

**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.

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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

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.

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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	<p>Refined Vegetable Oil (Physical refining)-700TPD</p> <p>Refined Vegetable Oil (Chemical refining)-400 TPD</p> <p>Fractioned vegetable oil- 600 TPD</p> <p>Interesterified fats- 125 TPD</p> <p>Vanaspathi-100 TPD</p> <p><u>By-products</u></p> <p>Distilled fatty acids-49.176 TPD</p> <p>Acid oil-6.42 TPD</p> <p>Spent Earth - 8.693 TPD</p>		
	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.	<p>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 4305m³. Water sprinklers are installed in sheds and are working.</p> <p>Unit has installed two silos each of 150 Tons capacity for fkyash storage upto 30 days.</p>	Complying

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<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>
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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>
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		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.	
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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
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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

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		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	

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

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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
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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

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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
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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"> <tr> <td>Air pollution source</td> <td>Air pollution control device provided</td> </tr> <tr> <td>FBC Boiler of capacity 20.0 TPH</td> <td>Multi cyclone dust collector followed by Bag filters</td> </tr> <tr> <td>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>Chimney to disperser the flue gases</td> </tr> <tr> <td>FBC boiler of Capacity 7.0 TPH</td> <td>Dust Collector & Bag filter</td> </tr> </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										

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

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

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Production capacity				
Refined Oil (Physical Refining)		1000 TPD		
RBDPalmolein		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,				

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		<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>		

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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.

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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		Compliance 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.	

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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
		Boiler of capacity 1x2.0 TPH	Bag filters	but yet to comply
		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	

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		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/-

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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

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 Budhakaluva 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.

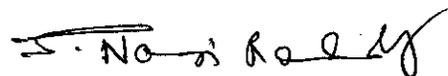
The Joint committee has inspected the edible oil industries on 13.10.2020 & 14.10.2020 and submitted a detailed report to the Hon'ble NGT on 01.12.2020.

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

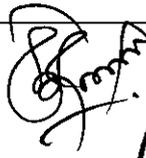
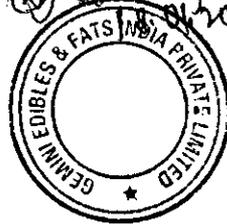
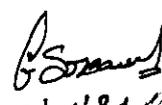
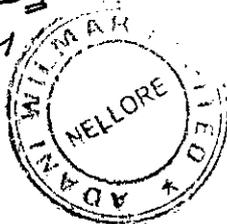
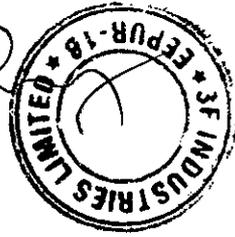
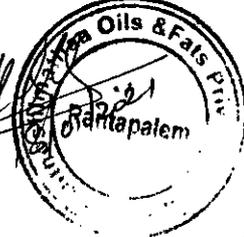
4. M/s. Adani Wilmar Limited (Unit-I) (formerly M/s. Krishnapatnam Oils & Fats Pvt. Ltd.), Sy. No.292, 317, Pantapalem (V) (Epuru- 1B), Muthukur (M), SPS Nellore District
5. M/s. Adani Wilmar Limited (Unit-II) (formerly M/s. Louis Dreyfus Company India Pvt. Ltd.,) Sy. No.1601, Epuru Bit-1B, APIIC, Pantapalem (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. GHUNDT. Executive 9642229558. Sriram.ghundi@emami .com .	 
M/s. Gemini Edibles & Fats India Pvt. Ltd., Industrial Park, Pantapalem (V), Muthukur (M), SPSR Nellore District	Subhendu Mannu Sr. Mgr operations 7729996854 manna@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 7228 939496 prabhakara.karrapeta@adanwilmar.com	 
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 888 66 416 39 Sreenivasulu.gundari@adanwilmar .in	 
M/s. 3F Industries Limited (formerly M/s. Foods Fats & Fertilizers Ltd.) Pantapalem (V), Muthukur (M), SPSR Nellore District	G. SURESH BABU Manager UTILITIES 77999 35576 Phalgun@ff. co. in	 
M/s. Santhoshimathaa Oils and Fats Private Limited, Sy No.252, Pantapalem Village, Epuru Bit IB, Muthukur Mandal, SPSR Nellore District.	Ganesh Vidun Kota Unit Head. 996 33 29 792 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 Donti 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 ngtszfilng@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	<table border="1"> <tr> <td>Boiler of capacity 20 TPH</td> <td>Multi cyclone dust collector followed by Bag filters</td> </tr> <tr> <td>Thermic fluid heater of capacity 16.0 Lakh k.cal/hr (2Nos.-6.0 Lakh K.cal/hour + 10 Lakh K.cal/hour capacity)</td> <td></td> </tr> <tr> <td>3x 1000 KVA DG Sets</td> <td>Acoustic enclosures with silencer & Muffler</td> </tr> </table> <p>OCEMS has been installed at 24 mtr height of chimney. Not complying</p>	Boiler of capacity 20 TPH	Multi cyclone dust collector followed by Bag filters	Thermic fluid heater of capacity 16.0 Lakh k.cal/hr (2Nos.-6.0 Lakh K.cal/hour + 10 Lakh K.cal/hour capacity)		3x 1000 KVA DG Sets	Acoustic enclosures with silencer & Muffler
Boiler of capacity 20 TPH	Multi cyclone dust collector followed by Bag filters							
Thermic fluid heater of capacity 16.0 Lakh k.cal/hr (2Nos.-6.0 Lakh K.cal/hour + 10 Lakh K.cal/hour capacity)								
3x 1000 KVA DG Sets	Acoustic enclosures with silencer & Muffler							

