

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE)

SOUTHERN BENCH, CHENNAI

ORIGINAL APPLICATION No. 221/2015

Isanaka Vedavathi

...Applicant

Versus

Union of India & 10 Ors.

...Respondents

INDEX TO TYPED SET OF DOCUMENTS FILED

ON BEHALF OF THE 11TH RESPONDENT ALONG WITH

REPLY TO THE JOINT COMMITTEE REPORT DATED 10.08.2021

M/s. Lakshmi Kumaran & Sridharan Attorneys
Raghavan Ramabadrn (E/1573b/2008)
P. Sridharan (E/10/2016)
A.Lawrence (E/1074/2008)
Mobile: 9941454954
court.mds@lakshmisri.com
Counsel for 11th Respondent

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE)

SOUTHERN BENCH, CHENNAI

ORIGINAL APPLICATION No. 221/2015

Isanaka Vedavathi

...Applicant

Versus

Union of India & 10 Ors.

...Respondents

**INDEX TO TYPED SET OF DOCUMENTS FILED ON BEHALF OF RESPONDENT
NO. 11 ALONG WITH REPLY TO THE JOINT COMMITTEE REPORT DATED
10.08.2021**

Sl.No.	Date	Description	Annexure	Page No.
1.	22.09.2021	Reply affidavit filed by the 11 th Respondent to the Joint Committee Report dated 10.08.2021		1-22
2.	10.08.2021	Joint Committee Report	1	23-93
3.	07.08.2021	Letter from the 11 th Respondent to the Central Pollution Control Board, Regional Directorate, Chennai	2	94-121
4.	2019	Report of the Central Pollution Control Board In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund	3	122-163

Date: 24.09.2021


Counsel for the 11th Respondent

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE)

SOUTHERN BENCH, CHENNAI

ORIGINAL APPLICATION No. 221/2015

S. No. 2166/2021

VIJAY C. SHAH
NOTARY
GOVT. OF INDIA
24 SEP 2021

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

...Applicant

versus

1. Union of India

(Represented by its Secretary),
Ministry of Environment, Forest and Climate change
III Floor, Prithivi Wing, Indira Paryavaran Bhavan,
Jor Bagh, New Delhi-110 003. & Others

2. Andhra Pradesh Pollution Control Board

(Represented by its Member Secretary)
A-3, Parayavaran Bhavan, Sanath Nagar, Industrial Estate, Hyderabad,
Telangana State-500 018

3. The District Collector/ District Executive Magistrate

Collectorate Buildings,
Nellore Town -524 002
SPS Nellore District, Andhra Pradesh

4. Andhra Pradesh Pollution Control Board,

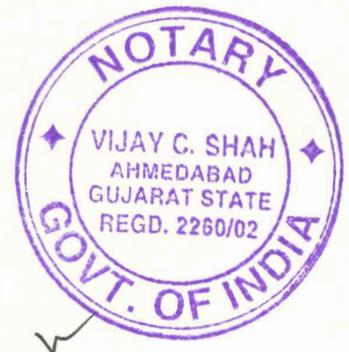
(Represented by its Regional Officer)
Regional office, Floor, A.P.S.F.C Building, A.K. Nagar,
Nellore Town & District-524 004, Andhra Pradesh

5. 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.
Andhra Pradesh- 524 323

6. M/s Saraiwvalaa AGRI Refineries Ltd

(Represented by its Managing Director)
Pantapalem Village & Post (Via) Niduguntapalem,
Muthkur Mandal, SPS Nellore District,
Andhra Pradesh- 524 323



FOR, ADANI WILMAR LIMITED

[Signature]
AUTHORISED SIGNATORY

7. M/s Gemini Edibles & Fats India Pvt Ltd

(Represented by its Managing Director)
 Pantapalem Village & Post, (Via) Niduguntapalem,
 Muthkur Mandal, SPS Nellore District,
 Andhra Pradesh- 524 323

8. M/s South India Krishna Oil & Fats (P) Ltd

(Represented by its Managing Director)
 Pantapalem Village & Post, (Via) Niduguntapalem,
 Muthkur Mandal, SPS Nellore District,
 Andhra Pradesh- 524 323

9. M/s Enami Biotech Ltd

(Represented by its Managing Director)
 Pantapalem Village & Post (Via) Niduguntapalem,
 Muthkur Mandal, SPS Nellore District,
 Andhra Pradesh- 524 323

10. M/s 3F Industrials Ltd

(Represented by its Managing Director)
 Pantapalem Village & Post, (Via) Niduguntapalem,
 Muthkur Mandal, SPS Nellore District,
 Andhra Pradesh- 524 323

11. M/s. Adani Wilmar -(Unit-II)

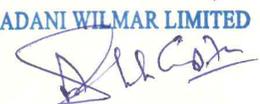
Previously M/s. Louis Dreyfus Commodities India Pvt. Ltd.,
 Sy. No.1601, Epuru Bit-1B, APIIC,
 Pantapalem (V), Muthukur (M), SPSR Nellore Dist
 Andhra Pradesh- 524 323

... Respondents

**REPLY AFFIDAVIT FILED ON BEHALF OF 11th RESPONDENT IN RESPONSE TO
 JOINT COMMITTEE REPORT DATED 10.08.2021**

I, Asheesh Gupta, S/o Late Dr. M.L. Gupta, aged about 37 years, having registered office at Fortune House, Near Navrangpura Railway Crossing, Ahmedabad-380 009 and residing at Flat No. 801, Setu Elegance, Motera, Ahmedabad 380 005, do hereby solemnly affirm and sincerely state as follows:

2. I am the Senior Manager, Legal of M/s **Adani Wilmar (Unit-II)**, the 11th Respondent herein, and the authorized signatory of the 11th Respondent. As such I am well acquainted with the facts of the case. I am authorized to file this affidavit on behalf of the 11th Respondent herein.

FOR, ADANI WILMAR LIMITED

 AUTHORISED SIGNATORY

3. A Joint Committee comprising of Representatives of the Ministry of Environment, Forest and Climate Change, Central Pollution Control Board (CPCB) and Andhra Pradesh Pollution Control Board (APPCB) (henceforth: '1st Joint Committee') had filed the "Committee Report in the matter of OA No.221/2015 submitted in compliance of Hon'ble NGT Order dated 16.03.2020 And 29.09.2020" (hereinafter: 'Joint Committee Report-I') on 01.12.2020, a copy of which was received by the 11th Respondent on 19.01.2021. The Joint Committee Report-I had stated that Environmental Compensation (henceforth: 'EC') of INR 81,30,000/- should be levied on the 11th Respondent for various acts of non-compliance.

4. It is submitted that subsequently vide Order dated 03.02.2021, this Hon'ble Tribunal while granting time to file objections to the Joint Committee Report- I had further directed as follows:

"the committee can go into the objections and come with their findings on that aspect, apart from filing their further action taken report, after considering the objections to the findings arrived at by them to this Tribunal on or before 26.03.2021"

(emphasis supplied)

5. Pursuant thereto, aggrieved by the findings contained in the Joint Committee Report- I and various incorrect observations made thereon, the 11th Respondent filed a detailed response in Reply dated 18th February, 2021 (henceforth: 'Reply dated 18.02.2021') with various material documents indicating the fact that there has been no case of non-compliance as allegedly set out in the report. The 11th Respondent was also aggrieved that the APPCB had forfeited an amount of INR 7,50,000/- out of the Bank Guarantee furnished by the 11th Respondent in gross violation of the principles of Natural Justice. Therefore, a detailed reply was filed by the 11th Respondent setting out clearly that there was no non-compliance or violation on the part of the 11th Respondent; praying for the deletion of the findings of the Joint Committee Report insofar as they are prejudicial to the 11th Respondent, and praying for cancellation of EC levied under the Joint Committee Report-I and to dismiss the above Original Application.

6. I submit that pursuant to the directions set out in this Hon'ble Tribunal's order dated 03.02.2021, a mandate was fixed on the Joint Committee to go into the objections set out by the 11th Respondent and come out with their findings on the aspects raised by the 11th Respondent. The mandate fixed by this Hon'ble Tribunal has been extracted in Paragraph 4 above.

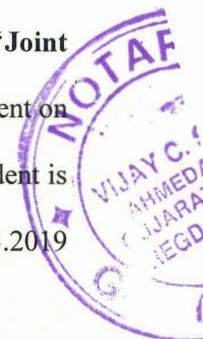
7. Pursuant thereto and pursuant to the order dated 13.07.2021 a Joint Committee comprising of the representatives of the Ministry of Environment Forest and Climate Change, Central



FOR, ADANI WILMAR LIMITED

AUTHORISED SIGNATORY

Pollution Control Board (CPCB) and Andhra Pradesh Pollution Control Board (APPCB) had filed a report titled the “Committee Report in the matter of OA No.221/2015 submitted in compliance of Hon’ble NGT Order dated 03rd February, 2020 and 13th July, 2021” (hereinafter: ‘**Joint Committee Report -II**’) on 10.08.2021, a copy of which was received by the 11th Respondent on 10.08.2021. The Joint Committee Report-II at page 12 acknowledged that the 11th Respondent is compliant with all conditions stipulated in the Consent For Operation Order dated 09.03.2019 issued to the 11th Respondent.



8. At the outset, the 11th Respondent denies all averments as contained in the Joint Committee Report -II to the extent they are prejudicial to the 11th Respondent unless they are specifically admitted herein. I submit that the 11th Respondent is fully compliant with the requirements under environmental laws and therefore none of the alleged non-compliances as set out either in the Joint Committee Report-I or by the Joint Committee Report-II merit indulgence of this Hon’ble Tribunal.

9. Without prejudice to the above submissions, the 11th Respondent is herewith setting out a paragraph-wise reply to the contents of the Joint Committee Report- II.

10. Paragraphs I and II of the Joint Committee Report are matters of record and are prefatory, and hence no response is required by the 11th Respondent.

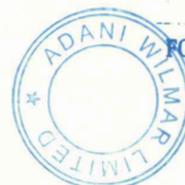
11. Paragraphs II(a), II(b), II(d) and II(e) details the compliance status of the other edible oil refineries operating in the Krishnapatnam Port region and do not concern the 11th Respondent, and thus requires no traversal. **Only the contents of Paragraph II(c) of the Joint Committee Report- II are relevant in so far as the 11th Respondent is concerned.**

12. In so far as Paragraph II(c) as contained in internal page 9 of the Joint Committee Report-II is concerned, the same are matters of admitted facts and no reply is warranted by the 11th Respondent.

A. Submissions on unsustainability of Joint Committee Reports (I and II).

A.1 The Joint Committee Report-II is cognizant of the mandate cast on it by this Hon’ble Tribunal, as apparent in the Preamble (Paragraph I) itself. However, such understanding has failed to percolate into the report as the objections of the 11th Respondent in the reply dated 18.02.2021 against the Joint Committee Report-I have not been addressed at any point.

ADANI WILMAR LIMITED



FOR, ADANI WILMAR LIMITED

 AUTHORISED SIGNATORY

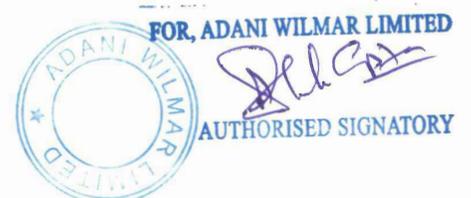
A.2 The Joint Committee has failed to discharge such mandate in as much as it has treated the Joint Committee Report- I as sacrosanct and drawn up the Joint Committee Report- II by completely ignoring all the objections of the 11th Respondent. The Joint Committee Report-II has proceeded on a prejudiced and preconceived notion that the 11th Respondent was already non-compliant and that it was required to verify 'corrective measures' implemented by the 11th Respondent.

A.3 In effect, the mandate fixed by this Hon'ble Tribunal on the Joint Committee- II was given a complete go-by. A copy of Joint Committee Report-II is enclosed as *Annexure-1* to this Reply.

A.4 I further submit that, even in the Joint Committee Report- I, the Joint Committee has proceeded on an incorrect premise that the 11th Respondent is non-complaint and has erroneously set out EC. Therefore, in the present Joint Committee Report-II, without considering the stand of the 11th Respondent, the Joint Committee has portrayed a picture as if there has been compliance by the 11th Respondent pursuant to the recommendations of the Joint Committee Report-I.

A.5 Therefore, the averments as set out in the Joint Committee Report- II are vehemently denied by the 11th Respondent herein. It is submitted that the Joint Committee has erroneously portrayed a compliant entity as non-compliant and has sought to impose EC without identifying even a single instance of pollution caused by the 11th Respondent. The Joint Committee- II has ignored the factum of compliance on the part of the 11th Respondent throughout. As a consequence, the EC imposed by the Joint Committee Report-I and reiterated in the Joint Committee Report-II is not valid and deserves to be ignored at the very threshold.

A.6 It is further submitted that the Joint Committee Report-II ought to have verified the allegations in the Joint Committee Report-I dated 01.12.2020 against the submissions made by the 11th Respondent in Reply dated 18.02.2021 and then recorded factual findings to determine if any non-compliance had actually taken place so as to warrant levy of EC. However, the Joint Committee Report-II has made no such effort and has merely repeated that EC should be levied for alleged non-compliance when the very basis for levy of EC is being disputed by the 11th Respondent. It is pertinent to submit that there is neither any response, nor demurer on the contents of the reply dated 18.02.2020 filed by this 11th Respondent, and therefore, the contents of the reply dated 18.02.2020 may be treated as not denied, and the same may be read as a part and parcel of the present affidavit.



A.7 Further, the Joint Committee Report-II also suffers from various factual inconsistencies, and therefore, the findings relating to the EC recommended to be exacted from the 11th Respondent deserves to be set aside for various reasons mentioned hereinbelow.

B. The 11th Respondent has always complied with the directions for storage and disposal of Fly ash and the Joint Committee Reports (I and II) have erred in their findings.

B.1. The Joint Committee Report- II observed that “New silo of 120 MT is under installation. Presently, the existing silo of 40 MT is under use. The unit is disposing the fly ash on alternate days. Reported that the new silo will be made operational by September, 2021. No fly ash spillage observed.” Consequently, the compliance status has been observed as “Yet to complied. Silo is under installation”.

B.2. The 11th Respondent makes the following submissions in this connection:

OA 221/2015	Observations - Joint Committee Report I	11 th Respondent's objections in Reply dated 18.02.2021	Observations - Joint Committee Report-II	11 th Respondent's objections
No Allegation against 11 th Respondent.	<p>Paragraph VI.d.(h)</p> <ul style="list-style-type: none"> - Fly ash spillage was observed; - Fly ash was disposed on alternate days whereas minimum requirement was of 10 days storage capacity 	<ul style="list-style-type: none"> - Factually incorrect; - Photographs in Report not of 11th Respondent unit; - 11th Respondent generates 24 MT fly each week, and existing silos with capacity of 40 MT could store fly ash for 15 days. - Even so, matter of record that fly ash would be disposed of on alternate days. 	Does not address submissions	<ul style="list-style-type: none"> - Non-speaking on all counts. - Disregards all submissions made and is silent on all rebuttals of 11th Respondent. - Submissions in Ground A of Reply dated 18.02.2021 are adopted in the interest of brevity. - In any event, the 11th Respondent is installing a 120MT capacity silo to be operational by 30.09.2021.

B.3. It is reiterated that the 11th Respondent is authorized to generate Fly ash upto 940 TPM (Tons Per Month) under the Consent for Operation bearing reference APPCB/VJA/NLR/161/CFO/HO/2019 dated 09.03.2019 (henceforth: ‘CFO’) was also produced by the 11th Respondent. The CFO was enclosed as **Annexure-1** to the Reply dated 18.02.2021.



FOR, ADANI WILMAR LIMITED

 AUTHORISED SIGNATORY

B.4. The 11th Respondent had raised a specific objection that was generating only 24 MT of fly ash, and extrapolated to 10 days, the fly ash output would have been only 34 MT. Thus, the existing silos with storage capacity of 40 MT would have sufficed for complying with the mandate of storing fly ash for 10 days and there was no requirement to install silos with 120 MT capacity. Nonetheless, the 11th Respondent had commenced preparations to this end only to remain compliant with the directives of the Joint Committee(s). While this is so, there is no basis to treat the 11th Respondent as non-compliant for the past period as well. The 11th Respondent has always complied with the terms of the CFO as:

- a. the actual quantity of Fly Ash generated by the 11th Respondent is far below the permitted limit, even during the period from 17.01.2020 to 14.10.2020.
- b. the Fly Ash is disposed to various brick manufacturing units as per Clause 16 of the conditions relating to Solid Waste in the CFO.

Without prejudice to the above, 11th Respondent is not liable to EC

B.5. In any case, the requirement for silos to store Fly Ash up to 30 days is a newly imposed condition brought out for the first time by the APPCB directions *vide* reference No. 149/APPCB/UH-II/TF/NLR/2020 dated 17.01.2020, to be complied in three months and the 11th Respondent immediately initiated the process for increasing storage capacity as required under the APPCB directions dated 17.01.2020, and the same will be operational by 30th September, 2021.

B.6. Further, the observation in the Joint Committee Report that the 11th Respondent should have installed silos capable of storing Fly Ash for 30 days must not be treated as final because the APPCB's instructions were subjected to review [Para 3 of Overall observations in Page 38 of the Joint Committee Report- I].

B.7. The Joint Committee Report-II is conspicuously silent on the status of review, and so the position as on date is that pending completion of the review, this requirement to install silos capable of storing Fly Ash for 30 days has not attained any finality to invoke any allegation of non-compliance on the part of the 11th Respondent. In any event, the 120 MT silo is under progress and the same has also been inspected during the visit of the members of the joint committee on 29.07.2021. Therefore, time and again the 11th Respondent has stood compliant with the requirements concerning storage of fly ash.

B.8. It is therefore submitted that the Joint Committee Report-II has wholly ignored the factum of compliance of the 11th Respondent and the explanation and submissions made by this 11th Respondent *vide* Reply dated 18.02.2021. Therefore, where there is no specific denial of the 11th Respondent's submissions in reply dated 18.02.2021, the 11th Respondent's stand is deemed as admitted and accepted by the Joint Committee. Therefore, the committee has erred in concluding that there was non-compliance on part of the 11th Respondent in relation to Fly Ash storage. The Committee has also ignored the fact that the 11th Respondent was completely compliant at all times.

B.9. This demonstrates patent non-application of mind on part of the 2nd Joint Committee and lack of discretion in levying EC. Therefore, the finding in relation to storage of Fly Ash in both the Joint Committee Report-I and Joint Committee Report – II deserves to be set aside.

C. Observations of the Joint Committee Report in relation to the Effluent Treatment Plant (ETP) :

C.1. The Joint Committee Report-II records that the 11th Respondent is compliant with the following observation:

“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. ETP is fully revamped. New MEE plant of 35 KL is installed for treatment of HTDS effluent. Reported that the Cloggings from drains were removed and treated in ETP. Presently storm water drains were clear. Flow meters and totalizer installed”

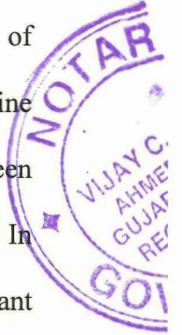
C.2. The 11th Respondent makes the following submissions in this regard:

OA 221/2015	Observations - Joint Committee Report I	11 th Respondent's objections in Reply dated 18.02.2021	Observations - Joint Committee Report-II	11 th Respondent's objections
No specific Allegation against 11 th Respondent.	<p>Paragraph VI.D (j)</p> <ul style="list-style-type: none"> - ETP was not properly maintained; - ETP sludge is stored in the open; - Effluent carrying drains were clogged 	<ul style="list-style-type: none"> - Factually incorrect; - Photographs in Report not of 11th Respondent unit. - 11th Respondent had replaced the ATFD which had depreciated due to normal wear and tear. 	Does not address submissions	<ul style="list-style-type: none"> - Non-speaking on all counts. - Disregards all submissions made and is silent on all rebuttals of 11th Respondent. - Submissions in Ground C of Reply dated 18.02.2021 are adopted in the interest of brevity.



at any given point in time, and the 11th Respondent has always complied with the requirements and would continue to remain compliant.

C.9. Insofar as the observation concerning stack emission, as contained in internal page 11 of the Joint Committee Report - II is concerned, it has been observed that the unit has installed online emission monitor system to measure SPM and is connected to APPCB server. It has further been observed that the last six months online data was verified and unit is found complying. In connection with the same, it is submitted that, the 11th Respondent has always remained compliant and would continue to remain compliant with the required requirements.



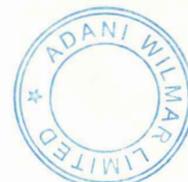
C.10. Therefore, the Joint Committee in their reports I and II and the EC so imposed in the Joint Committee Report- I and II deserves no consideration.

D. With respect to the observations regarding hazardous waste generation, the 11th Respondent has always complied with due directions for handling and discharging hazardous waste.

D.1. Insofar as the observation concerning hazardous waste generation as contained in internal page number 12 of the Joint Committee Report-II is concerned, it was observed that “5.5 TPD of ATFD salts and ETP sludge are the hazardous wastes generated from the unit and stored in separate shed and disposed to Ramky TSDF, Nellore” and the compliance status has been observed as “complying”.

D.2. The 11th Respondent makes the following submissions in this connection:

OA 221/2015	Observations - Joint Committee Report I	11 th Respondent's objections in Reply dated 18.02.2021	Observations - Joint Committee Report-II	11 th Respondent's objections
No specific Allegation against 11 th Respondent.	Paragraph VI.D (j) - Hazardous waste was found lying in ETP area.;	- Factually incorrect; - Photographs in Report not of 11 th Respondent unit. - the ETP sludge (being the hazardous waste) was taken out from sludge drying beds, bagged in HDPE bags, and kept near the sludge drying beds so that they could be shifted into the separate storage shed. The ETP Sludge is then dispatched to Waste Management Entities for further processing once in every 90 days.	Does not address submissions	- Non-speaking on all counts. - Disregards all submissions made and is silent on all rebuttals of 11 th Respondent. - Submissions in Ground G of Reply dated 18.02.2021 are adopted in the interest of brevity.



D.3. Though the status reflects as “complying”, it is pertinent to submit that in the Joint Committee Report-I, the observations in relation to the hazardous waste generation is incorrect and the same was already pointed out by the 11th Respondent in their Reply affidavit dated 18.02.2021.

D.4. It is submitted that none of the above stand of the 11th Respondent was even considered while formulating the Joint Committee Report-II. In fact there is not a semblance of about the apparent error of appending incorrect photographs not belonging to the 11th Respondent in the Joint Committee Report- I. Therefore, the Joint Committee Report- II is conspicuously silent in so far as the objections pointed out in the 1th Respondent’s reply dated 18.02.2021. Therefore, the Joint Committee- II has acted completely in derogation of the mandate prescribed by this Hon’ble Tribunal vide order dated 03.02.2021.

D.5. It is therefore submitted that for reasons mentioned above, there has been no non-compliance in this front on the part of the 11th Respondent, who continues to be compliant till date. Therefore, the very basis of alleging non-compliance on the part of the 11th Respondent, as recorded in the erstwhile report of the Joint Committee is unfounded and is wholly without any basis whatsoever. The Joint Committee Report-II has sought to justify the apparent error appearing in the earlier report and has sought to reiterate the demand for levy of EC.

D.6. I submit that the Joint Committee has turned a blind eye to the fact that the 11th Respondent diligently follows best practices in respect of hazardous waste management. In the instant case, it is reiterated that the 11th Respondent was very well compliant with obligations concerning the ETP sludge (being the hazardous waste).

D.7. It is in fact submitted that, from the pictures, (Annexure 11 filed along with 11th Respondent’s reply dated 18.02.2021), it is evident that the ETP sludge is properly contained within the bund created in the ETP area to avoid any leakages. Till date, no leakage of ETP sludge has ever occurred on the 11th Respondent’s plant. The actions of the 11th Respondent are conscientious and compliant with the prescribed norms.

D.8. It is therefore submitted that EC levied for the alleged contravention is without any actual contravention and is therefore unsustainable. The photographs referred by the Joint Committee does not even belong to the 11th Respondent. Therefore, it is prayed that the purported observations



as made in the earlier report of the joint committee, the observations made in the Joint Committee Report-II, along with levy of EC deserves to be set aside. The observations pertaining to the overall compliance status and the environmental compensation levied deserves to be set aside.

E. The levy of EC of INR 81,30,000/- is illegal. The forfeiture of Bank Guarantee of INR 7,50,000/- is unsustainable.

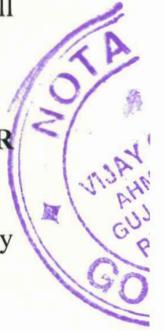
E.1. It is submitted that the computation of EC in the absence of any violation is wholly unwarranted and deserves to be set aside for the following reasons.

