Minutes of Meeting for the Environmental Public Hearing

Venue:- Gangadhar Deshmukh Hall,
RCF Colony, Chembur,
Mumbai 400074

Date: 2nd March 2023
Time: 11:00 AM

Minutes of the meeting for the Environmental Public Hearing for Installation of New Nano Urea Fertilizer Plant within existing RCF Trombay Unit, Chembur, Mumbai a Government of India Undertaking Department of Fertilizers, Ministry of Chemicals and Fertilizers.

The Environmental Public Hearing for installation of New Nano Urea Fertilizer Plant within existing RCF Trombay Unit, Chembur, Mumbai of M/s Rashtriya Chemicals and Fertilizers Limited (RCF) was held on 02.03.2023 at 11:00 AM at Gangadhar Deshmukh Hall, RCF Colony, Chembur, Mumbai 400074.

As per committee for Public Hearing constituted vide Board's Office order No. E-19/2023 dated 01.03.2023 of Maharashtra Pollution Control Board, following committee members were present:

1. **Dr. Vikas Naik** - **Chairman**
   Addl. District Magistrate,
   Mumbai Suburban District

2. **Shri. Sanjay Bhosale** - **Member**
   Regional Officer,
   Maharashtra Pollution Control Board, Mumbai

3. **Shri. Sujit Dholam** - **Convener**
   Sub-Regional Officer Mumbai-3,
   Maharashtra Pollution Control Board, Mumbai

The details of the proceedings are as follows –

Maharashtra Pollution Control Board (MPCB) received an application from Project Proponent – M/s Rashtriya Chemicals and Fertilizers Limited, for conducting Environmental Public Hearing regarding installation of New Nano Urea Fertilizer Plant within existing RCF Trombay Unit, Chembur, Mumbai, MPC Board requested District Magistrate, Mumbai Suburban vide letter dated 27.12.2022 to suggest suitable date for the Public hearing for said proposal.

Hon'ble District Magistrate, Mumbai Suburban, fixed the date for conducting environmental public hearing on 02.03.2023 at 11:00 am. The advertisement for this public hearing was published one month in advance in the daily newspaper

"Navshakti" in Marathi language and also in the daily newspaper "The Free Press Journal" in English language on 28.01.2023.
Copies of the Environmental Impact Assessment Report submitted by the Project Proponent of the proposed project were made available at the following offices for public study:

1) Office of the District Collector, Mumbai Suburban, Administrative Building, 10thfloor, Government. Colony, Bandra (E) Mumbai
2) Environment Department. Government of Maharashtra, 15th floor, New Administrative Building. Mantralaya, Mumbai
3) Joint Director (WPC), M.P.C. Board, Sion, Mumbai
4) Regional Officer- Mumbai/ Sub-Regional Office, Mumbai-III, MPC Board, Kalptaru Point 1st floor, Sion Matunga Scheme Road No. 8, In front of Sion Circle, Sion (E), Mumbai.
5) Assistant Commissioner, M/W Ward, Brihanmumbai Mahanagarpalika, Sharadbhau Aachary Marg, Chembur, Mumbai.
6) Joint Director of Industries Mumbai, Metropolitan Region, 702, 7th Floor, Development Center, Dr. C. G.Gidwani Marg, Wadavali Village, Chembur, Mumbai.

The public in general were appealed to send in any comment, view, suggestions or objections regarding the proposed Project.

At the outset, Shri. Sujit Dholam, Sub-Regional Officer, MPCB and the Convener of the public hearing, welcomed all. With the permission of the Hon'ble Chairman, the proceedings of the public hearing was started. Shri. Sujit Dholam informed that this public hearing is being conducted as per the provisions of the Environmental Impact Assessment Notification, 2006 issued by the Ministry of Environment, Forests and Climate Change (MoEFCC).

He further added that the purpose of this public hearing is to make the local people aware about the proposed project and the environmental management plans proposed by the project proponent.