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

TableVI.a.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.

		<p>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.</p>					
<i>o</i>	<i>Hazardous waste generation</i>	<p>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.</p> <p>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.</p> <p>No records were shown to the committee on disposal of spent nickel catalyst. There is no proper covered shed for hazardous waste storage.</p>					
<i>p</i>	<i>Actions taken by APPCB during last one year</i>	<p>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.</p> <p>Directions were again issued on 28.09.2020.</p> <p>The APPCB has again forfeited Bank guarantee of Rs 10.00 lakhs on 28.09.2020 for non compliance of the Board directions.</p>					
<p>Overall Compliance status</p> <p>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 $EC = PI \times N \times R \times S \times LF$</p>							
<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/-		
Rupees Sixty-Six Lakhs Only							

List of major non-compliances

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

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"> <thead> <tr> <th>Source</th> <th>Wastewater generation</th> </tr> </thead> <tbody> <tr> <td>Process & Washings</td> <td>23.0 KLD</td> </tr> <tr> <td>Acid Oil Plant</td> <td>6.0 KLD</td> </tr> <tr> <td>Boiler Bleed off</td> <td>28.0 KLD</td> </tr> <tr> <td>Cooling Tower Blow down</td> <td>32.0 KLD</td> </tr> <tr> <td>RO Reject</td> <td>60.0 KLD</td> </tr> <tr> <td>Domestic</td> <td>6.0 KLD</td> </tr> </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															
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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><i>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.</i></p> <p><i>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.</i></p> <p><i>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.</i></p> <p><i>Not complying</i></p>
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Table VI.b 1: Analysis results of samples collected by APPCB during 18.06.2020

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

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.

