



**REGD.POST WITH ACK.DUE**

**CONSENT ORDER FOR ESTABLISHMENT**

**Order No.APPCB/VSP/RJY/356/CFE/2007**

1450.

**Dt.04.09.2010**

Sub: PCB - CFE - **M/s. The Andhra Sugars Ltd., Sugar Unit-III, Surappagudem (V), Bhimadole (M), West Godavari district - Consent for Establishment (Expansion) of the Board under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.**

- Ref:
- 1) Industry's Ir.dt. 22.05.2007 for conduct of Public Hearing.
  - 2) Resolution No. 1716 of 117<sup>th</sup> Board meeting held on 13.08.2007.
  - 3) T.O Ir. no. 280/PCB/CFE/RO-ELR/2006-1524, dt.09.10.2007
  - 4) Environmental Clearance dt. 28.2.2008 issued by MOE&F, GOI.
  - 5) Industry's application dt. 11.3.2008.
  - 6) R.O's inspection report dt.31.3.2008
  - 7) Resolution No. 1741 of 119<sup>th</sup> Board meeting held on 01.08.2008.
  - 8) 120<sup>th</sup>, 121<sup>st</sup>, 122<sup>nd</sup> meetings of the Board.
  - 9) CFO order No:3054/APPCB/ZO-VSP/Tech/2010 dt:23.01.2010
  - 10)Sub-Committee report dt.17.02.2010
  - 11)Resolution No. 1813 of 123<sup>rd</sup> Board meeting held on 17.05.2010.
  - 12)CFE Committee meeting held on 10.6.2010
  - 13)Industry's letter dt. 12.06.2010.

1. In the reference 5<sup>th</sup> cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for expansion to produce the following products with installed capacities as mentioned below, with a project cost of Rs. 145 crores.

S. No	Products	Existing	Proposed	Total
1	Sugar	160 TPD (1600 TCD)	605 TPD (4400 TCD)	765 TPD (6000 TCD)
2	Electricity	4 MW	27 MW	31 MW
<b>By- Products</b>				
1	Molasses	65TPD	214TPD	279 TPD
2	Bagasse	400TPD	1400TPD	1760 TPD

2. As per the application, the above expansion activity is to be located within the existing plant premises located at Surappagudem (V), Bhimadole (M), West Godavari district in an area of 49.922 Hectares.
3. The above site was inspected by the Environmental Engineer & Asst. Environmental Engineer -I, Regional office, Eluru, A.P Pollution Control Board on 27.6.2007 and found that the site is surrounded by

**North** : Railway Track  
**South** : NH-5  
**East** : Village Road  
**West** : Agricultural fields

4. M/s. Andhra Sugars Ltd., Surappagudem (V), Bhimadole(M), West Godavari District vide reference 1<sup>st</sup> cited requested the Board to conduct public hearing for expansion of their Sugar Unit –III. The unit exists with in a radius of 10km from the Kolleru Lake. The above issue was placed in the 117<sup>th</sup> Board meting held on 13.8.2007, to take a policy decision on “whether to permit new industries / expansion of existing industries within 10 km radius around Kolleru lake or not?”. The Board examined the matter and vide Resolution no. 1716 resolved to inform the State Government that the application was kept pending receipt of final orders of Hon’ble Supreme Court of India in W.P. No: 460/2004 in Goa Foundation Vs. Union of India in respect of notification of Eco-sensitive / Fragile Zones around the Protected Areas (Sanctuaries and National Parks) to a distance of 10 km from the boundary; and the proponent is free to approach MoE & F, GOI as per EIA, 2006 guidelines”.

The industry obtained Environmental Clearance from MOE&F, GOI, vide reference 4<sup>th</sup> cited for expansion of Sugar unit from 1600 TCD to 6000 TCD and captive power plant from 4 MW to 31 MW. The MOE&F, GOI has exempted the industry from public hearing process as per the provisions laid under para 7 (ii) of the EIA Notification, 2006.

