BEFORE NATIONAL GREEN TRIBUNAL

SOUTHERN BENCH, CHENNAI

ORIGINAL APPLICATION No. 221/2015

COMMITTEE REPORT IN THE MATTER OF OA NO.221/2015 SUBMITTED TO HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN BENCH, CHENNAI IN COMPLIANCE TO HON'BLE NGT ORDER DATED 16TH MARCH, 2020 AND 29th SEPTEMBER, 2020

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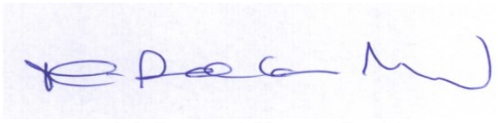
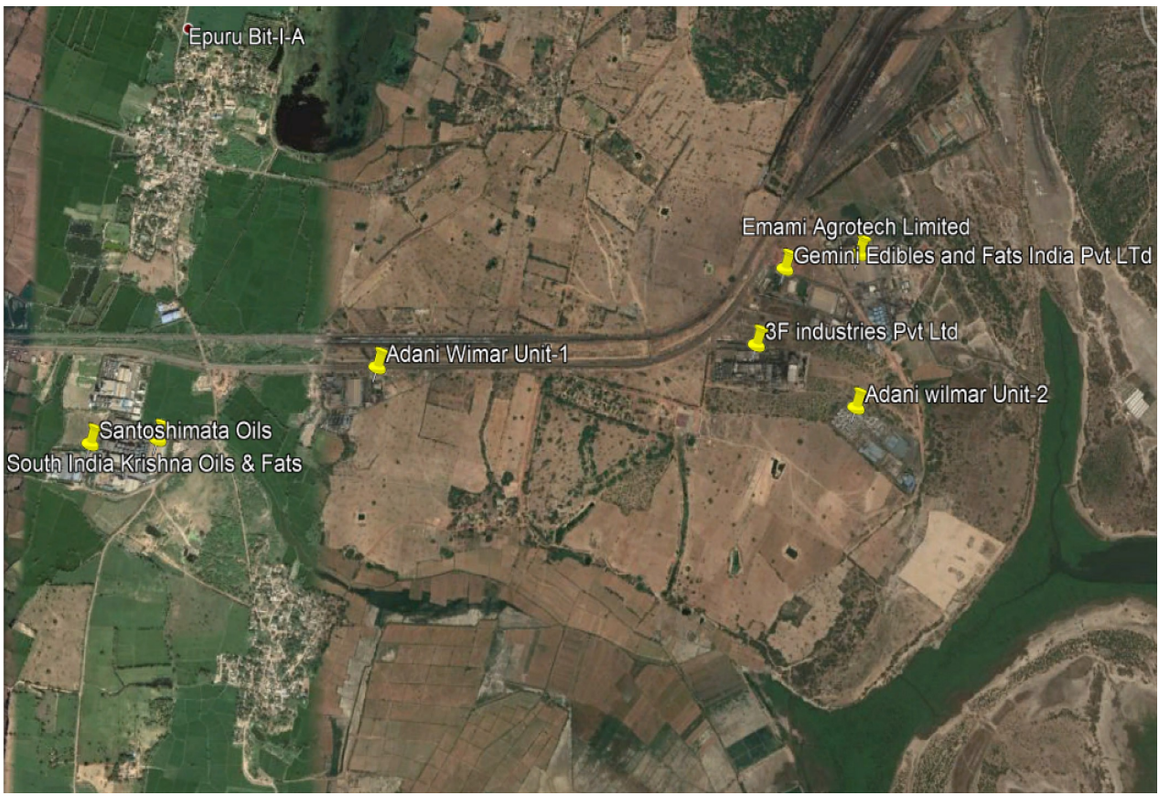


M. Pramod Kumar Reddy,
Environmental Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office Nellore

01.12.2020
Nellore

REPORT OF THE JOINT COMMITTEE IN THE MATTER OF O.A. NO. 221/2015 IN COMPLIANCE TO THE HON'BLE NGT SOUTHERN BENCH ORDER DATED MARCH 16, 2020 AND 29.09.2020.



Satellite image of Cluster of Edible Oil Industries in Krishnapatnam Port area, SPSR Nellore district, Andhra Pradesh.

Submitted to

Hon'ble National Green Tribunal

Southern Bench, Chennai

Ministry of Environment
Forest and Climate Change

Central Pollution
Control Board

Andhra Pradesh Pollution
Control Board

I Preamble

Cluster of Edible Oil Industries are operating in Krishnapatnam Port region in SPSR Nellore district. The applicant Smt. Isanaka Vedavathi submitted a representation stating that pollution has been caused by edible oil units. Hon'ble National Green Tribunal Southern Bench in order to ascertain the present status of the functioning of the edible oil refinery units and also to find out as to whether they are complying with the conditions of "consent" issued and whether the pollution control mechanism provided by them are proper and sufficient and whether they are complying with the norms and whether the "Zero Liquid Discharge" system said to have been established by them are properly functioning and whether there is any violation by any of the edible oil refinery units and if so, what is the action taken by Pollution Control Board in this regard has appointed a joint committee comprising of (1) a Senior Officer from the Central Pollution Control Board, Regional Office, Bangalore (2) Senior Officer from the Regional Office of MoEF & CC, Chennai and (3) Senior Scientist from Andhra Pradesh Pollution Control Board.

II Orders of the Hon'ble National Tribunal dated 16.03.2020 in OA No 221/2015

Hon'ble NGT vide order dated 16.03.2020 has directed the following *" So in order to ascertain the present status of the functioning of the edible oil refinery units and also to find out as to whether they are complying with the conditions of "consent" issued and whether the pollution control mechanism provided by them are proper and sufficient and whether they are complying with the norms and whether the "Zero Liquid Discharge" system said to have been established by them are properly functioning and whether there is any violation by any of the edible oil refinery units and if so, what is the action taken by Pollution Control Board in this regard, we appoint a joint committee, comprising of (1) a Senior Officer from the Central Pollution Control Board, Regional Office, Bangalore (2) Senior Officer from the Regional Office of MoEF & CC, Chennai and (3) Senior Scientist from Andhra Pradesh Pollution Control Board to inspect the units in question and submit a factual as well as action taken, if there is any violation found. The committee shall also go into the question as to whether the units are strictly complying with the conditions imposed either in the "consent to operate" or any other permission granted, whether there is any violation in the use of surface water and whether necessary permission has been obtained by the units for drawal of surface water for their purpose, whether pollution control mechanism provided to suppress the air pollution or water pollution are sufficient to meet the requirements as has been provided under the Environment (Protection) Act, 1984, whether these units are properly disposing the fly ash generated during their manufacturing process and if there is any violation found, what is the action taken, including the imposition of environment compensation against the erring units on the basis of the guidelines given by Central Pollution Control Board in this regard and also what is the status of the implementation of the action plan if any, evolved during the review meeting conducted by Pollution Control Board and whether those actions have been brought into action by the units, as undertaken by them and if not, what is the action taken by Pollution Control Board against those erring units and submit a comprehensive report to this Tribunal within a period of two months through e-mail at ngtszfiling@gmail.com.*" Hon'ble NGT order dated 16.03.2020 and 29.09.2020 is enclosed as Annexure-I and Annexure-II respectively.

III Composition and Scope of Committee

In compliance to Hon'ble NGT order, the following committee was composed:

1. Smt. Mahima T, Scientist-D, Central Pollution Control Board, Regional Directorate, Chennai
2. Dr. C. Palpandi, Scientist-C, Ministry of Environment Forest and Climate Change, Regional Office, Chennai
3. Sri. M. Pramod Kumar Reddy, Environmental Engineer, Andhra Pradesh Pollution Control Board, Regional Office Nellore (Nodal agency)

The Committee has been vested with the mandate to visit and inspect the site in question and vested with following scope vide the Order dated 16.03.2020:

a. to ascertain the present status of the functioning of the edible oil refinery units
b. to find out whether edible oil units are complying with the conditions of "consent" issued and whether the pollution control mechanism provided by them are proper and sufficient and whether they are complying with the norms and whether the "Zero Liquid Discharge" system said to have been established by them are properly functioning
c. action taken by Andhra Pradesh Pollution Control Board
d. to find out whether whether there is any violation in the use of surface water and whether necessary permission has been obtained by the units for drawal of surface water for their purpose
e. to find out whether pollution control mechanism provided to suppress the air pollution or water pollution are sufficient to meet the requirements has been provided under the Environment (Protection) Act, 1984
f. to determine whether these units are properly disposing the fly ash generated during their manufacturing process
g. imposition of environment compensation against the erring units

IV Site Visit by the Committee

The committee constituted by Hon'ble NGT vide order dated 16.03.2020 convened its first meeting on 27.07.2020 through video conference (VC) with the officials of Regional office, Nellore and reviewed the status of operation of Edible oil industries with respect to Pollution control issues. The committee inspected the units on 13.10.2020 and 14.10.2020. As per the scope vested on the committee, the information is compiled in tables VIa to VIg.

V Process Description- Edible Oil Refining Process

V. a. *General information*:

Seven edible oil units are operating in Krishnapatnam Port region. The units are involved in refining of crude palm and sunflower oil. The Palm Oil extraction is to be done with the fresh Palm fruit to avoid the deterioration of Palm Oil. Hence, palm oil is extracted in the countries where it is cultivated to avoid its deterioration. All the seven edible oil units are importing crude

palm oil from Indonesia, Singapore and Malaysia. Crude Palm Oil is yellow red or dark yellow in color and contains certain impurities which are removed by physical refining. During refining, Phospholipids, free fatty acids, colouring pigments (Carotenoids), Moisture, oxidative material, metal impurities, and water soluble impurities (glycerol, Phenols, Sugars) are removed. Crude sunflower oil is imported from Ukraine, Argentina, Malaysia. The crude palm oil is physically refined while the sunflower oil is chemically refined. All units are practising similar refining process with only minor modifications in the stages of refining. (carotenoids).

V.b Physical refining of crude palm oil: Crude palm oil contains 3.5% to 4.5% fatty acids that comes out as waste. Around 1% to 2% of fats or oil is lost in bleaching section. Total loss will be around 4.5% to 6.5%. The stages in physical refining are as follows:

a. De-gumming: It is the process of removal of gums or phosphatides. It comprises the treatment of crude oil with water, salts, enzymes, caustic soda, or dilute acids such as phosphoric acid to remove phosphatides, waxes, pro-oxidants, and other impurities.
b. Bleaching: Trace metal complexes such as iron & copper, colouring pigments and oxidative products are removed by adsorption using bleaching earth. Spent Earth is sold to soap manufacturing units.
c. De-odorizer: Deodorization / De-acidification is done to remove the volatile components, mainly aldehydes and ketones, which causes smell in refined oil. In Deodorization process, free fatty acid removes in the form of Palm fatty acid distillate as a refining waste. During deodorization, bleached palm oil is steam distilled or boiled. The vapors from this section is the palm fatty acid distillate.
d. Crystallization: Portion of palm oil will crystallize on cooling and is known as palm-stearin or margarine and the other portion remains as liquid and is called palm-olien or cooking oil.

Waste from physical refining: gums and other impurities and wastewater from degumming section, refining waste from refining section. The waste water contains oil and it is removed by centrifuge principles.