<i>m</i>	<i>Air pollution sources and type of APCDs, status of stack, porthole, OCEMS installation, location</i>	<i>Source</i>	<i>Air pollution control device installed</i>
		<i>FBC Boiler of capacity 16 TPH</i>	<i>Multi cyclone dust collector followed by Bag filters and attached to</i>
		<i>Thermic fluid heater of capacity 8.0 lakh k.cal/hr (Coal or husk fired)</i>	<i>Common stack of height 30m</i>

		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/Nm³	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/m³	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															
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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"> <thead> <tr> <th>Source</th> <th>Wastewater generation</th> </tr> </thead> <tbody> <tr> <td>Process & washings include (Boiler Bleed Off, Cooling Towers blow down, RO rejects)</td> <td>73.0 KLD</td> </tr> <tr> <td>Acid wash</td> <td>8.0 KLD</td> </tr> <tr> <td>Domestic</td> <td>10.0 KLD</td> </tr> </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.C.3: 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.		
<i>m</i>	<i>Status of installation of online stack monitoring equipment</i>	<i>Stack attached to boiler is provided with continuous online PM monitors and connected to APPCB servers</i>
<i>n</i>	<i>Status of green belt</i>	<i>The unit has developed green belt in around 4 acres of land.</i>
<i>o</i>	<i>Hazardous waste generation</i>	<i>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</i>
<i>p</i>	<i>Actions taken by APPCB during last one year</i>	<i>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.</i>
<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)

<i>a</i>	<i>Name & complete address of the unit</i>	<i>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</i>		
<i>b</i>	<i>Contact Details</i>	<i>Sri G. Sreenivasulu, Plant Head +91- 9444398011 sreenivasulu.gundarapu@adaniwilmar.in</i>		
<i>c</i>	<i>Geo-coordinates</i>	<i>14°15' 20"N 80° 04' 25.9"E</i>		
<i>d</i>	<i>Area</i>	<i>15.58 acres</i>		
<i>e</i>	<i>Status of CFO & Authorizations and its compliance</i>	<i>The CFO and Authorization are valid till 29.02.2024</i>		
<i>f</i>	<i>Year of Commissioning</i>	<i>2011</i>		
<i>g</i>	<i>Production capacity</i>	<i>S.N</i>	<i>Products</i>	<i>Quantity</i>
		<i>01</i>	<i>Physical Refining Refined Vegetable Oil (Palm Oil, Palmolein, Palm Stearin)</i>	<i>600 TPD</i>

		02	<i>Chemical Refining Refined Vegetable Oil (Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)</i>	200 TPD
		02	<i>Fractionated Vegetable Oil</i>	800 TPD
		03	<i>Interesterified Vegetable Oil</i>	150.0 TPD
		04	<i>Vanaspathi</i>	150.0 TPD
		<i>Co-Product</i>		
		1	<i>Palmstearin</i>	167.0 TPD
		<i>By-products</i>		
		1	<i>Distilled Fatty Acids (Physical refining) (Palm Oil, Palm kernel, Palmolein)</i>	48.0 TPD
		2	<i>Distilled Fatty Acids (Chemical refining) (Soya bean Oil, Sunflower Oil, Groundnut Oil, Rice Bran Oil, Cotton Seed Oil, Mustard Oil, Rapeseed Oil, Sesame Oil)</i>	0.8 TPD
		3	<i>Acid Oil</i>	4.0 TPD
		4	<i>Soap Stock</i>	4.0 TPD
		5	<i>Acid Sludge</i>	0.6 TPD
		6	<i>Gums</i>	9.0 TPD
<i>h</i>	<i>Coal and flyash storage</i>	<p><i>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.</i></p> <p><i>Reported that unit is disposing flyash on alternate days. The unit should have had minimum of 10 days storage capacity.</i></p>		
<i>i</i>	<i>Source of water and quantity of water used per day</i>	<i>Source</i>		<i>Water consumption</i>
		<i>Floor washings, plant washings from physical refining process, inter-esterfied fats, vanaspathi unit</i>		15.0 KLD
		<i>Chemical refining Manufacturing Process</i>		25.0 KLD

		<table border="1"> <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> </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
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j	Effluent generation	<table border="1"> <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> </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								
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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