The industry applied for CFE of the Board vide reference 5<sup>th</sup> cited for expansion within the existing plant premises located at Surappagudem (V), Bhimadole(M), West Godavari District. The E.E., APPCB, R.O., Eluru has forwarded the CFE application along with inspection report vide reference 6<sup>th</sup> cited.

The issue was placed before the Board in its 119th Board meeting held on 01.08.2008 vide Resolution No. 1741, it has constituted a Sub-Committee to visit the existing industry, assess the pollution problems caused due to existing activity and the proposed expansion, and its related impacts on Kolleru Lake duly taking into consideration of the existing Rules and Regulations, orders of High Court / Supreme Court / Central Empowered Committee, etc.

The item was discussed by the Board in its 120<sup>th</sup>, 121<sup>st</sup>, 122nd meetings. Finally, the Sub-Committee of APPCB visited the Unit on 19-01-2010 and submitted the report.

The Report was placed in the 123<sup>rd</sup> Board meeting held on 17-05-2010 and the Board vide resolution No: 1813 noted and approved the recommendation of the committee with a direction to the CFE committee to take further action as per rules. Accordingly, the item was placed before the CFE Committee meeting held on 10.06.2010. The Committee has recommended for issue of CFE. The Board, after careful scrutiny of the application verification report of Regional Officer and resolution of the Board, hereby issues **CONSENT FOR ESTABLISHMENT FOR EXPANSION** to your unit-III Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to manufacture the products as mentioned at para (1) only.**

5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.

6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'  
Schedule 'B'

Sd/-  
MEMBER SECRETARY

To  
✓ M/s. The Andhra Sugars Ltd.,  
Sugar Unit-III, Surappagudem (V),  
Bhimadole (M), West Godavari district.

/// T.C.F.B.O ///



4/5 JOINT CHIEF ENVIRONMENTAL ENGINEER(CFE)



### SCHEDULE - A

1. Progress on implementation of the project shall be reported to the concerned Regional Office, A.P. Pollution Control Board once in six months.
2. Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
3. The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
4. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
5. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
6. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
7. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall be constructed around storage of chemicals.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.
9. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.
10. **This order is valid for period of 5 years from the date of issue.**

### SCHEDULE - B

#### Water:

1. The source of water is Irrigation canal and the maximum permitted water consumption after expansion is 1020 KLD.

Sl. No	Purpose	Existing KLD	After Expansion KLD	
			Crushing season	Off season
a)	Process & wash	220	225	40
b)	Cooling	200	199	960
c)	Boiler make-up	30		
d)	Domestic	20	100	20
	<b>Total</b>	<b>470</b>	<b>524</b>	<b>1020</b>

2. The maximum Waste Water Generation (KLD) shall not exceed the following:

Sl. No	Purpose	Existing KLD ( CFO dt. 23.01.2010)	After Expansion KLD	
			Crushing season	Off season
a	Process & Wash	150	200	0
b.	Cooling bleed of	35	302	360
c.	Boiler blow down	40		
d.	Softner/DM plant regeneration	8		
e.	Domestic	6	85	15
	<b>Total</b>	<b>239</b>	<b>587</b>	<b>391</b>

**Treatment & Disposal:**

Source of Effluent	Treatment	Mode of final disposal
Gland cooling and mill washings.	Oil and Grease separator, Equalisation tank, Up flow anaerobic sludge blanket reactor (UASB), Extended aeration tank, Secondary Clarifier, Sludge drying beds, Treated effluents storage pond	The treated effluent shall be stored in a HDPE lined concrete storage pond of capacity atleast 5000 cu.m and shall be used for irrigation on industries owned farms and green belt in an area of 58.8 acres.
Cooling, Boiler blow down, DM plant regeneration and domestic effluent.	Oil and Grease separator, Extended aeration tank, secondary Clarifier, sludge drying beds, Treated effluents storage pond	