E.2. In this connection, it is pertinent to draw reference to the Report of the *Central Pollution Control Board In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund* issued by the Central Pollution Control Board in 2019 (enclosed as **Annexure –3** to this Reply). The EC Report has specifically set out therein, morefully *vide* Para 1.3, the cases for levying EC. None of these instances are satisfied in the instant case, as detailed hereinbelow:

Table 1- No instances warranting levy of EC have occurred

Sl.	Acts warranting EC	Whether violated by R11
a.	Discharges in violation of consent conditions, mainly prescribed standards / consent limits	NO. R11 is fully compliant with terms of CFO.
b.	Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted etc.	No Allegation.
c.	Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems.	No Allegation.
d.	Accidental discharges lasting for short durations resulting into damage to the environment	No Allegation.
e.	Intentional discharges to the environment -- land, water and air resulting into acute injury or damage to the environment.	No Allegation.
f.	Injection of treated/partially treated/ untreated effluents to ground water	No Allegation.

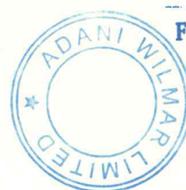
E.3. It is submitted that in the instant case, the Joint Committee(s) have applied the pollution index without establishing any violation or non-compliance. The Joint Committee Report-I nor the Joint Committee Report-II had established any damage, short-term or long-term, caused to the



environment by the 11th Respondent. Therefore, at the very threshold, the environmental compensation is incorrectly levied without any basis whatsoever and deserves to be set aside.

E.4. The formula applied to compute the EC has been set out in paragraph 1.3.1. as $EC = PI \times N \times R \times S \times LF$. The Joint Committee has applied the above formula without any justification for applying PI i.e., Pollution Index as there is no contravention that can be attributable to the 11th Respondent. It is therefore submitted that the consequent imposition of EC of Rs. 81.30 lakhs for purported non-compliance during the period 17.01.2020 to 14.10.2020 is contrary to the well-established principles governing the award of compensation.

E.5. It is further submitted that the period of computation of compensation is also arbitrary, capricious and deserves no merit. The basis for computing the environmental compensation stood on the issues concerning proper effluent transfer system, effluent clogging in drains, fly ash and hazardous waste spillage, fly ash silo of storage capacity of two days against requirement of 30 days. It is pertinent to submit that the committee has taken a uniform basis of 271 days between 17.01.2020 to 14.10.2020, ignoring the fact that non-compliances if any in relation to the issue concerning storage of fly ash is not to be reckoned from 17.01.2020. This is because, the APPCB Guidelines dated 17.03.2020 had stipulated 3 months' time for the 11th Respondent to complete installation of the silos for storing Fly Ash for upto 30 days, which is also under review currently. In any event, assuming but not admitting any purported non-compliance, the period of non-compliance ought to be reckoned after 17.06.2020. Therefore, the compensation has been arbitrarily inflated by around 152 days. Further, the entire period of EC has been reckoned from January, 2020 till October, 2020, which was the period during which the entire country was reeling on account of the several total lockdowns imposed due to the COVID-19 situation. industry. While the fact remains that the 11th Respondent has remained compliant all through, the calculation of EC for the above period, ignoring the pandemic is wholly arbitrary and capricious, and for this reason as well, the EC deserves to be ignored, especially in a situation where it is an inevitable challenge for industries to source manpower to comply with newly imposed conditions. In any event, despite the same, I submit that the 11th Respondent has remained completely compliant. It is therefore submitted that that there is no EC attributable to the 11th Respondent, it is further pertinent to mention that the computation of EC has also been arbitrarily arrived at and therefore,



the same deserves to be set aside in its entirety, especially when no justification has been provided for such an arbitrary and inflated imposition of EC.

E.6. Further, the EC has been set out based on incorrect facts, evidences not belonging to the 11th Respondent and merely based on surmises and conjectures of a purported non-compliance. Therefore, the Joint Committee Reports (I and II) along with the recommendations set out therein deserves to be set aside to the extent they are prejudicial to the interest of the 11th Respondent.

E.7. Therefore, the consequent levy of EC is illegal. Further the forfeiture of Bank Guarantee to the tune of INR 7,50,000/- is contrary to the principles of Natural Justice and must be reversed forthwith.

E.8. The levy of EC is unsustainable for the factual and legal reasons set out hereinabove.

F. *Forfeiture of Bank Guarantee is mala fide and violative of Natural Justice*

F.1. It is submitted that while the fixation of environmental compensation is by itself without any basis and deserves to be set aside, the forfeiture of the bank guarantee is *mala fide*, arbitrary and contrary to the principles of natural justice and the same is to be reversed.

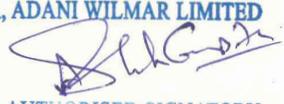
F.2. The APPCB had issued a letter with reference Lr. No. N/855/PCB/RO-NLR/2020-657 dated 07.10.2020 to the Manager, HDFC Bank Ltd. requesting that INR 7,50,000/- be forfeited out of the existing Bank Guarantee of INR 20,00,000/- and a Demand Draft be furnished in favor of the APPCB.

F.3. The Letter dated 07.10.2020 references the APPCB Directions dated 28.09.2020. However, the APPCB Directions dated 28.09.2020 did not make even a passing mention of Bank Guarantees or their revocation thereof. The above correspondences are already enclosed as **Annexures 17-18** to Reply dated 18.02.2021.

F.4. It is submitted that the conduct of the APPCB is arbitrary, untenable and reflects a high handedness on the part of Respondents 2 and 4.

F.5. In this connection, it is highly pertinent to draw reference to the letter bearing reference number No. N/855/PCB/RO-NLR/2020-657 dated 07.10.2020 addressed to the HDFC Bank Limited, Vijayawada where the 2nd and the 4th Respondent, represented through their environmental engineer, had invoked the Bank Guarantee furnished by the 11th Respondent, to an extent of Rs. 7.5 Lakhs. However, such conduct is wholly prejudicial and perverse, for the reasons that such forfeiture was ordered even while this Hon'ble Tribunal was seized of the matter and that



FOR, ADANI WILMAR LIMITED

 AUTHORISED SIGNATORY

too without ascertaining any contravention on the part of the 11th Respondent calling for the invocation of the Bank Guarantee.

F.6. In addition to the above, the authority who had invoked the Bank Guarantee, subsequently became a part of the Joint Committee which had issued Joint Committee Report-I clearly manifests a plausibility of an inherent bias in the minds of the Joint Committee- I while formulating the report recommending environmental compensation.

F.7. Therefore, it is submitted that the same authority who invoked bank guarantee without any substantial reasons subsequently justified the levy of EC without any basis, in the Joint Committee Report- I. The EC recommended without any preliminary basis was further affirmed by the Joint Committee Report- II without any application of mind whatsoever.

F.8. It is therefore submitted that the Respondents 2 and 4 have deliberately and in complete contravention of the principles of natural justice, acted as a judge of their own cause, by both invoking the bank guarantee and subsequently being a part of the committee recommending EC to be levied on the 11th Respondent.

F.9. I therefore submit that, the 11th Respondent genuinely believed that the Joint Committee- II would exercise independent judgement and adhere to the mandate prescribed by this Hon'ble Tribunal. However, since the Joint Committee- II did not adhere to the mandate prescribed and has only reiterated the EC recommended by the Joint Committee Report- I, I submit that the very existence of the authority who invoked the bank guarantee in the Joint Committee Report- I, and its report defeats the interest of justice. I submit that this Hon'ble Tribunal vide order dated 16.03.2020, vide Para 16 appointed the Joint Committee- I in the following terms:

"16 ...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."

F.10. I submit that though this Hon'ble Tribunal had directed a senior Scientist as a representative of the 2nd and 4th Respondent, nevertheless, the appointment of the same person by the 2nd and 4th Respondent, to both invoke the bank guarantee and to be a part of the Joint Committee- I and inspect the premises of the 11th Respondent on 13.10.2020 and 14.10.2020, after invoking bank



guarantee on 07.10.2020, and consequently recommend environmental compensation is contrary to the principles of natural justice.

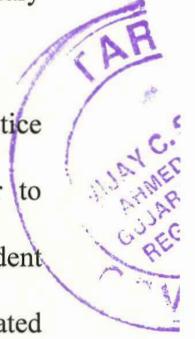
F.11. The 11th Respondent submits that the APPCB has violated the principles of natural justice by taking coercive steps to invoke the 11th Respondent's Bank Guarantee even prior to determination of EC by the Joint Committee and without so much as putting the 11th Respondent on notice to this fact. The 11th Respondent wrote to the APPCB under communication dated 13.10.2020 registering their protest on the above count. In any event, the conduct of APPCB is wholly unwarranted and arbitrary and contrary to settled principles governing invocation of bank guarantees.

13. It is submitted that the Joint Committee Report-II observed that *"the unit has taken steps for improvement and has complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is found complying with APPCB standards for Particulate Matter"*. While the compliance on the part of the 11th Respondent is a matter of fact, it is pertinent to submit that the Joint Committee(s) have failed to take note of the fact that the 11th Respondent has been in continuous compliance and there is no instance of any non-compliance with any of the environmental obligations of the 11th Respondent calling for the levy of EC.

14. The 11th Respondent submits that the Joint Committee Report (I and II) are marred by inconsistencies and is based on unreliable evidences insofar as they allege non-compliance on part of the 11th Respondent. The 11th Respondent vehemently denies the observation of any non-compliance on the part of the 11th Respondent.

15. The 11th Respondent reiterates that none of the pictures enclosed in Page 26 of the Joint Committee Report-I dated 01.12.2020 belong to the 11th Respondent and the Joint Committee Report-II dated 10.08.2021 ought to have retracted these allegations and cancelled the EC imposed thereof.

16. Instead, the Joint Committee Report-II has ignored all submissions to merely repeat the demand for EC. The 11th Respondent submits that the APPCB (2nd Respondent herein) has concluded non-compliance on part of the 11th Respondent for the period 17.01.2020 to 14.10.2020 without heeding the 11th Respondents submissions on facts.



17. In the interregnum between Paragraph II and VII of the Joint Committee Report-II, there are no contents relevant to the 11th Respondent and therefore no traversal is warranted.

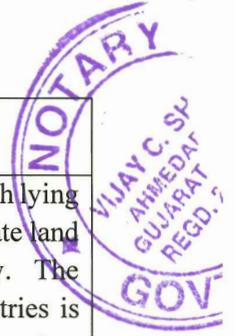
18. Paragraph VII of the Joint Committee Report-II lists out the action taken by the APPCB. No response is warranted for the facts stated therein. However, in so far as the conduct of forfeiting the bank guarantees are concerned (in paragraph VII.4), the same is vehemently objected to herein as arbitrary and violative of principles of natural justice and deserves to be set aside.

19. Paragraph VIII of the Joint Committee Report -II speaks of common issues jointly to be addressed by all edible oil industries.

Table – 2- Specific rebuttals to the *common issues*

Paragraph VIII	Observation	Response
1	<p>Issue related to drawl of water from tankers and ground water: The committee has prayed that the Hon'ble NGT direct the Andhra Pradesh Industrial Infrastructure Corporation (APIIC) and Department of Industries, Nellore to provide water supply to the industries.</p>	<p>While the recommendation concerns with APIIC, nevertheless, the 11th Respondent submits that, as a part of the 11th Respondent's reply dated 07.08.2021 addressed to the CPCB, consequent to an inspection at the site of the 11th Respondent, it has been specifically set out that recently all the industries have obtained the permission from Nellore Municipal Corporation for drawing water through the pipeline. Since laying of pipeline would take time, it was proposed to take water by tankers from Nellore till the completion of the proposed pipeline. In this connection, the permission from Nellore Municipal Corporation and the common consent from the industries were submitted. The 11th Respondent's letter dated 07.08.2021 along with the annexures referred therein are appended herewith as Annexure- 2.</p>
2	<p>Fly ash dumping: Fly ash is found dumped in low lying area to an extent of ten acres in vacant plot. All the industries informed that they are not responsible for the dumping. The committee submits to Hon'ble NGT to direct all seven industries to jointly compact the fly ash and to cover with minimum 10cm clay/ soil cover to prevent ambient dust.</p>	<p>Fly ash dumping: Insofar as this issue is concerned, there has been no violation / allegation against the 11th Respondent, and no direction whatsoever as even the Joint Committee Report I found fly ash dumped adjacent to other units not being the 11th Respondent. However, in the interest of the 11th Respondent's social commitment, in good faith and as a part of the social responsibility, all the industries have</p>

Paragraph VIII	Observation	Response
		agreed to fill clay or sand in the Ash lying on northeastern direction, on private land for the benefit of the society. The common consent of all the industries is also appended as a part of Annexure -2 to this reply.
3	Augment capacity of oil skimming: To further effectively remove oil & grease from effluent the committee suggested the industries to enhance the capacity of oil skimming. The units have collectively agreed to install one additional skimmers for removal of oil & grease in ETP.	Insofar the issue concerning oil skimmer is concerned, the same has been raised for the first time in the Joint Committee Report-II and has never been alleged in the Joint Committee Report-I, and averments set out here only reflect a suggestion to augment the capacity, and does not indicate any contravention. In any event, the 11 th Respondent submits that, an oil skimmer has already been installed as a part of the 11 th Respondent's technology, and that an extra oil skimmer shall also be installed for good separation of oil and greases. In any event, the 11 th Respondent has remained fully compliant.
4	Presently all edible oil units are fully operating the physical refining process while the units are operating the chemical refinery at 50% capacity.	No response is warranted by the 11 th Respondent.
5	Units are yet to achieve 100% compliance. 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.	The 11 th Respondent is fully compliant. The MEE Plant is being replaced due to normal depreciation and this should not be termed as wilful neglect of factory machinery. Therefore, the 11 th Respondent has always remained compliant.
6	Units are not complying with APPCB Stipulation that silos installed must have capacity to store Fly Ash for 30 days.	The 11 th Respondent has already purchased the silos with enhanced storage capacity. Without prejudice, no EC should be levied for the period till this recommendation is still under review. The 11 th Respondent, in any event is setting up the 120MT capacity silo, which is to be operational from 30.09.2021. Therefore, no non-compliance whatsoever can be attributed to the 11 th Respondent.
7	APPCB's continuous vigilance and forfeiture of bank guarantees ensured that no effluent was discharged outside premises.	The 11 th Respondent is an environmentally responsible company with rigid standards of self-governance. Any allegation that supervision of



FOR, ADANI WILMAR LIMITED

AUTHORISED SIGNATORY



Paragraph VIII	Observation	Response
		APPCB has ensured compliance is only a self-serving statement. In any event, forfeiture of bank guarantees is contrary to the principles of natural justice.
8	EC has been affixed on erring units.	The 11 th respondent is not an erring unit as they are fully compliant with all prescribed conditions. No EC is liable to be affixed on the 11 th Respondent.
9	Fly Ash is being dumped in land adjacent to Respondents No. 7 and 9	There has never been any specific allegation against the 11 th Respondent in this regard. Nevertheless, in good faith and in complying with social obligations, all industries have collectively decided to fill clay or sand in the Ash lying on northeastern direction, on private land for the benefit of the society.
10	All units to carry out performance evaluation of MEE Plant and RO plant. No unit to discharge RO reject without treatment.	11 th Respondent is already complying and will continue to comply.

20. Paragraph IV (appearing *in seriatim* after Paragraph VIII in the report) deals with the ambient air quality monitoring. The report records that APPCB monitored ambient air quality in nearby villages to verify whether the operations of the industries impact on air quality in Pantapalem, Subbareddypalem, Daruvupalem, and Epuru villages. All four villages are complying with ambient air quality standards. In this connection it is pertinent to mention that the 11th Respondent is equally responsible in ensuring ambient air quality and has remained compliant throughout their operation and continues to remain so.

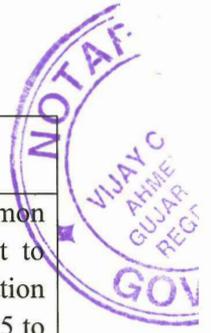
21. Paragraph IX has recorded conclusions in respect of the findings in the report. The 11th Respondent makes the following submissions against each observation specified therein, to the extent applicable to the 11th Respondent:

Table – 3- Specific rebuttals to the conclusion

Paragraph IX	Conclusion	Rebuttal
1	Construction of Common Effluent Treatment Plant ('CETP') is shelved as each unit has set up their own ETP.	11 th Respondent is not required to respond to this.
2	The committee recommended to direct the Andhra Pradesh Industrial Infrastructure Corporation	While the 11 th Respondent has been ready to participate in



Paragraph IX	Conclusion	Rebuttal
	(APIIC) and Department of Industries, Nellore to provide water supply to the industries.	setting up a common desalination plant, subject to permissions and cooperation of other Respondents No. 5 to 10, recommendations made out to the APIIC requires no traversal from the answering Respondent. However, all the industries have obtained the permission from Nellore Municipal Corporation for drawing water through the pipeline. Since laying of pipeline would take time, it was proposed to take water by tankers from Nellore till the completion of the proposed pipeline.
3	Units have not disposed spent nickel catalyst to authorized re-processors stating that the small quantity of waste is generated.	The 11 th Respondent is not required to respond to this as no such specific allegation was made against them.
4	During the inspection, the committee did not observe any discharge of effluent into the Budhakuva drain, Pantapalem irrigation channel or into land outside the industry premises.	The 11 th Respondent is not required to respond to this as no such specific allegation was made against them.
5	Units to maintain proper records for fullers earth (bye-product) generated and oil recovered from the ETP and its mode of its disposal.	11 th Respondent is already compliant and will continue to comply.
6	Units must carry out mineral oil test on every batch of crude oil which is procured locally.	11 th Respondent is already compliant and will continue to comply.
7	The Committee has recommended an environmental compensation payable by each of the units and a sum of Rs.73,80,000/- was recommended to be payable by the 11 th Respondent	For various reasons set out in the above paragraphs the 11 th Respondent is not liable to pay EC because no conditions have been violated. Further, Joint Committee Report has made baseless conclusions due to incorrect factual understanding and incorrect photographs.
8	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 units shall ensure that real time data is directly transferred from analyser to APPCB server without any interface.	11 th Respondent is already compliant and the same has also been recorded in the Joint Committee Report- I and will continue to comply.



FOR, ADANI WILMAR LIMITED

AUTHORISED SIGNATORY

Paragraph IX	Conclusion	Rebuttal
9	Fly ash is found dumped in low lying area to an extent of ten acres in vacant plot. All the industries informed that they are not responsible for the dumping. The committee submits to Hon'ble NGT to direct all seven industries to jointly compact the fly ash and to cover with minimum 10cm clay/ soil cover to prevent ambient dust.	Though no allegation is specifically levelled against the 11 th Respondent and the fly ash was found dumped adjacent to other units not belonging to 11 th Respondent, the 11 th Respondent, in good faith and in complying with social obligations, all industries have collectively decided to fill clay or sand in the Ash lying on northeastern direction, on private land for the benefit of the society.
10	Units to collectively construct new concrete roads as part of CSR activity and ensure green cover.	11 th Respondent is already compliant and will continue to comply. In this connection, it is pertinent to submit that vide 11 th Respondent's letter dated 07.08.2021, it has been set out that the 11 th Respondent and M/s. Emami Agrotech Limited have jointly agreed to undertake the activity of making approach road on priority, provided the necessary approvals are obtained. Further, the 11 th respondent has also been in constant talks with the authorities to ensure the above activities undertaken.

22. The 11th Respondent submits that severe prejudice has been caused to their case by virtue of the Joint Committee Report, which has adduced unreliable evidences. Further, the Joint Committee Report-II has not considered any of the objections raised by the 11th Respondent and has proceeded to rudimentarily levy environmental compensation without any basis whatsoever. In this connection, the 11th Respondent seeks to place on record that the 11th Respondent, time and again vide various affidavits, including vide the counter affidavit to the above Original Application have elaborately set out the factum of compliance maintained throughout by the 11th Respondent and no violation or non-compliance whatsoever can be attributable to the 11th Respondent. The various affidavits filed by the 11th Respondent from time to time may be read as part of the present affidavit as the same are not elaborated herein in the interest of brevity.



23. In this connection, it is further pertinent to submit that the above Original Application does not set out any of the allegations of pollution caused by the 11th Respondent. The allegations as levelled in the Joint Committee Report- II ignoring the mandate fixed by this hon'ble Tribunal is nothing but an afterthought attempt to portray a picture of non-compliance to justify the purported environmental compensation. Therefore, such an attempt to portray non-compliance, ignoring the factual position and recommendation of EC in the absence of any contravention merits no indulgence. In any event, the 11th Respondent has set out a detailed counter to the averments set out in the Original Application, establishing the compliant status of the 11th Respondent, and the same is adopted herein.

24. The 11th Responded craves leave to raise additional grounds and adduce additional evidences, should the need arise, during the course of the proceedings.

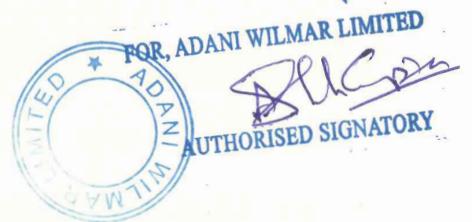
25. In these circumstances, it is prayed that this Hon'ble Court may be pleased to dismiss the OA 221 of 2015 to the extent it is prejudicial to the case of the 11th Respondent and thus render justice.

PRAYER

It is, therefore, respectfully prayed that this Hon'ble Tribunal may be pleased to pass orders for-

- (i) Rejection of the recommendations of the Joint Committee Report(s) dated 01.12.2020 and 10.08.2021 insofar as they are prejudicial to the 11th Respondent;
- (ii) Setting aside the Environmental Compensation imposed under the Joint Committee Report dated 01.12.2020 and reiterated in the report dated 10.08.2021 insofar as the 11th Respondent is concerned;
- (iii) Setting aside the forfeiture of bank guarantee and consequentially direct the refund of Rs. 7,50,000/- by the 4th Respondent;
- (iv) Dismissing the Original Application No. 221/2015 insofar as it concerns the 11th Respondent; and
- (v) such other Orders as this Hon'ble Tribunal may deem fit and necessary in the interests of justice.

Solemnly affirmed at Ahmedabad on)
 this the 24th September, 2021)
 and signed his name in my)
 Presence.)

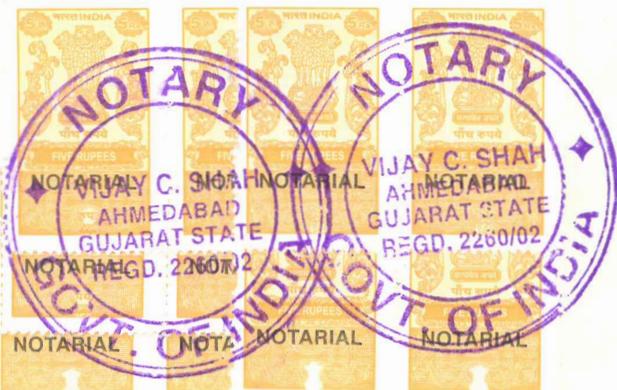
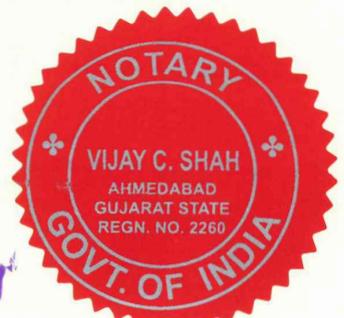


BEFORE ME,

ADVOCATE, AHMEDABAD

SOLEMNLY AFFIRMED
 BEFORE ME

VIJAY C. SHAH
 NOTARY
 GOVT. OF INDIA



**BEFORE NATIONAL GREEN TRIBUNAL
SOUTHERN BENCH, CHENNAI
ORIGINAL APPLICATION No. 221/2015**

COMMITTEE REPORT IN THE MATTER OF O.A. NO.221/2015 SUBMITTED TO
HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN BENCH, CHENNAI IN COMPLIANCE
TO HON'BLE NGT ORDER DATED 03rd FEBRUARY, 2021 AND 13th JULY, 2021.

INDEX

Sl.No.	Description	Page No.
1	Report of the Joint Committee Comprising Representatives of Ministry of Environment Forest and Climate Change, Central Pollution Control Board (CPCB) and Andhra Pradesh Pollution Control Board (APPCB)	1-23
2	Annexure-I - Acknowledgment copy of the letter of Joint Committee Inspection report served to the Edible Oil industries	24-26
3	Annexure-II- Hon'ble NGT order copy dated 03.02.2021	27-66
4	Annexure-III- Hon'ble NGT order copy dated 13.07.2021	67-70



Ch. Rajasekhar,
Environmental Engineer,
Andhra Pradesh Pollution Control Board,
Regional Office Nellore

Date: 10.08.2021

Place: Nellore

Committee Report in the matter of OA 221/2015 (SZ)

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 03.02.2021.