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

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

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

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

Source	PM ₁₀ measured value	APPCB standards
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Near the main gate within unit premises	90.5 µg/m ³	100 µg/m ³					
<i>The unit is complying with stack emissions and ambient air standards. Odour problem was observed in the industry.</i>							
m	<i>Status of installation of online stack monitoring equipment</i>	<i>FBC boilers are connected with continuous online SPM monitors and connected to APPCB servers</i>					
n	<i>Status of green belt</i>	<i>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%)</i>					
o	<i>Hazardous waste generation</i>	<i>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</i>					
p	<i>Actions taken by APPCB during last one year</i>	<i>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.</i>					
Overall Compliance status							
<i>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 $EC=PI \times N \times R \times S \times LF$</i>							
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 after 17.01.2020</i>							7,50,000/-
<i>Total EC to be paid by unit</i>							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

a	Name & complete address of the unit	M/s.South India Krishna Oil & Fats Pvt.Ltd., Sy.No.275,279,280 & 281,Epuru Bit - 1B, Pantapalem (V), Muthukur (M), SPSR Nellore Dist																													
b	Contact Details	Sri B. Muthu Krishnan, GM +91-7799800065 vincent.paul@sioils.com																													
c	Geo-coordinates	14°15' 19.7"N 80° 02' 50"E																													
d	Area	16.12 acres																													
e	Status of CFO & Authorizations and its compliance	The CFO and Authorization are valid till 31.03.2022																													
f	Year of Commissioning	2014																													
g	Production capacity	<table border="1"> <tr> <td>Refined Oil (Physical Refining)</td> <td>1000 TPD</td> </tr> <tr> <td>RBDPalmolein</td> <td>800 TPD</td> </tr> <tr> <td>TBD Stearine</td> <td>200 TPD</td> </tr> <tr> <td>Vanaspathi</td> <td>200 TPD</td> </tr> <tr> <td>Palm Powder</td> <td>72 TPD</td> </tr> <tr> <td>Palm Flakes</td> <td>50 TPD</td> </tr> <tr> <td colspan="2">By Product</td> </tr> <tr> <td>Distilled Fatty Acid (Physical Refining)</td> <td>42 TPD</td> </tr> <tr> <td>Refined Vegetable Oil (Soyabean, Sunflower, Round Nut, Ricebean, Cotton Seed, Mustarad, Rape Seed by Chemical Refining)</td> <td>192 TPD</td> </tr> <tr> <td colspan="2">By Product</td> </tr> <tr> <td>Distilled Fatty Acid (Chemical Refining)</td> <td>0.488 TPD</td> </tr> <tr> <td>Acid Oil</td> <td>4.0 TPD</td> </tr> <tr> <td>Soap Stock</td> <td>8.0 TPD</td> </tr> <tr> <td>Wax</td> <td>2.05 TPD</td> </tr> </table>		Refined Oil (Physical Refining)	1000 TPD	RBDPalmolein	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
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g	Coal and flyash storage	<p>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.</p> <p>Ash storage yard having a capacity of 30 days including silo &</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>
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<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>													
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<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	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
The unit has installed online emission monitors to measure SPM and is connected to APPCB server.				

Table: Stack monitoring by APPCB on 16.06.2020.

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</p> <p>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.</p> <p>MEE shall be operated properly</p> <p>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/-
Rupees Seventy- One lacs and thirty thousand Only		

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 Tower Make up</i>	<i>70 KLD</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					

Table VI.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
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Table VI f 2: Stack monitoring at by APPCB on 16.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 8TPH & boiler	92.5 mg/ Nm ³	115 mg/ Nm ³

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

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

The unit is not complying with ambient air standards.

M	Status of installation of online stack monitoring equipment	The industry has installed small boiler of 8.0 TPH , hence not installed Online Stack monitoring.
n	Status of green belt	Unit has planted trees in vacant spaces and along roads in an extent of 1.4 Acres. But unit is yet to develop green belt in 0.4 acres of land to meet 33%.of Green belt area.
o	Actions taken by APPCB during last one year	APPCB vide order dated 17.01.2020 issued directions for not complying with APPCB discharge and emission standards. The unit was again inspected by APPCB officials on 28.07.2020 and found non-complying. Directions were issued on 28.09.2020.The APPCB has forfeited Bank guarantee of Rs 5.0 lakhs on 28.09.2020 for non compliance of the Board directions.
p	Overall Compliance status	<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

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

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.