V.c Chemical refining of Sunflower oil/ Soybean oil: The steps involved in chemical refining are as follows:

a. Neutralization: Addition of caustic to reduce FFA (gum/ phospho lipid) from crude palm oil
b. Bleaching: Removal of colouring pigments and other impurities
c. De-waxing: The wax so removed is sold to cosmetic industry
d. De-odorization: Removal of fatty acids and other volatile components.
e. Fractionation: separation of hard fraction from refined palm oil

VI. The status of edible oil industries is as follows

VI.a Compliance Status of M/s Gemini Edibles & Fats India Pvt Ltd

a	Name & complete address of the unit	M/s Gemini Edibles & Fats India Pvt Ltd, Sy.No. 1607/2, Industrial Park, Pantapalem (V), Muthukur (M), SPSR Nellore district
b	Contact Details	Sh. Prathap Vice- President Operations +91 -9866556188
c	Geo-cordinates	14°15'36.3"N 80°04'19.0"E
d	Area	15.2 acres
e	Status of CFO & Authorizations and its compliance	The combined Consent and Authorization issued by APPCB is valid till 30.06.2021.
f	Year of commissioning	2010
g	Production capacity	Refined Vegetable Oil (Physical refining)-550TPD Refined Vegetable Oil (Chemical refining)-250 TPD Fractioned vegetable oil- 600 TPD Interesterified fats- 125 TPD Vanaspathi-100 TPD By-products Distilled fatty acids-13386 Tons Per annum Acid oil-1690 Tons Per annum
h	Coal and flyash storage measures taken to control fugitive emissions	The unit has constructed separate shed for coal storage but however, it was observed during inspection that the size of the shed is small and coal was stored in open. The unit has installed water sprinklers in storage yard. The unit has installed flyash silo of capacity 100 Tonnes (10 days storage capacity against the direction of APPCB to install silo for 30 day storage. The flyash is sold to brick manufacturers. Partially complied.
i	Source of water and quantity of water used per day	Through water tankers and bore wells. The total water requirement of the unit is 610 KLD including domestic requirement. Quality of water will be having TDS of more than 1200 ppm, which has to be treated through RO. Ground water and water audit department has given permission to the unit to utilize 350 KLD of ground through four bore wells but three of them have become dry and the unit has constructed three new bore wells and is drawing 180 KLD of ground water

		and has obtained fresh permission to draw additional 70 KLD of water. The unit has permission to utilize 250 KLD of ground water by 10 hrs of pumping from the filter points. But however the major water requirement is met by procuring water in tankers.
j	Effluent generation	Around 30 KLD of effluent is generated from physical refining and is Low TDS effluent which is treated in ETP of capacity 200 KL. ETP comprises of collection tank→ oil recovery system→ primary settling tank→ DAF aeration tank→ secondary clarifier→ RO. Raw water is treated in two stage RO system and RO rejects (70 KLD) is also treated in MEE. Outlet effluent from ETP is treated in RO of 200 KLD capacity. RO permeate is taken to cooling tower and for dust suppression. RO reject is taken to MEE. 20 KL of HTDS effluent is generated from chemical refining section and after oil recovery it is treated in MEE followed by ATFD .ATFD salts sent to TSDF. MEE condensate is used for gardening and dust suppression. There is no proper effluent conveyance system, the open drains carry both effluent and storm water. Though the effluent generation is only 30 KLD and capacity of ETP is 200 KLD. The industry has not given justification for providing higher capacity of the ETP and RO even the industry is generating 30 KLD and 20 KLD of LTDS and HTDS effluents, hence it prevails the industry is operating ETP in phased manner. During storage in collection tank, settling and putrefaction of effluent takes place which is likely to emanate odour. There is no proper mechanism for sludge collection and transferring to sludge drying beds. Sludge was haphazardly stored in ETP area. Part of sewage generated from the unit is also treated in ETP even the industry provided STP of 30 KLD capacity. Not complying

TableVI.a 1: Analysis results of samples collected by APPCB during 30.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	MEE condensate	MEE concentrate	RO permeate	RO reject
1	pH	5.5-9.0	7.26	7.5	8.85	8.53	10.09	6.74	8.35
2	TSS	200	184	136	201	12	186	4	76
3	TDS	2100	3256	4018	10170	**2486**	52500	90	**7240**
4	COD	250	960	196	928	192	19680	<10	116
5	BOD	100	364	62	350	56	6152	BDL	34
6	Oil & grease	10	12.6	8.4	25	**47**	226	BDL	4.0

The results indicate that MEE condensate is not complying with discharge standards stipulated by APPCB. Therefore MEE condensate shall be treated in RO. ETP outlet is around 30 to 35 KLD and RO capacity is 200 KLD, treated effluent is stored in a tank and RO is operated once in a week during which oxidation may take place resulting in BOD & COD reduction. RO reject is having TDS of 7240 mg/L against APPCB stipulated standard of 2100mg/L. Hence RO reject will be treated in MEE.

k	Installation of magnetic flow meters with totalizer	Partially complied The unit has installed flow meters and totalizer at the inlet and outlet of ETP but however the unit has not installed flow meter at raw water inlet. Since both ground water and water from tankers is utilized, the unit has not quantified the total water consumption and water used for various utilities. Partially complied
l	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	Boiler of capacity 20 TPH — Multi cyclone dust collector followed by Bag filters Thermic fluid heater of capacity 16.0 Lakh k.cal/hr (2Nos.-6.0 Lakh K.cal/hour + 10 Lakh K.cal/hour capacity) — Multi cyclone dust collector followed by Bag filters 3x 1000 KVA DG Sets — Acoustic enclosures with silencer & Muffler OCEMS has been installed at 24 mtr height of chimney. Not complying

TableVI.a.2: Stack monitoring at M/s Gemini Edibles by APPCB on 30.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 20 TPH boiler	**129.7 mg/Nm^3**	115 mg/ Nm^3

TableVIa.3: Ambient air quality monitoring at M/s Gemini Edibles by APPCB on 30.06.2020

Source	PM 10 measured value	APPCB emission standards
Near the main gate within unit premises	**132.2 µg/m^3**	100 µg/m^3

m	Status of installation of online stack monitoring equipment	The unit has installed online continuous stack monitoring system to measure SPM and it is connected to APPCB server.
n	Status of green belt	Partially complied. The unit has developed green belt in an area of 3.5 acres against the requirement of 5.0 acres (33%) with avenue plants. It was informed to the committee that the unit has taken compensatory plantation in their own 32 acres of land in other area. Rain water harvesting pit of 50Mtr X 40mtr is established inside the plant.
o	Hazardous waste generation	Unit is generating MEE salts, ETP sludge, used oil and spent nickel catalyst. MEE salts and ETP sludge are disposed to TSDF. The quantity of MEE salts & ETP sludge sent to TSDF is around 9 to 10 MT every three months against consented quantity of 10 MT / month. ETP sludge is not properly removed and stored. Used oil and oil recovered from ETP is sold to soap manufacturers/ oil reclamation units, however no records were shown to committee. No records were shown to the committee on disposal of spent nickel catalyst. There is no proper covered shed for hazardous waste storage.
p	Actions taken by APPCB during last one year	The APPCB has issued directions to the industry 15.02.2018, 27.12.2018, 17.01.2020. The APPCB has forfeited Bank Guarantee of Rs.5.0 Lakhs on 17.01.2020 for non-compliance of Board directions. Directions were again issued on 28.09.2020. The APPCB has again forfeited Bank guarantee of Rs 10.00 lakhs on 28.09.2020 for non compliance of

		the Board directions.

Overall Compliance status

APPCB issued directions to the unit vide order dated 15.02.2018. The unit has taken steps for improvement but partially complied with few of the directions as detailed above. But the committee observed that APPCB has not received specific complaints against the unit for discharging of effluent outside the industry premises. As per OCEMS records available with APPCB, the unit is not complying with APPCB standards for Particulate Matter. ZLD system installed. The actual water requirement of the unit is more than available water resources in the region.

Since the unit is partially complying the committee calculated environmental compensation using CPCB formula EC=PI x N x R x S x LF

S.N	Period of noncompliance	PI	S	LF	R (Rs)	N (days)	Environmental compensation (Rs)
1	17.01.2020 to 13.10.2020*	80	1.5	1	250/-	270	81,00,000/-
Total EC for violation						270	81,00,000/-
Compensation levied by APPCB from 17.01.2020 onwards							15,00,00
Net Compensation to be paid by M/s Gemini Edibles							**66,00,000/-**
Rupees Sixty-Six Lakhs Only							

List of major non-compliances

- stack emission and ambient air not complying with APPCB standards w.r.t SPM and PM 10 respectively
- MEE condensate and RO reject which is used for green belt development/ dust suppression is not complying with APPCB discharge standards w.r.t TDS and O&G
- No proper effluent conveyance system from production block to ETP

Open drains used for carrying both effluent and storm water

Stack

Rice husk storage shed

flyash loading into silo

VI.b Compliance Status of Emami Agrotech Limited

a	Name & complete address of the unit	M/s Emami Agrotech Limited, Sy No.s 501, 502/1 etc., Pantapalem (V), Muthukur (M), SPSR Nellore
b	Contact Details	Sri M.V.Narayana Murthy- Unit Head Mobile: 9677167862
c	Geo-cordinates	14°15' 40.2"N 80° 04' 23.2"E
d	Area	29.78 acres
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 30.11.2021
f	Year of commissioning	2013
g	Production capacity	Refined Palm oil: 1886 TPD Sunflower oil: 186TPD Interesterfied oil: 100 TPD Hydrogenated Oil: 100 TPD Vanaspathi: 200 TPD Refining of Soft Palm oil: 130 TPD Palmolein: 800 TPD Bakery Fat: 210 TPD Palm stearine: 200 TPD By Product Distilled Palm Fatty Acids: 106.325TPD Distilled sunflower Fatty acids: 0.5 TPD Acid Oil: 14 TPD
h	Coal and flyash storage measures	The unit has constructed separate shed for storage of rice husk and coal however it was stored both inside

<table>
<tr><td></td><td></td><td>and outside the shed. 41 TPD of ash is generated per day. The unit has installed a silo of 150 Tonnes (roughly six days storage capacity) against APPCB direction of 30 days storage capacity. Fly ash spillage was observed in the area. The fly ash is also dumped in North east side of the industry.
On the day of inspection, chemical refining plant was not in operation
Not complying</td></tr>
<tr><td>i</td><td>Source of water and quantity of water used per day</td><td>The total water requirement of the unit is 902 KLD and majority (80 to 90%)of the water requirement is met from tankers. The total water consumed is not quantified by means of flow meter but however the units have maintained registers for the no. of tankers of water received. The quantity of water drawn from borewells is amounted by no. of pumping hours which is not accurate.</td></tr>
<tr><td>j</td><td>Effluent generation</td><td><table><tr><th>Source</th><th>Wastewater generation</th></tr><tr><td>Process & Washings</td><td>23.0 KLD</td></tr><tr><td>Acid Oil Plant</td><td>6.0 KLD</td></tr><tr><td>Boiler Bleed off</td><td>28.0 KLD</td></tr><tr><td>Cooling Tower Blow down</td><td>32.0 KLD</td></tr><tr><td>RO Reject</td><td>60.0 KLD</td></tr><tr><td>Domestic</td><td>6.0 KLD</td></tr></table>
The quantity of the effluent collected in the ETP is not proportionate with their production and water consumption. The effluent is transferred in open drains from production block to ETP and committee observed that effluent spillage, over flow into adjoining areas. Storm water drains were filled with effluent and drains were clogged. The MEE and Sludge Centrifuge were not in operation since chemical refining was not taking place.
STP is provided for treatment of sewage.</td></tr>
<tr><td>k</td><td>Installation of magnetic flow meters with totalizer</td><td>Flow meters installed at inlet and outlet of ETP& STP but total water consumed is not quantified</td></tr>
<tr><td>l</td><td>Quantity of effluent discharged and mode of disposal.
Components of ETP.</td><td>The ETP is very poorly maintained. The aeration was not in operation. Sludge is not removed and oily sludge was accumulated in all components of ETP</td></tr>
</table>

		and which results in improper operation of ETP . The unit has to first scrap and remove the accumulated sludge and send it to TSDF. After sludge removal, the mixing chambers and aerators has to be repaired and ensure that ETP is properly operated. Presently, effluent from filter press is pouring down and not recycled into ETP and sludge is lying below the filter press. Periodically, the sludge is manually removed, packed in bags and stored in ETP area. The unit has not provided dedicated storage shed for storing hazardous wastes. Provision shall be made to recycle the effluent from filter press into ETP. A bin will be provided to collect the sludge from filter press. MEE condensate and RO permeate as well as RO reject is used for dust suppression and green belt development. A periphery drain carrying the effluent and storm water drain was found to join the creek at south-east corner of the unit. Though it is temporarily closed but during heavy rains, there are likely chances of effluent joining the drain. Not complying