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
 August, 2021



Ministry of Environment
 Forest and Climate Change



Central Pollution
 Control Board



Andhra Pradesh Pollution
 Control Board

Committee Report in the matter of OA 221/2015 (SZ)

I Preamble

Seven 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 vide order dated 16.03.2020 appointed a joint committee comprising of (1) a Senior Officer from the Central Pollution Control Board, Regional Office, Chennai (2) Senior Officer from the Regional Office of MoEF& CC, Chennai and (3) Senior Scientist from Andhra Pradesh Pollution Control Board to ascertain the status of functioning of edible oil refinery units at Krishnapatnam. In compliance to Hon'ble NGT order dated 16.03.2020, the committee inspected the edible oil units in October, 2020 and submitted the report during December, 2020. Out of seven units operating in the region, five edible oil units raised objections to the committee report. Hon'ble NGT vide order dated 03.02.2021 directed the committee to go into the objections and come with their findings on that aspect. Copy of Hon'ble NGT order dated 03.02.2021 is placed as **Annexure-I**.

In compliance to Hon'ble NGT order 16.03.2020 and 03.02.2021 the following committee was composed:

1. Dr. Suresh Babu Pasupuleti, Scientist-C, Integrated Regional Office (IRO), Ministry of Environment, Forest and Climate Change, Vijayawada
2. Smt. Mahima T, Scientist-D, Central Pollution Control Board, Regional Directorate, Chennai
3. Sri. Rajashekar, Environmental Engineer, Andhra Pradesh Pollution Control Board, Regional Office Nellore (Nodal agency)

The Committee has been vested with the mandate to review the objections raised by the edible oil units on committee report, verify the compliance status. The committee convened a meeting with the edible oil units on 25.03.2021 to understand the issues raised by them. During the meeting the five edible oil units informed the committee members that they have upgraded the treatment units, laid effluent conveyance system and presently are fully complying with all the CFO conditions stipulated by APPCB. In order to verify the ground level implementation of the corrective measures the committee inspected five edible oil units which have filed objections to committee report during 29th to 30th July, 2021.

II. The current status of edible oil industries is as follows: Post submission of committee report to Hon'ble NGT and assessment of Environmental compensation on erring edible oil units, the units have taken corrective actions on priority.

Committee Report in the matter of OA 221/2015 (SZ)

II.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	Sri SS Manna, Factory Manager +91 77299 96854		
c	Geo-coordinates	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 30.06.2026.		
f	Year of commissioning	2010		
g	Production capacity	Refined Vegetable Oil (Physical refining)- 700TPD Refined Vegetable Oil (Chemical refining)-400 TPD Fractioned vegetable oil- 600 TPD Interesterified fats- 125 TPD Vanaspathi-100 TPD <u>By-products</u> Distilled fatty acids-49.176 TPD Acid oil-6.42 TPD Spent Earth - 8.693 TPD		
	Parameter	Non-compliances observed by the committee during October, 2020	Present status of the unit during committee visit in July, 2021	Status of compliance
	Coal and fly ash storage measures taken to control fugitive emissions	Open storage of coal. The unit has installed fly ash silo of capacity 100 Tonnes (10 days storage capacity against the direction of APPCB to install silo for 30 day storage.	Separate sheds for coal and rice husk is constructed. Coal stored in closed shed of 35 mtr x 41 mtr x 3 mtr area. Total capacity 4305m ³ . Water sprinklers are installed in sheds and are working. Unit has installed two silos each of 150 Tons capacity for fkyash storage upto 30 days.	Complying

Committee Report in the matter of OA 221/2015 (SZ)



<p>Effluent generation</p>	<p>No proper effluent conveyance system, no proper mechanism for sludge collection and transferring to sludge drying beds. Sludge was haphazardly stored in ETP area. sewage is also treated in ETP inspite of having STP of 30 KLD capacity</p>	<p>Unit has installed dedicated pipelines to transfer process effluent to ETP. All storm water drains are cleaned. Sludge storage room is provided and sludge from sludge press is sent to storage room in conveyors. The sludge was stored in closed shed. Sewerage generated from unit is treated in STP. Sewage is not diverted into ETP Separate energy meters are provided at ETP and RO plant</p>	<p>Complying</p>
----------------------------	--	---	------------------



MEE



Primary clarifier



ATFD



Sludge filter



Conveyor belt and storage room



Energy meter at ETP

<p>Flow meter and totaliser</p>	<p>Flow meter is not installed to quantify the total water consumed</p>	<p>Magnetic flowmeters with totalizer installed at inlet point for the raw water purchased & distribution of raw water.</p>	<p>Complying</p>
---------------------------------	---	---	------------------

Committee Report in the matter of OA 221/2015 (SZ)

		Magnetic flowmeters available in all the inlet & outlet point of ETP	
Stack emissions	The unit was not meeting APPCB standards	The unit has upgraded the MDC and bag filters and online emission monitoring system is installed in the stack and connected to APPCB server. The unit is found meeting APPCB standards. Unit has installed VOC meter and connected to APPCB server	Complying



Online stack reading



VOC meter

Developing 33% of green belt	The unit has developed green belt in an area of 3.5 acres against the requirement of 5.0 acres (33%) with avenue plants	Unit has developed 33% green belt with avenue trees and Conacarpus trees. Unit has purchased 2.4 acre of land to develop compensatory green belt. Unit is having rain harvesting pond measuring 50 Mtr X 40 mtr to collect roof top water collection.	
------------------------------	---	---	--



Committee Report in the matter of OA 221/2015 (SZ)

Hazardous waste	No hazardous waste storage room	Unit is generating around 10 to 15 MT of hazardous waste which is stored in dedicated shed and is sent to Ramky TSDF every month. Unit has constructed a closed shed for hazardous waste storage.	Complying
-----------------	---------------------------------	---	-----------

Overall Compliance status

The committee observed that the unit has taken steps for improvement and has complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is complying with APPCB standards for Particulate Matter.

Based on the non-compliances observed during committee inspection in October, 2020 environment compensation of Rs. 66.00 lakhs was assessed for non-compliances during period 17.01.2020 to 13.10.2020. The committee has calculated EC using CPCB formula $EC=PI \times N \times R \times S \times LF$

The committee submits to Hon'ble NGT to direct the unit to pay EC of Rs. 66.00 lakhs to APPCB for non-compliance during the period 17.01.2020 to 13.10.2020. Presently unit is found complying with all conditions stipulated in CFO. Unit is not discharging effluent outside unit premises. Proper effluent conveyance system is laid and ETP was fully operational.

II.b Compliance Status of Emami Agrotech Limited

a	Name & complete address of the unit	M/s EmamiAgrotech Limited, SyNo.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-coordinates	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 31.12.2025	
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

Committee Report in the matter of OA 221/2015 (SZ)

		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	
Parameter	Non-compliances observed by the committee during October, 2020	Present status of the unit during committee visit in July, 2021		Status of compliance
Coal and fly ash storage measures	Coal and fly ash were stored in open	Unit has constructed separate sheds and both rice husk and fly ash are stored inside the shed.		Complying
Effluent transfer	The effluent is transferred in storm water drains from production block to ETP and committee observed effluent spillage, over flow into adjoining areas. Storm water drains were filled with effluent and drains were clogged	The unit has laid separate pipeline to transfer effluent from production block to ETP. The drains were clear, no effluent was found in storm water drains. Reported that deposition in the drain was treated in ETP.		Complying
Flow meter and totaliser	Flow meter is not installed to quantify the total water consumed	Magnetic flowmeters with totalizer installed at inlet point for raw water purchased & distribution of raw water. Magnetic flow meters available in all the inlet & outlet point of ETP		Complying
Effluent treatment	ETP is very poorly maintained. The aeration was not in operation. Sludge is not removed and oily sludge was	ETP was in operation. Aeration tanks are revamped. Diffused aerators are installed. Adequate MLSS was present indicating that ETP was fully operational.		Complying

Committee Report in the matter of OA 221/2015 (SZ)

	<p>accumulated in all components of ETP which results in improper operation of ETP</p>		
--	--	--	--



ETP was fully operational during committee inspection

<p>Hazardous waste</p>	<p>No dedicated storage room</p>	<p>The unit has constructed one dedicated hazardous waste storage room. But however the wastes were not stacked properly. The quantity of hazardous waste generated was very less as compared to other units with similar production capacity. The unit replied that it is using advance technology for refining oil due to which water consumption and waste generation is less.</p>	<p>Complying The unit shall properly segregate different type of hazardous wastes and provide provision for leachate collection.</p>
------------------------	----------------------------------	---	--

Overall Compliance status

The committee observed that the unit has taken steps for improvement and has complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is found complying with APPCB standards for Particulate Matter. During previous inspection the committee had observed serious non-compliances w.r.t effluent transfer & its treatment and sludge disposal. Based on these non-compliances observed during committee inspection in October, 2020 environment compensation of Rs. 123.5 Lakhs was assessed based on

Committee Report in the matter of OA 221/2015 (SZ)

repeated violation for non-compliances during period 17.01.2020 to 13.10.2020. The committee has calculated EC using CPCB formula $EC=PI \times N \times R \times S \times LF$

The committee submits to Hon'ble NGT to direct the unit to pay EC of Rs. 123.5.00 lakhs to APPCB for non-compliance during the period 17.01.2020 to 13.10.2020. Presently unit is found complying with all conditions stipulated in CFO. Unit is not discharging effluent outside unit premises. Proper effluent conveyance system is laid and ETP was fully operational.

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

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 District.

Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 29.02.2024
---	---

Year of Commissioning	2011
-----------------------	------

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
---	-------------	-----------

By-products

1	Distilled Fatty Acids (Physical refining) (Palm Oil, Palm kernel, Palmolein)	48.0 TPD
2	Distilled Fatty Acids (Chemical refining) (Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)	0.8 TPD
3	Acid Oil	4.0 TPD
4	Soap Stock	4.0 TPD
5	Acid Sludge	0.6 TPD
6	Gums	9.0 TPD

Committee Report in the matter of OA 221/2015 (SZ)

Parameter	Non-compliances observed by the committee during October, 2020	Present status of the unit during committee visit in July, 2021	Status of compliance
Coal and fly ash storage	Fly ash spillage. Fly ash storage capacity for two days.	New silo of 120 MT is under installation. Presently, the existing silo of 40 MT is under use. The unit is disposing the fly ash on alternate days. Reported that the new silo will be made operational by September, 2021. No fly ash spillage observed.	Yet to comply. Silo is under installation



Fly ash silo work under progress

Effluent treatment	ETP was worn out	<p>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. ETP is fully revamped. New MEE plant of 35 KL is installed for treatment of HTDS effluent. Reported that the Cloggings from drains were removed and treated in ETP. Presently storm water drains were clear. Flow meters and toralizer installed.</p> <p>LTDS treatment plant Collection tank→flocculation tank→ primary clarifier→primary aeration→ secondary aeration→ secondary clarifier→ collection tank→ sand filters→carbon filters→ RO plant</p>	complying
--------------------	------------------	---	-----------

Committee Report in the matter of OA 221/2015 (SZ)



New MEE plant installed



ETP after revamping



Green belt



Storm water drains are cleaned



Flow meter		Flow meters with totalizers are installed at raw water inlet , ETP inlet, Primary clarifier outlet, RO inlet, RO outlet, MEE outlet.	complying								
Stack emission		<p>The unit has installed online emission monitor system to measure SPM and is connected to APPCB server. Last six months online data was verified and unit is found complying.</p> <table border="1" data-bbox="618 1669 1170 2435"> <thead> <tr> <th data-bbox="618 1669 911 1809">Air pollution source</th> <th data-bbox="911 1669 1170 1809">Air pollution control device provided</th> </tr> </thead> <tbody> <tr> <td data-bbox="618 1809 911 2018">FBC Boiler of capacity 20.0 TPH</td> <td data-bbox="911 1809 1170 2018">Multi cyclone dust collector followed by Bag filters</td> </tr> <tr> <td data-bbox="618 2018 911 2333">Thermic fluid heaters of capacity 5.0 lakh k.cal/hr, 12.5 lakh k.cal/hr & 6.0 lakh K.cal/hr ;</td> <td data-bbox="911 2018 1170 2333">Chimney to disperser the flue gases</td> </tr> <tr> <td data-bbox="618 2333 911 2435">FBC boiler of Capacity 7.0 TPH</td> <td data-bbox="911 2333 1170 2435">Dust Collector & Bag filter</td> </tr> </tbody> </table>	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	Complying
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										

Committee Report in the matter of OA 221/2015 (SZ)

		Thermo Syphon 1x15 Lakh.k.cal	Mechanical dust collectors fol.by bag filters	
		DG sets of 1x1010 KVA, 1x1250KVA	Acoustic enclosure	
Hazardous waste generation	Hazardous waste spillage	5.5 TPD of ATFD salts and ETP sludge are the hazardous wastes generated from the unit and stored in separate shed and disposed to Ramky TSDF, Nellore		Complying

Overall Compliance status

The committee observed that the unit has taken steps for improvement and has complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is found complying with APPCB standards for Particulate Matter. **During previous inspection the committee had observed non-compliances w.r.t effluent transfer & its treatment and sludge disposal.** Based on these non-compliances observed during committee inspection in October, 2020 environment compensation of Rs. **73.85 Lakhs** was assessed for non-compliances during period **17.01.2020 to 13.10.2020**. The committee has calculated EC using CPCB formula **EC=PI x N x R x S x LF**.

The committee submits to Hon'ble NGT to **direct the unit to pay EC of Rs. 73.8 lakhs** to APPCB for non-compliance during the period **17.01.2020 to 13.10.2020**. Presently unit is found complying with all conditions stipulated in CFO. Unit is not discharging effluent outside unit premises. Proper effluent conveyance system is laid and ETP was fully operational.

II.d Compliance Status of M/s South India Krishna Oil & Fats Pvt.Ltd

M/s. South India Krishna Oil & Fats Pvt.Ltd., Sy.No.275,279,280 & 281,Epuru Bit - 1B, Pantapalem (V), Muthukur (M), SPSR Nellore District.	
Contact Details	Sri B. Muthu Krishnan, GM +91-7799800065 vincent.paul@sioils.com
Geo-coordinates	14° 15' 19.7"N 80° 02' 50"E
Area	16.12 acres
Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 31.03.2022
Year of Commissioning	2014

Committee Report in the matter of OA 221/2015 (SZ)

Production capacity				
Refined Oil (Physical Refining)		1000 TPD		
RBD Palmolein		800 TPD		
TBD Stearine		200 TPD		
Vanaspathi		200 TPD		
Palm Powder		72 TPD		
Palm Flakes		50 TPD		
By Product				
Distilled Fatty Acid (Physical Refining)		42 TPD		
Refined Vegetable Oil (Soyabean, Sunflower, Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)		192 TPD		
By Product				
Distilled Fatty Acid (Chemical Refining)		0.488 TPD		
Acid Oil		4.0 TPD		
Soap Stock		8.0 TPD		
Wax		2.05 TPD		
Parameter	Non-compliance observed during committee inspection in Oct, 2020	Present status		Compliance status
Effluent generation	Effluent transfer in drains. ETP is not in operation	Source	Effluent generation	Partially complying Unit has taken corrective actions and there are improvements but effluent found in storm water drains.
		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,				

Committee Report in the matter of OA 221/2015 (SZ)

		<p>Secondary clarifier, Sludge drying beds & Filter Press, Pressure Sand filter, activated carbon filter etc.</p> <p>Separate pipeline for effluent transfer is under installation. Storm water network has to be improved. ETP is under operation. Effluent was observed in storm water drains.</p>		
Air pollution	Odour problem.	Boiler of capacity 1x24 TPH	Mechanical dust collectors fol.by bag filters	Partially complied.
		Boiler of capacity 1x15.0 TPH		
		Thermo Syphon 1x20 Lakh.k.cal.		
		Thermic Fuel Heater 2x6 Lakh. K.cal/hour	Mechanical dust collectors fol.by bag filters	
		4x750 KVA D.G. Sets	Acousic enclosures	
		<p>The unit has installed online emission monitors in both the stacks attached to Boiler -24 TPH & common chimney provided to 15 & 16 TPH boilers and same is connected to APPCB Serverto monitor SPM. The committee verified the online results for last six months and found that the unit is complying with Stipulated standards.</p> <p>But however odour nuisance is still persisting.</p>		

Committee Report in the matter of OA 221/2015 (SZ)**Overall Compliance status**

The committee observed that the unit has taken steps for improvement and has not fully complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is found complying with APPCB standards for Particulate Matter. During previous inspection the committee had observed non-compliances w.r.t effluent transfer & its treatment and sludge disposal. Based on these non-compliances observed during committee inspection in October, 2020 environment compensation of Rs. 71.30 Lakhs was assessed based on non-compliances during period 17.01.2020 to 13.10.2020. The committee has calculated EC using CPCB formula $EC = PI \times N \times R \times S \times LF$.

Presently though unit has taken measures for improvement but it not fully complying. Hence committee has calculated EC:

S.N	Period of noncompliance	PI	S	LF	R (Rs)	N (days)	Environmental compensation (Rs)
1	14.10.2020 to 29.07.2021	80	1.5	1	100/-	288	34,56,000/-
EC for violation						288	34,56,000/-
EC assessed by committee for non-compliances during 17.01.2020 to 13.10.2020							71,30,000/-
Total EC to be paid by the unit to APPCB							1,05,86,000/-
Rupees One crore five lakhs eighty six thousand Only							

Rupee Factor of Rs.100/- is taken considering that the unit is improving. The committee submits to Hon'ble NGT to direct the unit to pay EC of Rs. 105.86 lakhs to APPCB.

Committee Report in the matter of OA 221/2015 (SZ)

II.e 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			
c	Geo-coordinates	14° 15' 28.8"N 80° 04' 09.4"E			
d	Area	11.62 acres			
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 30.06.2026			
f	Year of Commissioning	2011.			
g	Production capacity	Refined Edible Oils (Physical Refining)	670.166 TPD		
		Refined Edible Oils (Chemical Refining)	100 TPD		
		Vanaspathi& Bakery Shortenings	90 TPD		
		Margerine	30 TPD		
		Fatty Acids	200 TPD		
		Toilet Soap Noodles	50 TPD		
		<u>BY PRODUCT</u>			
		Fatty Acids	27.74 TPD		
		Glycerine	18 TPD		
		Pitch Oils	7 TPD		
		Filter Cake/ Spent Earth	1.22 TPD		
		Fatty acids/ Acid Oils	3.35 TPD		
		Parameter	Non-compliance observed during committee inspection Oct, 2020	Present status	
Coal and fly ash storage	Unit has provided ash silo of 60 Tonnes capacity which is sufficient for ash storage for 2 days	The industry provided silos 2x70T & 1x60 m3 capacity for storage of ash and ash is being disposed to the brick units without accumulation in the plant premises.		Complied.	

Committee Report in the matter of OA 221/2015 (SZ)

Effluent generation	ETP not in operation	Source	Quantity of effluent	Improvements observed but yet to comply
		Process & Washings Boiler blow down, Cooling tower bleed off, Acid Oil plant waste water	152 KLD	
		Fresh Water RO rejects	110 KLD	
		Domestic	15 KLD	
<p>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.</p> <p>On the day of inspection, it was observed that the ETP was not in operation. Storm water drains were used for transfer of effluent. The oil was spilled all over the plant. There was no proper effluent transfer system from production block to ETP.</p>				
Air pollution	Not complying with stipulated standards	Boiler of capacity 1x35 TPH	ESP	Improvements observed but yet to comply
		Boiler of capacity 1x2.0 TPH	Bag filters	
		Boiler of capacity 1x8 TPH; Fuel: Coal/Husk	Bag filters	
		Thermo Fluid heater of capacity 1x20.0 Lakh.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	

Committee Report in the matter of OA 221/2015 (SZ)

		The unit has installed online emission monitors to measure SPM and is connected to APPCB server. Committee verified last six months data and found that the unit is complying standards stipulated by APPCB.	
Hazardous waste generation	Haphazard disposal of hazardous waste	Separate shed constructed for storage of hazardous wastes	Complying

**Overall Compliance status :**

The committee observed that the unit has taken steps for improvement and has not fully complied with the conditions stipulated in CFO and directions issued by APPCB. As per OCEMS records available with APPCB, the unit is found complying with APPCB standards for Particulate Matter. During previous inspection the committee had observed non-compliances w.r.t effluent transfer & its treatment and sludge disposal. Based on these non-compliances observed during committee inspection in October, 2020 environment compensation of Rs. 75.50 Lakhs was assessed based on non-compliances during period 17.01.2020 to 13.10.2020. The committee has calculated EC using CPCB formula $EC=PI \times N \times R \times S \times LF$.

Presently though unit has taken measures for improvement but it not fully complying. Odour nuisance is still persisting, oil spillage observed, effluent is found in storm water drains.

Hence committee has calculated EC:

S.N	Period of noncompliance	PI	S	LF	R (Rs)	N (days)	Environmental compensation (Rs)
1	14.10.2020 to 29.07.2021	80	1.5	1	100/-	288	34,56,000/-

Committee Report in the matter of OA 221/2015 (SZ)

EC for violation	288	34,56,000
EC assessed by committee for non-compliances during the period 17.01.2020 to 14.10.2020		75,50,000/-
Total EC to be paid by the unit to APPCB		1,10,06,000/-
Rupees One crore ten lakhs six thousand Only		

Rupee Factor of Rs.100/- is taken considering that the unit is improving. The committee submits to Hon'ble NGT to direct the unit to pay EC of Rs. 110.06 lakhs to APPCB.

VII Actions taken by APPCB

1. The APPCB is continuously reviewing the status of air pollution/ water pollution control equipment 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.65Lakhs in the year 2020 from 7 nos of Edible oil industries for non compliance of the APPCB directions.

III. Common Issues jointly to be addressed by all edible oil industries:

1. **Issue related to drawl of water from tankers and ground water:** There are seven edible oil industries operating in Muthukur village, Krishnapatnam which were established during 2011 and even after lapse of 10 years, there is no assured source of water supply by Department of Industries. 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

Committee Report in the matter of OA 221/2015 (SZ)

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. Currently the units are dependent on water supply from tankers. Reported that the industries are pursuing with Andhra Pradesh Industrial Infrastructure Corporation (APIIC) to get water supply through pipeline. The committee humbly submits to Hon'ble NGT to direct the Andhra Pradesh Industrial Infrastructure Corporation (APIIC) and Department of Industries, Nellore to provide water supply to the industries.

2. **Fly ash dumping:** Fly ash is found dumped in low lying area to an extent of ten acres in vacant plot. All the industries informed that they are not responsible for the dumping. The committee submits to Hon'ble NGT to direct all seven industries to jointly compact the fly ash and to cover with minimum 10cm clay/soil cover to prevent ambient dust.
3. **Augment capacity of oil skimming:** To further effectively remove oil & grease from effluent the committee suggested the industries to enhance the capacity of oil skimming. The units have collectively agreed to install one additional skimmers for removal of oil & grease in ETP.
4. Presently all edible oil units are fully operating the physical refining process while the units are operating the chemical refinery at 50% capacity.
5. In compliance to Hon'ble NGT directions and post committee visit in Oct, 2020 the units have taken up corrective measures. Significant improvements were observed during committee inspection in July, 2021 as compared to Oct, 2020. Dedicated pipelines are laid for transferring the process effluent into ETP. The effluent treatment plants are fully operational. The no. of filters are increased and air pollution control devices are augmented. But however two units are yet to achieve 100% compliance to consent conditions of APPCB.
6. The fly ash 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 fly ash is sold to brick manufacturers at frequency of two to three days in a week. Considering this, APPCB may amend the condition.
7. APPCB is continuous vigil on the edible oil units and issued directions, forfeited bank guarantees due to which there is no discharge of effluent outside the unit premises. The committee went around the surrounding to check for any bypass discharges and observed that no edible oil unit is discharging outside its premises.

Committee Report in the matter of OA 221/2015 (SZ)

8. Based on CPCB formula the committee has assessed environmental compensation on the erring units for violating the directions issued by APPCB vide order dated 17.01.2020.

IV. Ambient Air Quality Monitoring

APPCB monitored ambient air quality in nearby villages to verify whether the operations of the industries impact on air quality in Pantapalem, Subbareddypalem, Daruvupalem and Epuru villages. All four villages are complying with ambient air quality standards.

