

Minutes of the 14th Meeting of Project Appraisal & Approval Committee (PAAC-EPC)

The 14th meeting of PAAC-EPC headed by Chairman CPCB was held on June 10, 2019 at CPCB, Delhi. List of Participants is placed at **Annexure-I**.

The meeting commenced with briefing on status of funds & projects under EPC followed by a detailed presentation. It was apprised to the Committee that so far 97 proposals have been received under EPC, with 25 proposals being sanctioned, while remaining are under various stages of consideration.

Chairman, CPCB directed to make a presentation on status ongoing projects to the committee in the next meeting.

Four revised and six fresh proposals were placed before PAAC-EPC for consideration. The observations & decisions of the committee is summarized below:

- 1. Development of customized nozzle spraying systems for mitigating pollution in Delhi-NCR region:** PAAC-EPC was briefed that during 7th meeting of EPC the PI was advised to consult DST for assessing effectiveness of nozzle spray and customize designs for applications. Accordingly, the proposal was discussed during DST meeting of expert panel for technology solutions for mitigating air pollution convened on 28.03.2019, where it was decided that the current proposal aims to carry out fundamental research on nozzle design and hence may be considered for funding by DST instead of EPC. In view of this recommendation, the PAAC-EPC committee rejected the proposal for consideration under EPC funds.
- 2. Development of Emission Factors for emitted pollutants and toxic metals of Fire Crackers:** PAAC-EPC was apprised that this project was sanctioned to Amity University in association with NEERI during 8th PAAC meeting at a cost of ₹ 39.675 lakh subject to confirmation of methodology & protocol through DST expert group. However, in compliance to Hon'ble Supreme Court order, NEERI is developing green crackers which include work of development of emission factors and therefore the current proposal will be duplication of the work being carried out by NEERI. Accordingly, PAAC-EPC rejected the proposal in order to avoid duplication of work.
- 3. Air pollution hot spots in western Indo –Gangetic Plains: Implications on agro ecosystem and Human health:** PAAC-EPC was informed that the proposal submitted by JNU focussed on impact assessment of stubble burning on human health and development of agro-productivity index. As recommended in 9th PAAC EPC meeting, Punjab and Haryana Agricultural Universities were approached regarding availability of instruments to be used in this project. CCSHAU, Hisar informed that they have few instruments required for the project. Committee suggested that CPCB may discuss with project proponent and CCSHAU, Hisar regarding clarification about instruments and possibility of association of CCSHAU in the project.
- 4. Development and usage of pyrotechnic devices for cloud seeding to fight Delhi-NCR winter smog:** Committee was informed that proposal was discussed during 6th and 7th PAAC meeting and it was decided to get comments from DST & IITM. Both DST and IITM have not recommended the proposal due to lack of technical expertise. The Committee was apprised that ground based weather modification systems are present in China. Committee requested IMD to provide details about the success of these kind of systems in China. PAAC further recommended to enquire if the proponent can demonstrate the proposed system at laboratory scale.

 

5. **Procurement of Instruments/ equipment for Instrumentation Laboratory, CPCB Delhi:** Sh. Gurnam Singh, In-charge Instrumentation Lab. Presented the proposal and informed that there is requirement of 01 Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) and 01 Mercury Analyser for multi-elemental and mercury analysis in particulate matter, as the existing instrument have become very old. These are useful for chemical characterization in Particulate Matter. PAAC-EPC was briefed that this project proposed can be considered under thrust area of Capacity building with regarding to infrastructure development. PAAC-EPC approved sanction of EPC funds for purchase of new instruments by CPCB as per actual.
6. **Investigations into mass and chemical characterization of fugitive dusts and setting up environmental guidelines for control of these emissions in Delhi-NCR:** The proposal aims to identify and characterize (physical and chemical) prevailing sources of fugitive dusts in Delhi-NCR, develop size specific profile for source apportionment studies, determine extent of contamination of top soil through elemental enrichment analysis for development of environmental guidelines and best management practices for prevention and control of fugitive dust emissions from various sources. The committee recommended to initially look at few sources (road dust, C&D and fly ash), suggest scientific evidence based options for control of pollution from these three sources. The committee approved the proposal in principle and suggested that proponent may accordingly submit revised proposal.
7. **Health impact of firecrackers bursting during Diwali in National Capital of Delhi:** The proponent proposed a cohort study for five years to assess health implications due to firecracker bursting over the period. This proposal is an extension of the short term study undertaken by CPCB and COEH, MAMC in compliance to directive of Hon'ble Supreme Court of India, to assess health impact of firecracker bursting during festival of Dusshera and Diwali in 2017. PAAC-EPC was apprised that a long term study to assess effect of pollution from firecrackers on public health was to be undertaken as desired by the Hon'ble Supreme Court. Committee advised the proponent to submit revised proposal addressing the methodology to be used to correlate bursting of crackers with human health, justification of duration and need for a long term study, identification of specific pollutants that can be attributed to firecracker bursting and their impact on health, acceptable health quotient levels and measures to be taken to reach the acceptable health quotient. The committee felt that such a study with definite outcomes in terms of acceptable composition of firecrackers to achieve desired health quotient will aid in taking science based policy decisions.
8. **Measurement of performance and emission characteristics of biodiesel, alcohols and peroxide blends in diesel engines.:** The proposal aims to investigate combustion and emission performance characteristics of biodiesel, methanol, ethanol, organic peroxide blends in diesel engines to test new type of alternative renewable fuel blends in heavy duty diesel engines for emission reduction and performance optimization. SIAM apprised the committee that as per National Policy on Biodiesel 2018, 5% blends of biodiesel in diesel is proposed 2030 but there is problem of availability of biodiesel in India. The committee recommended to submit a revised proposal incorporating best practices (changes in engine design/ blended biodiesel) followed by other countries, emissions from diesel, blended diesel and biodiesel, identify additives to be used in existing diesel fuel to bring down emissions. The committee advised to share the revised proposal with MoPNG, DHI and MoRTH and obtain their views.
9. **Analyses of inhalable odorous toxic emissions at dumpsite Bhalsawa (Delhi) and neighbourhood health risks:** The proposal aims to monitor odorants and conduct a questionnaire