Convener of the committee informed that at the start, M/s EQMS India Pvt. Ltd. - National Accreditation Board for Education and Training (NABET) accredited Environment Impact Assessment (EIA) Consultant of Project Proponent, will present information about the project and then the citizens present can express their suggestions / views. He further stated that suggestions can be submitted in writing as well.

Convener of the committee apprised the forum present, that the scope of this committee is to conduct public hearing, take note of the objections and comments of the local people and submit the proceedings to the Government. He explained that this committee does not have the authority to take decisions regarding the environmental clearance of the project.

On behalf of the Project Proponents, Smt. Sweta Shah from M/s EQMS India Pvt. Ltd. - the EIA Consultant for the project, made a detailed presentation about the project and presented details of the Environmental Impact Assessment Study.

Thereafter, Hon'ble Chairman opened the session for questions and answers and invited the audience to ask questions about the environmental aspects of the project. Convener of the committee informed that before asking the question, the person shall state his name and address.

The details of the questions and comments raised by the citizens present and the answers given by the representatives of the Project Proponents are summarized below:

1) Shri Satish Deshpande, Vashi village

Question: What is the process of making Nano Urea? What are the raw materials used to make Nano Urea? Briefly explain the benefits of this product (Nano Urea) to farmers as well as to the country.

Answer:
The Project Proponent stated that, Nano-particles and Nano-particle based production processes are also known as "kitchen chemistry", i.e., processes that are carried out using simple home cooking methods. Technical grade Urea is the main raw material for making Nano Urea. Along with that, some natural carbohydrates like starch & chitosan are also used. The process involves very little use of harsh or synthetic raw materials. The process of making Nano Urea does not require high pressure or high temperature. It is a simple blending process in which Nano sized particles are formed on carbohydrates to form Nano Urea. It is a slow release type of fertilizer.

2) Shri Sadanand Damodar Patil, Vashigaon :

Question: Many people have lost their jobs during the covid period. So, first of all, I congratulate the management that this project will provide employment to local people. My question is how many environmental monitoring stations are there in RCF and how much cost is incurred on the maintenance and repair of these environmental monitoring stations?

Answer:

The Project Proponent stated that RCF has four environmental monitoring stations in four strategic locations wherein SOx, NOx, Ammonia and Particulate Matter are continuously monitored. These monitoring stations have been set up as per the direction of IIT, Mumbai and National Environmental Engineering Research Institute, Nagpur (NEERI). The readings of two monitoring stations located inside and outside the factory are linked to the Maharashtra Pollution Control Board portal. Also, RCF has installed a display board outside factory gate no. 1 on which the monitoring

readings of all four stations are continuously displayed. The cost of maintenance and repair of the Environment Monitoring Centre is around Rs.25.00 lakhs per annum.

3) Mrs. Anjali Naik, Ex-Corporator

Question: We have no objection to the Nano Urea project. A project like Nano Urea will surely benefit the local community by creating employment. As mentioned Nano Urea is in liquid form, so will it have any side effect?

By bringing a project like Nano Urea, it will create employment opportunities, so we agree on this project.

Answer:
The Project Proponent informed that the toxicity test (toxicological study) of Nano Urea has been done as per the international guidelines of Organization for Economic Co-operation and Development (OECD). It has been studied on every human organ like skin, eyes, respiratory tract and lungs (by using cell lines). Also the impact of Nano Urea on the micro-organisms, macro-organisms and aquatic organisms present in the soil have also been studied. All these studies show that Nano Urea is very safe. Moreover, it did not show any adverse effect on agricultural produce either. About 11,000 field trials of Nano Urea were conducted and subsequently it was included in the Fertilizer Control Order (FCO) by the Government of India.

4) Shri Christopher D'Mello, Maravali Church

Question: Is the information you have given available on any website?