<i>K</i>	<i>Installation of magnetic flow meters with totalizer</i>	<i>Flow meters with totalizers at ETP inlet, MEE inlet and outlet</i>	
<i>L</i>	<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 VIg 2: Stack monitoring at by APPCB on 23.06.2020

Source	SPM measured value	APPCB emission standards
Stack attached to 35TPH boiler	133.5 mg/Nm³	115 mg/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/m³	100 µg/m ³

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

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

Overall Compliance status

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

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

Since the unit is partially complying the committee has assessed environmental compensation using CPCB formula

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

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

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 $TDS > 5000\text{mg/l}$ in RO reject, it may be treated in MEE or else in ETP). The units in any case shall not discharge the RO reject without further treatment.

IX Conclusions

1. Construction of CETP: Previously all the units had proposed for construction of common effluent treatment plant but the district administration and the units could not find a suitable land for construction of CETP. Currently all seven units have established their individual effluent treatment plants and hence the proposal of CETP is shelved.
2. As per the Ground Water and Water Audit Department, Government of Andhra Pradesh, the ground water in the region is saline in nature due to sea water intrusion. The units have to treat the ground water in RO system for use for domestic and industrial purpose. Due to high salinity there are high chances of frequent clogging of RO membranes. In addition, the available ground water resources are not sufficient to meet the industrial water requirements. Considering

this the committee recommends that all edible oil units in Krishnapatnam Port area to install common desalination plant thereby sea water may be drawn, treated and to be used by all edible oil industries by requesting the management of the Krishnapatnam port Ltd who is nodal agency for importing the crude edible oil on behalf of the edible oil industries management. Thereby withdrawal of ground water and procurement of water from tankers will be avoided. The units shall install desalination plant within a period of one year and entire water requirement has to be met from desalination only. The units shall install electromagnetic flow meters with totalizer to quantify the water consumption.

- 3. The units have not disposed spent nickel catalyst to authorized re-processors stating that the small quantity of waste is generated. The committee submits to Hon'ble NGT to instruct APPCB to direct APPCB to safely store the spent nickel catalyst and to dispose the same to authorized re-processors. The units shall be directed to comply with Hazardous Waste Rules, 2016 and shall dispose the hazardous wastes as directed in the consent within 90 days period.*
- 4. During the inspection, the committee did not observe any discharge of effluent into the Budhakaluva drain, Pantapalem irrigation channel or into land outside the industry premises. But however, in all the units except M/s Adani Wilmar unit-I, there is no proper effluent conveyance system/ pipelines to transfer effluent from production blocks to effluent treatment plant. The committee observed that open drains were used for effluent transfer and during rains, effluent and rain water may overflow into the peripheral drains (drains are provided all along the boundary of the units to collect the effluent). The units informed that during rains, water/effluent is taken to ETP from peripheral drains and no effluent is let out of the unit. The units shall be directed to close the peripheral drains at the exit point near unit boundary. The drains used for transfer of effluents from production block to ETP are clogged, thick oily scum is floating on top and sludge is settled at bottom of drains. Under these circumstances very little effluent may be transferred to ETP and effluent may overflow into area/ soil adjacent to the drains. The committee submits to Hon'ble NGT to instruct APPCB to direct the industries to establish proper effluent pipelines within a period of two months of adequate size to transfer effluent from production block to ETP and for utilization of treated effluent. The pipelines shall be periodically cleaned and cleaning water shall be routed to ETP to prevent any clogging. The status of cleaning shall be submitted to APPCB while submitting compliance reports.*
- 5. The units shall maintain proper records for fullers earth (bye-product) generated and oil recovered from the ETP and its mode of its disposal. Though all units*

informed that the same were disposed for incense sticks manufacturer and soap industries, however no records were shown to committee.