3. The existing Effluent Treatment Plant (ETP) shall be augmented and commissioned along with the commissioning of the activity. All the units of the ETP shall be impervious to prevent ground water pollution.
4. The effluents shall be treated to the on land for irrigation standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in Schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof,
5. The following measures shall be implemented to reduce effluent generation as committed during the presentation:
  - i. Mechanical seals are to be installed to arrest leakages, pits with collection arrangement at pumps.
  - ii. Soft Water cooling tower is to be installed to recycle the Bearing cooling water.
  - iii. Cooling of excess condensate is to be taken up to utilize instead of cold water wherever possible.

- iv. Vacuum filter is to be installed to reduce the effluent generation at the time of Plant cleaning time.
  - v. Lamella type clarification system along with the DSM screen is to be installed to clarify the ash slurry water and to recycle the clear water to the wet scrubbing system.
  - vi. Floor washings are to be eliminated by practicing of dry cleaning instead of wet cleaning.
  - vii. Cleaning of equipment is to be initially done with hot water and recycled back to reduce effluent generation.
  - viii. Level alarms with controllers are to be provided to avoid overflows.
  - ix. Quantity of 2<sup>nd</sup> body condensate of multiple effect evaporators is to be properly monitored to utilize as boiler make-up instead of D.M water.
  - x. Necessary piping and equipment are to be installed to recycle cold water.
6. Raw materials such as Lime, Sulphur, Phosphoric Acid etc., shall be stored under sheds with dykes to contain the chemicals in case of accidental spillage and to avoid leachate.
7. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
- a) Industrial cooling, spraying in mine pits or boiler feed.
  - b) Domestic purposes.
  - c) Processing, whereby water gets polluted and pollutants are easily bio-degradable.
  - d) Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

**Air:**

8. The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution:

At present, the industry has 2x25 TPH boilers provided with bagasse drier followed by Wet scrubber for control of stack emissions. The industry has proposed to install 2x 20 TPH boilers and 1 x 40 TPH boilers with bagasse driers. The flue gas shall be routed through the bagasse drier, followed by suitable air pollution control equipment such as Wet scrubber/ Bag filters / ESP etc., to control pollution from stack emissions. The concentration of particulate matter in emissions from the stacks of height 30m shall not exceed 100mg/Nm<sup>3</sup> as committed during the presentation.

**Finally, the industry shall replace all the existing boilers with 1 x 100 TPH and 1 x 50 TPH boilers during the expansion of Co-generation plant. The flue gas shall be routed through the bagasse drier, followed by suitable air pollution control equipment such as Bag filters / ESP etc., to control pollution from stack emissions. The concentration of particulate matter in emissions from the stack of height 40m shall not exceed 100 mg/Nm<sup>3</sup> as committed during the presentation. The D.G. sets of capacity 1x1500 kVA + 1x 608 kVA shall be provided with adequate stack heights above the roof of the building as per CPCB norms.**

9. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform. Continuous stack and ambient monitoring system and recording facility shall be provided.
10. The proponent shall provide interlocking system for air pollution control equipments provided with raw material feeding system so that the feeding of raw material would be stopped incase the air pollution control equipments fails.
11. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.

**Solid & Hazardous Waste:**

12. The proponent shall comply with the following:

Sl. No	Solid Waste	Quantity	Method of Disposal
1)	Filter Cake	255 TPD	Shall be sold to distilleries.
2)	Boiler ash	19.8 TPD	Shall be disposed to brick manufacturers/ cement plants.
3)	ETP sludge	15 TPA	Shall be used as manure.
4)	Used Batteries	8Nos/Year	Shall be disposed to authorised recyclers.
5)	Waste Oil	750 L/Year	Shall be disposed to authorised recyclers.