Answer:
The Project Proponent stated that, RCF's Nano Urea plant is based on IFFCO's technology and its information is available on the website https://nanourea.in. Also a comprehensive research paper on Nano Urea has been published in Fertilizer Association of India (FAI) seminar last year which we can make available to you. We will also make this relevant information available on the website of RCF.

5) Shri Vilas Mehta, Chembur :

Question: For manufacturing of Urea, Ammonia is used. Is there a possibility of Ammonia leakage? Please give detailed information about the measures taken for the same.

Answer:

The Project Proponent stated that, as Ammonia is not used in the process of making Nano Urea, there is no possibility of Ammonia leakage from the Nano Urea plant. Urea itself will be converted in to Nano form to make liquid Nano Urea. Hence, there is no possibility of Ammonia leakage from Nano Urea plant.

6) Shri Manik Patil, Vashi Village :

Comment: In today's Environmental Public Hearing on the Nano Urea Project, RCF has given the information about the project and we - the local residents, welcome the project.

7) Shri Ashok Malusare, Chembur :

Question: In the field we use 7 to 8 bags of Urea per acre which is about 300 to 400 kg of Urea. If I want to use Nano Urea, how much Nano Urea will I need and what benefits will I get by using Nano Urea? Also, how the wastage of Urea can be reduced by using Nano Urea?

Answer:

The Project Proponent stated that, the technology of Nano Urea has been developed by IFFCO. According to a study conducted by IFFCO, one 500 mL bottle of Nano Urea is equivalent to 1 bag (45 kg) of conventional neem coated urea. Considering the same, about 7 to 8 number of 500 ml bottles of Nano Urea will be required.

The particles of Nano Urea are very fine i.e. 20 to 50 nano-meters. The finer size increases the surface area of this Urea and makes it more reactive. Also, Nano Urea is sprayed on the leaves and due to this, its Nutrient Use Efficiency (NUE) is high. Nutrient Use Efficiency (NUE) of conventional urea is only about 30 percent. According to the information published by IFFCO, the Nutrient Use Efficiency of Nano Urea is about 80 percent. Field trials have shown that application of Nano Urea increases yield by an average of 3 to 8 percent.

Also, a 500 ml bottle of Nano Urea is easier to store and transport as compared to a 45 kg Urea bag. Looking at the demand for Urea, our country has to import 50 to 80 lakh metric tonnes of Urea. Nano Urea will reduce this shortage. Further, Nano Urea production will not require any subsidy, making it a beneficial project from the Indian government's point of view.

8) Shri Mahadev Shigavan, Ex-Corporator, Chembur

Question: What is the price difference between Neem coated Urea and Nano Urea? Which of these Urea is wasted more?

Answer: The Project Proponent stated that, the cost of a 500 ml bottle of Nano Urea is same as that of 45 kg bag of Neem Coated Urea i.e. Rs.242/- (excluding tax).

The Project Proponent stated that, about 50 percent of conventional Urea is wasted during its application. Whereas by spraying of Nano Urea on the leaves (of crop) and its fine particles are absorbed into the leaves due to this, its Nutrient Use Efficiency (NUE) increases. So Nano Urea is more beneficial compared to conventional Urea.

9) Shri Vilas Patil, Chembur :

Question: Is Nano Urea safe for storage, transportation and handling by the farmer? Can Nano urea be used for all crops? Will it have to be sprayed (on leaves of crop) or can it be used in the soil? How much liquid Nano Urea should be added in one liter of water?

Answer:

The Project Proponent stated that, Nano Urea is safe for storage, transportation and handling by the farmer. Nano Urea should be stored away from direct sunlight and in a cool place. Nano Urea has been tested according to the international guidelines of the Organization for Economic Co-operation and Development (OECD) and is very safe for humans, soil and animals.

The Project Proponent explained that, Nano Urea contains Nitrogen - a nutrient that is required by all crops. Hence, Nano Urea can be used for all crops. Nano Urea application is done through spraying. Around 1 to 2 ml of Nano Urea is added to 1 litre of water before application.

