

Justice D.P. Singh
Former Judge Allahabad High Court
Chairman,
Eastern UP River and Water Reservoirs Monitoring
Committee
(Constituted by National Green Tribunal
Principal Bench, New Delhi Dtd. 03.10.18
in OA No. 116/2014)



Environr
Khand-1,
Lucknow -
il.com
Mob - 8005498811

Ref: No. 407/UPSWMMC-2019

Date: 31 July 201

The Registrar General,
National Green Tribunal,
New Delhi.

Pending report of Solid Waste Management

In Re: Common Bio Medical waste treatment facilities (CBWTF) operated byM/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P.

1. UP Solid Waste Management Monitoring Committee was constituted by the orders of Hon'ble NGT dated 12.10.2018 passed in OA No. 606 of 2018 in the matter of Compliance of Municipal Waste Management Rules, 2016 in pursuance of the order passed in OA No. 306/2016 (Social Action for Forest and Environment (SAFE) vs Union of India &Ors) & M.A. No. 380/2017(D. K. Joshi Vs. Chief Secretary of U.P. &Ors.). The UPSWMMC was mandated by NGT to function for a period of six months that was completed and communicated vide letter संख्या -17/2019/एन0 जी0 टी0-261/55-पर्या-2-2019-44(रिट)/2016 on 15th July 2019. UPSWMMC has further been extended for a period of one month to complete all pending matters.
2. A team of officials from Central Pollution Control Board (CPCB), Regional Directorate, Lucknow, Regional Office, Uttar Pradesh Pollution Control Board (UPPCB), Agra, UP Jal Nigam & Agra Nagar Nigam visited and inspected the **Common Bio Medical waste treatment facilities (CBWTF) at Etmadpur, Agra on 04.07.2019** for verification of compliance of Municipal Solid Waste management Rules 2016 ,Construction and Demolition Waste Management Rules 2016, Biomedical Waste Management Rules 2016 and Plastic Waste Management Rules 2016. Chairman of Monitoring Committee, Justice DP Singh accompanied the team and observed their inspection and performance.

FACTS

Observations by Joint Inspection Team and Violations under BMW Rules 2016

3. The CBWTF is located at Etmadpur, District Agra in State of Uttar Pradesh. The facility is designed for the treatment of Biomedical waste generated from the various hospitals in the city of Agra. It is located in an area of approx. 03 acres and is operated by **M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra.** The observations and recommendations made by the Joint Inspection Team of CPCB and UPPCB are as under -
1. The CBWTF facility is engaged in collection, transportation, treatment and disposal of Bio-Medical Waste (BMW). The facility has one incineration system with capacity of 200 Kg/hr, one shredder of capacity of 50 kg/hr. and one Autoclave with capacity of 50 Kg per batch.
 2. The CBWTF has installed a double chamber Static incinerator for treating the incinerable bio-Medical Waste. During visit, as per logbook temperature of 865 deg C & 1020 deg C is maintained in the Primary Chamber and Secondary Chamber respectively. The facility operator shall ensure maintaining the required Temperature in Primary and Secondary Chamber as per the guidelines.
 3. The facility collects bio-medical waste from Agra city, Government and Private College & Hospitals through closed vehicles having GPS tracking system.
 4. The process of adoption of Bar-coding system as well as GPS provision as per BMW Rules 2016 is under process.
 5. On the day of visit, team has observed that the facility does not have separate room for treated and un-treated bio-medical waste was stored in open space. The facility should provide isolated room for temporary storage of the incineration ash as well as ETP sludge and maintain records of the same.
 6. The facility has not provided Personal Protective Equipment (PPE) for workers. The Facility should ensure that no worker shall be without proper PPE when present inside the premises.
 7. The CBWTF operator shall upgrade the APCDs attached so as to achieve the prescribed new emission norms.
 8. During visit the facility operator has not developed of green belt areas at the site. Green belt shall be developed in 33% of the total project land area.
 9. Emergency vent is provided as safety measure, attached with incinerator to vent out un-burnt gases in case of power failure/ break downs.

