00	APHA 23 rd Edn (4500H+)
02.	TSS at 103°C - at 105°C	mg/l	68	APHA 23 rd Edn (2540 D)
03.	Total Dissolved Solids at 180°C	mg/l	1396	APHA 23 rd Edn (2540 C)
04.	Chloride as Cl	mg/l	300	APHA 23 rd Edn (4500 Cl B)
05.	Sulphates as SO ₄	mg/l	40	APHA 23 rd Edn (4500 SO ₄ -E)
06.	Oil & Grease	mg/l	12	APHA 23 rd Edn (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	81	IS3025 (Part -44)
08.	COD	mg/l	320	APHA 23 rd Edn (5220 B)

09.	Ammonical Nitrogen as NH ₃ -N	mg/l	3.92	APHA 23 rd Edn(4500-NH ₃ C)
10.	Total Kjeldahl Nitrogen	mg/l	12.32	APHA 23 rd Edn (4500-Norg-B)
11.	Cyanide	mg/l	<0.08	APHA 23 rd Edn (4500- CN E)

Note: I) < Indicates Less than Minimum Detectable Limit.

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Checked by

[Signature]
5/14/23
Env. Scientist

Authorized Signatory

[Signature]
6/14/23
Chief Scientific Officer
Dy. Quality Manager.

- End of Test Report -

(Page No. 1 of 1)

ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.



ROA NO. 13/AEL - SLM/2023 - 24 Dt. 13.0.2023

TC9899

ULR-TC98992300000003

1.	Name and address of the sender	The District Environmental Engineer Tamilnadu Pollution Control Board Dharmapuri.
2.	Date and time of collection	31.03.2023 at 06:00 PM
3.	Date and time of receipt at Lab.	01.04.2023 at 10.30 AM
4.	Condition of seal, fastening and Container	Sealed / Unfastened Condition in Polythene carbuoy 2.5 Lits X 1 No.
5.	Nature and Number of samples	1 No. of Trade Effluent Sample.
6.	Date of Analysis	01.04.2023 - 10.04.2023

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/72/31-03	6	ETP Inlet	

Test Report

Sl. No.	Parameters	Unit	Test Sample Code No.	Test Method
			6/ BLA/72/31-03	
01.	pH at 25°C	mg/l	8.91 ✓	APHA 23 rd Edn (4500H+)
02.	TSS at 103°C - at 105°C	mg/l	12 ✓	APHA 23 rd Edn (2540 D)
03.	Total Dissolved Solids at 180°C	mg/l	1452 ✓	APHA 23 rd Edn (2540 C)
04.	Chloride as Cl	mg/l	360 ✓	APHA 23 rd Edn (4500 Cl-B)
05.	Sulphates as SO ₄	mg/l	<5 ✓	APHA 23 rd Edn (4500 SO ₄ -E)
06.	Oil & Grease	mg/l	<3 ✓	APHA 23 rd Edn (5520 B)
07.	BOD (at 27°C for 3 days)	mg/l	18 ✓	IS3025 (Part -44)
08.	COD	mg/l	368 ✓	APHA 23 rd Edn (5220 B)

09.	Ammonical Nitrogen as NH ₃ -N	mg/l	2.8	APHA 23 rd Edn(4500-NH ₃ C)
10.	Total Kjeldahl Nitrogen	mg/l	8.4	APHA 23 rd Edn (4500-Norg-B)
11.	Cyanide	mg/l	<0.08	APHA 23 rd Edn (4500-CN E)

Note: 1) < Indicates Less than Minimum Detectable Limit.

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Checked by

R. Sastry
11/5/23

Env. Scientist

Authorized Signatory

[Signature]
11/5/23

Chief Scientific Officer
Dy. Quality Manager.