	Measured value in $\mu\text{g}/\text{m}^3$	Ambient air quality 24 hrs standard in $\mu\text{g}/\text{m}^3$	Remarks
Pantapalem	84.4	100	The ambient air quality in the villages is meeting 24 hrs. National ambient air quality standards.
Subbareddypalem	66.4		
Daruvupalem	57.7		
Epuru village	78.4		

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. The individual ETP's established in the units are fully operational.
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. Thereby withdrawal of ground water and procurement of water from tankers will be avoided. The committee humbly submits to Hon'ble NGT to direct the Andhra Pradesh Industrial Infrastructure Corporation (APIIC) and Department of Industries, Nellore to provide water supply to the industries. There are seven edible oil industries operating in Muthukur village, Krishnapatnam.
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 the industries to safely store the spent nickel catalyst and to dispose the same to authorized re-processors. The

Committee Report in the matter of OA 221/2015 (SZ)

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 Budhakuva drain, Pantapalem irrigation channel or into land outside the industry premises.
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. Based on the inspection during October, 2020 the committee had assessed environmental compensation for non-compliances during the period 17.01.2020 to 14.10.2020. The committee again inspected during July, 2021 and considering the improvements and compliances/ non-compliances the committee has ascertained EC. The committee submits to Hon'ble NGT to direct the units to 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	1,05,86,000/-
5	M/s. 3F Industries Limited (Formerly Foods fats & Fertilizers Ltd.,)	1,10,06,000/-

Committee Report in the matter of OA 221/2015 (SZ)

8. 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 units shall ensure that real time data is directly transferred from analyser to APPCB server without any interface.
9. Fly ash is found dumped in low lying area to an extent of ten acres in vacant plot. All the industries informed that they are not responsible for the dumping. The committee submits to Hon'ble NGT to direct all seven industries to jointly compact the fly ash and to cover with minimum 10cm clay/ soil cover to prevent ambient dust.
10. The public roads surrounding the industries are in very poor condition due to movement of heavy vehicles. M/s. Emami, M/s. Gemini and M/s. Adani Wilmar Unit 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. Suresh Pasupuleti
Scientist-C, Ministry of Environment
Forest and Climate Change, Regional
Office, Vijayawada



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



Ch. Rajasekhar
Environmental Engineer,
Andhra Pradesh Pollution Control
Board, Regional Office Nellore



ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE: NELLORE
1st Floor, A.P.S.F.C BUILDING, A.K.NAGAR, NELLORE - 524 004

Lr. No. GN/PCB/RO/NLR/2021- 1382

Date: 18.01.2021

Sub: APPCB - RO, Nellore - Hon'ble National Green Tribunal Order dated.07.01.2021 in O.A.No.221 of 2015 - Joint Committee Inspection report communicated - Reg.

Ref: 1. Hon'ble NGT Order dated.07.01.2021 in O.A.No.221 of 2015.
 2. Joint committee inspection dt.13.10.2020 & 14.10.2020 & report dated.01.12.2020.
 3. B.O. Memo No.221/APPCB/legal/NGT/2020 dt.12.01.2021.

With reference to the above, it is to inform that as per the Hon'ble National Green Tribunal orders in O.A. No.221 of 2015, a joint committee was constituted with senior officials from MoEF&CC, GoI, CPCB & APPCB for inspection of edible oil industries located at Krishnapatnam Port area, SPSR Nellore district.

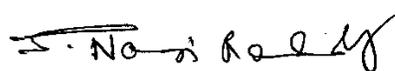
The Joint committee has inspected the edible oil industries on 13.10.2020 & 14.10.2020 and submitted a detailed report to the Hon'ble NGT on 01.12.2020.

The Hon'ble NGT passed an order on 07.01.2021 directing the APPCB to serve the copy of the report to the respondents so that they can file their objections, if any, to the report.

In view of the above, copy of the Joint committee report dated 01.12.2020 submitted to the Hon'ble NGT is herewith enclosed for information & necessary action.

Yours faithfully

Encl: Copy of Joint Committee report



ENVIRONMENTAL ENGINEER (FAC)

To

1. M/s. South India Krishna Oil & Fats Pvt. Ltd., Sy. No.275, 279, 280 & 281, Epuru Bit - 1B, Pantapalem Village, Muthukur Mandal, SPS Nellore District
2. M/s. Emami Agrotech Limited (formerly M/s. Emami Biotech Limited), Sy. Nos.501, 502/1, 502/2, 503/1, 503/2, 504, 505/2, 507/2, 509/1, 509/2, 510/1 & 510/2, Pantapalem (V), Muthukur (M), SPSR Nellore District
3. M/s. Gemini Edibles & Fats India Pvt. Ltd., Sy No.1607/2, Industrial Park, Pantapalem (V), Muthukur (M), SPS Nellore District

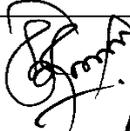
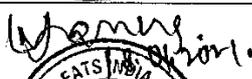
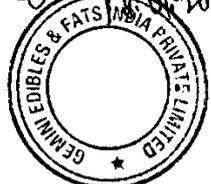
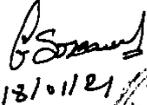
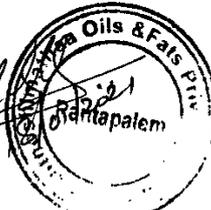
4. M/s. Adani Wilmar Limited (Unit-I) (formerly M/s. Krishnapatnam Oils & Fats Pvt. Ltd.), Sy. No.292, 317, Pantapalem (V) (Epuru- 1B), Muthukur (M), SPS Nellore District
5. M/s. Adani Wilmar Limited (Unit-II) (formerly M/s. Louis Dreyfus Company India Pvt. Ltd.,) Sy. No.1601, Epuru Bit-1B, APIIC, Pantapalem (V), Muthukur (M), SPSR Nellore District.
6. M/s.3F Industries Limited (formerly M/s.Foods Fats & Fertilizers Ltd.) Sy. No. 1604, Epuru 1-B, Pantapalem (V), Muthukuru (M), SPS Nellore District.
7. M/s.Santhoshimathaa Oils and Fats Private Limited, Sy No.252, Pantapalem Village, Epuru Bit IB, Muthukur Mandal, SPSR Nellore District.

Copy to the JCEE (Unit-II), APPCB. Board office, Vijayawada for favour of information.

Copy to the SEE (Legal cell), APPCB. Board office, Vijayawada for favour of information.

Copy to the JCEE, APPCB. Zonal office, Vijayawada for favour of information.

Acknowledgment from the Edible oil industries on serving the copy of the Joint Committee report dt.01.12.2020.

Name & Address of the Edible oil unit	Received Name & Designation, Phone no. Email id	Stamp & Signature
M/s. South India Krishna Oil & Fats Pvt. Ltd., Epuru Bit - 1B, Pantapalem Village, Muthukur Mandal, SPSR Nellore District	J.K. Vincent Paul Dy. Manager 7799800065 vincent.paul@si oils .com	 
M/s. Emami Agrotech Limited (formerly M/s. Emami Biotech Limited), Pantapalem (V), Muthukur (M), SPSR Nellore District	SRI RAM. CHUNDI. Sr. Asst. Mgr. 9642295558. Sriram.chundi@emami agrotech.com	 
M/s. Gemini Edibles & Fats India Pvt. Ltd., Industrial Park, Pantapalem (V), Muthukur (M), SPSR Nellore District	Subhendu Mannu Sr. Mgr operations 7729996854 mannu@gemindia.net	 
M/s. Adani Wilmar Limited (Unit-I) (formerly M/s. Krishnapatnam Oils & Fats Pvt. Ltd.), Pantapalem (V) (Epuru-1B), Muthukur (M), SPS Nellore District	K. P PRABHAKARA RAO Sr. Manager - HR 7228939496 prabhakara.kerrapeta@adanwilmar.in	 
M/s. Adani Wilmar Limited (Unit-II) (formerly M/s. Louis Dreyfus Company India Pvt. Ltd.), Epuru Bit-1B, APIIC, Pantapalem (V), Muthukur (M), SPSR Nellore District	G. SREENIVASULU DGM - operations 8886641639 Sreenivasulu.gundara@adanwilmar.in	 
M/s. 3F Industries Limited (formerly M/s. Foods Fats & Fertilizers Ltd.) Pantapalem (V), Muthukuru (M), SPSR Nellore District	G. SURESH BABU Manager UTILITIES 7799935576 Phalgun@fff.co.in	 
M/s. Santhoshimathaa Oils and Fats Private Limited, Sy No.252, Pantapalem Village, Epuru Bit 1B, Muthukur Mandal, SPSR Nellore District.	Ganesh Vidun Kota Unit Head. 9963329792 vkganesh@smoils.com	 

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: 03.02.2021.

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. Snegha represented

M/s. Apparajitha Vishwanath for R8.
Sri. Parthasarathy represented
Sri. Lakshmi Kumaran for R11.

ORDER

1. As per order dated 07.01.2021, this Tribunal had directed the 5th respondent to submit details regarding the change of identity of the 5th respondent unit as according to them, it has been amalgamated with M/s. Adani Wilmar Limited vide order of the Hon'ble High Court of Gujarat, passed in *Company Petition No.309 of 2015* dated 28.10.2015. We have also directed the committee to submit a further report on the basis of the observations made by them in the report filed and posted the case to today for that purpose.
2. When the matter came up for hearing today through Video Conference, there was no representation for the applicant. Smt. Me. Saraswathy represented 1st respondent, Smt. Madhuri Danti Reddy represented respondents 2 to 4, Sri. C. Seethapathy represented 5th respondent, Sri. D. Srinivasan represented respondents 6, 7, 9 & 10, M/s. Snegha represented Sri. Apparajitha Vishwanath, learned counsel appearing for 8th respondent and Sri. Parthasarathy represented Sri. Lakshmi Kumaran, the learned counsel appearing for the 11th respondent.
3. The learned counsel appearing for the 11th respondent submitted that in respect of 11th respondent also, there is a change in ownership and now

the unit is amalgamated with M/s. Adani Wilmar Limited group and they wanted some time to furnish the details regarding the same.

4. The report of the Joint Committee dated 01.12.2020 which was received on 06.01.2021 by this Tribunal reads as follows:

"I Preamble

Cluster of Edible Oil Industries are operating in Krishnapatnam Portregion 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 ngtszifiling@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 followingscope 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 <u>+91 -9866556188</u>
c	Geo-coordinates	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 <u>By-products</u> 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

		<p>additional 70 KLD of water. The unit has permission to utilize 250 KLD of ground water by 10hrs of pumping from the filter points. But however the major water requirement is met by procuring water in tankers.</p>
j	Effluent generation	<p>Around 30 KLD of effluent is generated from physical refining and is Low TDS effluent which is treated in ETP of capacity 200KL. 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.</p> <p>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.</p> <p>There is no proper mechanism for sludge collection and transferring to sludge drying beds. Sludge was haphazardly stored in ETP area.</p> <p>Part of sewage generated from the unit is also treated in ETP even the industry provided STP of 30 KLD capacity.</p> <p>Not complying</p>

Table VI.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 Thermic fluid heater of capacity 16.0 Lakh k.cal/hr (2Nos.-6.0 Lakh K.cal/hour + 10 Lakh K.cal/hour capacity) 3x 1000 KVA DG Sets	Multi cyclone dust collector followed by Bag filters 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	SPMmeasured value	APPCB emission standards
Stack attached to 20 TPH boiler	129.7 mg/Nm³	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/m³	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.

		<i>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 50MtrX40mtr is established inside the plant.</i>
<i>o</i>	<i>Hazardous waste generation</i>	<i>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.</i>
<i>p</i>	<i>Actions taken by APPCB during last one year</i>	<i>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.</i>

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 $EC = PI \times N \times R \times S \times LF$

<i>S.N</i>	<i>Period of noncompliance</i>	<i>PI</i>	<i>S</i>	<i>LF</i>	<i>R (Rs)</i>	<i>N (days)</i>	<i>Environmental compensation (Rs)</i>
<i>1</i>	<i>17.01.2020 to 13.10.2020*</i>	<i>80</i>	<i>1.5</i>	<i>1</i>	<i>250/-</i>	<i>270</i>	<i>81,00,000/-</i>

<i>Total EC for violation</i>					270	81,00,000/-	
<i>Compensation levied by APPCB from 17.01.2020 onwards</i>					15,00,00		
<i>Net Compensation to be paid by M/s Gemini Edibles</i>					66,00,000/-		
<i>Rupees Sixty-Six Lakhs Only</i>							

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*

VI.b Compliance Status of Emami Agrotech Limited

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

h	Coal and flyash storage measures	<p>The unit has constructed separate shed for storage of rice husk and coal however it was stored both inside 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.</p> <p>On the day of inspection, chemical refining plant was not in operation</p> <p>Not complying</p>															
i	Source of water and quantity of water used per day	<p>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.</p>															
j	Effluent generation	<table border="1" data-bbox="679 1048 1270 1406"> <thead> <tr> <th data-bbox="679 1048 967 1093">Source</th> <th data-bbox="967 1048 1270 1093">Wastewater generation</th> </tr> </thead> <tbody> <tr> <td data-bbox="679 1093 967 1137">Process & Washings</td> <td data-bbox="967 1093 1270 1137">23.0 KLD</td> </tr> <tr> <td data-bbox="679 1137 967 1182">Acid Oil Plant</td> <td data-bbox="967 1137 1270 1182">6.0 KLD</td> </tr> <tr> <td data-bbox="679 1182 967 1227">Boiler Bleed off</td> <td data-bbox="967 1182 1270 1227">28.0 KLD</td> </tr> <tr> <td data-bbox="679 1227 967 1317">Cooling Tower Blow down</td> <td data-bbox="967 1227 1270 1317">32.0 KLD</td> </tr> <tr> <td data-bbox="679 1317 967 1361">RO Reject</td> <td data-bbox="967 1317 1270 1361">60.0 KLD</td> </tr> <tr> <td data-bbox="679 1361 967 1406">Domestic</td> <td data-bbox="967 1361 1270 1406">6.0 KLD</td> </tr> </tbody> </table> <p>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.</p> <p>STP is provided for treatment of sewage.</p>		Source	Wastewater generation	Process & Washings	23.0 KLD	Acid Oil Plant	6.0 KLD	Boiler Bleed off	28.0 KLD	Cooling Tower Blow down	32.0 KLD	RO Reject	60.0 KLD	Domestic	6.0 KLD
Source	Wastewater generation																
Process & Washings	23.0 KLD																
Acid Oil Plant	6.0 KLD																
Boiler Bleed off	28.0 KLD																
Cooling Tower Blow down	32.0 KLD																
RO Reject	60.0 KLD																
Domestic	6.0 KLD																
k	Installation of magnetic flow meters with totalizer	<p>Flow meters installed at inlet and outlet of ETP & STP but total water consumed is not quantified</p>															
l	Quantity of effluent discharged and mode of disposal. Components of ETP.	<p>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 and which results in</p>															

		<p>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.</p> <p>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.</p> <p>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.</p> <p>Not complying</p>
--	--	---

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
		Thermic fluid heater of capacity 8.0 lakh k.cal/hr (Coal or husk fired)	Common stack of height 30m

		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 30TPM 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

		<p>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.</p> <p>Oil recovered from ETP is sold to soap manufacturers.</p>
q	Actions taken by APPCB during last one year	<p>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.</p>

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 $EC = PI \times N \times R \times S \times LF$

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.

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

a	Name & complete address of the unit	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.														
b	Contact Details	Sri. Vishal Jain, Unit Head Email: Vishal.Jain1@adaniwilmar.in Mobile No.: 8886060496														
c	Geo-coordinates	14°15' 27.14"N 80° 03' 16.38"E														
d	Area	14.91 acres														
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 31.03.2021														
f	Year of Commissioning	2011														
g	Production capacity	<table border="1"> <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>By Products</td> <td></td> </tr> <tr> <td>Distilled Fatty Acid</td> <td>45.55 TPD</td> </tr> </table>	Refined vegetable Oils (Physical Refining)	600 TPD	Interesterfied Vegetable Fats	100 TPD	Hydrogenated Vegetable Oils	100 TPD	Refined vegetable Oils (Chemical refining)	200 TPD	Bakery Fat	145 TPD	By Products		Distilled Fatty Acid	45.55 TPD
Refined vegetable Oils (Physical Refining)	600 TPD															
Interesterfied Vegetable Fats	100 TPD															
Hydrogenated Vegetable Oils	100 TPD															
Refined vegetable Oils (Chemical refining)	200 TPD															
Bakery Fat	145 TPD															
By Products																
Distilled Fatty Acid	45.55 TPD															

h	Coal and flyash storage measures taken to control fugitive emissions	<p>The industry has provided shed for storage of coal with water sprinklers.</p> <p>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.</p>								
i	Source of water and quantity of water used per day	<p>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.</p>								
j	Effluent generation	<p>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 dosing tank, primary settling tank, aeration, Secondary settling tank, Aeration tank2, clarifier, Tube settler and filter press. Treated effluent from ETP is further treated in RO. It is a ZLD plant.</p> <table border="1" data-bbox="683 1198 1299 1536"> <thead> <tr> <th data-bbox="683 1198 1118 1285">Source</th> <th data-bbox="1118 1198 1299 1285">Wastewater generation</th> </tr> </thead> <tbody> <tr> <td data-bbox="683 1285 1118 1442">Process & washings include (Boiler Bleed Off, Cooling Towers blow down, RO rejects)</td> <td data-bbox="1118 1285 1299 1442">73.0 KLD</td> </tr> <tr> <td data-bbox="683 1442 1118 1485">Acid wash</td> <td data-bbox="1118 1442 1299 1485">8.0 KLD</td> </tr> <tr> <td data-bbox="683 1485 1118 1536">Domestic</td> <td data-bbox="1118 1485 1299 1536">10.0 KLD</td> </tr> </tbody> </table> <p>High TDS effluent is treated in three stage MEE-15KL capacity followed by ATFD.</p> <p>Sewage is treated in septic tank followed by soak pit.</p> <p>Rainwater harvesting pits and Summer storage tank is available. Summer storage tank capacity is 180MT</p>	Source	Wastewater generation	Process & washings include (Boiler Bleed Off, Cooling Towers blow down, RO rejects)	73.0 KLD	Acid wash	8.0 KLD	Domestic	10.0 KLD
Source	Wastewater generation									
Process & washings include (Boiler Bleed Off, Cooling Towers blow down, RO rejects)	73.0 KLD									
Acid wash	8.0 KLD									
Domestic	10.0 KLD									
k	Installation of magnetic flow meters with totalizer	<p>Flow meters installed at inlet and outlet of ETP and MEE feed tank. Flow meter is not installed to quantify raw water consumption.</p>								
<p>Table VI.C 1: Analysis results of samples collected by APPCB during 23.06.2020</p>										

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.

1	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		Dust collectors
		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 4acres 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.
<p>Overall Compliance status:</p> <p>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.</p> <p>Major non-compliances observed in the unit are</p> <ul style="list-style-type: none"> • 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-coordinates	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						
		By-products								
		1	Distilled Fatty Acids (Physical refining) (Palm Oil, Palm kernel, Palmolein)	48.0 TPD						
		2	Distilled Fatty Acids (Chemical refining) (Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)	0.8 TPD						
		3	Acid Oil	4.0 TPD						
		4	Soap Stock	4.0 TPD						
		5	Acid Sludge	0.6 TPD						
		6	Gums	9.0 TPD						
h	Coal and flyash storage	<p>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.</p>								
i	Source of water and quantity of water used per day	<table border="1"> <thead> <tr> <th>Source</th> <th>Water consumption</th> </tr> </thead> <tbody> <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> </tbody> </table>			Source	Water consumption	Floor washings, plant washings from physical refining process, inter-esterfied fats, vanaspathi unit	15.0 KLD	Chemical refining Manufacturing Process	25.0 KLD
Source	Water consumption									
Floor washings, plant washings from physical refining process, inter-esterfied fats, vanaspathi unit	15.0 KLD									
Chemical refining Manufacturing Process	25.0 KLD									

		<table border="1"> <tbody> <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> <tr> <td>Total</td> <td>530</td> </tr> </tbody> </table> <p>Though the unit has obtained permission to withdraw 380 KL of ground water but 75% of the water requirement is met from tankers.</p>	Washings in chemical refining (Acid Oil Wash)	30.0 KLD	DM/ Softener	5.0 KLD	Boiler R.O. (Fresh water for Boiler feed-210 KLD)	275.0 KLD	Cooling towers (Non contaminated)	70.0 KLD	Cooling towers (contaminated)	60.0 KLD	Gardening	30.0 KLD	Domestic	20.0 KLD	Total	530
Washings in chemical refining (Acid Oil Wash)	30.0 KLD																	
DM/ Softener	5.0 KLD																	
Boiler R.O. (Fresh water for Boiler feed-210 KLD)	275.0 KLD																	
Cooling towers (Non contaminated)	70.0 KLD																	
Cooling towers (contaminated)	60.0 KLD																	
Gardening	30.0 KLD																	
Domestic	20.0 KLD																	
Total	530																	
j	Effluent generation	<table border="1"> <tbody> <tr> <td>Process & Washings physical and chemicals, Cooling tower, Boiler blow down</td> <td>100.0 KLD</td> </tr> <tr> <td>Feed water RO Reject & DM/ Softener back wash</td> <td>70.0 KLD</td> </tr> <tr> <td>Acid Oil Wash</td> <td>30.0 KLD</td> </tr> <tr> <td>Domestic</td> <td>15.0 KLD</td> </tr> </tbody> </table> <p>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.</p> <p>Unit has constructed rainwater harvesting pits and summer storage tank of 1600 KL capacity.</p>	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								
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																	
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

<p><i>Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location</i></p>	<p><i>Air pollution source</i></p>	<p><i>Air pollution control device provided</i></p>
	<p><i>FBC Boiler of capacity 20.0 TPH</i></p>	<p><i>Multi cyclone dust collector followed by Bag filters</i></p>
	<p><i>Thermic fluid heaters of capacity 5.0 lakh k.cal/hr, 12.5 lakh k.cal/hr & 6.0 lakh K.cal/hr ;</i></p>	<p><i>Chimney to disperser the flue gases</i></p>
	<p><i>FBC boiler of Capacity 7.0 TPH</i></p>	<p><i>Dust Collector & Bag filter</i></p>
	<p><i>Thermo Syphon 1x15 Lakh.k.cal</i></p>	<p><i>Mechanical dust collectors fol.by bag filters</i></p>
	<p><i>DG sets of 1x1010 KVA, 1x1250KVA</i></p>	<p><i>Acoustic enclosure</i></p>
<p><i>The unit has installed online emission monitor system to measure SPM and is connected to APPCB server.</i></p>		

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 $EC=PI \times N \times R \times S \times LF$							
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							

--

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

<i>a</i>	<i>Name & complete address of the unit</i>	<i>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</i>																													
<i>b</i>	<i>Contact Details</i>	<i>Sri B. Muthu Krishnan, GM +91-7799800065 vincent.paul@sioils.com</i>																													
<i>c</i>	<i>Geo-coordinates</i>	<i>14°15' 19.7"N 80° 02' 50"E</i>																													
<i>d</i>	<i>Area</i>	<i>16.12 acres</i>																													
<i>e</i>	<i>Status of CFO & Authorizations and its compliance</i>	<i>The CFO and Authorization are valid till 31.03.2022</i>																													
<i>f</i>	<i>Year of Commissioning</i>	<i>2014</i>																													
<i>g</i>	<i>Production capacity</i>	<table border="1"> <tr> <td><i>Refined Oil (Physical Refining)</i></td> <td><i>1000 TPD</i></td> </tr> <tr> <td><i>RBDPalmolein</i></td> <td><i>800 TPD</i></td> </tr> <tr> <td><i>TBD Stearine</i></td> <td><i>200 TPD</i></td> </tr> <tr> <td><i>Vanaspathi</i></td> <td><i>200 TPD</i></td> </tr> <tr> <td><i>Palm Powder</i></td> <td><i>72 TPD</i></td> </tr> <tr> <td><i>Palm Flakes</i></td> <td><i>50 TPD</i></td> </tr> <tr> <td colspan="2"><i>By Product</i></td> </tr> <tr> <td><i>Distilled Fatty Acid (Physical Refining)</i></td> <td><i>42 TPD</i></td> </tr> <tr> <td><i>Refined Vegetable Oil (Soyabean, Sunflower, Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)</i></td> <td><i>192 TPD</i></td> </tr> <tr> <td colspan="2"><i>By Product</i></td> </tr> <tr> <td><i>Distilled Fatty Acid (Chemical Refining)</i></td> <td><i>0.488 TPD</i></td> </tr> <tr> <td><i>Acid Oil</i></td> <td><i>4.0 TPD</i></td> </tr> <tr> <td><i>Soap Stock</i></td> <td><i>8.0 TPD</i></td> </tr> <tr> <td><i>Wax</i></td> <td><i>2.05 TPD</i></td> </tr> </table>		<i>Refined Oil (Physical Refining)</i>	<i>1000 TPD</i>	<i>RBDPalmolein</i>	<i>800 TPD</i>	<i>TBD Stearine</i>	<i>200 TPD</i>	<i>Vanaspathi</i>	<i>200 TPD</i>	<i>Palm Powder</i>	<i>72 TPD</i>	<i>Palm Flakes</i>	<i>50 TPD</i>	<i>By Product</i>		<i>Distilled Fatty Acid (Physical Refining)</i>	<i>42 TPD</i>	<i>Refined Vegetable Oil (Soyabean, Sunflower, Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)</i>	<i>192 TPD</i>	<i>By Product</i>		<i>Distilled Fatty Acid (Chemical Refining)</i>	<i>0.488 TPD</i>	<i>Acid Oil</i>	<i>4.0 TPD</i>	<i>Soap Stock</i>	<i>8.0 TPD</i>	<i>Wax</i>	<i>2.05 TPD</i>
<i>Refined Oil (Physical Refining)</i>	<i>1000 TPD</i>																														
<i>RBDPalmolein</i>	<i>800 TPD</i>																														
<i>TBD Stearine</i>	<i>200 TPD</i>																														
<i>Vanaspathi</i>	<i>200 TPD</i>																														
<i>Palm Powder</i>	<i>72 TPD</i>																														
<i>Palm Flakes</i>	<i>50 TPD</i>																														
<i>By Product</i>																															
<i>Distilled Fatty Acid (Physical Refining)</i>	<i>42 TPD</i>																														
<i>Refined Vegetable Oil (Soyabean, Sunflower, Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)</i>	<i>192 TPD</i>																														
<i>By Product</i>																															
<i>Distilled Fatty Acid (Chemical Refining)</i>	<i>0.488 TPD</i>																														
<i>Acid Oil</i>	<i>4.0 TPD</i>																														
<i>Soap Stock</i>	<i>8.0 TPD</i>																														
<i>Wax</i>	<i>2.05 TPD</i>																														
<i>g</i>	<i>Coal and flyash storage</i>	<p><i>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.</i></p> <p><i>Ash storage yard having a capacity of 30 days including silo &</i></p>																													

