

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

Original Application. No. 16 of 2019

1. K. Gemini (Died)
2. Mrs. G. Santhal,
Wife of K. Gemini,
Aged about 53 years
3. Mr. G. Poovannan
Son of K. Gemini
Aged about 30 years

Applicants 2 and 3 residing at
5/1-34, Rettaipuliyamaram,
Raman Nagar Post,
Mettur Dam, Salem District – 636403

...Applicants

-vs-

1. Union of India represented by
The Secretary of Government,
Ministry of Environment, Forests & Climate Change,
III Floor, Pritvi Wing,
India Paryavaran Bhavan
Jor Bag, New Delhi- 110003.
2. The State of Tamilnadu represented
By the Secretary to Government
Environment and Forests Department
Fort St. George
Chennai – 600 009.
3. The District Environmental Engineer
Tamilnadu Pollution Control Board
Salem.
4. M/s. Chemplast Sanmar Limited
Veerakkalpudur Village
Raman Nagar Post
Mettur Dam
Salem District - 636403

.....Respondents

WRITTEN SUBMISSIONS FILED BY THE APPLICANTS

PRAYER IN THE APPLICATION:

The above application praying for a direction to the respondents 1 to 3 herein to forthwith take action on the fourth respondent to stop all further works in respect of Plant- IV for manufacture of Hydrogen Peroxide in S.No.58/8 (part) etc in Veerakkalpudur Village, Mettur Taluk, Salem District in as much as the same is established without the mandatory Environmental Clearance.

FACTS IN BRIEF:

The Government of Tamilnadu leased out the lands which include waterbodies vide G.O.Ms. No.1950, Revenue Department dated 25/07/1964 for establishing Polyvinyl Chloride Factory to the 4th respondent then known as M/s.Chemicals and Plastics India Ltd. From then on, the 4th respondent has gone from one factory to the other and now has three units. It uses the Cauvery River Water by erecting three pump houses right in the Reservoir. All these units were established within 5 Km radius of the river and the reservoir and as such the same is banned with respect to setting up of highly polluting industries within 5 km radius of rivers by G.O. No. 127 dated 08.05.1998. Now that the 4th respondent has established another monstrous unit namely Plant-IV to produce environmentally dangerous chemical, Hydrogen Peroxide without obtaining any prior environmental clearance, thereby causing eye irritation, skin diseases, stomach and intestinal ulcers, cancer etc as a result of the pollution that will emanate from the production related activities of Hydrogen Peroxide and various other factors. The official respondents who ought to have protected the environment allowed the pollutant to run its Industry which is illegal. Hence the above application.

POINTS FOR CONSIDERATION:

1. MANDATORY ENVIRONMENTAL CLEARANCE:

1. The 4th respondent established a unit which manufactures Hydrogen peroxide - a hazardous substance having great impact on the environment without even obtaining prior Environmental Clearance which is in violation of EIA, Notification, 2006 and such an industry cannot further carry on with the activities causing damage to the environment. On 12.07.2017, permission for expansion activities was granted to M/s. Chemplast Sanmar Ltd- Plant- IV, by the 2nd and 3rd respondents who issued G.O.(3D). No. 50 permitting the new industry as if it is an expansion activity and carrying production related activities of Hydrogen Peroxide, as such the new unit is to manufacture H₂O₂ of the quantity of 53,000 MT/year.
2. As per the EIA notification,2006, it imposes restrictions and prohibitions on any new projects or activities, or on the expansion or modernization of exiting projects or activities based on their potential environmental impacts as indicated in the Schedule to the notification.

3. Even according to the notification released by MoEF & CC dated 05.03.2016 with respect to categorization of industries based on their pollution index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources except the white category of industries other categories should duly obtain Environmental Clearance and consent from the respective authority wherein hazardous chemicals and even basic chemical is covered under the purview of Red category of industries which mandatorily requires Environmental Clearance – this vital aspect is not taken note of by the Regulatory authorities and a stance is taken that the activity of R4 does not require prior EC – which is not correct.

a. As per 5 (f) of the Schedule of the EIA notification, Hydrogen peroxide is covered under the term Chemical Intermediates.