TableVI.b 1: Analysis results of samples collected by APPCB during 18.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	RO permeate	RO reject
1	pH	5.5-9.0	6.63	7.29	2.00	7.30	7.54
2	TSS	200	132	118	156	4	120
3	TDS	2100	2352	**2798**	11955	198	**5137**
4	COD	250	1960	**320**	7800	<10	176
5	BOD	100	627	**104**	2496	BDL	40
6	Oil & grease	10	13.4	**10.8**	15.8	BDL	**12.0**

The unit is using RO reject for dust suppression and green belt. From the analysis results it is found that RO reject is not meeting APPCB discharge standards and hence the unit will treat RO reject in ETP. The outlet of ETP /treated water of ETP not meeting the APPCB stipulated standards.

m	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	Source	Air pollution control device installed
		FBC Boiler of capacity 16 TPH	Multi cyclone dust collector followed by Bag filters and attached to Common stack of height 30m
		Thermic fluid heater of capacity 8.0 lakh k.cal/hr (Coal or husk fired)	
		Thermo siphon of capacity 20 lakh k.cal/hr	Bag filters
		Thermic fluid heater of capacity 6.0 lakh k.cal/hr (Coal or husk fired)	Bag filters
		DG sets of 1x750 KVA, 1x1500 KVA	Acoustic enclosures
		FBC Boiler of capacity 36 TPH	Electro-static precipitators(ESP)- 3 no. of fields with stack height of 35 mtrs
		Thermo siphon of capacity 20 lakh k.cal/hr	Bag filter

TableVI.b.2: Stack monitoring at M/s Emami Agrotech Limited by APPCB on 18.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 36 TPH boiler	**123.5 mg/Nm^3**	115 mg/ Nm^3

TableVI.b.3: Ambient air quality monitoring at M/s Emami Agrotech Limited by APPCB on 18.06.2020

Source	PM 10 measured value	APPCB standards
Near the main gate within unit premises	**125.5 µg/m^3**	100 µg/m^3

The unit is not complying with stack emissions and ambient air standards. Odour problem was also observed in the industry.

n	Status of installation of online stack monitoring equipment	FBC boilers are connected with continuous online PM monitors and connected to APPCB servers
o	Status of green belt	Reported that the unit has planted 7000 trees along the unit boundary but is not complying with 33% green belt. Unit shall further develop green belt in vacant spaces.
p	Hazardous waste generation	MEE Centrifuge salts and ETP sludge are the hazardous wastes generated from the unit. As per the production records and as per consent, the unit has to generate 30 TPM of MEE-centrifuge and 8.4 tons of ETP sludge but from the hazardous waste manifest copies it is observed that the unit has despatched only 10-15 tons of hazardous waste to TSDF. This implies that either the unit is not properly operating ETP and MEE & MEE Centrifuge or the hazardous waste so generated is haphazardly disposed. It was observed that sludge was lying in open in the unit premises. There is no dedicated hazardous waste storage shed. Oil recovered from ETP is sold to soap manufacturers.
q	Actions taken by APPCB during last one year	APPCB has vide order dated 17.01.2020 issued directions for not complying with APPCB discharge and emission standards and for exceeding the consented production in terms of chemical refining. The unit was again inspected by APPCB officials on 31.01.2020 & 04.02.2020 and found non-complying. APPCB vide order dated 20.03.2020 issued directions to the unit to ensure compliance. APPCB carried out analysis and monitoring on 18.06.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 10.00 lakhs on 28.09.2020 for non compliance of the Board directions.
Overall Compliance status APPCB issued directions to the unit vide order dated 15.02.2018. The unit has taken steps for improvement like replacement of old MEE with new MEE and installation of Centrifuge in place of ATFD which is not adequate for converting MEE concentrate in to salts. During APPCB inspections during January and February, 2020, unit was found discharging effluent into adjoining drains.		

Further, the unit is not complying with effluent discharge and emission standards stipulated by APPCB, with APPCB directions dated 20.03.2020, no proper effluent transfer system. Since the unit is partially complying the committee has assessed environmental compensation using CPCB formula EC=PI x N x R x S x LF

S.N	Period of noncompliance	PI	S	LF	R (Rs)	N (days)	Environmental compensation (Rs)
1	17.01.2020 to 20.03.2020*	80	1.5	1	250/-	63	18,90,000/-
2	21.03.2020 to 13.10.2020	80	1.5	1	250/-	206	61,80,000 x 2 (for repeated violation) =1,23,60,000
3	Compensation levied by APPCB on or after 17.01.2020						10,00,000/-
Total Environmental Compensation for violation						**269**	**1,32,50,000/-**
Rupees One Crore Thirty-two lacs fifty thousand Only							

Major Non-Compliances

- The unit has not achieved ZLD. Instead of MEE-ATFD the unit has installed MEE-centrifuge which is not adequate to convert MEE concentrate to salts.
- The unit is not complying with effluent discharge and emission standards stipulated by APPCB. No proper effluent transport system is provided, the drains are completely clogged. The effluent generated and hazardous waste generated is not matching with the production details and water consumption.
- Flyash is found dumped adjacent to the unit in north-eastern direction
- During APPCB inspections in January and February, 2020, the unit was found discharging the effluent into storm water drains located outside the industry.

Effluent transferred through drains

Effluent disposed from production block

Hazardous waste haphazardly dumped in unit premises

Thick oily sludge accumulated in the drains

VI.C. Compliance Status of M/s Adani Wilmar Limited (Unit-I)

<table>
<tr><td>a</td><td>Name & complete address of the unit</td><td>M/s Adani Wilmar Limited (Unit-I)
(Formerly M/s.Krishnapatnam Oils & Fats Pvt. Ltd.), Sy. No.292, 317, Pantapalem (V) (Epur 1B), Muthukur (M), SPSR Nellore Dist.</td></tr>
<tr><td>b</td><td>Contact Details</td><td>Sri. Vishal Jain, Unit Head
Email: Vishal.Jain1@adaniwilmar.In
Mobile No.: 8886060496</td></tr>
<tr><td>c</td><td>Geo-cordinates</td><td>14°15' 27.14"N 80° 03' 16.38"E</td></tr>
<tr><td>d</td><td>Area</td><td>14.91 acres</td></tr>
<tr><td>e</td><td>Status of CFO & Authorizations and its compliance</td><td>The CFO and Authorization are valid till 31.03.2021</td></tr>
<tr><td>f</td><td>Year of Commissioning</td><td>2011</td></tr>
<tr><td>g</td><td>Production capacity</td><td><table>
<tr><td>Refined vegetable Oils (Physical Refining)</td><td>600 TPD</td></tr>
<tr><td>Interesterfied Vegetable Fats</td><td>100 TPD</td></tr>
<tr><td>Hydrogenated Vegetable Oils</td><td>100 TPD</td></tr>
<tr><td>Refined vegetable Oils (Chemical refining)</td><td>200 TPD</td></tr>
<tr><td>Bakery Fat</td><td>145 TPD</td></tr>
<tr><td colspan="2">By Products</td></tr>
<tr><td>Distilled Fatty Acid</td><td>45.55 TPD</td></tr>
</table></td></tr>
<tr><td>h</td><td>Coal and flyash storage measures taken to control fugitive emissions</td><td>The industry has provided shed for storage of coal with water sprinklers.
The unit is generating 480 TPM of flyash and unit has installed ash silo of 100MT (around seven days' storage capacity) against APPCB direction of installing silo of 30 days' storage capacity. Reported that unit is disposing the flyash on alternate day basis.</td></tr>
<tr><td>i</td><td>Source of water and quantity of water used per day</td><td>The total water requirement of the unit is 260 KLD and additional 4KLD is recycled from RO plant. The unit is having permission from Ground Water and Water Audit department to draw 150 KLD of ground water. But due to high salinity the unit 75% of water requirement is met from tankers.</td></tr>
<tr><td>j</td><td>Effluent generation</td><td>The unit is generating 90 KLD of effluent. Low TDS effluent is treated in ETP of 115KL capacity comprising of Fat trap, equalisation tank, chemical</td></tr>
</table>

<table>
<tr><td></td><td></td><td>dosing tank, primary settling tank, aeration, Secondary settling tank, Aeration tank 2, clarifier, Tube settler and filter press. Treated effluent from ETP is further treated in RO. It is a ZLD plant.
<table>
<tr><td>Source</td><td>Wastewater generation</td></tr>
<tr><td>Process & washings include (Boiler Bleed Off, Cooling Towers blow down, RO rejects)</td><td>73.0 KLD</td></tr>
<tr><td>Acid wash</td><td>8.0 KLD</td></tr>
<tr><td>Domestic</td><td>10.0 KLD</td></tr>
</table>
High TDS effluent is treated in three stage MEE-15 KL capacity followed by ATFD.
Sewage is treated in septic tank followed by soak pit. Rainwater harvesting pits and Summer storage tank is available. Summer storage tank capacity is 180MT</td></tr>
<tr><td>k</td><td>Installation of magnetic flow meters with totalizer</td><td>Flow meters installed at inlet and outlet of ETP and MEE feed tank. Flow meter is not installed to quantify raw water consumption.</td></tr>
<tr><td colspan="3"> 


</td></tr>
</table>

Table VI.C 1: Analysis results of samples collected by APPCB during 23.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	MEE condensate	MEE concentrate	RO permeate	RO reject
1	pH	5.5-9.0	6.42	7.22	5.56	**4.09**	5.94	6.5	7.69
2	TSS	200	200	122	136	12	200	20	120
3	TDS	2100	2642	1380	28925	208	38051	740	**4990**
4	COD	250	1712	260	34000	24	67200	32	112
5	BOD	100	420	60	8500	2.6	16800	52	28
6	Oil & grease	10	20.2	16.4	28.2	BDL	20	BDL	BDL

MEE condensate is not complying with discharge limits stipulated by APPCB for pH. The unit shall neutralize the MEE condensate before discharging.

RO reject is not complying with APPCB discharge limits for TDS. RO reject shall be treated in MEE before discharging. RO permeate is complying with standards.

From the analysis results it is found that RO reject is not meeting APPCB discharge standards and hence the unit will treat RO reject in ETP.

l	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	Boiler of capacity 1 x 16 TPH	Mechanical dust collectors fol.by bag filters
		Boiler of capacity 1 x 12.0 TPH	
		Thermic Fluid Heater 2 x 6 Lakh. K.Cal/ hour & 1 x 10 Lakh. K. Cal/hour	
		Thermo siphon of capacity 4 lakh k.cal/hr	
		DG sets of 1x1250 KVA, 2x625 KVA	Acoustic enclosure

Table VI.C.2: Stack monitoring by APPCB on 23.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 36 TPH boiler	101.8 mg/Nm^3	115 mg/ Nm^3

Table VI.C3: Ambient air quality monitoring at M/s, Adani Wilmar Limited (Unit-I) by APPCB on 23.06.2020

Source	PM_{10} measured value	APPCB standards
Near the main gate within unit premises	95.5 µg/m^3	100 µg/m^3

The unit is complying with stack emissions and ambient air standards.

m	Status of installation of online stack monitoring equipment	Stack attached to boiler is provided with continuous online PM monitors and connected to APPCB servers
n	Status of green belt	The unit has developed green belt in around 4 acres of land.
o	Hazardous waste generation	MEE salts (0.2 TPD) and ETP sludge (0.4 TPD) are the hazardous wastes generated from the unit and it is stored in 40 MT covered shed and it is disposed to TSDF
p	Actions taken by APPCB during last one year	APPCB has vide order dated 17.01.2020 issued directions for not complying with APPCB discharge and emission standards. The unit was again inspected by APPCB officials on 27.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 7.50 lakhs on 28.09.2020 for non

		compliance of the Board directions.