		<i>closed storage shed. Lot of fugitive dust is emitted while loading from storage shed into trucks.</i>												
<i>h</i>	<i>Source of water and quantity of water used per day</i>	<table border="1"> <thead> <tr> <th><i>Source of water</i></th> <th><i>Consumption in KLD</i></th> </tr> </thead> <tbody> <tr> <td><i>Process & washings (physical & chemical)</i></td> <td><i>21.0 KLD</i></td> </tr> <tr> <td><i>Cooling Make up</i></td> <td><i>319.0 KLD</i></td> </tr> <tr> <td><i>Boiler</i></td> <td><i>586.0 KLD</i></td> </tr> <tr> <td><i>Domestic</i></td> <td><i>23.0 KLD</i></td> </tr> <tr> <td><i>Total</i></td> <td><i>949 KLD</i></td> </tr> </tbody> </table> <p><i>Though the unit has obtained permission to withdraw 360 KL of ground water but entire water requirement of 949 KLD is met from tankers.</i></p>	<i>Source of water</i>	<i>Consumption in KLD</i>	<i>Process & washings (physical & chemical)</i>	<i>21.0 KLD</i>	<i>Cooling Make up</i>	<i>319.0 KLD</i>	<i>Boiler</i>	<i>586.0 KLD</i>	<i>Domestic</i>	<i>23.0 KLD</i>	<i>Total</i>	<i>949 KLD</i>
<i>Source of water</i>	<i>Consumption in KLD</i>													
<i>Process & washings (physical & chemical)</i>	<i>21.0 KLD</i>													
<i>Cooling Make up</i>	<i>319.0 KLD</i>													
<i>Boiler</i>	<i>586.0 KLD</i>													
<i>Domestic</i>	<i>23.0 KLD</i>													
<i>Total</i>	<i>949 KLD</i>													
<i>i</i>	<i>Effluent generation</i>	<table border="1"> <thead> <tr> <th><i>Source</i></th> <th><i>Effluent generation</i></th> </tr> </thead> <tbody> <tr> <td><i>Trade effluents (Boiler & Cooling tower blow down, Process, Primary dual RO, back wash)</i></td> <td><i>136.0 KLD</i></td> </tr> <tr> <td><i>HTDS effluents from Acid plant and dual RO rejects</i></td> <td><i>53.0 KLD</i></td> </tr> <tr> <td><i>Primary RO rejects</i></td> <td><i>93.0 KLD</i></td> </tr> <tr> <td><i>Domestic</i></td> <td><i>16.0 KLD</i></td> </tr> </tbody> </table> <p><i>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.</i></p>	<i>Source</i>	<i>Effluent generation</i>	<i>Trade effluents (Boiler & Cooling tower blow down, Process, Primary dual RO, back wash)</i>	<i>136.0 KLD</i>	<i>HTDS effluents from Acid plant and dual RO rejects</i>	<i>53.0 KLD</i>	<i>Primary RO rejects</i>	<i>93.0 KLD</i>	<i>Domestic</i>	<i>16.0 KLD</i>		
<i>Source</i>	<i>Effluent generation</i>													
<i>Trade effluents (Boiler & Cooling tower blow down, Process, Primary dual RO, back wash)</i>	<i>136.0 KLD</i>													
<i>HTDS effluents from Acid plant and dual RO rejects</i>	<i>53.0 KLD</i>													
<i>Primary RO rejects</i>	<i>93.0 KLD</i>													
<i>Domestic</i>	<i>16.0 KLD</i>													

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.

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

Table: Stack monitoring by APPCB on 16.06.2020.

Source	SPM measured value	APPCB emission standards
Stack attached to 16 TPH boiler	105.8 mg/Nm³	115 mg/ Nm ³

Table: Ambient air quality monitoring by APPCB on 16.06.2020

Source	PM ₁₀ measured value	APPCB standards
--------	---------------------------------	-----------------

Near the main gate within unit premises	89.5 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.							
l	Status of installation of online stack monitoring equipment	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.					
m	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 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.					
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.					
<p>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 $EC=PI \times N \times R \times S \times LF$</p>							
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/-

<i>EC for violation</i>	271	81,30,000/-
<i>EC levied by APPCB on or after 17.01.2020</i>		10,00,000/-
<i>Total EC to be paid by the unit to APPCB</i>		71,30,000/-
<i>Rupees Seventy- One lacs and thirty thousand Only</i>		

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

<i>a</i>	<i>Name & complete address of the unit</i>	<i>M/s. Santhoshimatha Oils and Fats Private Limited, Sy.No.252, Epuru Bit-IB, Pantapalem Village, Muthukur Mandal, SPSR Nellore District</i>	
<i>b</i>	<i>Contact Details</i>	<i>Sh. Ganesh Vidhun Kota ganeshvk@smoils.com 9963329792</i>	
<i>c</i>	<i>Geo-coordinates</i>	<i>14°15' 18.1"N 80° 02' 39.1"E</i>	
<i>d</i>	<i>Area</i>	<i>5.52 acres</i>	
<i>e</i>	<i>Status of CFO & Authorizations and its compliance</i>	<i>The CFO and Authorization are valid till 31.01.2022</i>	
<i>f</i>	<i>Year of Commissioning</i>	<i>2016</i>	
<i>g</i>	<i>Production capacity</i>	<i>Refined Palm oil</i>	<i>225 TPD</i>
		<i>By product</i>	
		<i>Distilled Fatty Acids</i>	<i>15 TPD</i>
<i>h</i>	<i>Coal and flyash storage</i>	<i>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.</i>	
<i>i</i>	<i>Source of water and quantity of water used per day</i>	<i>Source</i>	<i>Water consumption</i>
		<i>Process & Wash</i>	<i>12 KLD</i>
		<i>Boiler Feed & Cooling</i>	<i>70 KLD</i>
		<i>Tower Make up</i>	
		<i>Domestic</i>	<i>8.0 KLD</i>
		<i>Total</i>	<i>90 KLD</i>
		<i>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.</i>	

		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.				
j	Effluent generation	<table border="1"> <tr> <td>Trade effluents</td> <td>20 KLD</td> </tr> <tr> <td>Domestic</td> <td>5.0 KLD</td> </tr> </table> <p>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.</p>	Trade effluents	20 KLD	Domestic	5.0 KLD
Trade effluents	20 KLD					
Domestic	5.0 KLD					

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	<table border="1"> <tr> <td>Boiler of 8.0 TPH</td> <td rowspan="2">Mechanical dust collectors fol.by bag filters</td> </tr> <tr> <td>Thermic Fluid Heater -15 Lakh. K.cal/hr</td> </tr> </table>	Boiler of 8.0 TPH	Mechanical dust collectors fol.by bag filters	Thermic Fluid Heater -15 Lakh. K.cal/hr
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
<i>Table VI f 2: Stack monitoring at by APPCB on 16.06.2020</i>			
Source	SPM measured value	APPCB emission standards	
Stack attached to 8TPH & boiler	92.5 mg/ Nm ³	115 mg/ Nm ³	
<i>Table VI f 3: Ambient air quality monitoring by APPCB on 16.06.2020</i>			
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	<p>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.</p> <p>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.</p>	

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

		<i>Domestic</i>	<i>15 KLD</i>
<p><i>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.</i></p> <p><i>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.</i></p>			

Table VI.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	<i>Installation of magnetic flow meters with totalizer</i>	<i>Flow meters with totalizers at ETP inlet, MEE inlet and outlet</i>	
L	<i>Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location</i>	<i>Boiler of capacity 1x35 TPH</i>	<i>ESP</i>
		<i>Boiler of capacity 1x2.0 TPH</i>	<i>Bag filters</i>
		<i>Boiler of capacity 1x8 TPH; Fuel: Coal/Husk</i>	<i>Bag filters</i>
		<i>Thermo Fluid heater of capacity 1x20.0 Lakh.k.cal/hr; Fuel: Coal/Husk</i>	<i>Bag filters</i>
		<i>Thermo Fluid heater of capacity 1x40 Lakh.k.cal/hr; Fuel: Coal/Husk</i>	<i>Bag filters</i>
		<i>Thermic Fluid heater of capacity 1x6 Lakh.k.cal/hour; Fuel : Coal/Husk</i>	<i>Dust collectors</i>

		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 VI g 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/Nm ³	115 mg/Nm ³

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 ITPD 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

$$EC = PI \times N \times R \times S \times LF$$

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
<i>Total EC for violation</i>						271	85,50,000/-
<i>EC levied by APPCB on or after 17.01.2020</i>							10,00,000/-
<i>EC to be paid by unit to APPCB</i>							75,50,000/-
<i>Rupees Seventy- Five lacs and Fifty thousand Only</i>							

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 only 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 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 Budhakuva 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.”

5. The 5th respondent has filed their objection to the report of the Joint Committee along with certain documents to show that the observation made by the committee regarding the alleged insufficiency of the system that is being operated in their unit is not correct.
6. Though the applicant is absent, we feel that on the basis of the objections raised by the 5th respondent regarding the change in ownership of the 5th respondent unit, we direct the office to substitute the name of the 5th respondent as M/s. Adani Wilmar Limited represented by its Managing Director having its registered office at Fortune House, Near Navrangpura Railway Crossing, Ahmedabad – 380009, Gujarat, India.
7. The Office is directed to carry out the amendment in the cause title.
8. Other respondent units who have not filed their objections to the committee report are directed to file their objections within a period of 15 (Fifteen) days to this Tribunal by e-filing with a copy to the committee so that the committee can go into the objections and come with their findings on that aspect, apart from filing their further action taken report, after considering the objections to the findings arrived at by them to this Tribunal on or before 26.03.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

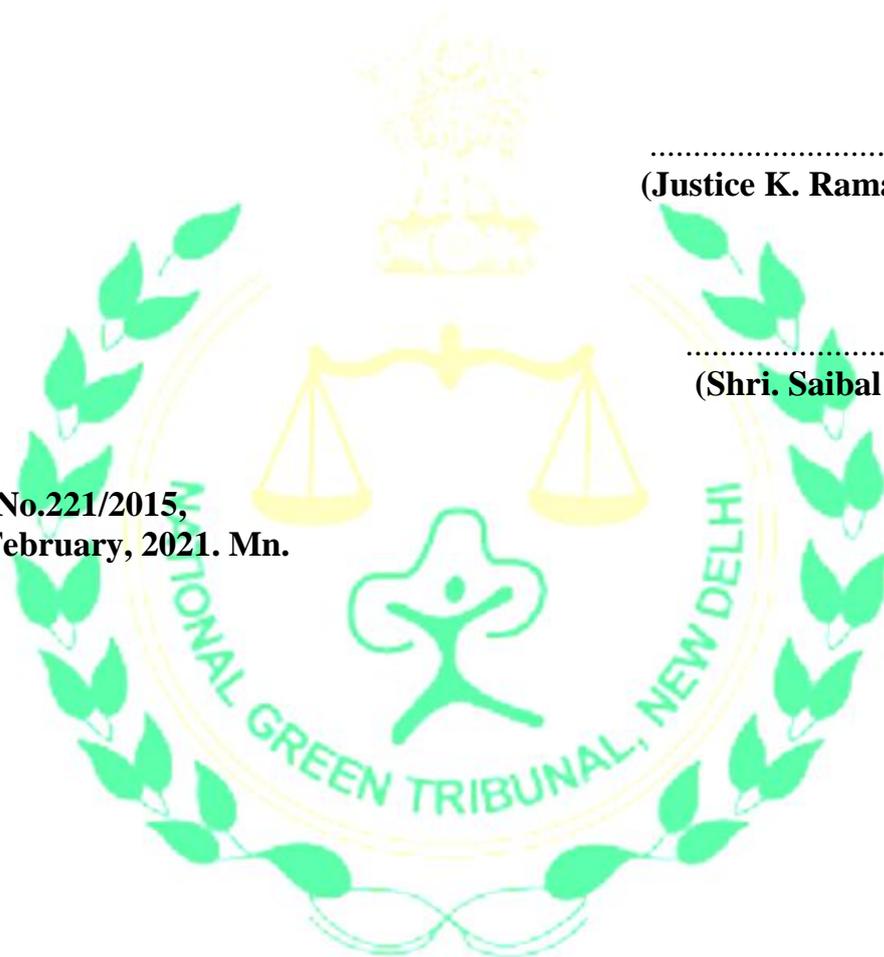
9. The Registry is directed to communicate this order to the members of the committee by e-mail immediately so as to enable them to comply with the direction.

10. For consideration of further report, objections if any, to the report, post on 26.03.2021.

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

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

O.A. No.221/2015,
03rd February, 2021. Mn.



Item No.7:

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.



सत्यमेव जयते

Versus

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

... Applicant(s)

... Respondent(s)

Date of hearing: 13.07.2021.

CORAM:

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

HON'BLE DR. K. SATYAGOPAL, EXPERT MEMBER

For Applicant(s): None Appeared.

For Respondent(s): Smt. Me. Saraswathy for R1.
Smt. Madhuri Donti Reddy for R2 to R4.
Sri. C. Seethapathy for Mr. P.R. Raman for R5.
Sri. D. Srinivasan for R6, R7, R9, R10.

Ms. N. Shivani for M/s. Apparajitha
Vishwanath for R8.
Ms. Krithika for Sri. Lakshmi Kumaran for
R11.

ORDER

1. As per order dated 03.02.2021, this Tribunal had considered the Joint Committee report dated 01.12.2020 received on 06.01.2021 and the same was extracted in para 4 of the order. Thereafter this Tribunal passed the following order:

5. The 5th respondent has filed their objection to the report of the Joint Committee along with certain documents to show that the observation made by the committee regarding the alleged insufficiency of the system that is being operated in their unit is not correct.

6. Though the applicant is absent, we feel that on the basis of the objections raised by the 5th respondent regarding the change in ownership of the 5th respondent unit, we direct the office to substitute the name of the 5th respondent as M/s. Adani Wilmar Limited represented by its Managing Director having its registered office at Fortune House, Near Navrangpura Railway Crossing, Ahmedabad – 380009, Gujarat, India.

7. The Office is directed to carry out the amendment in the cause title.

8. Other respondent units who have not filed their objections to the committee report are directed to file their objections within a period of 15 (Fifteen) days to this Tribunal by e-filing with a copy to the committee so that the committee can go into the objections and come with their findings on that aspect, apart from filing their further action taken report, after considering the objections to the findings arrived at by them to this Tribunal on or before 26.03.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF 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.

The case was posted to 26.03.2021 for consideration of further report and objection, if any, to the report. Thereafter the matter has been adjourned from time to time and lastly it was adjourned to today by notification dated 10.06.2021.

2. When the matter came up for hearing today through Video Conference, there is no representation for the applicant. Smt. Me. Saraswathy represented 1st respondent, Ms. Madhuri Donti Reddy represented respondents 2 to 4, Mr. P.R. Raman through Sri. C. Seethapathy represented 5th respondent, Sri. D. Srinivasan represented respondents 6, 7, 9 & 10, Ms. N. Shivani for Sri. Apparajitha Vishwanath represented 8th respondent and Ms. Krithika for Sri. Lakshmi Kumaran represented 11th respondent.
3. The Learned Counsel appearing for the State of Andhra Pradesh submitted that they want some more time for filing the report as directed by this Tribunal on the basis of the objections received from the party-respondents.
4. The matter is of the year 2015. However, considering the circumstances, we feel that some more time can be granted to the Committee to file the report as directed. The Committee is directed to submit the report on or before 11.08.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.
5. The Registry is directed to communicate this order to the members of the committee as well as official respondents for their information and compliance of the directions.

6. For consideration of further report, post on 11.08.2021.

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

O.A. No.221/2015,
13th July, 2021. AM.

.....E.M.
(Shri. Dr. K. Satyagopal)





To
Ms. Mahima-T, Scientist-D
Central Pollution Control Board, Regional Directorate,
Chennai (Joint Committee Member)

Date:07th August, 2021

Sub: Regarding inspection visits with reference to OA No.221/2015 pending before NGT, Southern bench, Chennai.

Dear Madam,

Reference is made to your recent visit to our factory on 29th July, 2021 at Adani Wilmar Limited (AWL), Unit-2, Survey No.1601, Epuru-1-B, Pantapalem Village, Muthukur Mandal, SPSR Nellore District, Andhra Pradesh-524323 and subsequent common meeting with all Industries at the premise of M/s Gemini Edibles and Fats India Pvt. Ltd. on 30th July, 2021. As per the NGT Order, joint committee has been vested with mandate to visit and inspect the site in question. There were few queries raised orally during the visit. We wish to submit our reply and update on the same in addition to our email updated via email on 31st July, 2021. We are also attaching summary PPT of improvements submitted via email on 31st July, 2021 for easy reference **(Annexure-C)**

Sl. No	Issues raised during the visit	Our response
1	Issue related to drawl of water from tankers and ground water. Industries shall plan for permanent solution and get approvals and water from that source.	Recently, all Industries got the Permission letter from Nellore Municipal Corporation for drawing the water through the pipeline. Since laying pipeline will take time, industry propose to take water by tankers from Nellore till completion of proposed pipeline. All industries are working on this proposal to start to get the water by tankers on priority from Municipality. Parallely, the industries are also exploring other alternatives as suggested in joint committee report. A letter to that effect is also submitted by Krishnapatnam Edible Oil Association (A copy of Letters from Nellore Municipal Corporation and Krishnapatnam Edible Oils Refiner's Association are enclosed as Annexures A and B respectively).
2	Issue of Fly Ash lying on northeastern direction on private land.	All industries have agreed to fill clay/ sand on the Ash lying on northeastern direction on private land, for the benefit of society and as part of their social responsibility. (A copy of Letters of Krishnapatnam Edible Oils Refiner's Association is enclosed as Annexure-B). <i>Note: AWL is selling ash only to authorised vendors and are not aware of the source of ash deposited on public land.</i>
3	Lying of Approach Road from Port Zero point to our Plant. Emami and Adani shall take initiative get the Road laying on priority.	Emami Agrotech Limited and AWL, Unit-II jointly have agreed to undertake activity of making approach road on priority provided we

Adani Wilmar Ltd
 Survey No 1601
 Village Pantapalem (Epuru1B)
 Sripottisriramulu, Nellore 524 323
 Andhra Pradesh, India
 CIN: U15146GJ1999PLC035320

Tel +91 8886641639
 info@adaniwilmar.in
 www.adaniwilmar.com

Page 1 of 2

		get necessary approvals in allocation of land area from District Collector, SPSR Nellore, General Manager, District Industry Centre (DIC) and Andhra Pradesh Industrial Infrastructure Corporation (APIIC). Andhra Pradesh Pollution Control Board and NGT may please give necessary directions for land clearance so that road making activity can be started on priority. We are also in touch with APIIC for the grant of land as per rules for laying road.
4	All Industries shall provide Rainwater Harvesting Pits as per ground water department and maintain to improve ground water.	We are currently having rainwater harvesting pit but as suggested during the visit we shall improve as per the requirements of ground water department. It is also stated in the joint committee report that unit is maintaining rainwater harvesting pits and summer storage tank of 1600 KL capacity.
5	It was suggested to ensure that the vendor collecting spent earth shall have CFO Authorization and maintain the storage area and surroundings.	We are ensuring that spent earth is sent to vendors who are having CFO authorization. The spent earth is currently stored in proper bunded area to ensure cleanliness of surroundings. Further, we are also providing closed doors in the storage area.
6	All Industries to maintain Oil Skimmer or other technology to take good separation of oil greases.	We have already installed oil skimmer as technology and further as advised we will install extra oil skimmer for good separation of oil and greases.
7	Industries should increase the Effluent storage capacity to maintain for one day breakdown or in case of emergency.	As directed, we will make the extra tank for the storage of effluent collection for one day breakdown or in case of emergency.
8	Online Stack monitor System should be connected to APPCB Portal for data transparency.	We already connected Online Stack monitor to APPCB Portal for data transparency. The same was confirmed in the joint committee report as well.
9	Road sweeping machine shall be used in place of manual sweeping to control the dust pollution.	We shall provide motorized sweeping machine to control dust pollution.

Name : Rajesh Itta
Designation : Factory Manager

For Adani Wilmar Limited



Adani Wilmar Ltd
Survey No 1601
Village Pantapalem (Epuru1B)
Sripottisriramulu, Nellore 524 323
Andhra Pradesh, India
CIN: U15146GJ1999PLC035320

Tel +91 8886641639/638
info@adaniwilmar.in
www.adaniwilmar.com

Page 2 of 2

(Regd-post)

To

the General manager,
Aaddani willmar unit - II
~~Mathur~~,
SPSR Nellore District.

5
DARGA



524323 post 28/7/21

PP

Redirected to
pantapalem

Handwritten text in Telugu script, possibly a postmark or stamp, including the date 28/7/21.

File No.NMC-ED0ACPT/150/2021-ASSTENG-NMC-NLR

NELLORE MUNICIPAL CORPORATION

From
Sri.K.Dinesh Kumar,I.A.S,
Commissioner
Municipal Corporation,
Nellore.

To
The General Manager,
Aadaani Willmar Unit - II,
Muthukur,
SPSR Nellore District.

Roc No: 54-5/MAE/NMC/2020-21 Dt: .07.2021

Sub: Nellore Municipal Corporation – Water Supply – Permission to obtain potable water from Sundaraiah Colony ELSR through tankers – Accorded – Regarding.

Ref: Review meeting held in the chambers of Commissioner, Nellore Municipal Corporation on 29.01.2021

@@@@@

It is to inform that, during the review meeting held in the reference cited, you have requested this office to provide potable water for operating the refineries, for running boilers, cooling the towers top-up, gardening and drinking purposes of your industry located in Pantapalem Panchayathy.

This office after comprehensive study accepted in principle to provide the water as required and in compliance with the rates stipulated in the by-laws of Nellore Municipal Corporation and on par with the G.O.MS.No: 159 Dt: 17.05.2018 by MA&UD department i.e Rs.60/- per Kilo Litre.

During the review meeting, the group of companies situated in Pantapalem Panchayathy have agreed to bare the cost for laying of pipe line from the existing source under the supervision of Nellore Municipal Corporation authorities.

Since, the laying of pipeline will take time, permission is here by accorded to draw the required water from Sundaraiah Colony ELSR, which shall be transported to the end point by making your own filling and transportation arrangements. The concerned parties shall ensure that the premises is maintained upto the satisfaction of Nellore Municipal Corporation. Nellore Municipal Corporation reserves the right to revoke the permission to supply of water. The concerned companies shall pay advance for 30 days, only after settling for 30 days, NMC provides water for the next period.