4. According to Encyclopedia Britannica, *Hydrogen peroxide (H₂O₂), a colourless liquid usually produced as aqueous solutions of various strengths, used principally for bleaching, in the manufacture of other chemicals, as a rocket propellant, and for cosmetic and medicinal purposes. Solutions containing more than about 8 percent hydrogen peroxide are corrosive to the skin. Hydrogen peroxide is used as a Chemical intermediate such as in bleaching and deodorizing process.*
5. According to Britannica, ***any chemical substance produced during the conversion of some reactant to a product are Chemical intermediate.*** It is pertinent to mention that, of the several processes of manufacture of Hydrogen Peroxide, the principal ones involve reactions of oxygen from the air with certain organic compounds, especially anthraquinone or isopropyl alcohol (both are hazardous chemicals), the process involved itself shows that the Hydrogen Peroxide is a chemical intermediate whether organic or inorganic compound and falls under the purview of EIA notification.
6. Hydrogen peroxide is a manufactured chemical, although small amounts of hydrogen peroxide gas may occur naturally in the air. Low exposure may occur from use at home; higher exposures may occur from industrial use. Exposure to hydrogen peroxide can cause irritation of the eyes, throat, respiratory airway, and skin. Drinking concentrated liquid can cause mild to severe gastrointestinal effects, which itself shows such a chemical substance is hazardous in nature.

b. As per 6 (b) of EIA Schedule, Hydrogen peroxide, a hazardous chemical requires prior EC.

7. According to the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, (MSIHCR) Section 2 (e) states that **“Hazardous waste” means (i) any chemical which satisfies any of the criteria laid down in Part I of (Schedule 1 or) listed in Column 2 of Part II of this Schedule; (ii) any chemical listed in Colum 2 of Schedule 2; (iii) any chemical listed in Column 2 of Schedule 3** ” wherein Hydrogen peroxide falls under Part II of Schedule I under the caption as **“LIST OF HAZARDOUS AND TOXIC CHEMICALS”**, which itself shows that hazardous chemicals such as H_2O_2 falls under the purview of EIA notification and as such it is mandatory requirement to obtain any environmental Clearance.
8. Therefore, it is submitted that any new industries or any existing industry expanding their activities should get their EC, as per the above schedule 5(f) and 6(b) of the EIA notification, Hydrogen Peroxide falls under purview of EIA notification which is hazardous in nature and therefore requires prior EC before establishing the same. It is duty of the regulating authorities to look into the aspects as serious environmental issues. That being the case, the stand of the MoEF & CC that the same is an inorganic chemical and does not require prior EC is not at all acceptable. It is prayed that the Hon’ble Enviornmental Court may be pleased to look into these vital aspects as regards the interpretation of the various schedules to the EIA notification and to take a holistic view in the light of the primary goal of protecting the environment and to hold that the prior EC is to be obtained in this case and to direct the closure of all further operations pending the obtaining of the EC. The stand of the MoEF & CC ought not to be the final one in this regard as they tend to ignore the impact on the environment and are proceeding in a very narrow manner.
9. As per the present case is concerned, without obtaining Environmental Clearance M/s. Chemplast Sanmar Ltd- Unit IV can neither establish any new industry nor expand their activities especially this being a hazardous chemical.

2. EMISSION OF VOLATILE ORGANIC COMPOUND

10. When the matter came up for hearing on 25.09.2019, the Hon’ble NGT constituted a Joint Committee comprising CPCB, TNPCB and SEIAA to

examine into the issues raised by the Applicant and on 25.11.2019 the Joint Committee filed their **FIRST REPORT** wherein it was seen by the Committee that the Plant-IV carried out VOC emission monitoring by engaging third party laboratory and collected the water samples from piezometric wells/bore wells installed near to SLFs of the Plant. The Committee also requested NGRI to look into the matter of ground water contamination caused on account of the activities of the industrial group of M/s. Chemplast Sanmar Limited. The units were directed to provide Continuous Ambient Air Quality (CAAQM) in four directions around Plant- II, III, IV, V and Power Plant. The unit shall monitor PM₁₀ , SO_x, NO_x, Chlorine and VOC, with respect to which VOC is said to be monitored in the Plant- IV and CAAQM is yet to be installed. It is seen from the report filed by the Committee, **shows that Volatile Organic Compound (VOC) is emitted from the Unit-IV. When organic compounds are emitted during the process, whether it could be accepted that the end product is an inorganic chemical and therefore no EC is required?** Such an interpretation would defeat the very objects and purpose of the EIA Notification. It is prayed that the Hon'ble NGT may be pleased to consider this important and crucial aspect of the matter and to lay down the guidelines to be followed in matters of such nature. Exempting such units from the requirement to obtain EC will defeat the whole object and purpose.