Overall Compliance status:

As compared to other units in the region, M/s Adani Wilmar Unit-I has implemented lot of corrective measures. There were proper effluent transfer system, Emissions are complying with APPCB norms.

Major non-compliances observed in the unit are

- MEE condensate is not meeting the APPCB stipulated standards w.r.t pH. The unit shall be directed to check for pH and neutralize the effluent before final discharge.
- Illegal drawal of ground water through tankers from outside agencies.
- Not provided ash silo for 30 days storage capacity

VI.d. Compliance Status of M/s. Adani Wilmar -(Unit-II)

a	Name & complete address of the unit	M/s. Adani Wilmar -(Unit-II) Previously M/s. Louis Dreyfus Commodities India Pvt. Ltd., Sy. No.1601, Epuru Bit-1B, APIIC, Pantapalem (V), Muthukur (M), SPSR Nellore Dist
b	Contact Details	Sri G. Sreenivasulu, Plant Head +91- 9444398011 sreenivasulu.gundarapu@adaniwilmar.in
c	Geo-cordinates	14°15' 20"N 80° 04' 25.9"E
d	Area	15.58 acres
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 29.02.2024
f	Year of Commissioning	2011
g	Production capacity	

S.N	Products	Quantity
01	Physical Refining Refined Vegetable Oil (Palm Oil, Palmolein, Palm Stearin)	600 TPD
02	Chemical Refining Refined Vegetable Oil (Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)	200 TPD
02	Fractionated Vegetable Oil	800 TPD
03	Interesterified Vegetable Oil	150.0 TPD
04	Vanaspathi	150.0 TPD
Co-Product		
1	Palmstearin	167.0 TPD

<table>
<tr><td></td><td></td><td>
<table>
<tr><td colspan="3">By-products</td></tr>
<tr><td>1</td><td>Distilled Fatty Acids (Physical refining) (Palm Oil, Palm kernel, Palmolein)</td><td>48.0 TPD</td></tr>
<tr><td>2</td><td>Distilled Fatty Acids (Chemical refining)
(Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)</td><td>0.8 TPD</td></tr>
<tr><td>3</td><td>Acid Oil</td><td>4.0 TPD</td></tr>
<tr><td>4</td><td>Soap Stock</td><td>4.0 TPD</td></tr>
<tr><td>5</td><td>Acid Sludge</td><td>0.6 TPD</td></tr>
<tr><td>6</td><td>Gums</td><td>9.0 TPD</td></tr>
</table>
</td></tr>
<tr><td>h</td><td>Coal and flyash storage</td><td>The unit is generating 940 TPM of flyash and unit has installed silo of 40 tonnes (roughly around Two days storage) against APPCB direction of 30 days storage capacity storage capacity. Lot of Fly ash spillage was observed in the area.
Reported that unit is disposing flyash on alternate days. The unit should have had minimum of 10 days storage capacity.</td></tr>
<tr><td>i</td><td>Source of water and quantity of water used per day</td><td>
<table>
<tr><td>Source</td><td>Water consumption</td></tr>
<tr><td>Floor washings,plant washings from physical refining process, inter-esterfied fats, vanaspathi unit</td><td>15.0 KLD</td></tr>
<tr><td>Chemical refining Manufacturing Process</td><td>25.0 KLD</td></tr>
<tr><td>Washings in chemical refining (Acid Oil Wash)</td><td>30.0 KLD</td></tr>
<tr><td>DM/ Softener</td><td>5.0 KLD</td></tr>
<tr><td>Boiler R.O. (Fresh water for Boiler feed-210 KLD)</td><td>275.0 KLD</td></tr>
<tr><td>Cooling towers (Non contaminated)</td><td>70.0 KLD</td></tr>
<tr><td>Cooling towers (contaminated)</td><td>60.0 KLD</td></tr>
<tr><td>Gardening</td><td>30.0 KLD</td></tr>
<tr><td>Domestic</td><td>20.0 KLD</td></tr>
</table>
</td></tr>
</table>

		Total | **530** Though the unit has obtained permission to withdraw 380 KL of ground water but 75% of the water requirement is met from tankers.
j	Effluent generation	Process & Washings physical and chemicals, Cooling tower, Boiler blow down: 100.0 KLD Feed water RO Reject & DM/ Softener back wash: 70.0 KLD Acid Oil Wash: 30.0 KLD Domestic: 15.0 KLD The unit has installed an ETP of 200 KLD capacity followed by RO plant of 10 KLH capacity for treatment of LTDS. HTDS effluent is treated in three stage three stage MEE -60 KLD followed by ATFD to meet ZLD system but ATFD is completely worn out and is not in operation. Sewage is treated in Septic tanks followed by soak pits. But it was observed that ETP is not properly maintained. ETP sludge is stored in the ETP section in open and leachate was flowing. ETP comprises of Fat Trap, Equalization tank, Chemical Dosing tank, Primary Clarifier, Collection tank, Aeration tank, Secondary Clarifier, secondary Collection tank, Filter Press (2No.). Effluent carrying drains were clogged. Unit has constructed rainwater harvesting pits and summer storage tank of 1600 KL capacity.
k	Installation of magnetic flow meters with totalizer	Flow meters with totalizers at ETP inlet, Primary clarifier outlet, RO inlet, RO outlet, MEE outlet.

Table VI.d 1: Analysis results of samples collected by APPCB during 18.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	MEE condensate	MEE concentrate
1	pH	5.5-9.0	5.27	7.64	7.13	8.08	6.24
2	TSS	200	186	122	206	4	180
3	TDS	2100	4279	**2516**	5100	80	22840
4	COD	250	772	**360**	404	BDL	58020
5	BOD	100	290	**114**	136	BDL	14876
6	Oil & grease	10	18.2	**12.6**	15	BDL	158

On the day of APPCB inspection RO was not in operation and treated effluent was directly

discharged without treating in RO. The outlet of ETP /treated water of ETP not meeting the APPCB stipulated standards.

l	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	

Air pollution source	Air pollution control device provided
FBC Boiler of capacity 20.0 TPH	Multi cyclone dust collector followed by Bag filters
Thermic fluid heaters of capacity 5.0 lakh k.cal/hr, 12.5 lakh k.cal/hr & 6.0 lakh K.cal/hr ;	Chimney to disperser the flue gases
FBC boiler of Capacity 7.0 TPH	Dust Collector & Bag filter
Thermo Syphon 1x15 Lakh.k.cal	Mechanical dust collectors fol.by bag filters
DG sets of 1x1010 KVA, 1x1250KVA	Acoustic enclosure

The unit has installed online emission monitor system to measure SPM and is connected to APPCB server.

TableVI.d.2: Stack monitoring at by APPCB on 30.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 7 TPH boiler	85.5 mg/Nm^3	115 mg/ Nm^3

TableVI.d.3: Ambient air quality monitoring by APPCB on 30.06.2020

Source	PM_{10} measured value	APPCB standards
Near the main gate within unit premises	90.5 µg/m^3	100 µg/m^3

The unit is complying with stack emissions and ambient air standards. Odour problem was observed in the industry.

m	Status of installation of online stack monitoring equipment	FBC boilers are connected with continuous online SPM monitors and connected to APPCB servers
n	Status of green belt	Unit has planted trees in vacant spaces and along roads in the unit. The unit has developed green belt to an extent 3.5 to 4.0 acres against APPCB requirement of 5 acres (33%)

O	Hazardous waste generation	5.5 TPD of ATFD salts and ETP sludge are the hazardous wastes generated from the unit. Though there is separate shed but hazardous waste was found lying in ETP area. Oil recovered from ETP is sold to soap manufacturers. Spent earth is disposed to incense sticks manufacturers
p	Actions taken by APPCB during last one year	APPCB has vide order dated 17.01.2020 issued directions for not complying with APPCB discharge and emission standards. The unit was again inspected by APPCB officials on 28.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 7.50 lakhs on 28.09.2020 for non compliance of the Board directions.

Overall Compliance status

APPCB issued directions to the unit vide order dated 15.02.2018. Further, the unit is not complying with APPCB directions dated 17.01.2020, no proper effluent transfer system, effluent clogging in drains, flyash and hazardous waste spillage, flyash silo of storage capacity of Two days against requirement of 30 days. Since the unit is partially complying the committee has assessed environmental compensation using CPCB formula EC=PI x N x R x S x LF

S.N	**Period of noncompliance**	**PI**	**S**	**LF**	**R (Rs)**	**N (days)**	**Environmental compensation (Rs)**
1	17.01.2020 to 14.10.2020	80	1.5	1	250/-	271	81,30,000/-
EC for violation						271	81,30,000/-
EC levied by APPCB after 17.01.2020							7,50,000/-
Total EC to be paid by unit							73,80,000/-
Rupees Seventy-Three lacs and Eighty thousand Only							

Fly ash spillage

hazardous waste storage shed

VI.E Compliance Status of M/s South India Krishna Oil & Fats Pvt.Ltd

a	Name & complete address of the unit	M/s.South India Krishna Oil & Fats Pvt.Ltd., Sy.No.275,279,280 & 281,Epuru Bit - 1B, Pantapalem (V), Muthukur (M), SPSR Nellore Dist
b	Contact Details	Sri B. Muthu Krishnan, GM +91-7799800065 vincent.paul@sioils.com
c	Geo-cordinates	14°15' 19.7"N 80° 02' 50"E
d	Area	16.12 acres
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 31.03.2022
f	Year of Commissioning	2014
g	Production capacity	Refined Oil (Physical Refining) 1000 TPD RBDPalmolein 800 TPD TBD Stearine 200 TPD Vanaspathi 200 TPD

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Palm Powder</td><td>72 TPD</td></tr>
<tr><td>Palm Flakes</td><td>50 TPD</td></tr>
<tr><td colspan="2">By Product</td></tr>
<tr><td>Distilled Fatty Acid (Physical Refining)</td><td>42 TPD</td></tr>
<tr><td>Refined Vegetable Oil (Soyabean,Sunflower,Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)</td><td>192 TPD</td></tr>
<tr><td colspan="2">By Product</td></tr>
<tr><td>Distilled Fatty Acid (Chemical Refining)</td><td>0.488 TPD</td></tr>
<tr><td>Acid Oil</td><td>4.0 TPD</td></tr>
<tr><td>Soap Stock</td><td>8.0 TPD</td></tr>
<tr><td>Wax</td><td>2.05 TPD</td></tr>
</table>
</td></tr>
<tr><td>g</td><td>Coal and flyash storage</td><td>Unit is generating 14 TPD of flyash and is equipped with ash pneumatic conveying system for conveying ash from different points to ash silos and ash shed to avoid the ash escaping into the air.
Ash storage yard having a capacity of 30 days including silo & closed storage shed. Lot of fugitive dust is emitted while loading from storage shed into trucks.</td></tr>
<tr><td>h</td><td>Source of water and quantity of water used per day</td><td>
<table>
<tr><td>Source of water</td><td>Consumption in KLD</td></tr>
<tr><td>Process & washings (physical & chemical)</td><td>21.0 KLD</td></tr>
<tr><td>Cooling Make up</td><td>319.0 KLD</td></tr>
<tr><td>Boiler</td><td>586.0 KLD</td></tr>
<tr><td>Domestic</td><td>23.0 KLD</td></tr>
<tr><td>Total</td><td>949 KLD</td></tr>
</table>
Though the unit has obtained permission to withdraw 360 KL of ground water but entire water requirement of 949 KLD is met from tankers.
</td></tr>
</table>

I	Effluent generation	

Source	Effluent generation
Trade effluents (Boiler & Cooling tower blow down, Process, Primary dual RO, back wash)	136.0 KLD
HTDS effluents from Acid plant and dual RO rejects	53.0 KLD
Primary RO rejects	93.0 KLD
Domestic	16.0 KLD

ETP of 300 KLD & Dual RO Plant, MEE of 18 KLD followed by ATFD provided to meet ZLD .
STP of 20 KLD provided for domestic purposes.
ETP comprises of Collection tank, Oil & grease trap, Equalization tank, Primary clarifier,
Aeration tank 1 & 2, buffer tank, Secondary clarifier, Sludge drying beds &
Filter Press, Pressure Sand filter, activated carbon filter etc.
The effluent is transferred in drain which is completely clogged. Thick oily scum is accumulated on the surface of aeration and clarification tank. Aerator was not working. Effluent and oil spillage in production block and ETP section. The unit has not installed rain water harvesting pits.