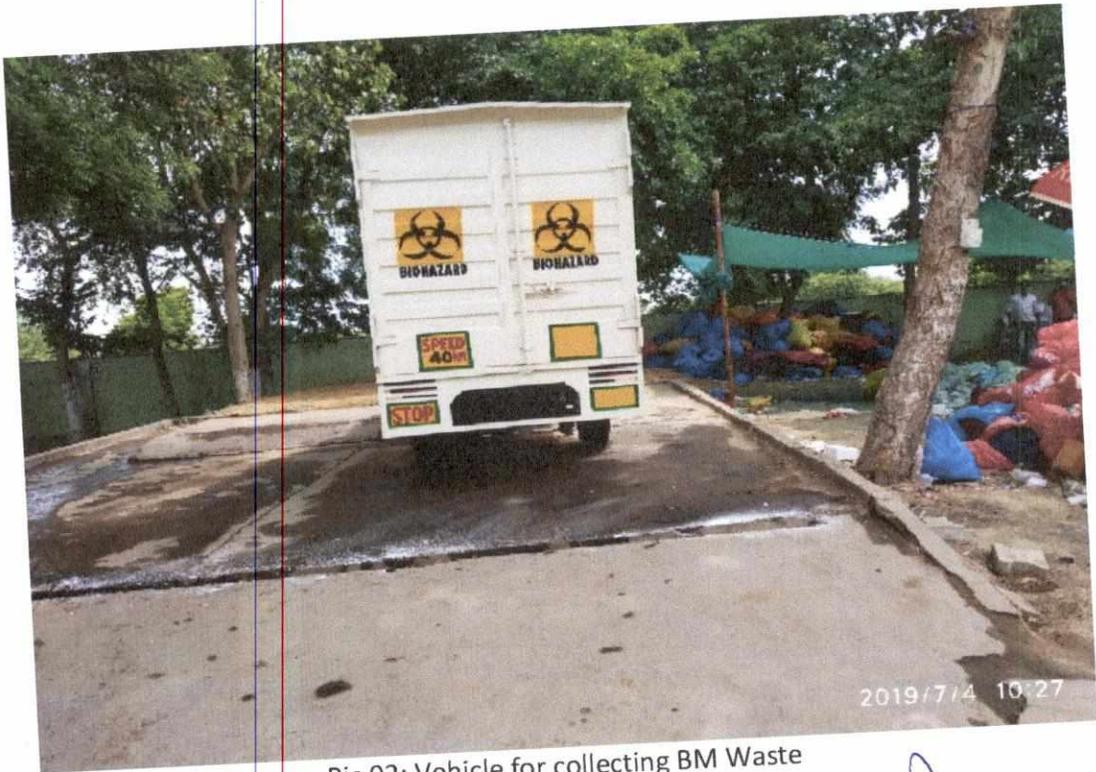
10. During visit, PLC based automatic operational parameters recording system was found installed. It is attached with Online monitoring system.
11. The CBWTF operator has not provided certificate of incinerator supplier for achieving two seconds flue gas residence time in secondary chamber as per new norms.
12. There is provision of flue gas emission through 30m stack height to atmosphere after passing through quenching venturi scrubber and packed bed scrubber mist eliminator. The facility should ensure timely maintenance of venturi Scrubber for proper temperature in the effluent flue gases.
13. The facility operator does not maintain records of O&M, calibration of online monitoring system as per SOP / OCEMS guideline. The facility should ensure timely calibration of online temperature monitoring device to ensure correct values in Primary and secondary chambers.
14. The Facility has installed Effluent Treatment Plant of 20 KLD capacity based on physico-chemical process followed by Biological process and Tertiary treatment for treatment of the wastewater generated from washing, cleaning, scrubbing and vehicle washing.
15. The ETP at the facility is comprised of Collection Tank , Flash Mixer , Primary Clarifier , Aeration tank , Secondary Clarifier Activated Carbon Filter , Pressure sand Filter , Flow meter.
16. The Facility has not installed Oil & Grease Trap system at inlet of ETP and it shall be ensured that oil and grease is separated from the wastewater.
17. It was informed that treated effluent is reused in the venturi scrubber. No effluent is discharged from facility.
18. The facility has installed one bore well to meet its freshwater requirement for industrial and domestic purpose. A flow meter shall be installed at the borewell and logbook of the same shall be maintained.
19. The facility operator is a member of TSDF, and the incinerator ash and ETP sludge are sent to M/s Ramky, Kanpur.
20. The Facility shall be directed to maintain the record of collection and Disposal of BMW and generation of Hazardous waste.
21. In view of the above observations and recommendations and violation of consented conditions and non-compliance of provisions of BMWM Rules, 2016, suitable direction may be issued to the CBWTF."