The following were the recommendation given by the Committee:

"...8. The production of H₂O₂ in Plant IV may be restricted to 30- 40% (57.6 T /day) of consented capacity (144 T/day) until implementation of following measures;

- The unit shall provide more effective chiller to the solvent recovery unit for better recovery of the solvent.*
- The unit shall provide adequate number of additional adsorbent beds for better control of VOC emission further.*
- In addition to adsorbent beds, the unit shall be directed to install Regenerative Thermal Oxidizer (RTO) system to achieve the VOC emissions below 5 microgram /Nm³.*
- The concentration of VOC at outlet of adsorbent should be interlocked with production line. The unit shall provide proper stack emission monitoring system (VOC monitoring) with suction motor. The unit shall install alarm system to give caution in case of exceedance of VOC limit in the stack*

- *The unit shall provide suitable emission monitoring system of the inlet and out let of the adsorbent.*
- *The unit shall provide Siren system coupled with ambient VOC monitoring system to give alert to public in case of exceedance of TVOC in ambient air.*
- *The unit shall carry out automation in the adsorbent section to control emission.*

9. The unit shall regularly calibrate all the VOC monitors installed at the stacks attached to adsorbent beds and provide proper data to Care Air Centre of TNPCB, Guindy at all times

10. The unit shall provide Continuous Ambient Air Quality monitoring stations (CAAQM) in four directions around the Plant – II, III, IV, V and Power Plant. The unit shall monitor PM10, SOx, NOx, Chlorine and VOC.””

11. Further report -**SECOND REPORT** was filed by the Joint Committee wherein it is clearly seen from the report, earlier the Committee directed the Industry to provide Continuous Ambient Air Quality (CAAQM) in four directions around Plant- II, III, IV, V and Power Plant. The Plant shall monitor PM₁₀ , SOx, NOx, Cholrine and VOC. The Committee’s remark for the recommendation as mentioned in the report is stated as follows (Point 7 of the Committee’s remark:

“The unit reported that the unit has provided continuous VOC, Chlorine monitors and also continuous stack monitors with respect to particulate matter SOx & NOx.

But Continuous monitoring is required to measure the pollutant ground level concentration at a particular distance. Since many hazardous chemicals are being handled in the unit-II, II, IV & V, it is essential to provide online continuous Ambient Air Quality Monitoring Station outside of the unit.

During the meeting on 21/12/2020 the authorities of the unit agreed to provide two continuous AAQ monitoring stations in the upstream and downstream directions outside the unit. The committee recommends the same- Not Complied”

12. It is seen from the committee’s remark that the Industry is handling Hazardous chemical and certain directions and recommendations were given by the Committee to control the emission of VOC in Plant-IV, while this being the situation the Industry ought to have not carried out the manufacturing activities without even obtaining the EC and the authorities ought not to have given permission for the same. Subsequently further

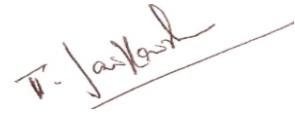
reports were filed by the Joint Committee on 14.07.2021 and 12.11.2021, by perusing all these reports of the Joint Committee clearly shows that the monitoring systems to control VOCs in Unit-IV were not effective and after inspecting the same the Committee had given the Industry certain recommendations to control those emission by placing proper monitoring system, absorbent beds and alarm system to control the emission and alert the public on the same, which itself is a major threat and risk involved to the environment which ought to have been noticed by the regulating authority before even giving any consent to establish the same.

13. According to Cambridge Dictionary, "**A Volatile Organic Compound is a compound (a chemical that combines two or more elements) containing carbon that changes easily into a gas and that can be harmful to people's health or to the environment**"
14. It is pertinent to note that the Pollution Control Board have found emission of VOC from Unit-IV which can very well seen from the reports filed by the Joint Committee as stated above. It cannot be denied that the VOC when released to the air can be dangerous to the environment and the same is considered to be hazardous, which itself shows that the larger impact on the surroundings.
15. The very same aspect on the whole was not considered by the MoEF&CC and simply puts a term in their reply affidavit dated 18.12.2020 that the chemical which is manufactured by the Unit-IV is a inorganic compound and that it does not come under the purview of EIA, notification and therefore no clearance is required is absolutely lethargic on the part of the authority and disappointing as well. This being an issue affecting human life and environment which cannot be taken in a lighter way, the MoEF & CC as well as the Board should not have permitted the industry to carry on their activities and without obtaining the Environmental Clearance.
16. It is therefore submitted before this Hon'ble Tribunal that Hydrogen peroxide being a hazardous chemical and releases VOCs causing serious environmental impact ought not to be permitted to carry on the activities and authorities should not give permission for the same and that it is a requirement for an Industry whether establishing a new industry or expanding an activity will have to get prior Environmental Clearance.

PRAYER:

It is therefore prayed that this Hon'ble Tribunal maybe pleased to allow the above application and thus render justice.

Dated at Chennai on this the 29th day of December, 2021

A handwritten signature in black ink, appearing to read "T. Jagan", written over a horizontal line.

Counsel for Applicants

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M/s. T. Sai Krishnan
Counsel for Applicants