Your's Faithfully,

Commissioner

Nellore Municipal Corporation

Krishnapatnam Edible Oils Refiners Association

203, Diamond House, Behind Topaz Building, Panjagutta, Hyderabad - 500082, Telangana
(Regn. No. 1020 / 2014)

To
Ms. Mahima-T, Scientist-D
Central Pollution Control Board, Regional Directorate,
Chennai (Joint Committee Member)

Date: 7th August, 2021

Sub: Regarding inspection visits with reference to OA No.221/2015 pending before NGT, Southern bench, Chennai.

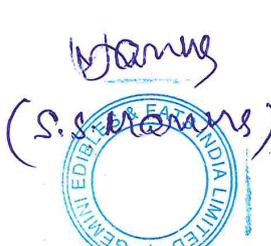
Dear Madam,

Reference is made to your recent visit to factories situated in Krishnapatnam which are part of association. We wish to submit that during the visit and in joint committee report dated 01.12.2020 certain common issues related to all edible oil industries were raised. We wish to submit our proposal with respect to same. As per NGT Order, joint committee has been vested with mandate to visit and inspect the factory sites in question. In continuation the site of various factories was visited between 29th July, 2021 to 30th July, 2021 and various suggestions were made by your goodself in joint meeting held at M/s Gemini. Post your visit, the industry associations have decided and mutually agreed to take below measures to resolve the issues stated in the joint committee report.

Sl.No.	Common issue raised in joint committee report	Proposed resolution
1	Issue related to drawl of water from tankers and ground water. Industries shall plan for permanent solution and get approvals and water from that source.	Recently, all Industries got the Permission letter from Nellore Municipality for drawing the water through the pipeline. Since laying pipeline will take time, industry propose to take water by tankers from Nellore till completion of proposed pipeline. All industries are working on this proposal to start to get the water by tankers on priority from Municipality. Parallely, the industries are also exploring other alternatives as suggested in joint committee report.
2	Issue of Fly Ash lying on northeastern direction of M/s Emami Agrotech Ltd in public land adjacent to M/s Gemini Edible Oils and M/s Emami Agrotech Ltd.	All industries have agreed to fill clay/ sand on the Ash dumped next to Emami Agrotech, for the benefit of society and as part of their social responsibility. <i>Note: Industry is selling ash only to authorised vendors and are not aware of the source of ash deposited on public land.</i>

Therefore, in view of the above for the two points it is requested to please consider aforesaid proposal.

()
Name:
Designation:
FOR KRISHNAPATNAM EDIBLE OILS REFINER'S ASSOCIATION



Tel. No. 040-67357888, 9701411125, E-Mail: keorassociation@gmail.com



For a healthy growing nation

ADANI WILMAR LIMITED

KP, Unit : 2

(NGT Visit- 29th Jul 21)



For a healthy growing nation





For a healthy growing nation

MEE Plant





For a healthy growing nation

MEE Plant





For a healthy growing nation

MEE Plant





For a healthy growing nation

MEE Plant - Flow Meter





For a healthy growing nation

Salt Sample & Outlet





For a healthy growing nation

Surrounding Roads





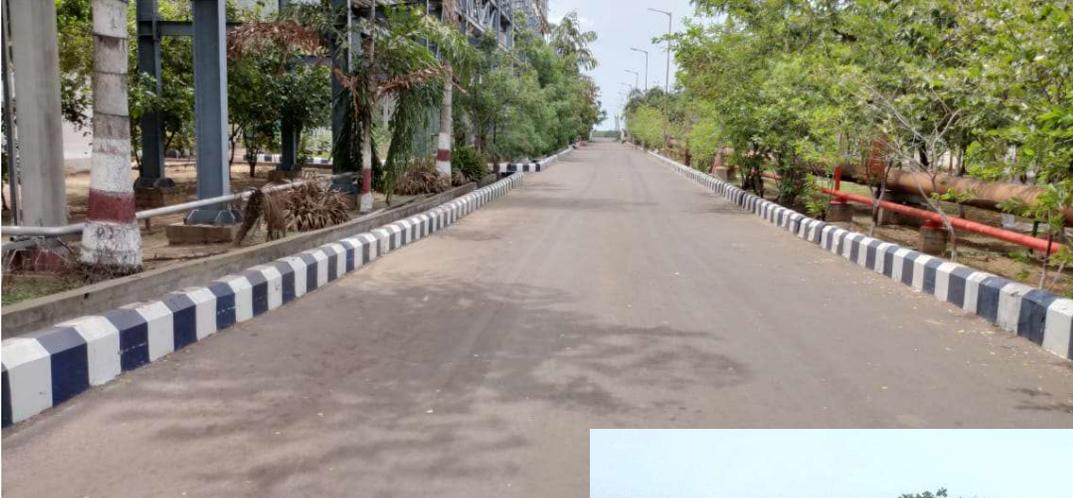
For a healthy growing nation

Surrounding Roads





For a healthy growing nation



Surrounding Roads





For a healthy growing nation

Admin Area Drainages





For a healthy growing nation

Boiler side area drainages



Eng. Store area drainages





For a healthy growing nation

Warehouse Surrounding Area Drainages

Great Place To Work®

Certified

2020-FEB 2021
INDIA





For a healthy growing nation

warehouse Surrounding Area Drainages





For a healthy growing nation

Refinery surrounding area drainages



Shot on OnePlus x Hasselblad





Refinery surrounding area drainages





For a healthy growing nation

T/F surrounding area drainages

Great Place To Work®

Certified

MAR 2020 - FEB 2021
INDIA





For a healthy growing nation

MEE plant area drainages





For a healthy growing nation

ETP Area Drainages





For a healthy growing nation

ETP Area





For a healthy growing nation

On Going Ash Silo Project

Great Place To Work®

Certified

MAR 2020 - FEB 2021
INDIA





For a healthy growing nation

Permission from Nellore Municipality for drawing water by tankers Annexure-C



File No.NMC-ED0ACPT/150/2021-ASSTENG-NMC-NLR
NELLORE MUNICIPAL CORPORATION

<p>From Sri.K.Dinesh Kumar,I.A.S, Commissioner Municipal Corporation, Nellore.</p>	<p>To The General Manager, Aadaani Wilmar Unit - II, Muthukur, SPSR Nellore District.</p>
---	--

Roc No: 54-5/MAE/NMC/2020-21 Dt: .07.2021

Sub: Nellore Municipal Corporation – Water Supply – Permission to obtain potable water from Sundaralah Colony ELSR through tankers – Accorded – Regarding.

Ref: Review meeting held in the chambers of Commissioner, Nellore Municipal Corporation on 29.01.2021

It is to inform that, during the review meeting held in the reference cited, you have requested this office to provide potable water for operating the refineries, for running boilers, cooling the towers top-up, gardening and drinking purposes of your industry located in Pantapalem Panchayathy.

This office after comprehensive study accepted in principle to provide the water as required and in compliance with the rates stipulated in the by-laws of Nellore Municipal Corporation and on par with the G.O.MS.No: 159 Dt: 17.05.2018 by MA&UD department i.e Rs.60/- per Kilo Litre.

During the review meeting, the group of companies situated in Pantapalem Panchayathy have agreed to bare the cost for laying of pipe line from the existing source under the supervision of Nellore Municipal Corporation authorities.

Since, the laying of pipeline will take time, permission is here by accorded to draw the required water from Sundaralah Colony ELSR, which shall be transported to the end point by making your own filling and transportation arrangements. The concerned parties shall ensure that the premises is maintained upto the satisfaction of Nellore Municipal Corporation. Nellore Municipal Corporation reserves the right to revoke the permission to supply of water. The concerned companies shall pay advance for 30 days, only after settling for 30 days, NMC provides water for the next period.

Your's Faithfully,
Commissioner
Nellore Municipal Corporation

Signed by Kothamasu
Dinesh Kumar I A S
Date: 23-07-2021 12:38:50



Annexure A





For a healthy growing nation

adani™
wilmar



*Thank
you*



**Report of the CPCB In-house Committee on
Methodology for Assessing Environmental
Compensation and Action Plan to Utilize the Fund**



**CENTRAL POLLUTION CONTROL BOARD
"Parivesh Bhawan", East Arjun Nagar,
Delhi-110032**

Table of Contents

Chapter-I: Environment Compensation to be levied on Industrial Units	3
1.1 Background.....	3
1.2 Constitution of the Committee	3
1.3 Methodology for Assessing Environmental Compensation	3
1.4 Action Plan for Utilization of Environmental Compensation Fund	6
1.5 Recommendations.....	7
Chapter-II: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi-NCR.	9
2.1 Background.....	9
2.2 Action Plan for Utilization of Environmental Compensation Fund	9
Chapter-III: Environmental Compensation to be levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules	10
3.1 Background.....	10
3.2 Ideology of Environmental Compensation Formula	10
3.3 Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/Authority:.....	12
3.4 Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:.....	14
3.3 Action Plan for Utilization of Environmental Compensation Fund	15
3.4 Recommendations.....	15
Chapter-IV: Environmental Compensation in Case of Illegal Extraction of Ground Water	17
4.1 Background.....	17
4.2 Constitution of the Committee	17
4.3 Methodology for Assessing Environmental Compensation	17
4.4 Ideology of Environmental Compensation w.r.to illegal extraction of ground water	17
4.5 Formula for Environmental Compensation for illegal extraction of ground water	18
4.6 Environmental Compensation Rate (ECR _{GW}) for illegal use of Ground Water	18
4.7 Relaxation.....	21
4.8 Recommendations.....	21
Annexure-I.....	22
Annexure-II.....	28
Annexure-III.....	31
Annexure-IV.....	34
Annexure-V.....	36
Annexure-VI.....	40
References.....	41

Abstract

Environmental compensation is a policy instrument for the protection of the environment which works on the Polluter Pay Principal. Environmental compensation has already been implemented in various countries, although limited in scope. Experiences from these implementations are mixed and tend to stress the importance of certain principles in order to achieve the overall objective of protection of the environment.

The Hon'ble National Green Tribunal through its various judgments has empowered the Central Pollution Control Board to lay down the methodology to assess and recover compensation for damage to the environment and utilize such amount in terms of an action plan for protection of the environment.

An attempt has been made by the CPCB in-house Committee to develop a methodology for assessing environmental compensation to be levied on concerned industry, authority, individual etc. for the protection of environment. Expert institutions/ NGOs like The Energy and Resources Institute, Centre for Science and Environment-India, Institute of Economic Growth etc. were also consulted to finalize the report. Overall objective is to develop self-sense of responsibility towards the environment and to make defaulters realize their mistake by imposing compensation, which will be utilized for the protection/restoration of the environment.

Although, this is the first attempt in India towards development of methodology for assessing environmental compensation, however, efforts have been made to simplifying the process so that regulatory institutions can easily adopt the methodology for implementation.

Chapter-I: Environment Compensation to be levied on Industrial Units

1.1 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors. directed Central Pollution Control Board (CPCB) that:

“The CPCB may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs. CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the CPCB within three months” (Annexure-I).

1.2 Constitution of the Committee

In this context, Chairman, CPCB constituted a Committee under the Chairmanship of Shri A. Sudhakar, I/c WQM-I with Shri A. K. Vidyarthi, I/c WQM-II, Shri P. K. Gupta, I/c IPC-VI, Shri Nazimuddin I/c IPC-II and Dr. S. K. Paliwal, Scientist 'D' as members. The Committee was asked to deliberate on this issue and come up with a draft formulation before 15.9.2018.

1.3 Methodology for Assessing Environmental Compensation

The Committee discussed the issue on 4.9.2018, 13.9.2018, 17.9.2018 and 09.10.2018. A meeting was also held with Senior Officers of CPCB Head Office and Regional Directorates through video conferencing on 28.09.2018 to discuss the draft report and to seek comments/feedbacks. The comments/feedbacks received and deliberations of the Committee on the same are given in **Annexure-II**.

As per the Hon'ble NGT suggestion, CPCB has invited comments of 3 expert institution, namely, Centre for Science and Environment (CSE), Institute of Economic Growth (IEG) and The Energy Research Institute (TERI). A meeting to incorporate the comments of the expert institutions and to finalize the report, was held on 27/03/2019. The CPCB in-house committee on Environmental Compensation has deliberated on the comments and finalized the report accordingly. The Committee's deliberations are attached as **Annexure-III**.

It was deliberated for developing a formula for imposing environmental compensation on industrial units for violation of directions issued by regulatory bodies and this is the first attempt made. The committee discussed that environmental compensation should be based on "Polluter Pay Principle". The Committee decided to list the instances for taking cognizance of cases fit for violation and levy environmental compensation.

Cases considered for levying Environmental Compensation (EC):

- a) Discharges in violation of consent conditions, mainly prescribed standards / consent limits.
- b) Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted etc.
- c) Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems.
- d) Accidental discharges lasting for short durations resulting into damage to the environment.
- e) Intentional discharges to the environment -- land, water and air resulting into acute injury or damage to the environment.
- f) Injection of treated/partially treated/ untreated effluents to ground water.

1.3.1 In the instances as mentioned at *a, b and c* above, Pollution Index may be used as a basis to levy the Environmental Compensation. CPCB has published guidelines for categorization of industries into Red, Orange, Green and White based on concept of Pollution Index (PI). The Pollution Index is arrived after considering quantity & quality of emissions/ effluents generated, types of hazardous wastes generated and consumption of resources. Pollution Index of an industrial sector is a numerical number in the range of 0 to 100 and can be represented as follows:

$$PI = f(\text{Water Pollution Score, Air Pollution Score \& HW Generation Score})$$

Pollution Index is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution *hazard from the industrial sector*.

CPCB has issued directions to all SPCBs/PCCs on 07.03.2016 to adopt the methodology and follow guidelines prepared by CPCB for categorization of industrial sectors into Red, Orange, Green and White.

The concept of Pollution Index, which was deliberated widely with all stakeholders and agreed, shall be used for calculating Environmental Compensation. This may help in implementation of such provision throughout the country, a successful initiative in vital field of industrial pollution control.

After considering various factors including the policy implementation issues, Committee has come up with following formula for levying the Environmental Compensation in instances as mentioned at *a, b and c* including non-compliance of the environmental standards / violation of directions.

The Environmental Compensation shall be based on the following formula:

$$EC = PI \times N \times R \times S \times LF$$

Where,

- EC is Environmental Compensation in ₹
 PI = Pollution Index of industrial sector
 N = Number of days of violation took place
 R = A factor in Rupees (₹) for EC
 S = Factor for scale of operation
 LF = Location factor

The formula incorporates the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to the large habitations.

Note:

- The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. It was suggested that the average pollution index of 80, 50 and 30 may be taken for calculating the Environmental Compensation for Red, Orange and Green categories of industries, respectively.
- N, number of days for which violation took place is the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by CPCB/SPCB/PCC.
- R is a factor in Rupees, which may be a minimum of 100 and maximum of 500. It is suggested to consider R as 250, as the Environmental Compensation in cases of violation.
- S could be based on small/medium/large industry categorization, which may be 0.5 for micro or small, 1.0 for medium and 1.5 for large units.
- LF, could be based on population of the city/town and location of the industrial unit. For the industrial unit located within municipal boundary or up to 10 km distance from the municipal boundary of the city/town, following factors (LF) may be used:

Table No. 1.1: Location Factor Values

S. No.	Population* (million)	Location Factor# (LF)
1	1 to <5	1.25
2	5 to <10	1.5
3	10 and above	2.0

*Population of the city/town as per the latest Census of India

#LF will be 1.0 in case unit is located >10km from municipal boundary

LF is presumed as 1 for city/town having population less than one million.

For notified Ecologically Sensitive areas, for beginning, LF may be assumed as 2.0. However, for critically Polluted Areas, LF may be explored in future.

- f. In any case, minimum Environmental Compensation shall be ₹ 5000/day.
- g. In order to include deterrent effect for repeated violations, EC may be increased on exponential basis, i.e. by 2 times on 1st repetition, 4 times on 2nd repetition and 8 times on further repetitions.
- h. If the operations of the industry are inevitable and violator continues its operations beyond 3 months then for deterrent compensation, EC may be increased by 2, 4 and 8 times for 2nd, 3rd and 4th quarter, respectively. Even if the operations are inevitable beyond 12 months, violator will not be allowed to operate.
- i. Besides EC, industry may be prosecuted or closure directions may be issued, whenever required.

A sample calculation for Environmental Compensation (without deterrent factor) is given at Table No. 1.2. It can be noticed that for all instances, EC for Red, Orange and Green category of industries varies from 3,750 to 60,000 ₹/day.

Table No. 1.2: A sample calculation for Environmental Compensation

Industrial Category	Red	Orange	Green
Pollution Index (PI)	60-100	41-59	21-40
Average PI	80	50	30
R-Factor	250		
S-Factor	0.5-1.5		
L-Factor	1.00-2.00		
Environmental Compensation (₹/day)	10,000-60,000	6,250-37,500	5,000-22,500

1.3.2 In other instances i.e. *d, e and f*, the environmental compensation may contain two parts – one requires providing immediate relief and other long-term measures such as remediation. In all these cases, detailed investigations are required from expert institutions/organizations based on which environmental compensation will be decided. CPCB shall list the expert institutions for this purpose.

In such cases, comprehensive plan for remediation of environmental pollution may be prepared and executed under the supervision of a committee with representatives of SPCB, CPCB and expert institutions/organizations.

1.4 Action Plan for Utilization of Environmental Compensation Fund

The Committee discussed about the utilization of funds, which will be received by imposing Environmental Compensation. The following Action Plan is proposed to utilize the fund for protection of the environment.

1.4.1. When Environmental Compensation is calculated through the Pollution Index:

The amount received by imposing the Environmental Compensation to the industries / organization non-complying with the environmental standards / violating any CPCB's directions shall be deposited in a separate bank account. The amount accumulated will be utilized for Protection of Environment. The following schemes were identified, which may be considered for utilization of Environmental Compensation Fund:

- a. Industrial Inspections for compliance verification
- b. Installation of Continuous water quality monitoring stations / Continuous ambient air quality monitoring stations for strengthening of existing monitoring network
- c. Preparation of Comprehensive Industry Documents on Industrial Sectors / clean technology
- d. Investigations of environmental damages, preparation of DPRs
- e. Remediation of contaminated sites
- f. Infrastructure augmentation of Urban Local Bodies (ULBs) /capacity building of SPCBs/PCCs

The above proposed list may include other schemes also, depending upon the requirement.

Considering the availability of accumulated funds, CPCB will finalize the scheme, keeping in mind the priority, to utilize the funds of Environmental Compensation.

1.4.2. When Environmental Compensation is assessed based on actual damage to the environment by Expert Organization/ Agency:

The amount of Environmental Compensation under this case will be remediation costs, measures requiring immediate and short-term actions, compensation towards loss of ecology, etc., and will be utilized exclusively for the purpose at specific site, based on the detailed investigations by the Expert Organizations/ agencies.

1.5 Recommendations

The Committee made following recommendations:

- 1.5.1 To begin with, Environmental Compensation may be levied by CPCB only when CPCB has issued the directions under the Environment (Protection) Act, 1986. In case of a, b and c, Environmental Compensation may be calculated based on the formula "EC = PI x N x R x S x LF", wherein, PI may be taken as 80, 50 and 30 for red, orange and green category of industries, respectively, and R may be taken as 250. S and LF may be taken as prescribed in the preceding paragraphs.

- 1.5.2 In case of d, e and f, the Environmental Compensation may be levied based on the detailed investigations by Expert Institutions/Organizations.
- 1.5.3 The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others (Writ Petition (Civil) No. 375 of 2012), directed that all running industrial units which require "consent to operate" from concerned State Pollution Control Board, have a primary effluent treatment plant in place. Therefore, no industry requiring ETP, shall be allowed to operate without ETP.
- 1.5.4 EC is not a substitute for taking actions under EP Act, Water Act or Air Act. In fact, units found polluting should be closed/prosecuted as per the Acts and Rules.

Chapter-II: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in NCR.

2.1 Background

The CPCB In-house Committee also discussed that the EC shall also be levied on all violations of Graded Response Action Plan (GRAP) in NCR. The implementing agencies for each activity have been identified and the EC will be levied on these agencies. These violations attract graded amounts of EC depending on the state of ambient air quality, which is given in table below:

Table No. 2.1: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi-NCR.

Activity	State Of Air Quality	Environmental Compensation ()
Industrial Emissions	Severe +/-Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Vapour Recovery System (VRS) at Outlets of Oil Companies		
i. Not installed	Target Date	Rs 1.0 Crore
ii. Non-functional	Very poor to Severe +	Rs 50.0 Lakh
	Moderate to Poor	Rs 25.0 Lakh
Construction sites (Offending plot more than 20,000 Sq.m.)	Severe +/-Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Solid waste/ garbage dumping in Industrial Estates	Very poor to Severe +	Rs 25.0 Lakh
	Moderate to Poor	Rs 10.0 Lakh
Failure to water sprinkling on unpaved roads		
a) Hot-spots	Very poor to Severe +	Rs 25.0 Lakh
b) Other than Hot-spots	Very poor to Severe +	Rs 10.0 Lakh

2.2 Action Plan for Utilization of Environmental Compensation Fund

EC levied on all violations of Graded Response Action Plan (GRAP) in Delhi NCR will be deposited in the same fund and will be utilized in the same manner as mentioned in para 1.4.1 of Chapter-I of this report.

Chapter-III: Environmental Compensation to be levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules

3.1 Background

The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others (Writ Petition (Civil) No. 375 of 2012), directed State Governments (including the concerned Union Territories) to set-up Sewage Treatment Plants (STPs), which are already under implementation, within the time lines already postulated. Further, the STPs, which are yet to set-up, to be completed within a period of three years, from today, i.e. by 22.02.2020.

The Hon'ble NGT in its order dated 06.12.2018 (**Annexure-III**) in the matter of Court of its own motion v/s State of Karnataka (Original Application No. 125/2017 and M.A. No. 1337/2018) has given following directions:

“Since failure of preventing the pollutants being discharged in water bodies (including lakes) and failure to implement solid and other waste management rules are too frequent and widespread, the CPCB must lay down specific guidelines to deal with the same, throughout India, including the scale of compensation to be recovered from different individuals/authorities, in addition to or as alternative to prosecution. The scale may have slabs, depending on extent of pollution caused, economic viability, etc. Deterrent effect for repeated wrongs may also be provided.”

3.2 Ideology of Environmental Compensation Formula

In compliance of the directions of the Hon'ble Tribunal, the Committee deliberated on the issue of environmental compensation to be recovered from individuals/authorities in case of failure of preventing the pollutants being discharged in water bodies and failure to implement solid and other waste management rules. The Committee has suggested that environmental compensation in these cases should be comprised of two components i.e.

1. Cost saved/benefits achieved by the concerned individual/authority by not having proper waste/sewage management system; and
2. Cost to the environment (environmental externality) due to untreated/partially treated waste/sewage because of insufficient capacity of waste/sewage management/treatment facility.

Cost saved/benefits achieved by not having proper waste/sewage management system includes the interest on capital cost of the waste/sewage management facility and daily operation and maintenance (O&M) cost associated with the facility.

The Committee suggested that annual interest rate as 10% on loan amount, borrowed by concerned individual/authority for setting-up waste/sewage management facility, may be assumed as Capital Cost Factor for calculation of environment compensation. Further, as whole O&M cost is saved by concerned individual/authority for not managing required waste/sewage management system, 100% of the O&M cost saved may be considered as O&M cost factor.

Therefore, generalized formula for Environmental Compensation may be described as:

$$EC = \text{Capital Cost Factor} \times \text{Marginal Average Capital Cost for Establishment of Waste or Sewage Management or Treatment Facility} \times (\text{Waste or Sewage Management or Treatment Capacity Gap}) + \text{O\&M Cost Factor} \times \text{Marginal Average O\&M Cost} \times (\text{Waste or Sewage Management or Treatment Capacity Gap}) \times \text{No. of Days for which facility was not available} + \text{Environmental Externality}$$

Cost to the environment due to untreated/partially treated waste/sewage discharge by concerned individual/authority may be assumed as recommended by the committee, which is mentioned below:

Table No. 3.1: Environmental externality for untreated/partially treated sewage discharge

Sewage Treatment Capacity Gap (MLD)	Marginal Cost of Environmental Externality (Rs. per MLD/day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	75	Min. 0.05, Max. 0.10
201-500	85	Min. 0.25, Max. 0.35
501 and above	90	Min. 0.60, Max. 0.80

Table No. 3.2: Environmental externality for improper municipal solid waste management

Municipal Solid Waste Management Capacity Gap (TPD)	Marginal Cost of Environmental Externality (Rs. per ton per day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	15	Min. 0.01, Max. 0.05
201-500	30	Min. 0.10, Max. 0.15
501-1000	35	Min. 0.25, Max. 0.35
1001-2000	40	Min. 0.50, Max. 0.60
Above 2000		Max. 0.80

The Committee further decided to fix a cap for minimum and maximum cost for capital and O&M component for Environmental Compensation, which are given in below tables:

Table No. 3.3: Minimum and Maximum EC to be levied for untreated/partially treated sewage discharge

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5

Table No. 3.4: Minimum and Maximum EC to be levied for improper municipal solid waste management

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0

The application of formula for calculation of EC may be further understood with the example of two typical cases.