Table VI.e 1: Analysis results of samples collected by APPCB during 18.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	MEE condensate	MEE concentrate
1	pH	5.5-9.0	6.99	7.02	4.89	6.99	5.62
2	TSS	200	132	86	156	12	145
3	TDS	2100	2982	1874	**32669**	128	**36278**
4	COD	250	456	216	**90800**	72	**38000**
5	BOD	100	146	68	29056	16	12160
6	Oil & grease	10	12.4	6.2	16.5	---	17.0

From the analysis results it is evident that MEE is not properly operated, the concentration of COD and BOD is high in MEE feed rather than in MEE concentrate. There is only slight variation in TDS concentration in MEE feed and concentrate.

<table>
<tr><td>j</td><td>Installation of magnetic flow meters with totalizer</td><td>Flow meters with totalizers at ETP inlet, Primary clarifier outlet, RO inlet, RO outlet, ATFD inlet, MEE outlet.</td></tr>
<tr><td>k</td><td>Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location</td><td>
<table>
<tr><td>Boiler of capacity 1x24 TPH</td><td rowspan="3">Mechanical dust collectors fol.by bag filters</td></tr>
<tr><td>Boiler of capacity 1x15.0 TPH</td></tr>
<tr><td>Thermo Syphon 1x20 Lakh.k.cal.</td></tr>
<tr><td>Thermic Fuel Heater 2x6 Lakh. K.cal/hour</td><td>Mechanical dust collectors fol.by bag filters</td></tr>
<tr><td>4x750 KVA D.G. Sets</td><td>Acousic enclosures</td></tr>
</table>
The unit has installed online emission monitors to measure SPM and is connected to APPCB server.

Table: Stack monitoring by APPCB on 16.06.2020.
<table>
<tr><td>Source</td><td>SPM measured value</td><td>APPCB emission standards</td></tr>
<tr><td>Stack attached to 16 TPH boiler</td><td>105.8 mg/Nm^3</td><td>115 mg/ Nm^3</td></tr>
</table>
Table: Ambient air quality monitoring by APPCB on 16.06.2020
<table>
<tr><td>Source</td><td>PM_{10} measured value</td><td>APPCB standards</td></tr>
<tr><td>Near the main gate within unit premises</td><td>89.5 µg/m^3</td><td>100 µg/m^3</td></tr>
</table>
The unit is complying with stack emissions and ambient air standards. Odour problem was observed in the industry.</td></tr>
<tr><td>l</td><td>Status of installation of online stack monitoring equipment</td><td>OCEMS installed in both the chimnies attached to Boiler -24 TPH & common chimney provided to 15 & 16 TPH boilers which is connected to APPCB Server.</td></tr>
<tr><td>m</td><td>Status of green belt</td><td>Unit has planted trees in vacant spaces and along roads in the unit. The unit has developed green belt to an extent 3.5 acres against APPCB requirement of 5 acres (33%). The unit has developed 1.0 Acre of green belt towards South Side outside of the industry.</td></tr>
</table>

N	Hazardous waste generation	0.6 TPD of ATFD salts and 0.037 TPD of ETP sludge are the hazardous wastes generated from the unit. Though there is separate shed but hazardous waste was found lying in ETP area. Oil recovered from ETP is sold to soap manufacturers. Spent earth is disposed to incense sticks manufacturers
o	Actions taken by APPCB during last one year	APPCB has vide order dated 17.01.2020 issued directions for not complying with APPCB discharge standards. The unit was again inspected by APPCB officials on 28.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 10.0 lakhs on 28.09.2020 for non compliance of the Board directions.

Overall Compliance status

APPCB issued directions to the unit vide order dated 15.02.2018. The unit has taken steps for improvement like compliance of stack, AAQ and ETP discharge standards.

MEE shall be operated properly

Further, the unit is not complying with APPCB directions, no proper effluent transfer system, effluent clogging in drains, flyash and hazardous waste spillage, flyash silo of storage capacity of Five days against requirement of 30 days. Since the unit is partially complying the committee has assessed environmental compensation using CPCB formula EC=PI x N x R x S x LF

S.N	**Period of noncompliance**	**PI**	**S**	**LF**	**R (Rs)**	**N (days)**	**Environmental compensation (Rs)**
1	17.01.2020 to 14.10.2020	80	1.5	1	250/-	271	81,30,000/-
EC for violation						271	81,30,000/-
EC levied by APPCB on or after 17.01.2020							10,00,000/-
Total EC to be paid by the unit to APPCB							**71,30,000/-**
Rupees Seventy- One lacs and thirty thousand Only							

VI.F Compliance Status of M/s. Santhoshimatha Oils and Fats Private Limited

a	Name & complete address of the unit	M/s. Santhoshimatha Oils and Fats Private Limited, Sy.No.252, Epuru Bit-IB, Pantapalem Village, Muthukur Mandal, SPSR Nellore District
b	Contact Details	Sh. Ganesh Vidhun Kota ganeshvk@smoils.com 9963329792
c	Geo-cordinates	14°15' 18.1"N 80° 02' 39.1"E
d	Area	5.52 acres
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 31.01.2022
f	Year of Commissioning	2016

<table>
<tr><td>G</td><td>Production capacity</td><td><table><tr><td>Refined Palm oil</td><td>225 TPD</td></tr><tr><td><u>By product</u></td><td></td></tr><tr><td>Distilled Fatty Acids</td><td>15 TPD</td></tr></table></td></tr>
<tr><td>h</td><td>Coal and flyash storage</td><td>Unit is generating 8 TPD of flyash and has installed ash silo of 30 tonnes(4- 5 days storage capacity). In addition a covered shed is provided for flyash storage.</td></tr>
<tr><td>i</td><td>Source of water and quantity of water used per day</td><td><table><tr><td>Source</td><td>Water consumption</td></tr><tr><td>Process & Wash</td><td>12 KLD</td></tr><tr><td>Boiler Feed & Cooling Tower Make up</td><td>70 KLD</td></tr><tr><td>Domestic</td><td>8.0 KLD</td></tr><tr><td>Total</td><td>90 KLD</td></tr></table>
The unit has obtained permission from Ground Water and Water Audit Department, Government of Andhra Pradesh vide order dated 01.10.2020 to draw 70 KLD of ground water. Previously the water requirement was met through tankers. As per the Ground water report the quality of ground water is moderate saline in nature. The water is procured through tankers.</td></tr>
<tr><td>j</td><td>Effluent generation</td><td><table><tr><td>Trade effluents</td><td>20 KLD</td></tr><tr><td>Domestic</td><td>5.0 KLD</td></tr></table>
The unit is involved in only physical refining and only LTDS effluent is generated. The effluent is treated in ETP of 50 KLD followed by RO Plant. ETP comprises of bar screens, oil & grease trap, equalization cum neutralization tank, aeration tank, primary clarifier, aeration tank, secondary clarifier, sand filter, carbon filter, sludge drying beds. ETP outlet is treated in RO plant of 5m3/hr capacity. The treated effluent is utilized for green belt development and RO reject is used for ash quenching.</td></tr>
</table>

TableVI.f 1: Analysis results of samples collected by APPCB during 19.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	RO feed	RO permeate	RO reject
1	pH	5.5-9.0	4.94	6.69	7.56	7.11	7.28
2	TSS	200	183	150	160	140	120
3	TDS	2100	4506	**2844**	1310	521	**3460**
4	COD	250	860	**320**	104	20	96
5	BOD	100	326	**112**	22	2.8	15
6	Oil & grease	10	22.4	**18.3**	40	BDL	BDL

The unit is not complying with effluent discharge standards with respect to TDS, COD, BOD and Oil & Grease. The RO reject is having TDS higher than the APPCB discharge limits and hence RO reject shall be recycled back to ETP for treatment.

k	Installation of magnetic flow meters with totalizer	Flow meters with totalizers at inlet and outlet of ETP
l	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	Boiler of 8.0 TPH — Mechanical dust collectors fol.by bag filters Thermic Fluid Heater -15 Lakh. K.cal/hr DG sets of 1x750 KVA, 1x125 KVA — Accoustic enclosures

Table VIf 2: Stack monitoring at by APPCB on 16.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 8TPH & boiler	92.5 mg/ Nm3	115 mg/ Nm3

Table VI f 3: Ambient air quality monitoring by APPCB on 16.06.2020

Source	PM10 measured value	APPCB emission standards
Near the main gate within unit premises	**118.5 µg/m^3**	100 µg/m^3

The unit is not complying with ambient air standards.

M	Status of installation of online stack monitoring equipment	The industry has installed small boiler of 8.0 TPH , hence not installed Online Stack monitoring.
n	Status of green belt	Unit has planted trees in vacant spaces and along roads in an extent of 1.4 Acres. But unit is yet to develop green belt in 0.4 acres of land to meet 33%.of Green belt area.

O	Actions taken by APPCB during last one year	APPCB vide order dated 17.01.2020 issued directions for not complying with APPCB discharge and emission standards. The unit was again inspected by APPCB officials on 28.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 5.0 lakhs on 28.09.2020 for non compliance of the Board directions.
p	Overall Compliance status **The industry is not a respondent in the Hon'ble NGT OA No 221/2015 as the industry was not established at that time. But as it is located in the cluster at present, the APPCB issued directions to the unit vide order dated 15.02.2018. This is small scale edible oil refinery unit operating with only physical refinery section with 225 TPD capacity.** The unit has taken steps for improvements. Further, the unit is not complying with APPCB directions, flyash silo of storage capacity of Four days against requirement of 30 days, not meeting the effluent discharge standard and ambient air quality.	
  ETP section		

VI. G Compliance Status of M/s. 3F Industries Limited

a	Name & complete address of the unit	M/s. 3F Industries Limited (Formerly Foods fats & Fertilizers Ltd.,) Sy.No. 1604, APIIC- IALA, EPURU 1-B Pantapalem (V) Muthukuru (M) SPSR Nellore Dist.
b	Contact Details	P. Srinivasa Rao, Plant Manager 91-9642225502 psrao@fff.co.in