- End of Test Report -

(Page No. 1 of 1)



**ADVANCED ENVIRONMENTAL LABORATORY,
TAMILNADU POLLUTION CONTROL BOARD,
SALEM - 636 004.**

ROA No. 442/TNPCB/AEL - SLM/2022- 23 Dt. 10.10.2023

1.	Name and address of the sender	The District Environmental Engineer, Tamilnadu Pollution Control Board, Dharmapuri.
2.	Date and time of collection	31.08.2023 at 12:30 PM and 12:35 PM
3.	Date and time of receipt at Lab.	01.09.2023 at 11:00 AM
4.	Condition of seal, fastening and Container	Sealed/Unfastened Condition in Polythene carbuoy 2.5 lits X 2 Nos.
5.	Nature and Number of samples	2 Nos. of Trade effluent Samples.
6.	Date of Analysis	01.09.2023 - 13.09.2023

DEE Code No.	Lab Code No.	Point of Collection	Whether Untreated/ Treated
BLA/195/31-08	1599	Anaerobic Lagoon Outlet	-
BLA/196/31-08	1600	Aeration Tank Outlet	-

TEST REPORT

Sl. No.	Parameters	Unit	Test sample code Nos.		Test Method
			1599/BLA/195/31-08	1600/BLA/196/31-08	
1.	pH at 25°C	Number	7.75	7.08	APHA 23 rd Edn 2017 (4500 H+)
2.	Total Suspended Solids at 103°C - at 105°C	mg/l	64	32	APHA 23 rd Edn 2017 (2540 -D)
3.	Total Dissolved Solids at 180°C	mg/l	2888	604	APHA 23 rd Edn.2017 (2540 C)
4.	Chloride as Cl	mg/l	705	166	APHA 23 rd Edn.2017 (4500 Cl B)
5.	Sulphates as SO ₄	mg/l	186	30	APHA 23 rd Edn.2017 (4500 SO4-E)
6.	BOD (at 27°C for 3 days)	mg/l	156	19	IS 3025 (Part-44)
7.	COD	mg/l	1040	104	APHA 23 rd Edn 2017 (5220 B)
8.	Ammonical Nitrogen as NH ₃ -N	mg/l	7.28	2.8	APHA 23 rd Edn. 2017 (4500 -NH ₃ C)
9.	Total Kjeldahl Nitrogen	mg/l	21.28	8.4	APHA 23 rd Edn. 2017 (4500 -N _{org} B)
10.	Total Hardness as CaCO ₃	mg/l	460	190	APHA 23 rd Edn. 2017 (2340 C)

Sl. No.	Parameters	Unit	Test sample code Nos.		Test Method
			1599/BLA/ 195/31-08	1600/BLA/ 196/31-08	
11	Calcium as Ca	mg/l	48	16	APHA 23 rd Edn. 2017 (3500 B)
12	Magnesium as Mg	mg/l	83	37	APHA 23 rd Edn. 2017 (2340 C)
13	% Sodium	%	73	32	TNPCB/AELSLM/SOP/35 Issue No.1, DT: 25 April 2014
14	Cyanide	mg/l	<0.008	<0.008	APHA 23 rd Edn. 2017 (4500 CN E)

Note: < = Indicates Less than Minimum Detectable Limit.

Checked by

M.D. 7/11/10/23
Environmental Scientist

Authorized Signatory

S. D. 11/10/2023
Chief Scientific Officer (a/c),
AEL, TNPCB, Salem.

- End of Test Report -

Page No.2 of 2



Kaushik Sharma <kaushiksharma@gmail.com>

Serving of Counter Affidavit in O.A. No. 47 of 2023

1 message

Kaushik Sharma <kaushiksharma@gmail.com>

23 November 2023 at 16:35

To: Yogeshwaran Amarneethi <yogeshwaranadv@gmail.com>, ssjtnpcb@gmail.com, collrdpi@nic.in

Cc: office@varalakshmistarch.com

Dear Sir,

Please find attached the copy of the Counter Affidavit filed on behalf of the Sixth Respondent in O.A. No. 47 of 2023. Kindly acknowledge the receipt the same.

--

Regards,

Kirithika. H [VSIPL - Counter.pdf](#)

KNS Law Chambers.

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