10) Shri Dhananjay Pathak, Wadvali Village :

Question: Where will Nano Urea be available?

Answer:

The Project Proponent stated that, Nano Urea will be sold through their dealer network as per RCF's current practice for sale of fertilizers.

11) Shri Ashok Ghadge, Chembur:

Question: Is the company providing the technology for the Nano Urea project foreign or indigenous? How Nano Urea Project is useful in view of Atmanirbhar Bharat Abhiyaan.

Answer:

The Project Proponent stated that, the technology for RCF's Nano Urea project is being provided by IFFCO, which is an Indian company. No support from any foreign company is required for this project. With Nano Urea, Urea wastage will be reduced by 50 to 60%. This could reduce India's dependence on imports of Urea and consequently make us self-reliant – "Atmanirbhar" in meeting the domestic Urea demand of Indian farmers.

12) Shri Christopher D'Mello, Maravali Church

Question: What is the shelf life of Nano Urea?

Answer:

The Project Proponent stated that, the shelf life of Nano Urea is 1 year. Research is underway to extend the shelf life of Nano Urea.

13) Shri Ravi Kadam, Wadvali Village :

Question: In the presentation about the Nano Urea Project, there was a mention of 'Zero Effluent Discharge'. Has RCF been successful in achieving 'Zero Effluent Discharge'? What measures have been taken for the treatment of effluent generated in this new project?

Answer: The Project Proponent stated that, the manufacturing process of Nano Urea is simple and generates minimum effluent. Therefore, the Nano Urea project will result in negligible increase in effluent and it will be treated in the existing centralised Effluent Treatment Plant of RCF.

14) Shri Mahadev Shankar Shigavan, Ex-Corporator, Chembur :

Comment:

I thank the Union Government for setting up this Nano Urea Project in Mumbai, Maharashtra under the Atmanirbhar Bharat initiative. All of us should approve and welcome this project to create employment in Chembur, Mumbai.

15) Shri Sanjay Paranjape, Chembur :

Question: If RCF first manufactures Urea and then produces liquid Nano Urea, will it increase the cost of production? For convenience of farmers RCF should provide Nano Urea at an affordable price.

Answer:

The Project Proponent stated that, the Nano Urea project is based on advanced technology so the cost of production is low. Also, as mentioned earlier, the nutrient utilization efficiency of Nano Urea is about 80 percent and it will benefit the farmers by increasing the production of the farmers by an average of 3 to 8 percent.

Shri Dhananjaya Pathak, Wadvali village, Shri Christopher D'Melo, Marvali Church and shri Navin Vidyadhar Acharya, Wadvali village, raised issues other than environment related. In this regard, Hon. Chairman, Public Hearing Committee said that, this committee has very limited powers and objectives. He stated that this is not

the right forum to put-up other issues non-related to the subject project. He further stated that RCF officials may take appropriate note of these queries and provide a separate forum for addressing such issues.

Hon. Chairman, Public Hearing Committee: I extend a warm welcome to all those present at this public hearing. Information about Nano Urea product should be made available at RCF website.

Hon'ble Chairman of the committee concluded the session and said that all the queries raised by the people have been satisfactorily resolved by the Project Proponent. Finally, with the permission of the Hon'ble Chairman, it was announced that the environment public hearing was over and the meeting was concluded by thanking the Hon'ble Chairman.

(Shri. Sujit Dholam)	**(Shri. Sanjay Bhosale)**	**(Dr. Vikas Naik)**
Convener,	Member,	Chairman,
Public Hearing Committee	Public Hearing Committee	Public Hearing Committee
and Sub-Regional Officer,	and Regional Officer,	and Addl. Dist. Magistrate,
MPC Board, Mumbai-3	MPC Board	Mumbai Suburban District

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Note: Original MOM in marathi language are signed by chairman of the Public hearing committee.