<table>
<tr><td>c</td><td>Geo-cordinates</td><td>14°15' 28.8"N 80° 04' 09.4"E</td></tr>
<tr><td>d</td><td>Area</td><td>11.62 acres</td></tr>
<tr><td>e</td><td>Status of CFO & Authorizations and its compliance</td><td>The CFO and Authorization are valid till 31.03.2022</td></tr>
<tr><td>f</td><td>Year of Commissioning</td><td>2011.</td></tr>
<tr><td>g</td><td>Production capacity</td><td><table>
<tr><td>Refined Edible Oils (Physical Refining)</td><td>670.166 TPD</td></tr>
<tr><td>Refined Edible Oils (Chemical Refining)</td><td>100 TPD</td></tr>
<tr><td>Vanaspathi & Bakery Shortenings</td><td>90 TPD</td></tr>
<tr><td>Margerine</td><td>30 TPD</td></tr>
<tr><td>Fatty Acids</td><td>200 TPD</td></tr>
<tr><td>Toilet Soap Noodles</td><td>50 TPD</td></tr>
<tr><td colspan="2">BY PRODUCT</td></tr>
<tr><td>Fatty Acids</td><td>27.74 TPD</td></tr>
<tr><td>Glycerine</td><td>18 TPD</td></tr>
<tr><td>Pitch Oils</td><td>7 TPD</td></tr>
<tr><td>Filter Cake/ Spent Earth</td><td>1.22 TPD</td></tr>
<tr><td>Fatty acids/ Acid Oils</td><td>3.35 TPD</td></tr>
</table></td></tr>
<tr><td>h</td><td>Coal and flyash storage</td><td>Unit is generating 27 TPD of flyash. Unit has provided ash silo of 60 Tonnes capacity which is sufficient for ash storage for 2 days against APPCB direction of 30 days storage.</td></tr>
<tr><td>i</td><td>Source of water and quantity of water used per day</td><td><table>
<tr><td>Source</td><td>Water consumption</td></tr>
<tr><td>Process & Washings</td><td>50.0 KLD</td></tr>
<tr><td>Boiler make up & Cooling tower make up</td><td>360 KLD</td></tr>
<tr><td>RO reject water (used for cooling tower makeup)</td><td>253 KLD</td></tr>
<tr><td>Total</td><td>663 KLD</td></tr>
</table>Entire water requirement of 663 KLD is met from Tankers.</td></tr>
<tr><td>j</td><td>Effluent generation</td><td><table>
<tr><td>Source</td><td>Quantity of effluent</td></tr>
<tr><td>Process & Washings Boiler blow down, Cooling tower bleed off, Acid Oil plant waste water</td><td>152 KLD</td></tr>
<tr><td>Fresh Water RO rejects</td><td>110 KLD</td></tr>
<tr><td>Domestic</td><td>15 KLD</td></tr>
</table></td></tr>
</table>

		ETP of 200 KLD & RO plant , MEE-100 KLD provided with ATFD to meet ZLD system. Septic tanks followed by soak pits are provided for treatment of domestic effluents. On the day of inspection, it was observed that the ETP was not in operation. Thick Sludge was deposited in ETP section. The oil was spilled all over the plant. MEE and ATFD were not properly operated. The pumps were not working and effluent was leaking. There was no proper effluent transfer system from production block to ETP. There were lot of temporary arrangements.

TableVI.g 1: Analysis results of samples collected by APPCB during 23.06.2020

S.No	Parameter in mg/L except pH	APPCB standard	Inlet of ETP	Outlet of ETP	MEE feed	Ro feed	RO permeate	RO reject
1	pH	5.5-9.0	5.34	6.85	7.92	7.53	7.09	5.74
2	TSS	200	160	90	204	76	54	4
3	TDS	2100	3772	1248	5826	1248	3134	430
4	COD	250	1580	232	3580	128	368	12
5	BOD	100	410	68	1124	40	106	1.8
6	Oil & grease	10	22.4	9.0	20.8	1.8	1.2	BDL

The Outlet of ETP is meeting the Board stipulated standards. The MEE is not in operation during the Board officials inspection and sample collection. ON the day of committee inspection MEE was not in operation.

K	Installation of magnetic flow meters with totalizer	Flow meters with totalizers at ETP inlet, MEE inlet and outlet
L	Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location	Boiler of capacity 1x35 TPH — ESP Boiler of capacity 1x2.0 TPH — Bag filters Boiler of capacity 1x8 TPH; Fuel: Coal/Husk — Bag filters Thermo Fluid heater of capacity 1x20.0Lakh.k.cal/hr; Fuel: Coal/Husk — Bag filters Thermo Fluid heater of capacity 1x40 Lakh.k.cal/hr; Fuel: Coal/Husk — Bag filters Thermic Fluid heater of capacity 1x6 Lakh.k.cal/hour; Fuel : Coal/Husk — Dust collectors Coal Mill of capacity 10 TPH — Bag filters DG sets of 3x750 KVA — Acoustic enclosure The unit has installed online emission monitors to measure SPM and is connected to APPCB server.

Table VIg 2: Stack monitoring at by APPCB on 23.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 35TPH boiler	**133.5 mg/Nm3**	115 mg/Nm3

Table VI g 3: Ambient air quality monitoring by APPCB on 23.06.2020

Source	PM10 measured value	APPCB emission standards
Near the main gate within unit premises	**138.6 µg/m^3**	100 µg/m^3

The unit is not complying with stack emissions and ambient air standards. Odour problem was also observed in the industry.

M	Status of installation of online stack monitoring equipment	OCEMS installed in the stack connected to 35 TPH boiler and connected to APPCB Server.
N	Status of green belt	The plantation is very sparse and is not complying with 33% of green belt.
O	Hazardous waste generation	The unit is generating 1TPD of MEE salts and 0.034 TPD of ETP sludge. The quantity of sludge generated is very less and sludge is not properly disposed.
P	Actions taken by APPCB during last one year	APPCB has vide order dated 16.02.2018 issued certain directions to the industry and forfeited Bank Guarantee of Rs.5.0 Lakhs for non-compliance of the directions. The APPCB has again issued modified directions on 17.01.2020 for not complying with APPCB discharge and emission standards. The unit was again inspected by APPCB officials on 28.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 10.0 lakhs on 28.09.2020 for non compliance of the Board directions.

Overall Compliance status

The committee observed major violations in the unit w.r.t effluent handling and treatment and sludge disposal. ETP was accumulated with sludge. The unit is not complying with emission monitoring, ambient air quality.

The industry has constructed and commissioned hydrogenated stearine and stearine beads manufacturing plant inside the existing industry without obtaining consent for establishment and consent for operation of the APPCB.

Since the unit is partially complying the committee has assessed environmental compensation using CPCB formula EC=PI x N x R x S x LF

S.N	Period of noncompliance	PI	S	LF	R (Rs)	N (days)	Environmental compensation (Rs)
1	17.01.2020 to 28.09.2020	80	1.5	1	250/-	255	76,50,000/-
2	29.09.2020 to 14.10.2020	80	1.5	1	250/-	15	4,50,000/- * 2 for repeated violation
Total EC for violation						271	85,50,000/-
EC levied by APPCB on or after 17.01.2020							10,00,000/-
EC to be paid by unit to APPCB							75,50,000/-
Rupees Seventy- Five lacs and Fifty thousand Only							

Sludge stored below clarifier

Aeration tank

Clogged drains

Secondary clarifier

VII Actions taken by APPCB

1. The APPCB is continuously reviewing the status of air pollution/ water pollution control equipments provided and compliance of the APPCB standards etc for control of pollution problems from the edible oil industries operating at Krishnapatnam port area from last Five years in connection with the O.A. NO.221 of 2015 filed before the Hon'ble NGT.
2. The status of industries with regards to compliance of the directions are reviewing before External Advisory Committee meetings held at Board office, APPCB and issuing directions time to time. It is to submit that the status of implementation of action plan by the edible oil units was reviewed before Task Force Committee at Board Office during its meetings held on 25.06.2016, 15.07.2016, 05.08.2016, 27.08.2016, 16.09.2016, 30.09.2016, 11.11.2016, 03.12.2016, 30.12.2016, 20.01.2017, 04.02.2017 & 09.11.2017.
3. The board has issued directions to the Edible oil industries on 15.02.2018, 17.01.2020 & 28.09.2020.
4. The APPCB has also forfeited Bank Guarantee amount of Rs.65 Lakhs in the year 2020 from the above 7 nos of Edible oil industries for non compliance of the APPCB directions.

VIII Overall Observations

1. Presently all edible oil units were operational but on the day of committee inspection ponly physical refining of palm oil was in operation.
2. The units have made improvements, augmentation of ETP and air pollution control devices. The units have installed facilities like ETP followed by RO, MEE & ATFD to achieve " Zero Liquid Discharge" but there are no proper effluent transport system. But units are yet to achieve 100% compliance to consent conditions of APPCB. All units shall make improvements in drains/ pipelines used for transporting effluent from production block to ETP. The units shall ensure that storm water is not mixed with effluent.
3. The flyash generated from the units is sold to brick manufacturers. The units have provided ash silo and covered shed for storage of flyash. But the units are not complying with APPCB condition of 30 days silo capacity. The units represented to the unit that installation of such large silo is difficult. The flyash is sold to brick manufacturers at frequency of two to three days in a week. Since the condition was imposed by APPCB, the committee suggests APPCB to review the condition.
4. APPCB is continuous vigil on the edible oil units and issued directions, forfeited bank guarantees due to which no discharge of effluent outside the unit premises was observed during committee inspection.
5. Based on CPCB formula the committee has assessed environmental compensation on the the erring units for violating the directions issued by APPCB vide order dated 17.01.2020.
6. Fly ash is being dumped in the North-Eastern Direction of M/s Emami Agrotech Ltd in public lands adjacent to M/s Gemini Edible and M/s Emami Agrotech. The land does not belong to any edible oil unit, and none of the industry are ready to take responsibility for

removing the flyash. Since the flyash is dumped in land adjacent to M/s Emami and M/s Gemini, both of these industries as part of CSR activity will take complete responsibility to remove the dumped flyash and send it to brick manufacturers.

7. The committee submits to Honble NGT that the units shall carry out performance evaluation of ETP and ZLD system. Based on the TDS concentration in RO reject, the unit shall either treat RO reject in ETP or MEE. (If TDS> 5000mg/l in RO reject, it may be treated in MEE or else in ETP). The units in any case shall not discharge the RO reject without further treatment.

IX Conclusions

1. Construction of CETP: Previously all the units had proposed for construction of common effluent treatment plant but the district administration and the units could not find a suitable land for construction of CETP. Currently all seven units have established their individual effluent treatment plants and hence the proposal of CETP is shelved.

2. As per the Ground Water and Water Audit Department, Government of Andhra Pradesh, the ground water in the region is saline in nature due to sea water intrusion. The units have to treat the ground water in RO system for use for domestic and industrial purpose. Due to high salinity there are high chances of frequent clogging of RO membranes. In addition, the available ground water resources are not sufficient to meet the industrial water requirements. Considering this the committee recommends that all edible oil units in Krishnapatnam Port area to install common desalination plant thereby sea water may be drawn, treated and to be used by all edible oil industries by requesting the management of the Krishnapatnam port Ltd who is nodal agency for importing the crude edible oil on behalf of the edible oil industries management. Thereby withdrawal of ground water and procurement of water from tankers will be avoided. The units shall install desalination plant within a period of one year and entire water requirement has to be met from desalination only. The units shall install electromagnetic flow meters with totalizer to quantify the water consumption.

3. The units have not disposed spent nickel catalyst to authorized re-processors stating that the small quantity of waste is generated. The committee submits to Hon'ble NGT to instruct APPCB to direct APPCB to safely store the spent nickel catalyst and to dispose the same to authorized re-processors. The units shall be directed to comply with Hazardous Waste Rules, 2016 and shall dispose the hazardous wastes as directed in the consent within 90 days period.

4. During the inspection, the committee did not observe any discharge of effluent into the Budhakaluva drain, Pantapalem irrigation channel or into land outside the industry premises. But however, in all the units except M/s Adani Wilmar unit-I, there is no proper effluent conveyance system/ pipelines to transfer effluent from production blocks to effluent treatment plant. The committee observed that open drains were used for effluent transfer and during rains, effluent and rain water may overflow into the

peripheral drains (drains are provided all along the boundary of the units to collect the effluent). The units informed that during rains, water/effluent is taken to ETP from peripheral drains and no effluent is let out of the unit. The units shall be directed to close the peripheral drains at the exit point near unit boundary. The drains used for transfer of effluents from production block to ETP are clogged, thick oily scum is floating on top and sludge is settled at bottom of drains. Under these circumstances very little effluent may be transferred to ETP and effluent may overflow into area/ soil adjacent to the drains. The committee submits to Hon'ble NGT to instruct APPCB to direct the industries to establish proper effluent pipelines within a period of two months of adequate size to transfer effluent from production block to ETP and for utilization of treated effluent. The pipelines shall be periodically cleaned and cleaning water shall be routed to ETP to prevent any clogging. The status of cleaning shall be submitted to APPCB while submitting compliance reports.