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survey on odour pollution & health issues within 300 m - 500 m from the periphery of Bhalswa landfill site. Assessment of dispersion of environmental odours spatially and temporally using dispersion models to predict odour impact and assessment efficiency of odour control strategies (enzymes) was also proposed. The Committee felt the such activities are already being under taken and proposal may not be considered in current form.

10. **Identification of Regions around a Highway in NCR Impacted by Vehicular Emissions, Status of Residents Health in Nearby Areas, and an Overview of Efficiency of Air Pollution Mitigation Strategies:** The proposal aims to identify regions affected by vehicular pollution from a highway and suggest low cost and local techniques to assist in air quality management in NCR. The Committee felt that the study can provide useful input to urban master planning and advised the proponent to submit a revised proposal to quantify the pollutant levels from traffic in highways at different distances using modelling techniques, exposure to public and impact on health and suggest evidence based control measures that can be taken in affected areas along with the best practices adopted in other countries.
11. **Other Issues:** Committee was apprised that EPC funds are to be utilized for air quality improvement efforts in Delhi NCR. Therefore, funding of components under Comprehensive Action Plan, Graded Response Action Plan and city action plans of non-attainment cities in NCR may also be considered from EPC funds. Committee agreed with the observation.

Meeting ended with vote of thanks to the Chair.

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List of participants:

1. Sh. S. P. Singh Parihar, Chairman, Central Pollution Control Board
2. Sh. Satyendra Kumar, Deputy Secretary, MoEF&CC
3. Sh. R. K. Jaiswal, Development officer, DHI/MoHI&PE
4. Dr. V. K. Soni, Head, EMRC and Sc. 'E', IMD/MoES
5. Dr. Neelima Alam, Sc. 'E', DST/MoST
6. Dr. M. P. George, Sc. 'D', DPCC
7. Dr. Rashid Hasan, Advisor., SIAM
8. Sh. A. K. Kaushik, ASO, UPPCB, Noida

List of Proponents:

1. Dr. Gurnam Singh, AD & In-charge, Instrumentation Laboratory, CPCB
2. Ms. Namita Mishra, Sc. 'D', Instrumentation Laboratory, CPCB
3. Sh. B. K. Jena, Sc. 'C', Instrumentation Laboratory, CPCB
4. Dr. Mukesh Sharma, Professor, IIT Kanpur (via VC)
5. Dr. Sailesh Behera, Ass. Prof., & Head, Civil Eng. Dept., Shiv Nadar University
6. Dr. Harpeet Singh, MAMC, New Delhi
7. Ms. Nita Mendiratta, MAMC, New Delhi
8. Sh. Govind Mawani, MAMC, New Delhi
9. Ms. Mita Sharma, Former Sc. 'E', CPCB (J. M. Environet Pvt Ltd.)
10. Ms. Ishita Bhatt, GM (R&D), J. M. Environet Pvt Ltd.
11. Sh. Surendra Yadav, GM (Lab.), J. M. Environet Pvt Ltd.
12. Sh. K. B. Mishra, Professor, Mech. Eng. Dept., IIT Roorkee
13. Ms. Anubha Goyal, Professor, Civil Eng. Dept., IIT Kanpur
14. Sh. Shubham Rathi, Civil Eng. Dept., IIT Kanpur

CPCB Officials:

1. Shri V. K. Shukla, Head, AQM and Sc. 'E', CPCB
2. Shri Ankush Tewani, Sc. 'D', AQM, CPCB
3. Ms. Parinita Baruah, JRF, AQM
4. Sh. Toshesh Bhargava, JRF, AQM
5. Sh. Kanak Gupta, SA, IT Division