3.3 Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/Authority:

BIS IS-1172:1993 suggests that for communities with population above 100,000, minimum of 150 to 200 lpcd of water demand is to be supplied. Further, 85% of return rate (CPHEEO Manual on Sewerage and Sewage Treatment Systems, 2013), may be considered for calculation of total sewage generation in a city. CPCB Report on "Performance evaluation of sewage treatment plants under NRC, 2013", describes that the capital cost for 1 MLD STP ranges from 0.63 Cr. to 3 Cr. and O&M cost is around Rs. 30,000 per month. After detail deliberations, the Committee suggested to assume capital cost for STPs as Rs. 1.75 Cr/MLD (marginal average cost). Further, expected cost for conveyance system is assumed as Rs. 5.55 Cr./MLD (marginal average cost) and annual O&M cost as 10% of the combined capital cost. Population of the city may be taken as per the latest Census of India. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total Generation-Installed Capacity) + Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)] + O&M Cost Factor x Marginal Average O&M Cost x (Total Generation- Operational Capacity) x No. of Days for which facility was not available + Environmental Externality x No. of Days for which facility was not available

Alternatively;

EC (Lacs Rs.) = [17.5(Total Sewage Generation – Installed Treatment Capacity) + 55.5(Total Sewage Generation-Operational Capacity)] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) x N

Where; N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Quantity of Sewage is in MLD

Table No. 3.5: Sample calculation for EC to be levied for discharge of untreated/partial treated Sewage

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Sewage Generation (MLD) (as per the latest data available with CPCB)	4195	381	486	37
Installed Treatment Capacity (MLD) (as per the latest data available with CPCB)	2500	220	404	45.5
Operational Capacity (MLD) (as per the latest data available with CPCB)	1900	140	300	24.5
Treatment Capacity Gap (MLD)	2295	241	186	12.5
Calculated EC (capital cost component for STPs) in Lacs Rs.	29662.50	2817.50	1435.00	0.00
Calculated EC (capital cost component for Conveyance System) in Lacs. Rs.	127372.50	13375.50	10323.00	693.75
Calculated EC (Total capital cost component) in Lacs Rs.	157035.00	16193.00	11758.00	693.75
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000	Min. 100 Max. 1000
Final EC (Total Capital Cost Component) in Lacs Rs.	20000.00	10000.00	1000.00	693.75
Calculated EC (O&M Component in Lacs Rs./day)	459.00	48.20	37.20	2.50
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5	Min. 0.5 Max. 5
Final EC (O&M Component) in Lacs. Rs./Day	20.00	10.00	5.00	2.50
Calculated Environmental Externality (Lacs Rs .Per Day)	2.0655	0.2049	0.1395	0.0094
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)	Min. 0.60 Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.05 Max. 0.10	Min. 0.05 Max. 0.10
Final Environmental Externality (Lacs Rs. Per day)	0.80	0.25	0.10	0.05

3.4 Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:

It is known that estimated MSW generation is approximately 1.5 lakh MT/Day in India (MoHUA Report-2016). As per the principles of SWM Rules, 2016 and PWM Rules 2016, as amended in 2018, the total cost of Municipal Solid Waste management in a city/town includes cost for door to door collection, cost of segregation at source, cost for transportation in segregated manner, cost for processing of MSW and disposal through facility like composting, biomethanation, recycling, co-processing in cement kilns etc.

In view of above, it is estimated that the total cost of processing and treatment of MSW for a city having population size of 1 lakh and generating approximately 50 tons/day of MSW is Rs.15.5 Crores, including capital cost (one time) and O & M cost for one year. The expenditure for subsequent years would be only Rs. 3.5 crores/annum.

CPCB sponsored a survey to ascertain the status of municipal solid waste disposal in 59 cities/towns of India. The survey was conducted by the Environment Protection Training Research Institute (EPTRI), Hyderabad. As per the survey, it is estimated that solid waste generated in small, medium and large cities and towns is about 0.1 kg (Class-III), 0.3-0.4 kg (Class-II) and 0.5 kg (Class-I) per capita per day respectively. The committee opined that 0.6 kg/day, 0.5 kg/day and 0.4 kg/day per capita waste generation may be assumed for mega-cities, million-plus UAs/towns and Class-I UA/Towns respectively for calculation of environmental compensation purposes. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC = Capital Cost Factor x Marginal Average Cost for Waste Management x (Per day waste generation-Per day waste disposed as per the Rules) + O&M Cost Factor x Marginal Average O&M Cost x (Per day waste generation-Per day waste disposed as per the Rules) x Number of days violation took place + Environmental Externality x N

Where;

Waste Quantity in tons per day (TPD)

N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Simplifying;

EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) +0.02 (Waste Generation - Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N

Table No. 3.6: Sample calculation for EC to be levied for improper management of Municipal Solid Waste

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Waste Generation (kg. per person per day)	0.6	0.5	0.4	0.4
Waste Generation (TPD)	9809.90	880.14	350.79	200.31
Waste Disposal as per Rules (TPD) (<i>assumed as 25% of waste generation for sample calculation</i>)	2452.47	220.04	87.70	50.08
Waste Management Capacity Gap (TPD)	7357.42	660.11	263.09	150.23
Calculated EC (capital cost component) in Lacs. Rs.	17657.82	1584.26	631.42	360.56
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000	Min. 100 Max. 1000
Final EC (capital cost component) in Lacs. Rs.	10000.00	1584.26	631.42	360.56
Calculated EC (O&M Component) in Lacs. Rs./Day	147.15	13.20	5.26	3.00
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./Day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lacs. Rs./Day	10.00	5.00	1.00	1.00
Calculated Environmental Externality (Lacs Rs. Per Day)	2.58	0.18	0.03	0.02
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. per day)	Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.01 Max. 0.05	Min. 0.01 Max. 0.05
Final Environmental Externality (Lacs Rs. per day)	0.80	0.25	0.03	0.02

3.3 Action Plan for Utilization of Environmental Compensation Fund

EC levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules will be deposited in the same fund and will be utilized in the same manner as mentioned in para 1.4.1 of Chapter-I of this report.

3.4 Recommendations

1. The Committee recommended that to begin with, Environmental Compensation to be recovered from individuals/authorities in case of failure of preventing the pollutants being discharged in water bodies and failure to implement solid waste management rules may be calculated with the methodology described in the report.
2. If mixing of Bio-medical Waste or Hazardous Waste is found in Municipal Solid Waste than capital cost component of EC may be increased by a multiplication factor of 1.5.

3. In order to include deterrent effect for continuous violations, component of O&M and Environmental Externality in EC formula may be increased on exponential basis by 2, 4, and 8 times after every six-months, beyond the time prescribed by authority for ensuring complete treatment of sewage/waste of the city/town.

Chapter-IV: Environmental Compensation in Case of Illegal Extraction of Ground Water

4.1 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of Shailesh Singh v/s Central Ground Water Board & Ors. (Original Application No. 327/2018) vide order dated 03/01/2019 (**Annexure-V**) directed Central Pollution Control Board (CPCB) that:

“CPCB may constitute a mechanism to deal with individual cases of violation of norms, as existed prior to Notification of 12/12/2018, to determine the environment compensation to be recovered or other coercive measures to be taken, including prosecution, for past illegal extraction of ground water, as per law.”

4.2 Constitution of the Committee

In compliance to Hon'ble NGT dated 03/01/2019, CPCB constituted a committee under the Chairmanship of Shri A. Sudhakar, DH, WQM-I Division with Shri P. K. Gupta, DH, IPC-VI, Shri Vishal Gandhi, Sc. D, UPC-I Division and Smt. Suniti Parashar, Scientist B, WQM-I Division as members. The committee was asked to deliberate on this issue and come up with draft formulation of mechanism to determine the Environmental Compensation for illegal extraction of ground water.

4.3 Methodology for Assessing Environmental Compensation

The committee discussed the issue on 07/02/2019, 07/03/2019 and 20/3/2019. The committee deliberated on the issue of Environmental Compensation to be recovered from individuals/industries such as domestic, packaging drinking water units, mining & infrastructure projects and industrial units in case of illegal extraction of ground water. The Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015 were also discussed and based on this further formulation to levy Environmental Compensation has been evolved.

4.4 Ideology of Environmental Compensation w.r.to illegal extraction of ground water

Ground water is becoming an increasingly scarce resource because of its unabated and indiscriminate over-exploitation. Growth in ground water exploitation, however, has led to a steep fall in water table in several parts of the country. Use of ground water is becoming unsustainable day by day. The falling water table is a matter of special concern since it tends to reduce the accessibility of the resource to small and marginal farmers due to increase in costs of extractions.

Specific conditions applicable in Notified/Non-Notified areas for various users, as mentioned in Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015 are given below:

For Notified Areas:

1. Permission to abstract ground water through any energized means will not be accorded for any purpose other than drinking water.

2. Central Ground Water Authority (CGWA) so far has notified 162 areas, in the country for the purpose of regulation of ground water development.
3. Regulation of Ground Water development in Notified areas is through District Administrative Heads assisted by Advisory Committees under the provisions of Section 4 of the Environment (Protection) Act, 1986.
4. In Notified areas, ground water use in individual houses, infrastructure complexes like group housing societies, hospitals, schools etc. and drinking water requirements of workers in industries can be allowed.
5. NOC for ground water withdrawal will be considered only if Water Supplying Department is not providing adequate water in the area/premises. Proof for this is to be produced from the concerned authority by the applicant.
6. For individual houses, the maximum diameter of the tube-well should be restricted to 4 inch only and the capacity of the pump should not exceed 1HP. For infrastructure projects, maximum diameter of the ground water abstraction structures should be restricted to 150 mm (6 inches) only and capacity of the pump should not exceed 5 HP.
7. Any violation of the above conditions will attract legal action under Section 15 of the Environment (Protection) Act, 1986.

For Non-Notified Areas:

NOC for ground water withdrawal will be considered for industries/infrastructure/packaging as per safe, semi critical, critical and over-exploited criteria.

4.5 Formula for Environmental Compensation for illegal extraction of ground water

The committee decided that the formula should be based on water consumption (Pump Yield & Time duration) and rates for imposing Environmental Compensation for violation of illegal abstraction of ground water. The committee has proposed following formula for calculation of Environmental Compensation (EC_{GW}):

EC_{GW}	=	Water Consumption per Day x No. of Days x Environmental Compensation Rate for illegal extraction of ground water (ECR_{GW})
-----------	---	---

Where water Consumption is in m^3/day and ECR_{GW} in $Rs./m^3$

Yield of the pump varies based on the capacity/power of pump, water head etc. For reference purpose, yield of the pump may be assumed as given in **Annexure-VI**.

Time duration will be the period from which pump is operated illegally.

In case of illegal extraction of ground water, quantity of discharge as per the meter reading or as calculated with assumptions of yield and time may be used for calculation of EC_{GW} .

4.6 Environmental Compensation Rate (ECR_{GW}) for illegal use of Ground Water

The committee decided that the Environmental Compensation Rate (ECR_{GW}) for illegal extraction of ground water should increase with increase in water consumption as well as water scarcity in the area. Further, ECR_{GW} are kept relaxed for drinking and domestic use as compared to other uses, considering the basic need of human being.

As per CGWB, safe, semi-critical, critical and over-exploited areas are categorized from the ground water resources point of view (CGWB, 2017). List of safe, semi-critical, critical and over-exploited areas are available on the website of CGWB and can be accessed from- <http://cgwa-noc.gov.in/LandingPage/NotifiedAreas/CategorizationOfAssessmentUnits.pdf#ZOOM=150>.

Environmental Compensation Rates (EC_{GW}) for illegal use of ground water (EC_{GW}) for various purposes such as drinking/domestic use, packaging units, mining and industrial sectors as finalized by the committee are given in tables below:

4.6.1 EC_{GW} for Drinking and Domestic use:

Drinking and Domestic use means uses of ground water in households, institutional activity, hospitals, commercial complexes, townships etc.

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<2	2 to <5	5 to <25	25 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	4	6	8	10
2	Semi Critical	12	14	16	20
3	Critical	22	24	26	30
4	Over-Exploited	32	34	36	40
Minimum EC_{GW}=Rs 10,000/- (for households) and Rs. 50,000 (for institutional activity, commercial complexes, townships etc.)					

4.6.2 EC_{GW} for Packaged drinking water units:

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over-exploited	48	72	96	120
Minimum EC_{GW}=Rs 1,00,000/-					

4.6.3 EC_{GW} for Mining, Infrastructure and Dewatering Projects

Sl. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (EC_{GW}) in Rs./ m^3					
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over-exploited	60	90	120	150
Minimum EC_{GW}=Rs 1,00,000/-					

4.6.4 ECR_{GW} for Industrial Units:

Sl. No.	Area Category	Water Consumption (m ³ /day)			
		<200	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (ECR _{GW}) in Rs./m ³					
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150
4	Over-exploited	80	120	160	200
Minimum ECR_{GW}=Rs 1,00,000/-					

For better understanding of implementation of ECR_{GW} policy, some example calculations are given below:

Example No. 1 (For drinking and domestic Use):

It is observed that a household in safe zone is extracting ground water illegally from past 2 year and 3 months with the help of 1 HP pump, dia 4 inches and head as 25 meter. It is assumed that the house-owner runs the pump for 0.5 hr/day. What Environmental Compensation (EC_{GW}) will be charged to the owner?

Solution: Pump Yield (Please refer Annexure-VI) = 3 m³/hr
 Daily Consumption = 3 x 0.5 = 1.5 m³
 ECR_{GW} = 4 Rs./m³ (Please refer para 4.6.1)
 EC to be levied = 4 x 1.5 = 6 Rs./day
 Total time period = 820 days
 Then, EC_{GW} = 6 x 820
 Calculated EC_{GW} = 4,920 Rs.

EC_{GW} to be levied = 10,000 Rs. (minimum prescribed ECR_{GW}, please refer para 4.6.1)

Example 2 (For Industrial Units):

It is observed that an industry in critical zone is extracting ground water illegally from past 1 year with the help of 5 HP pump, dia 6 inches and head as 50 meter. It is assumed that the industry runs the pump for 3 hrs/day. What Environmental Compensation (EC_{GW}) will be charged to the owner?

Solution: Pump Yield (Please refer Annexure-VI) = 12 m³/hr
 Daily Consumption = 12 x 3 = 36 m³/day
 ECR_{GW} = 60 Rs./m³ (Please refer para 4.6.4)
 EC to be levied = 60 x 36 = 2,160 Rs./day
 Total time period = 365 days
 Then, EC_{GW} = 2,160 x 365
EC_{GW} = 7,88,400 Rs.

4.7 Relaxation

Central Ground Water Authority (CGWA) reserves to right to relax or interpret these mechanisms in case of any exigency or situation of National strategic importance, as per Guidelines/Criteria for evaluation of proposals/requests for Ground Water Abstraction, 2015.

4.8 Recommendations

The committee has given following recommendations:

- The minimum Environmental Compensation for illegal extraction of ground water for domestic purpose will be Rs. 10,000, for institutional/commercial use will be 50,000 and for other uses will be 1,00,000.
- In case of fixation of liability, it always lies with current owner of the premises where illegal extraction is taking place.
- Time duration may be assumed to be one year in case where no evidence for period of installation of bore well could be established.
- For Drinking and Domestic use, where metering is not present but storage tank facility is available, minimum water consumption per day may be assumed as similar to the storage capacity of the tank.
- For industrial ground water use, where metering is not available, water consumption may be assumed as per the consent conditions. Further, where in case industry is operating without consent, water consumption may be calculated based on the plant capacity (on the recommendation of SPCB/PCC, if required). SPCB/PCC may bring the issue of illegal extraction of ground water in industries in to the notice of CGWA for appropriate action by CGWA.
- Authorities assigned for levy EC and taking penal action are listed below:

S. No.	Actions	Authority
1.	To seal the illegal bore-well/tube-well to stop extraction of water and further closure of project	District Collector
2.	To levy EC _{GW} as per prescribed method	District Collector, CGWA
3.	To levy EC on water pollution, as per the method prescribed in report of CPCB- "EC on industrial pollution"	CPCB/SPCB/PCC
4.	Prosecution of violator	CGWA under EP Act
		SPCB/PCC under Air and Water Act

- CGWA may maintain a separate account for collection and utilization of fund, collected through the prescribed methodology in this report.

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 593/2017
(W.P. (Civil) No. 375/2012)

In the matter of:

Paryavaran Suraksha Samiti & Anr.
Vs.
Union of India & Ors.

CORAM : HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE DR. JUSTICE JAWAD RAHIM, JUDICIAL MEMBER
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Present: Applicant: Mr. Rohit Prajapati, Applicant in person
Amicus Curiae: Mr. Jai A. Dehadrai, Adv.
Respondent Nos. Mr. Nishe Rajan Shonker, Adv. for State of Kerala
Mr. Tarunvir Singh Khehar, Ms. Guneet Khehar
Mr. Sandeep Mishra Advs. for GNCTD
Mr. Anil Shrivastava Mr Rituraj Bswas and
Ms. Sujaya Bardhan, Advs. for State of Arunachal Pradesh
Mr. Jogy Scaria, Ms. Beena Victor, Advs. for Kerala State Pollution Control Board
Mr. Avijit Roy, Adv. for Assam Pollution Control Board
Mr. Leishangthem Roshmani Kh, Ms. Maibam Babina, Advs. for State of Manipur
Mr. Nikhil Nayyar, Mr. Dhananjay Baijal, Advs. for APPCB and TSPCB
Mr. Mukesh Verma, Adv.
Mr. Tarunvir Singh Khehar, Adv., Mr. Sandeep Mishra and Ms. Guneet Khehar, Adv.
Mr. Dinesh Jindal, LO for DPCC
Ms. Aruna Mathur, Mr. Avneesh Arputham, Ms. Simraj Jeet and Ms. Anuradha Arputham, Advs. for State of Sikkim
Mr. Raja Chatterjee, Mr. Piyush Sachdev, Ms. Abhinandini Yadav, Advs. and Advs. for State of WB
Mr. Edward Belho, AAG, Mr. K. Luikang Michael and Ms. Hoinethiam, Advs. for State of Nagaland
Ms. Enatoli Sema, Adv. for State of Nagaland and Pollution Control Board
Mr. M. Paikaray and Mr. A.K. Panda, Advs. for SPCB, Odisha
Mr. Dhruv Pal, Adv. for State of Gujarat
Mr. V.K. Shukla, Adv. for State of MP
Mr. Jayesh Gaurav, Adv. for R-47
Mr. Tayenjam Momo Singh, Adv. for Meghalaya Pollution Control Board
Mr. Shlok Chandra and Mr. Ritesh Kumar Sharma, Advs.
Mr. Gautam Singh and Mr. Shoeab Alam, Advs. for State of Bihar
Ms. Aprajita Mukherjee, Adv.
Ms. G. Indira, Adv. for UT of Andaman & Nicobar
Mr. Balendu Shekhar, Mr. Sriansh Prakash and Mr. Rajkumar Maurya, Advs. for Ministry of Environment, Forest and Climate Change
Ms. Puja Kalra, Adv. for SDMC & NDMC
Mr. Anil Grover, AAG, Mr. Rahul Khurana and Mr. Mishal Vij, Advs. for State of Haryana and HSPCB

Ms. Yogmaya Agnihotri, Adv. and Ms. Prity, Adv. for CECB
 Ms. Sakshi Popli, Adv. for Ministry of Environment, Forest and Climate Change
 Mr. Shuvodeep Roy, Adv. and Mr. Rituraj Biswas, Adv. for State of Tripura & Tripura Pollution Control Board
 Mr. Shashank Bajpai and Mr. Shakun S. Shukla, Advs. for State of Odisha
 Ms. Asha Nayar Basu and Ms. Aradhita Ghosh Mandal, Advs.
 Ms. Priyanka Sinha, Adv. for State of Jharkhand
 Mr. Rajul Shrivastav, Adv. for MPPCB
 Mr. Pradeep Misra and Mr. Daleep Dhyani Advs. for UPPCB
 Mr. R. Rakesh Sharma and Mr. V. Mowli, Advs. for State of TN & TNPCB
 Mr. Shubham Bhalla, Adv.
 Mr. Shiv Mangal Sharma, AAG, Mr. Saurabh Rajpal, Mr. Adhiraj Singh, Ms. Shikha Sandhu and Mr. Vikrmjeet singh, Advs. for State of Rajasthan and Pollution Control Board
 Mr. G. M. Kawoosa, Adv. for State of J & K
 Mr. Divya Prakash Pande, Adv. For HPSPCB
 Mr. Manish Kumar, Adv.

Date and Remarks	Orders of the Tribunal
<p>Item No. 12 August 03, 2018 A</p>	<p>1. This matter was taken by this Tribunal in furtherance to the orders of the Hon'ble Supreme Court dated 22.02.2017 <i>Paryavaran Suraksha Samiti Vs. Union of India</i> (2017) 5 SCC 326, establishment and functioning of ETPs/CETP/STPs.</p> <p>2. Vide order dated 25.05.2017, Notice was issued to Central Pollution Control Board and all the States Pollution Control Boards/Committees and the Ministry of Environment, Forest and Climate Change. They were directed to file status-cum-compliance report in terms of the orders of the Hon'ble Supreme Court. Accordingly, various status reports have been filed. An affidavit has been filed by the Ministry of Environment, Forest and Climate Change dated 04th July, 2017 stating as follows:</p> <p style="padding-left: 40px;"><i>“4. That the answering Respondent is engaged in policy formulation, prescribing standards and its implementation through the Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) for UTs. This Ministry has written to all SPCBs and PCCs as well as to CPCB to ensure compliance of the judgment of the Hon'ble Supreme Court and to submit detailed compliance report.</i></p>

	<p>Item No. 12</p> <p>August 03, 2018</p> <p>A</p>	<p>5. That the CPCB has also followed up with all SPCBs and PCCs through letters and review meetings to ensure compliance of the aforementioned judgment and that the matter was also discussed in the 62nd Conference of the Chairmen and Member Secretaries of SPCBs and PCCs held on 27.06.2017. That 26 SPCBs/PCCs have submitted the compliance report, which has been summarized at Annexure-I.</p> <p>6. That the CPCB has also carried out inspections of 17 categories of industries to verify compliance with its directions issued on online effluent/emission monitoring system and to cross-verify online results with manual sampling. During February-June, 2017, 64 industries were inspected and directions under section 5 of the Environment (Protection) Act, 1986 have been issued to 24 non-complying industries; 18 industries were complying; 8 were found closed and inspection reports of 14 industries are under process.</p> <p>7. That the CPCB and NMCG through 11 technical institutions, inspected 751 industries located in the River Ganga main stem during March-April, 2017 to verify the status of installation and connectivity of industries discharging effluents as well as their compliance with the standards. Closure directions have been issued to 154 industries; show cause notices issue to 36 industries; 149 industries were found complying and direction issued to 91 self-closed Grossly Polluting Industries (GPI) to remain closed; 93 GPI units were found closed as per directions; 38 GPI units found operational in violation of closure directions and inspection reports of 190 industries are under process".</p> <p>3. We have heard learned Amicus Curiae Sh. Jai A. Dehadrai and the learned counsel for Ministry of Environment, Forest and Climate Change, Central Pollution Control Board, various State Pollution Control Boards and the Pollution Control Committees.</p> <p>4. Learned Amicus Curiae has drawn our attention to orders dated 04.07.2017, 18.09.2017 and 11.10.2017 of the Tribunal directing the State Pollution Control Boards to file a statement as to how many Industrial Units discharging trade effluents or causing emissions exist in the State, how many are having their own STPs, ETPs and/or connected to Common Effluent Treatment Plant</p>
--	---	---

	<p>Item No. 12</p> <p>August 03, 2018</p> <p>A</p>	<p>(CETP), whether any such CETP or ETP or STP is properly functioning and treating the effluents as per prescribed limits or not.</p> <p>5. Learned Amicus Curiae submitted that contamination of water due to industrial effluents can lead to various diseases and adverse consequences on the aquatic organism due to decreased level of oxygen. The use of technology can help reduction of adverse consequences. However, the best solution is to prevent pollution by soil conservation and proper disposal of toxics and chemicals which may include chemical recycling.</p> <p>6. Having monitored the matter for the last more than one year on several dates, we are of the view that the matter requires continuous monitoring by statutory authorities as per directions which we proceed to issue today.</p> <p>(i) We direct the Central Pollution Control Board (CPCB) to forthwith prepare an action plan after looking into all the status reports. The action plans must have mechanism to ensure compliance or all the directions in the order of the Hon'ble Supreme Court. To enable this to be done, a Nodal officer must be identified to deal with the issue of CETPs/ETPs/STPs.</p> <p>(ii) A representative of the Ministry of Environment, Forest and Climate Change may be associated with the Nodal Officer of the CETP for monitoring. The Monitoring by the said two officers- the representative of the MoEF and the Nodal Officer of the CPCB must be held atleast once in a month and on the basis of such meeting and the feedback taken further follow up action must be taken and</p>
--	---	---