5. The units shall maintain proper records for fullers earth (bye-product) generated and oil recovered from the ETP and its mode of its disposal. Though all units informed that the same were disposed for incense sticks manufacturer and soap industries, however no records were shown to committee.

6. The units are importing crude palm oil and sunflower oil from Malaysia, Singapore and Indonesia. The Port Authorities are testing the crude oil for presence of any mineral oil and after ensuring that no mineral oil is present, the consignment is handed to the units. While verifying the documents, the committee observed that the quantity of the imported crude is around 60% to 70% of the unit production. The units are locally procuring crude oil from other industries (it was reported that these industries purchase palm and sunflower from farmers and extract crude and sell to edible oil refineries in Krishnapatnam). The crude that is locally purchased is not tested for the presence of mineral oil content or Hydrocarbons. The committee humbly submits to Hon'ble NGT that the units have to carry out mineral oil test with every batch of consignment locally procured also. These reports have to be submitted to APPCB along with their compliance report.

7. The flyash generated from the industries are sold to brick manufacturers. APPCB directed the units to install flyash silo of 30 day storage capacity with an objective that during rainy season, if the ash is not taken by the brick manufacturers on a daily or weekly basis, the ash could be safely stored in silo for a period of atleast 30 days and from silo it can be transferred directly into trucks. But all seven units have not complied with this condition and have installed a silo of capacity handling flyash for period varying from seven to ten days. Further it was informed to the committee that the units are disposing the flyash on alternate days and is not stored in the unit beyond a week. The committee submits to Hon'ble NGT to direct APPCB to hold a meeting with edible oil units, brick manufacturers, flyash transporters and any other flyash users and review the

direction. Fly ash is being dumped in the North-Eastern Direction of M/s Emami Agrotech Ltd in public lands adjacent to M/s Gemini Edible and M/s Emami Agrotech. The land does not belong to any edible oil unit, and none of the industry are ready to take responsibility for removing the flyash. Since the flyash is dumped in land adjacent to M/s Emami and M/s Gemini, both of these industries as part of CSR activity will take complete responsibility to remove the dumped flyash and send it to brick manufacturers.

8. The units have not made proper arrangements for flyash storage and loading into the trucks. It was observed during inspection that lot fugitive dust was emitted during loading operations. The units shall ensure wetting or water spraying at the time of loading of flyash and also the feeding hopper is covered.

9. The committee has assessed environmental compensation for serious violation and for not meeting conditions stipulated in the consent. The units shall pay Environmental Compensation to APPCB as summarized below:

Sl. No	Name of the Unit	Environmental Compensation to be paid by the unit to APPCB in INR
1	M/s Gemini Edibles & Fats India Pvt Ltd	**66,00,000/-**
2	M/s Emami Agrotech Limited	**1,32,50,000/-**
3	M/s. Adani Wilmar -(Unit-II)	**73,80,000/-**
4	M/s.South India Krishna Oil & Fats Pvt.Ltd	**71,30,000/-**
5	M/s. 3F Industries Limited (Formerly Foods fats & Fertilizers Ltd.,)	**75,50,000/-**

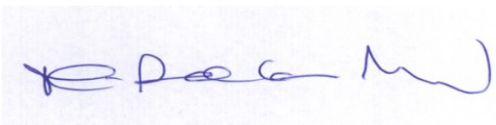
10. The units have provided online emission monitoring system to measure PM10. The porthole provided for manual monitoring are utilized by the units to install online dust monitors. The Committee submits that Hon'ble NGT instructs APPCB to direct the units to establish fresh points for online dust monitors. The units have to ensure that all the stacks connected to boilers are provided with APCD's and OCEMS including the stand-by boilers. The units shall augment their pollution control devices so as to ensure that they comply with the standards stipulated by APPCB. The units shall take measures to prevent fugitive dust generated during loading, unloading of raw materials, products, flyash etc so as to meet the National Ambient Air Quality Standards.

11. The units shall upgrade the effluent treatment plants, periodically remove the accumulated sludge and oil from the tanks and send the same to TSDF. The units shall properly operate the ETP and ensure that they comply with the effluent discharge standards stipulated by APPCB.

12. The public roads surrounding the industries are in very poor condition due to movement of heavy vehicles. All the edible oil units shall collectively construct new concrete roads as part of CSR activity. The units shall develop green belt all along the boundary of the units and in vacant spaces and ensure that the 33% of total area is covered with green belt. In addition as part of CSR activity the units can take up compensatory green belt in public lands.

Dr. C. Palpandi
Scientist-C, Ministry of Environment Forest and Climate Change, Regional Office, Chennai

Mahima T
Scientist-D
Central Pollution Control Board
Regional Directorate, Chennai



M. Pramod Kumar Reddy, Environmental Engineer, Andhra Pradesh Pollution Control Board, Regional Office Nellore

Item No.9 BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

O.A.No.221 of 2015 (SZ)

IN THE MATTER OF:

Isanaka Vedavathi .. Applicant

Vs.

Union of India & others ... Respondent(s)

Date of hearing: 16.3.2020

CORAM: HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For applicant : Nil

For Respondent(s) : . Mrs. Me. Sarashwathy for R1

Mrs. Madhuri Donti Reddy for R2, R3 & R4

Mr. C. Seethapathy for R5

Mr. S. Giritharan for R6,R7,R9 & R10

Mrs. Niveda C.P for R8

Mrs. Lakshmi Kumaran

ORDER

The above application has been filed by the applicant, alleging that pollution is being caused on account of operation of cluster of edible oil refinery units situated in the industrial estate. Respondents 5 to 11 are some of the edible oil refinery units by whom pollution has been caused. It is alleged in the application that the edible oil refineries are discharging their untreated effluents into the drainage, thereby contaminating the surface water quality, which indirectly affects agricultural yield of the properties of the applicant. According to the applicant, they are getting water for irrigation from Budda Kalva Drain. These edible oil refineries are discharging their untreated trade effluents into this drain, affecting the quality of water and this in turn affects the fertility of the agricultural lands nearby. It is also alleged in the application that apart from draining the same into Budda Kalva Drain, they are letting the same into Pantapalem

irrigation channel as well. It is so alleged that sufficient green belt has not been provided, there by dust emission could not be suppressed, causing air pollution as well. Though the units are expected to apply the technology of "Zero Liquid Discharge", that is not being followed by them, thereby affecting the quality of water in that area. Applicant filed this application seeking the following relief:

"Issue an order of injunction restraining the respondents 5 to 11 not to discharge the edible oil industrial effluents with contaminated water into the irrigation channels and drain channels in Pantapalem village, Muthukur Manda, SPS Nellore District, Andhra Pradesh 524 323.

Issue an order of direction directing the respondents 1 to 4 to remove industrial contaminated wastes and effluent water on the water channels which were discharged by the respondents 5 to 11.

Issue a direction to remediate and restore the water cannels, agricultural fields and the water tanks to the original position due to water pollution and other environmental damages arising out of effluents released from the edible oil refineries by the respondents 5 to 11"

2. First respondent filed counter statement contending that the application has been filed alleging that pollution is being caused on account of operation of the edible oil refinery units and that will have to be regulated under the Water (Prevention and Control of Pollution) Act, 1975 and Air (Prevention and Control of Pollution) Act, 1981 and the respective State Pollution Control Boards have to take action against the violating units. The MoEF & CC has notified effluent standards for edible oil and vanaspati industry at Serial No.67 in schedule I of the Environment (Protection) Rules, 1986 wherein waste water discharge standards are also notified. The concerned State Pollution Control Board, being the regulating authority, has to take action against the erring units, if there is any violation.

3. Second respondent filed counter statement contending that the Rolling Task Force, a team of officials constituted by the Board, has inspected the seven edible oil refinery units which have been arrayed as respondents 5 to 11 and submitted a detailed report on various issues like non compliance of water and air pollution control aspects, depletion of surface water level, instances of illegal discharge of untreated trade effluents into the waterbodies and inadequate air pollution control system provided by the edible oil refinery units, thereby causing air pollution and requested the Board to conduct review meetings with the edible oil refinery units. The second respondent Board conducted the review meeting on 6.7.2015 with all the edible oil refinery units operating in Krishnapattinam area and reviewed the pollution control status and directed the edible oil industries to prepare a comprehensive action plan to over come the severe pollution and environmental issues noticed by the inspection team and directed the edible oil refinery units to take measures to implement the action plan. They have conducted stack and ambient air quality monitoring of the edible oil refinery units and observed that SPM & RSPM values exceeded the prescribed norms stipulated by the Board. Respondents 5 to 11 have constructed the effluent treatment plant for treating waste water. Some of the units are not having adequate extent of land to utilize treated effluents for online applications. These industries have provided ZLD systems, as per the directions of this Board. After the receipt of several complaints from the public regarding the operation of ETPs, the Board conducted review meeting on 6.7.015, after the inspection conducted by the Rolling Task Force Team. As per the discussions during the meeting, all the managements of edible oil refinery units have submitted an action plan for the construction of common ETP, permissions from the concerned departments for drawal/allotment of water by the State Government, upgradation/rectification of the existing air pollution control systems to meet Board's standards. During the subsequent monitoring it was noticed that the SPM levels of stack emissions are not meeting the standards stipulated by the Board and also not taken steps for effective implementation of pollution control resource as committed in the action plan submitted to the

Board by the edible oil refinery units. In respect of the violations of the provisions of the APWALTA Act, 2002 for drawal of huge quantities of water from unauthorized external agencies, second respondent Board has addressed a letter to the Revenue Divisional Officer for taking necessary action against respondents 5 to 11 for causing public nuisance by letter dated 8.7.2015 and the review meeting was again held on 3.2.2016 and the Board reviewed the implementation status of the action plan proposed on 6.7.2015 during which revised time lines for implementation were submitted by the industries and the industries have been directed to stick to the revised time line and complete the action plan within nine months time. It is alleged in the counter statement that they are periodically submitting the implementation of the action plan with the representatives of the edible oil industries in task force meetings and also taken up issue with the concerned government agencies for providing of surface water and infrastructure facilities including land for construction of common treatment and disposal facilities. They have also produced the copy of the minutes of the review meeting and also the report of the task force committee.

4. The fifth respondent filed counter statement denying the allegations in the application. According to them. Adani Wilmar Ltd., is a company incorporated under the Companies Act engaged inter alia in the business of manufacture and sale of edible oil. Krishnapatnam Oils and Fats Pvt. Ltd., amalgamated with Adani Wimar Ltd., vide order of the Hon'ble High Court of Gujarat, passed in Company Petition No.309 of 2015 dated 28.10.2015 which was prior to the filing of the application. They are Zero Liquid Discharge unit and so there is no question of discharge of water effluents by fifth respondent into waterbodies or drain arise. Fifth respondent has been permitted by the Ground Water Department of the Government of Andhra Pradesh for drawal of water. Further, they were also permitted to draw water from Sarvapally reservoir. In so far as drawal of surface water is concerned, fifth respondent is operating in strict compliance of the permission granted by the Ground Water Department, Government of Andhra Pradesh.

Fifth respondent is permitted to draw 264 KLD of water per day from Sarvapalli reservoir by Chief Engineer, NTR Telugu Ganga Project, Tirupati. This helps in reducing the withdrawal of water from the ground.