13. The following rules and regulations notified by the MOE&F, GOI shall be implemented.
  - a) Hazardous waste (Management, Handling and Transboundary Movement), Rules, 2008.
  - b) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and its amendments thereof.

**Other Conditions:**

14. The following recommendations of the Sub-Committee constituted by the Board shall be complied with:

**Water pollution and mitigative measures:**

- The capacity of ETP needs to be augmented with additional units to handle the expanded capacity of the unit.
- Proper measures need to be taken to prevent shock loads to ETP by providing continuous monitoring and controlling facilities for the parameters such as pH, TDS, COD etc.

- It is suggested to include an RO Plant followed by forced evaporation (MEE) system to handle high TDS effluents and to reuse the water in the plant to minimise the long term impact of the soil due to application of high TDS effluent on land for irrigation purpose.
- All efforts must be taken effectively to ensure that in no case the treated or untreated effluent or agriculture or Storm water run-off joins the Bulusuvagu or any other such water course that joins Kolleru Lake.
- Regular sampling and monitoring needs to be carried out to assess the impact on soil or on ground water due to land application of treated effluent and the same shall be submitted to the Board.
- Additional storage facility may need to be provided to store the treated effluent when there is no requirement of water for land application and the same can be used later.
- Bunds, Trenches, Garland Drains provided shall be strengthened and shall always be maintained in effective condition to prevent the water from the premises joining the vagu.
- Adequate containment-cum-dyke wall shall be provided to the Molasses storage tanks to prevent accidental leakages / spillages.
- Adequate rain water harvesting structure shall be provided to collect the rain water from the roof tops and also in the open areas and the plant premises.
- Measures shall be taken to prevent contamination of storm water with process area spillages.

#### **Air pollution and control measures:**

- The Boiler capacity of the plant is proposed to be increased nearly to about 4 times, which could increase the effective pollution load by more than the double the present rate of emissions. Hence, better control mechanisms are needed to meet the stringent emission standards.
- The period of operation of the unit will also increase from the present period of 3 to 4 months to 7 to 8 months, thereby increasing the period of exposure with the pollution. This needs to be taken care of.
- The proposed system of Bagasse drier followed by scrubber might need to be augmented for handling the capacity of the proposed Boilers of 100 TPH and 50 TPH to meet the specified stringent norms.
- Continuous stack monitoring and Ambient Air Quality Monitoring system with data recording facility needs to be provided for effective Supervision and rectification purpose.
- Effective measures shall be taken to control the Odour problem at process and ETP areas.
- All internal roads and cane yard shall be covered with Bitumen / Concrete top to avoid dust nuisance due to increase in vehicle movements in the plant area.

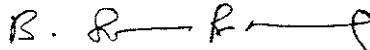


- Closed storage facility shall be provided to store the Fly ash, dried bagasse, Sulphur, Lime (Chemicals) and other materials which may contribute fugitive emissions in the area.
  - Plantation shall be developed with tall growing trees in a width of at least 10 m all along the periphery to act as a shield in controlling noise and dust impact on the neighboring habitations.
  - Measures also shall be taken by utilizing the best available technologies in minimizing the noise levels at their respective generation stages.
15. Thick green belt shall be developed along the boundary of the industry with minimum area of 33% of total area. Existing Green belt shall not be disturbed in the proposed expansion / construction activity.
  16. The industry shall comply with all the conditions stipulated in the Environmental Clearance issued vide order dt. 28.2.2008 issued by MOE&F, GOI.
  17. This order is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.
  18. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this order and attract action under the provisions of Water (Prevention & Control of Pollution) Act 1974 and Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under without any prior notice.

**Sd/-**  
**MEMBER SECRETARY**

To  
M/s.The Andhra Sugars Ltd.,  
Sugar Unit-III, Surappagudem (V),  
Bhimadole (M), West Godavari district.

/// T.C.F.B.O///



5/5 JOINT CHIEF ENVIRONMENTAL ENGINEER(CFE)