	<p>Item No. 12</p> <p>August 03, 2018</p> <p>A</p>	<p>appropriate directions issued. This process may be a continuous process.</p> <p>(iii) It must be ensured that STPs, CETPs and ETPs are functional and meet the requisite standards.</p> <p>(iv) There is already a direction in the above judgment under which 50% of the funds for the purpose are to be provided by the Central Government, 25% by the States and remaining 25% to be arranged by way of loans which is to be re-paid by the user industries. Local bodies and the States have duties as clearly stipulated in the judgment. There has to be online monitoring system by each State to display emission levels in public domain in terms of paragraph 17 of the order of the Hon'ble Supreme Court.</p> <p>(v) A report of the steps taken may be placed on the website of the Central Pollution Control Board atleast once in three months. Deficiencies if any may also be so displayed.</p> <p>(vi) The Central Pollution Control Board may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs Central Pollution Control Board may also assess and recover compensation for damage to the environment and the said fund be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the Central Pollution Control Board within three months from today.</p> <p>(vii) A compliance report in terms of the above order may be furnished to this Tribunal within four months from today by e-mail at filing.ngt@gmail.com.</p>
--	---	--

<p>Item No. 12 August 03, 2018 A</p>	<p>(7) Proceedings are disposed of.</p> <p>However, the report received from the Central Pollution Control Board may be placed for consideration before this Tribunal on 04.09.2018.</p> <p>We place on record our appreciation for the services rendered by the learned Amicus Curiae.</p> <p>....., CP (Adarsh Kumar Goel)</p> <p>....., JM (Dr. Jawad Rahim)</p> <p>....., JM (S.P. Wangdi)</p> <p>....., EM (Dr. Nagin Nanda)</p> <p>03.08.2018</p>
---	---

Comments Received from Various RDs on Draft Report for Environmental Compensation**Annexure-II**

S. No.	Item	RD Kolkata	RD Vadodara	RD Bengaluru	RD Lucknow	Committee Deliberations
1	Case- a, b & c	<p>Bypassing of effluent/emission should be given special consideration.</p> <p>EC levied on ROG categories of industries should be on the basis of inspection by CPCB, complaint verification and routine inspection.</p>	<p>Instead of "Compensation", "Penalty" word should be used.</p> <p>In case common facilities like CETPs, factor may be introduced based on member industries.</p> <p>Clarify the applicability of penalty in addition to closure directions for pro-longed and gross non-compliance.</p>			<p>The Committee discussed that the points highlighted by RD Kolkata are already the part of cases fit for violation and levy environmental compensation. However, as mentioned by RD Vadodara, word "Penalty" may be used for case a, b and c. For CETPs, a factor may be considered in future based on the capacity of the plant.</p>
2	Case- d, e & f	<p>Higher rates for irreparable damages crop, soil, health etc.</p> <p>Leakages/spillage should have different compensation value.</p>	<p>It should be mentioned that instances d, e & f shall be dealt for environmental compensation in line with the polluter pays principle, besides of environmental penalty for cases a, b and c.</p>	<p>Similar to 'Guidelines on Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty', Guidelines may be prepared.</p>		<p>Suggestions made by RD Kolkata and Vadodara has already been taken care. Concept of environmental compensation is based on the philosophy of "polluters pay" and for grievance injury to environment, compensation will be charged as per the assessment of remediation cost, on case to case basis.</p>
3	Pollution Index (PI)			<p>Instead of average PI, Actual PI may be used.</p>		<p>Committee suggested that to make the implementation of EC simple and easy, use of average PI may be considered for calculation of EC.</p>
4	R-factor	<p>Should be based on pollution load. For ex. Amount of BOD/NOx etc. discharged.</p>		<p>May be classified based on the contribution of pollution load based on quantity of effluent, concentration, emissions</p>	<p>May be as per the category of industry, for ex. Red-500, Orange-300, Green-100.</p>	<p>As PI is based on the pollution load, suggestion of RDs are already taken care in the formula.</p>
5	L-factor			<p>May be redefined based on the features, activities involved and habitation.</p>		<p>L-factor may be covered in future as already indicated in the report.</p>

S. No.	Item	RD Kolkata	RD Vadodara	RD Bengaluru	RD Lucknow	Committee Deliberations
6	Defining period of violations for which EC will be levied		Duration of violations needs more clarity.	For industry having OCEMS, no. of days may be counted based on the recorded data. Industry without OCEMS-based on break down of ETP/APCD, disturbance of power supply or any failure of auxiliary machineries w.r.t. control system.	May be clearly defined as the period between the day of violation observed and the day of compliance verified by CPCB/SPCB/PCC.	The committee agreed that period of violation for which EC may be levied will be the period between the day of violation observed and the day of compliance verified by CPCB/SPCB/PCC.
7	Repeated Violations		Some number of days may be specified after which the penalty amount may get a factor of 1.5 or 2.		Multiplying factor for repeated violations may be included. For ex. 1 st Repetition- 25% 2 nd Repetition- 50% 3 rd Repetition- 100%	For habitual offenders, higher amount of penalty/compensation may be charged in future.
8	Utilization of fund	An environmental damage assessment cell may be created. Expertise in the field may be achieved by involving scientist/engineers and providing them training in country/abroad.	Amount should not be utilized for a) Industrial Inspections for compliance verification, b) Installation of Continuous water quality monitoring stations / Continuous ambient air quality monitoring stations for strengthening of existing monitoring network, c) Preparation of Comprehensive Industry Documents on Industrial Sectors / clean technology f) Funding to financially weaker municipalities for installation of STPs The amount should be utilized solely for damage assessment, remediation of affected sites, orphan contaminated sites and creating awareness. The purpose should not get inclined towards revenue generation.			RD Vadodara suggested that amount should be utilized only for remediation purpose. However, committee discussed that the proposal for utilization of fund is prepared considering the other aspects (i.e. direct and indirect) for protection of environment, which include research, monitoring etc. Suggestion of RD Kolkata may be considered in future.

			Thus, the functional fabric of CPCB shall remain intact.			
9	Others	Higher EC for non-installation of pollution control measures. Expected sources should have different scoring methodology based on their weightage.				The committee discussed that CPCB is already taking appropriate action including closure direction against the industries found operating without pollution control measures.

Comments Received from Various Expert Institutions on the Report on Environmental Compensation

As per the Hon'ble NGT suggestion, CPCB has invited comments of 3 expert institution, namely, Centre for Science and Environment (CSE), Institute of Economic Growth (IEG) and The Energy Research Institute (TERI). The CPCB in-house committee on Environmental Compensation has deliberated on the comments and finalized the report accordingly. The Committee's deliberations are summarized in table below:

S. No.	Item	Comments from TERI	Comments of CSE	Comments of IEG	Committee's Deliberations
1	Cases d, e and f	Distinction between categories "a, b, c" and "d, e, f" is not clear. Case specific investigations should be minimized. Proposed cases deals separately with intentional and accidental cases but sometimes they are not easy to establish.	-	Why cases 'e' and 'f' are left for later remediation and study?	There may be a varied damage to the environment as considered in cases 'e' and 'f'. Such damage assessment requires detailed case specific study and remediation measures. Therefore, whenever such case comes into the notice, Environmental Compensation may be levied based on the detailed investigation made by Expert Institutions/Organizations.
2	R-factor	-	R-factor should be Rs. 1,000/day.	Why R-factor is kept as 250, although the value ranges between 100 to 500?	In the Environmental Compensation policy, average value of the R-factor as 250 is recommended, keeping in view both its practicability as well as to make it significantly deterrent, which may be further revised in future.
3	L-factor	-	L-factor should be based on the population density of surroundings, instead of population of the nearby city/town. For critically polluted areas/ ecologically fragile areas LF should be considered as 2.	For nearby city, having population less than 1 million, the LF is 1. This implies that we care only for populated regions only. Industries located in critically polluted and ecologically fragile area should be closed down.	Population density for surrounding of industrial units will be complex because it will vary depending on area used in calculation of population density as industrial units are generally away from population. More weightage is given to the higher population exposure to the risk. In case the industry is located in the city of population less than one million than the LF Factor will be 1. Depending on the local environmental conditions, the restrictions on expansion and modernization of industries in critically polluted areas are imposed as per the prevailing policy of the Government of India. Similarly, industries in ecologically fragile areas are permitted after careful examination, as per prevailing policy of MoEFCC/SPCB, The Committee agreed that for notified ecologically fragile areas, LF may be considered as 2. However, LF for critically polluted areas may be explored in future.

S. No.	Item		Comments of CSE	Comments of IEG	Committee's Deliberations
4	S-factor	Classification of industries should be based on profit/turnover basis.	S-factor should be based on the turn-over of the industrial unit.	-	Presently industrial units are classified into small, medium and large category (MSME Act, 2006) based on the data of assets/infrastructure available with them. The data for profit /turnover of industrial units are not available with SPCBs/PCCs and S-factor based on profit /turnover will complicate the procedure for calculation of EC. This may be considered in future when SPCBs/PCCs will have such type of data.
5	Level of non-compliance	<p>Pollution Index does not measure the level of pollution. Further, averaging PI eliminates the variation in the nature/ impact of pollution that PI tries to capture. Further, the Red Category itself is too wide and some sort of sub-classification should be undertaken</p> <p>The rate of the penalty should increase with the period of violation. The penalty should increase exponentially in case of repeated violations. The objective should be that units should choose to shut down operations when violations cannot be brought under control in the specified time.</p>	For different level of non-compliance such as gross, moderate and low, a factor for 'intensity of violation', IV-factor should be incorporated in the formula.	-	<p>Pollution Index (PI) itself covers the potential of environmental pollution as its calculation considers variation in pollution load.</p> <p>The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. As PI is not available for all the industrial sectors, calculating PI for rest of the sectors will delay the processing. Therefore, for calculating the Environmental Compensation average PI as 80, 50 and 30 may be used for Red, Orange and Green category of industries, respectively.</p> <p>To keep the formula simple for better implementation, the IV factor may not be considered as there are different environmental parameters such as environmental standards and for each standard calculation of level of violation and its weightage will be a tedious task, which may bring difficulty in implementation of EC concept.</p> <p>The Committee has agreed that in order to include deterrent effect for repeated violations, EC may be increased on exponential basis, i.e. by 2, 4 and 8 times on each similar violation. Further, if the violator continues its operations beyond 3 months then EC may be increased by 2, 4 and 8 times for 2nd, 3rd and 4th quarter, respectively.</p> <p>Besides EC, industry may be prosecuted or closure directions may be issued, whenever required.</p> <p>EC is not a substitute for taking actions under EP Act, Water Act or Air Act. In fact, units found polluting should be closed/prosecuted as per the Acts.</p>
6	Utilization of fund	Funds may be utilized for building monitoring and enforcement capacity of SPCBs and strengthening the pollution compliance especially in the MSME sector.	-	Incentives to regulators where no violations are observed and incentives to public for reporting violations may be provided.	<p>Scheme of infrastructure augmentation of Urban Local Bodies (ULBs) /capacity building of SPCBs/PCCs is already covered in the report</p> <p>Further, schemes such as incentives to regulators where no violations are observed and incentives to public for reporting violations may be considered separately.</p>

S. No.	Item		Comments of CSE	Comments of IEG	Committee's Deliberations
7	GRAP	-	-	Size of the construction sites more than 20,000 sqm. area are considered for EC. Although, small sites cumulatively impact significantly. Illegal dumping of municipal solid waste regardless of the place should be penalized.	As per the EIA Notification, 2006, building construction projects more than 20,000 sqm. area are required to have environmental clearance, therefore, the same cut-off is maintained here. Issue of Illegal dumping of municipal solid waste is being covered in separate report of EC.
8	Others: (a)	Severity of violations should be measured in terms of hours of violation because for some pollutants even a few hours of violation can have serious environmental and health consequences. This would require continuous monitoring of stacks, which is not the case presently for most units. Therefore, continuous monitoring should be implemented urgently, to begin with for all red and orange categories.	-	-	Currently, online continuous effluent/emission monitoring system (OCEMS) is installed in only in 17 categories of highly polluting industries and some other industrial sectors. Further, in current practice the compliance of industries is only verified by physical monitoring and compensation may be imposed based on the manual testing. The idea of measurement of violation on hourly basis may be considered in future, when OCEMS is widely installed and included in policy.
	(b)	CETP should be categorized under Red Category of industries. Some sub-classification should be undertaken under red categories of industries.	-	-	CETPs are already categorized under Red Category of Industries
	(c)	Based on the spirit behind the proposed charge, it should therefore be called an "environmental penalty" rather than "environmental compensation".	-	-	The power of imposing "Penalty" lies in the jurisdiction of the Hon'ble Courts and NGT only. The CPCB is empowered to levy environmental compensation by the Hon'ble NGT in its order dated 03.08.2018 (OA No.593/2017). Therefore, term "Environmental Penalty" is avoidable.

Item Nos. 01 & 02

Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHIOriginal Application No. 125/2017
(M.A. No. 1337/2018)

With

Original Application No. 217/2017
(M.A. Nos. 761/2017, 1073/2017,
1098/2017 & 1471/2017)

Court on its own Motion		Applicant(s)
	Versus	
State of Karnataka		Respondent(s)
With		
D. Kupendra Reddy		Applicant(s)
	Versus	
State of Karnataka		Respondent(s)

Date of hearing: 06.12.2018

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Original Application No. 125/2017
(M.A. No. 1337/2018)

For Applicant(s): Mr. Sajan Poovayya, Sr. Advocate and Mr. Saransh Jain,
Advocate for impleaded applicant - Namma Bengaluru
Foundation
Mr. Vikram Hegde, Advocate for impleaded applicant

For Respondents (s): Mr. Devraj Ashok, Advocate
Mr. Rajkumar, Advocate and Ms. Sonia, LA
Ms. Nidhi Mehrotra, Advocate

Original Application No. 217/2017
(M.A. Nos. 761/2017, 1073/2017,
1098/2017 & 1471/2017)

For Applicant(s): Ms. Guneet Khehar, Mr. Tarunvir Singh Khehar, Mr.
P. Ramaprakash and Mr. Sandeep Mishra, Advocates
For Respondents (s): Dr. Abhishek Atrey, Advocate
Mr. Rajkumar, Advocate and Ms. Sonia, LA

ORDER

1. The issue for consideration in the two matters, one initiated by the Tribunal on its own motion and the other filed by an individual relates to contamination of water bodies at Bengaluru - Bellandur lake, Agara lake and Varthur lake *inter-alia*, on account of discharge of untreated sewage and other effluents from

their performance should be recorded and considered favourably or otherwise for their career progression.

- xv. Similar exercise as (xiv) may be undertaken to identify officers responsible for failure in the past. Such exercise may be completed within three months from today.
- xvi. Since failure of preventing the pollutants being discharged in water bodies (including lakes) and failure to implement solid and other waste management rules are too frequent and widespread, the CPCB must lay down specific guidelines to deal with the same, throughout India, including the scale of compensation to be recovered from different individuals/authorities, in addition to or as alternative to prosecution. The scale may have slabs, depending on extent of pollution caused, economic viability, etc. Deterrent effect for repeated wrongs may also be provided.
- xvii. MoEF&CC may specify limit for phosphorus in soaps and detergents to prevent damage to the environment and public health.
27. The above amount in the present case has been determined having regard to the estimated cost of setting up of STPs, based on the data available, which has been assessed with the assistance of the learned Counsel for the parties.
28. We have nominated Justice Santosh Hegde on information being provided during the hearing that he is agreeable to undertake the above job.
29. Justice Hegde will be entitled to a token honorarium of Rs. 2.5 Lakh per month from the date he assumes the charge. Justice Hegde will be entitled to assistance of persons of his choice for which remuneration will be paid by the SPCB, Karnataka as may be determined by Justice Hegde.

Item Nos. 1 to 11

Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 176/2015
(M.A. No. 1332/2015)
&
Original Application No. 59/2012
(M.A. No. 34/2016 & M.A. No. 190/2016)
&
Original Application No. 108/2013
(M.A. No. 489/2015)
&
Original Application No. 179/2013
(M.A. No. 866/2014 & M.A. NO. 644/2015)
&
Appeal No. 67/2015
(M.A. No. 652/2015)
And
Original Application No. 484/2015
(M.A. No. 155/2017, M.A. No. 567/2017
& M.A. No. 927/2017)
And
Original Application No. 327/2018
(M. A. No. 1282/2018)
And
Original Application No. 115/2017
(M.A. No. 442/2017)
And
Original Application No. 411 of 2018
And
Original Application No. 613/2017
And
Original Application No. 614/2017

Shailesh Singh		Respondent(s)
	Versus	
Hotel Holiday Regency, Moradabad & Ors.		Applicant(s)
With		
Legal Aid, National Green Tribunal Bar Association		Applicant(s)
	Versus	
NCT of Delhi & Ors.		Respondent(s)
With		
Raj Hans Bansal		Applicant(s)
	Versus	
Ministry of Water Resources & Ors.		Respondent(s)
With		
Apex Chambers of Commerce and Industries of N.C.T. of Delhi & Ors.		Applicant(s)
	Versus	
Govt. of NCT Delhi & Ors.		Respondent(s)
With		
Vikrant Tongad		Applicant(s)

Versus

Union of India & Ors. Respondent(s)

With
Shailesh Singh Applicant(s)

Versus

Hotel The Oberoi Amarvilas & Ors. Respondent(s)

With
Shailesh Singh Applicant(s)

Versus

Panchsheel Buildtech Pvt. Ltd. & Ors. Respondent(s)

With
Shailesh Singh Applicant(s)

Versus

Central Ground Water Board & Ors. Respondent(s)

With
M/s A-One Mineral Water Industry Applicant(s)

Versus

Central Ground Water Authority & Ors. Respondent(s)

With
Mohd. Javed Asghar Applicant(s)

Versus

M/s Upper Ganges Sugar and Industries Ltd.
(Distillery Unit) & Ors. Respondent(s)With
Mohd. Javed Asghar Applicant(s)

Versus

State of U.P. & Ors. Respondent(s)

Hearing concluded on: 18.12.2018

Order uploaded on: 03.01.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s): Mr. Raj Pajwani, Senior Advocate and Mr. Rahul Choudhary, Advocate (In O.A. Nos. 59/2012 & 108/2013)
Ms. Preeti Singh, Mr. S. Porwal, Mr. Shivam Jaiswal, Advocates (In O.A. Nos. 176/2015, 484/2015, 327/2018 & 115/2017)
Mr. Amrendra Kumar Dubey, Advocate (O.A. No. 411/2018)

For Respondent (s): Ms. Sakshi Popli, Advocate for DJB (O.A. No. 59/2012)
Mr. Sumeet Pushkarna, Mr. Devanshu, Advocates with Mr. Sudhir Chauhan, E.E., Delhi Jal Board (O.A. No. 108/2013)
Mr. Ajay Jain, Advocate for GNCTD
Mr. Ardhendumauli Kumar Prasad, Mr. Shashank Saxena, Ms. Diksha Gera, Mr. Amritesh Raj, Advocates for CGWA
Mr. Pradeep Mishra, Mr. Daleep Dhyani, Advocates for UPPCB
Ms. Sakshi Popli, Advocate for NDMC
Mr. Amit Tiwari, Mr. Rohit Pratap Singh, Advocates for State of UP

appropriate mechanism can be introduced consistent with the needs of environment.

29. The MoEF&CC is directed to constitute an Expert Committee by including representatives from IIT Delhi, IIT Roorkee, IIM Ahmedabad, CPCB, NITI Ayog and any other concerned agency or department to examine the issue of appropriate policy for conservation of ground water with a robust institutional mechanism for surveillance and monitoring with a view to enhance access to ground water for drinking purposes in OCS areas by way of appropriate replenishment practices which can be properly accounted and measured for as well as to sustain the floodplains of rivers in terms of e-flows and other water bodies. The MoEF & CC and MoWR may finalize the issue of subject remain *inter-se* with regard to ground water reserve and its quality.

30. The Committee may be constituted in two weeks and report of the Committee may be furnished to the MoEF &CC and this Tribunal in two months by e-mail at ngt.filing@gmail.com.

31. The Committee may also indicate the projection of its impact study in light of projected data for the next 50 years (in phased manner with action plan for each decade). Thereafter, fresh guidelines be issued by the concerned Ministry and the report furnished to the Tribunal on or before 30.04.2019.

32. The CPCB may constitute a mechanism to deal with individual cases of violations of norms, as existed prior to Notification of 12.12.2018, to determine the environment compensation to be recovered or other coercive measures to be taken, including prosecution, for past illegal extraction of ground water, as per

law. All the matters relating to illegal extraction of ground water by individuals are disposed of with these directions.

33. The Expert Committee report, the new policy and challenge to orders of authorities, if any, will be considered on the next date.

The matter be put up for above consideration in the first week of May, 2019.



CRITERIA TO CALCULATE WATER CONSUMPTION**Table 1: Discharge of 4" Dia and 1 HP Pump**

Sl. No.	Depth (Meter)	Discharge	
		LPM	m ³ /hr
1	25	50	3
2	43	40	2.4
3	59	30	1.8
4	69	20	1.2
5	77	10	0.6

Table 2: Discharge of 4" Dia and 2 HP Pump

Sl. No.	Depth (Meter)	Discharge	
		LPM	m ³ /hr
1	60	50	3
2	98	40	2.4
3	124	30	1.8
4	141	20	1.2
5	165	10	0.6

Table 3: Discharge of 6" Dia and 3 HP Pump

Sl. No.	Depth (Meter)	Discharge	
		LPM	m ³ /hr
1	17	200	12
2	29	175	10.5
3	41	150	9
4	50	130	7.8
5	62	100	6

Table 4: Discharge of 6" Dia and 5 HP Pump

Sl. No.	Depth (Meter)	Discharge	
		LPM	m ³ /hr
1	26	225	13.5
2	50	200	12
3	70	175	10.5
4	86	150	9
5	92	140	8.4

References

1. Bureau of Indian Standards. 1993. IS1172:1993 (Reaffirmed 2002). *Code of Basic Requirements for Water Supply, Drainage and Sanitation (Fourth Revision)*. New Delhi: BIS.
2. Census of India. 2011. Census of India's website. [Online]. [Accessed 15 February 2019]. Available from: http://censusindia.gov.in/2011-prov-results/paper2/data_files/India2/1.%20Data%20Highlight.pdf.
3. Central Pollution Control Board. 2013. *Performance Evaluation of Sewage Treatment Plants under NRCD*. Delhi: CPCB.
4. Central Pollution Control Board. 2016. *Graded Response Action Plan for Delhi & NCR*. Delhi: CPCB.
5. Central Pollution Control Board. 2016. *Final Document on Revised Classification of Industrial Sectors Under Red, Orange, Green and White Categories*. Delhi: CPCB.
6. CGWA. 2015. *Guidelines/Criteria for evaluation of proposals/requests for ground water abstraction*. New Delhi-Central Ground Water Authority, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India.
7. CGWB. 2017. *Categorisation of Assessment Units* [Online]. [Accessed 20 February 2019]. Available from: <http://cgwa-noc.gov.in/LandingPage/NotifiedAreas/CategorizationOfAssessmentUnits.pdf#ZOOM=150>.
8. CGWB. 2017. *Dynamic Ground Water Resources of India*. Faridabad-Central Ground Water Board, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India.
9. CPHEEO. 2013. *Manual on Sewerage and Sewage Treatment Systems – 2013*, New Delhi: Ministry of Urban Development, Government of India.
10. CPHEEO. 2016. *Manual on Municipal Solid Waste Management – 2016*. New Delhi: Ministry of Urban Development, Government of India.
11. Ministry of Micro, Small and Medium Enterprises. 2006. *The Micro, Small and Medium Enterprises Development Act, 2006. 2nd October, 2006, vide notification No. S.O. 1154(E) dated 18th July, 2006, see Gazette of India, Extraordinary Part II sec.3(ii)*, Government of India.
12. *Plastic Waste Management Rules, 2016*. (G.S.R. 320 (E) [18-03-2016]). New Delhi: Ministry of Environment Forest and Climate Change, Government of India.
13. *Solid Waste Management Rules, 2016*. (S.O. 1357(E) [08-04-2016]). New Delhi: Ministry of Environment Forest and Climate Change, Government of India.
14. WILO. 2017. *Building Service Residential Selection Booklet*. Pune- WILO Mather and Platt Pumps Pvt. Ltd.