5. As far as air pollution is concerned, they have provided an effective mechanism to suppress air pollution. They have installed stack monitoring system and it is being monitored by the Pollution Control Board. They have 3.5 acres of green belt within its factory premises. There is no odour nuisance caused on account of the operation of the fifth respondent unit . They are not discharging any trade effluents, causing any water pollution, as alleged, affecting the fertility of the agricultural field of the applicant. They have provided all the safeguards to meet the effluents and discharge the same within their premises, after recycling the same, for their crop. They are maintaining the standard provided for the treated effluents and also suppress air pollution. Solid waste is being transported to Ramky Enviro for disposal which is authorized by the Pollution Control Board and they are submitting the necessary periodical report to the Pollution Control Board. They are not causing any pollution, as alleged.

6. Sixth respondent also filed their counter statement stating that they are also complying with the conditions imposed by Pollution Control Board for operating their unit. They are not discharging any waste water through tankers or let out waste water outside their factory premises. They are operating effluent treatment plant and forced evaporation plant. Water is being used after recycling for their factory purpose and also for development of green belt and for ash quenching. They have installed flow meters for recording flow of water at each stream. They have established full fledged biological effluent treatment plant with two stages aeration system as per the approval given by Andhra Pradesh Pollution Control Board for treating effluents generated from process areas, washing and blow down and forced evaporation systems with a drier of high TDS effluents generated from chemical refining effluents. They are maintaining the parameters fixed by the Pollution Control Board. They have approached the

District Collector for allotment of land for CETP and as per his advice, they met APHC ZM and MRO to identify suitable land. To conduct the feasibility study of CETP, work order has been issued to NEERI. As regards management of solid waste, they have approached District Collector, Nellore to allot abandoned mine for disposal of solid waste and identified one mine belonging to M/s. Penna Cements at Nalagonda. They have agreed to take solid waste/ETP sludge to co incinerate in the kiln. The details have been submitted to MRO for further processing. The Regional Office of the Pollution Control Board has forwarded the report to the zonal office for further action in this regard. They have installed necessary equipments to suppress air pollution. They have provided closed shed for coal/husk storage wit covered conveyors and ash storage shed as per the directions of Pollution Control Board. They have taken all necessary precautions to suppress air as well as water pollution. They are complying with the pollution control norms as fixed by Pollution Control Board. They have also created necessary green belt within their unit.

7. Seventh respondent filed detailed counter statement, more or less in tune with the contentions raised by the other edible oil refinery units, reiterating that they are complying with all the necessary pollution control norms and there is no possibility of any water or air pollution caused on account of their operation. They are purchasing water from outside vendors as adequate quantity of water has not been supplied by the Government. Necessary representations have been made to District Collector and Commissioner of Industries to provide some mechanism for supply of adequate water for their purpose. They have installed all necessary pollution control mechanism to suppress air pollution. They have made arrangement for disposal of their hazardous solid waste as well as other wild waste, including sludge from ETP to Ramkay Enviro Engineers, who are the approved agency for disposal of such waste, as authorized by Pollution Control Board. The are also undertaking Corporate Social Responsibility activities for the welfare of the local people.

8. Eighth respondent also filed a detailed counter statement, more or less adopting the contentions of the other edible oil refinery units, reiterating that they are also implementing all precautionary methods and provided all necessary pollution control mechanism and there is no possibility of air or water pollution being caused on account of their operation. This respondent also reiterated the source of water from which they have obtained water. They are complying with all pollution norms, as fixed by Pollution Control Board.

9. Ninth respondent filed counter statement, more or less adopting the contentions of other edible oil refineries, reiterating that they are complying unit and they have obtained all necessary "consent" from the Board and they have provided all necessary pollution control mechanism and they are not discharging any effluents. They have obtained necessary permission from the concerned department for drawal of water for their purpose. They are also adopting "Zero Liquid Discharge" system. The allegation that pollution is being caused on account of their operation is not correct.

10. Tenth respondent also filed counter statement, more or less in tune with the contentions raised by the other edible oil refinery units, reiterating the fact that they are complying with all the conditions and they are "Zero Liquid Discharge" unit. So there is no possibility of trade effluents being discharged into any waterbody, as alleged. They have also installed all necessary pollution control mechanism and there is no possibility of any pollution being caused on account of operation of their unit. They also obtained necessary permission from various departments for drawal of water for their purpose. They have developed green belt necessary to protect air pollution. There is no possibility of odour nuisance caused on account of operation of their unit.

11. Tenth respondent also filed an additional counter statement, reiterating that they are complying with the directions issued by Pollution Control Board from time to time and also

approached District Collector for allotment of land for CETP and necessary steps have been taken for issuing work order for this purpose.

12. Eleventh respondent also filed counter, more or less adopting the contentions raised by the other edible oil refinery units, reiterating the contentions that they have obtained all necessary "consent" and they have installed all pollution control mechanism to suppress air pollution. They are adopting "Zero Liquid Discharge" system and thereby there is no possibility of discharge of trade effluents being discharged from their unit. They have also developed necessary green belt to suppress air pollution. They have also obtained necessary permission from the concerned department for drawal of water. There is no illegal drawal of surface water, as alleged.

13. Applicant filed rejoinder to the counter statement filed by respondents, reiterating his contentions of pollution being caused on account of operation of edible oil refinery units in that area.

14. Fifth respondent filed rejoinder as per the order of this Tribunal in I.A.Nos.7 and 8 of 2019, reiterating their contentions and the pollution control mechanism adopted by them to suppress air as well as water pollution.

15. There is no representation for applicant, since long time. However, considering the fact that the issue raised is regarding pollution being caused on account of operation of the industries, there is a duty cast upon the Tribunal to find out whether there is any pollution caused on account of operation of the units and if so, what are all the necessary remedial measures to be taken to rectify the same. Applicant as well as some of the respondents filed written submissions in support of their case in the respective pleadings. We are not aware of the present status of the operation of the edible oil refinery units in the disputed area. It is not known as to whether the directions given by Pollution Control Board to suppress air or water

pollution or usage of surface water has been properly complied with by the units or not. It is seen from the report submitted by Pollution Control Board in the year 2016 that when inspections were made, certain deficiencies were found and a review meeting had been conducted, calling upon the refineries to evolve a management plan to suppress air pollution and also to submit implementation of their action plan and it is also seen that time line has been extended by nine months on an earlier occasion. We do not know what is the present status of the pollution control mechanism that is being adopted by the edible oil refinery units, including establishment of CETP or treatment of the trade effluents discharged from the industrial area. It is seen from some of the counter statements that they have approached District Collector and certain work orders have been issued for this purpose. It is not known as to whether this has been put into operation or not and if so whether it is properly functioning or not. It is also not clear as to whether the fly ash created during the process of manufacturing and refining of oil, has been properly disposed of by these units and what is the arrangements made by them for this purpose and whether that has been properly disposed in a scientific manner

16. So in order to ascertain the present status of the functioning of the edible oil refinery units and also to find out as to whether they are complying with the conditions of "consent" issued and whether the pollution control mechanism provided by them are proper and sufficient and whether they are complying with the norms and whether the "Zero Liquid Discharge" system said to have been established by them are properly functioning and whether there is any violation by any of the edible oil refinery units and if so, what is the action taken by Pollution Control Board in this regard, we appoint a joint committee, comprising of (1) a Senior Officer from the Central Pollution Control Board, Regional Office, Bangalore (2) Senior Officer from the Regional Office of MoEF & CC, Chennai and (3) Senior Scientist from Andhra Pradesh Pollution Control Board to inspect the units in question and submit a factual as well as action taken, if there is any violation found. The committee shall also go into the question as to whether the

units are strictly complying with the conditions imposed either in the “consent to operate” or any other permission granted, whether there is any violation in the use of surface water and whether necessary permission has been obtained by the units for drawal of surface water for their purpose, whether pollution control mechanism provided to suppress the air pollution or water pollution are sufficient to meet the requirements as has been provided under the Environment (Protection) Act, 1984, whether these units are properly disposing the fly ash generated during their manufacturing process and if there is any violation found, what is the action taken, including the imposition of environment compensation against the erring units on the basis of the guidelines given by Central Pollution Control Board in this regard and also what is the status of the implementation of the action plan if any, evolved during the review meeting conducted by Pollution Control Board and whether those actions have been brought into action by the units, as undertaken by them and if not, what is the action taken by Pollution Control Board against those erring units and submit a comprehensive report to this Tribunal within a period of two months through e-mail at ngtszfiling@gmail.com. Andhra Pradesh Pollution Control Board will be nodal agency for coordination and providing necessary logistic for this purpose. The Registry shall communicate this order to the above officials through e-mail immediately so as to enable them to comply with the directions of this Tribunal.

For consideration of report post on 22.5.2020.

.....J.M.

(Justice K. Ramakrishnan)

.....E.M.

(Shri. Saibal Dasgupta)

O.A.221/2015
6.3.2020
kkr

Item No.5:

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 221 of 2015 (SZ)

(Through Video Conference)

IN THE MATTER OF:

Isanaka Vedavathi,
H.No. 16-4-966, Pinakini Avenue,
Near Apollo Hospital,
Nellore – 524 003.

... Applicant(s)

Versus

Union of India
Rep. by its Secretary,
Ministry of Environment, Forest & Climate Change,
New Delhi and Ors.

... Respondent(s)

Date of hearing: 29.09.2020

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For Applicant(s): None.

For Respondent(s): Smt. Me. Saraswathy for R1.
Smt. Madhuri Donti Reddy for R2 to R4.
Sri. C. Seethapathy for R5.
Sri. D. Srinivasan for R6, R7, R9, R10.
M/s. Niveda C.P. represented
M/s. Apparajitha Vishwanath for R8.
M/s. Lakshmi Kumaran for R11.

ORDER

1. As per order dated 16.03.2020, this Tribunal had considered the pleadings in the matter and appointed a Joint Committee to inspect the area in question and directed them to submit a report and posted the case to 22.05.2020.

2. On 22.05.2020, the matter was adjourned to 16.06.2020 and on 16.06.2020, it was adjourned to 28.07.2020 and on 28.07.2020, it was adjourned to 14.08.2020 and on 14.08.2020, it was adjourned to today by successive notifications.

3. When the matter came up for hearing today through Video Conference, there is no representation for the applicant. Smt. Me. Saraswathy represented 1st respondent, Smt. Madhuri Donti Reddy represented respondents 2, 3 & 4, Sri. C.Seethapathy represented 5th respondent, M/s. Lakshmi Kumaran represented 11th respondent, M/s. Niveda C.P. represented M/s. Apparajitha Vishwanath, learned counsel appearing for 8th respondent and Sri. D. Srinivasan represented respondents 6, 7, 9 & 10.

4. Smt. Madhuri Donti Reddy, learned counsel submitted that due to Covid pandemic situation prevailing in the State, they were not able to conduct the inspection and they wanted some more time for that purpose.

5. The issue is regarding industrial pollution in the disputed area. The committee is also expected to note the fact that the matter is relating to the pollution which is pending from 2015 onwards. Though, as per the provisions of the National Green Tribunal Act, 2010, the matter will have to be disposed of within six months from the date of filing of application, this could not be disposed of so far.

6. So considering this fact, they are also expected to act swiftly to meet the situation and help the Court in disposing the case in an effective manner.

7. However, considering the circumstances we feel that one more opportunity can be given to the committee to submit the report.

8. The committee is directed to complete the exercise and submit the report as directed by this Tribunal on or before 03.12.2020 by e-filing along with necessary hardcopies to be produced as per rules.

9. The Registry is directed to communicate this order to the members of the committee by e-mail immediately so as to enable them to comply with the direction.

10. For consideration of report, post on 03.12.2020.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Saibal Dasgupta)

O.A. No.221/2015,
29th September, 2020. Mn.