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

7. *The flyash generated from the industries are sold to brick manufacturers. APPCB directed the units to install flyash silo of 30 day storage capacity with an objective that during rainy season, if the ash is not taken by the brick manufacturers on a daily or weekly basis, the ash could be safely stored in silo for a period of at least 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:*

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

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.

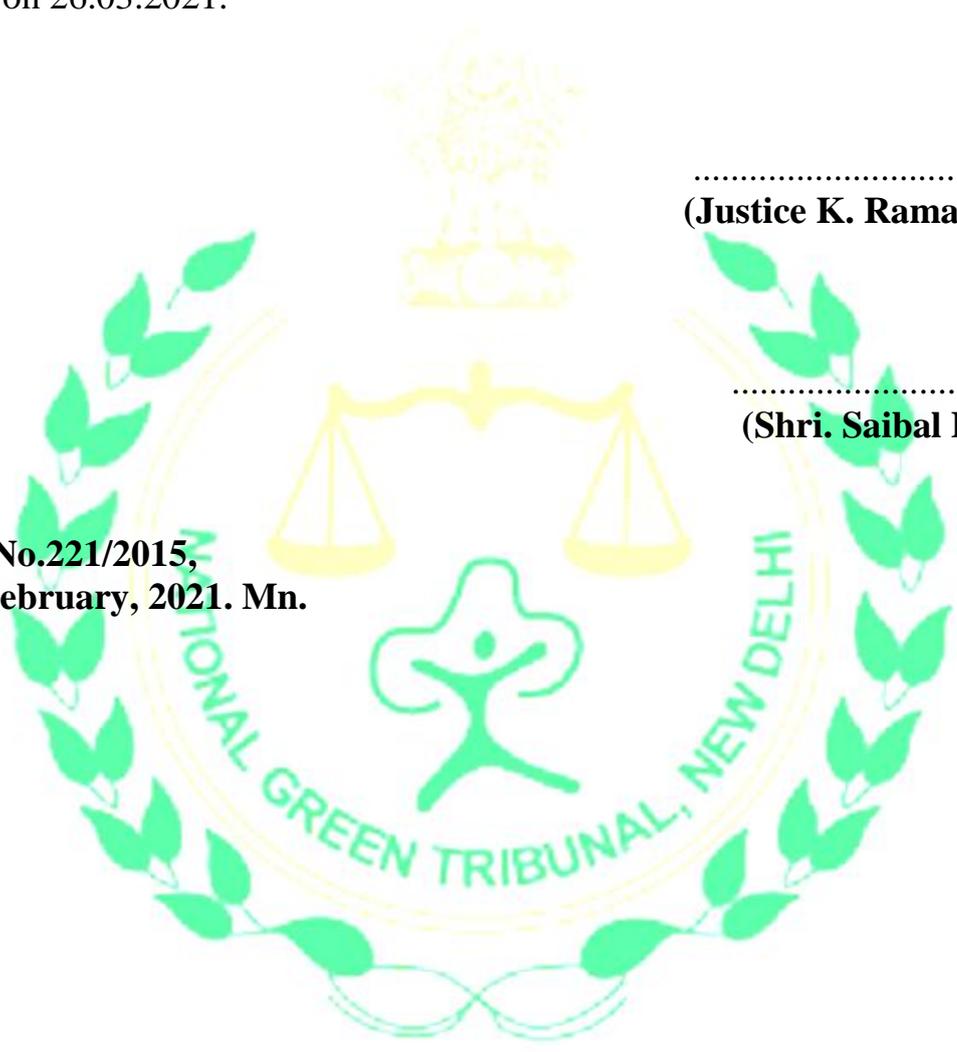
9. The Registry is directed to communicate this order to the members of the committee by e-mail immediately so as to enable them to comply with the direction.

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)