4. Certain photographs of the site inspection are reproduced hereunder –



Pic 01: Entrance Gate of the Facility

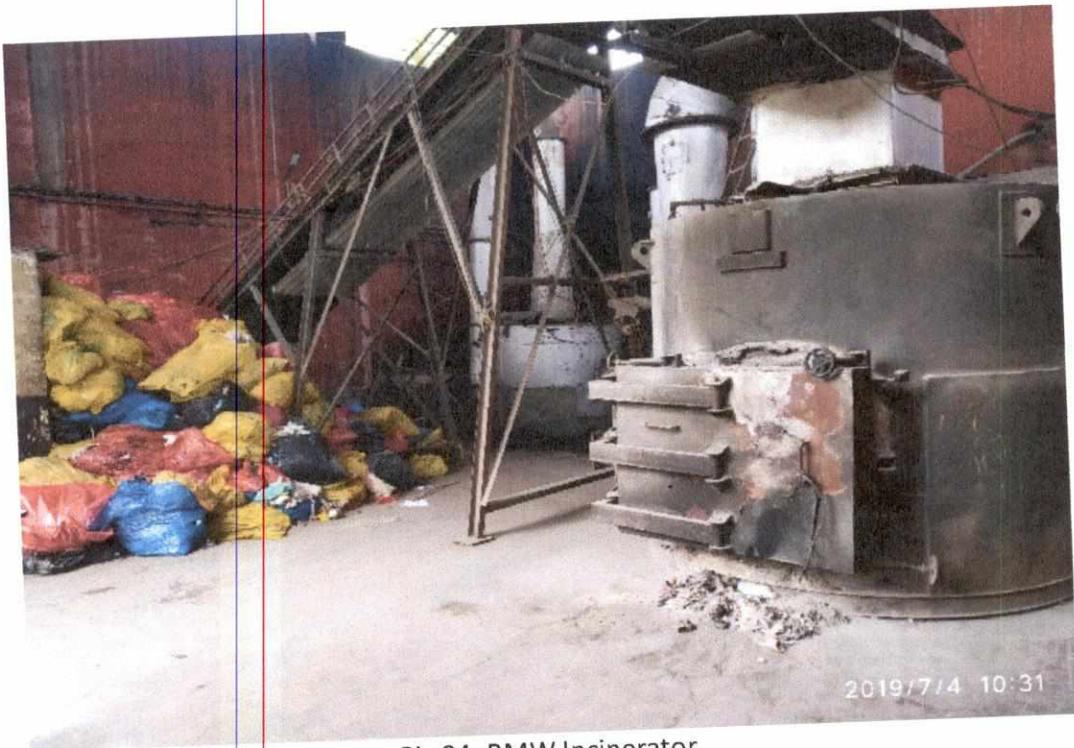


Pic 02: Vehicle for collecting BM Waste

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Pic 03: Untreated BM Waste Storage



Pic 04: BMW Incinerator

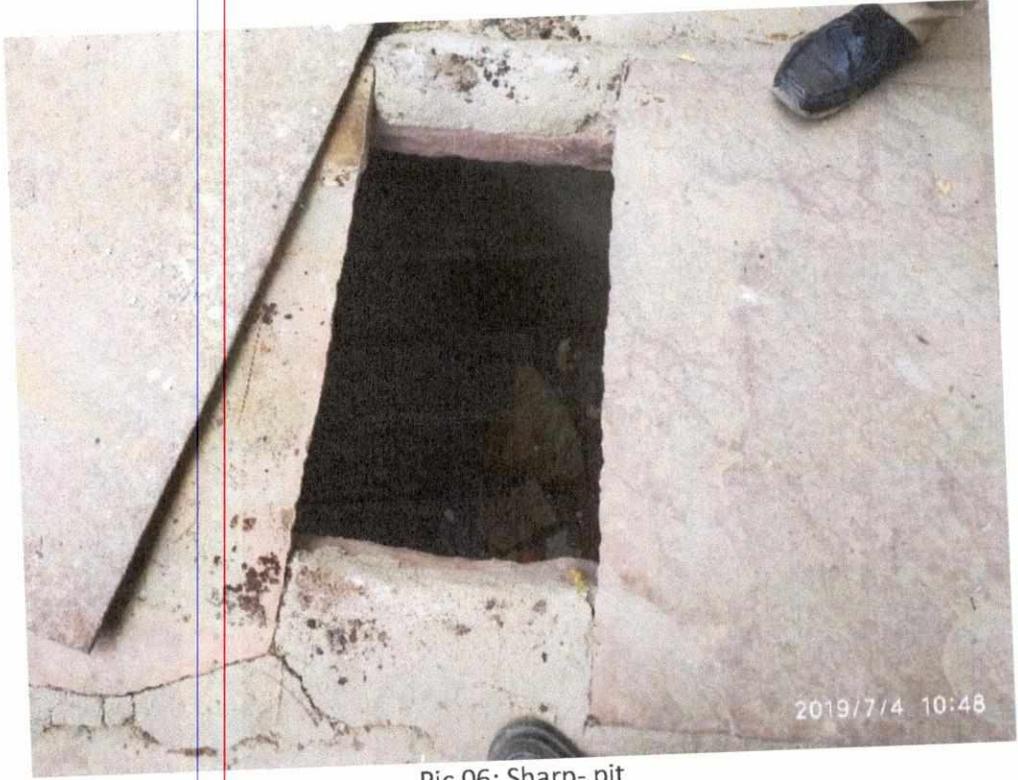
A handwritten signature or mark in blue ink, consisting of a stylized, cursive-like shape.



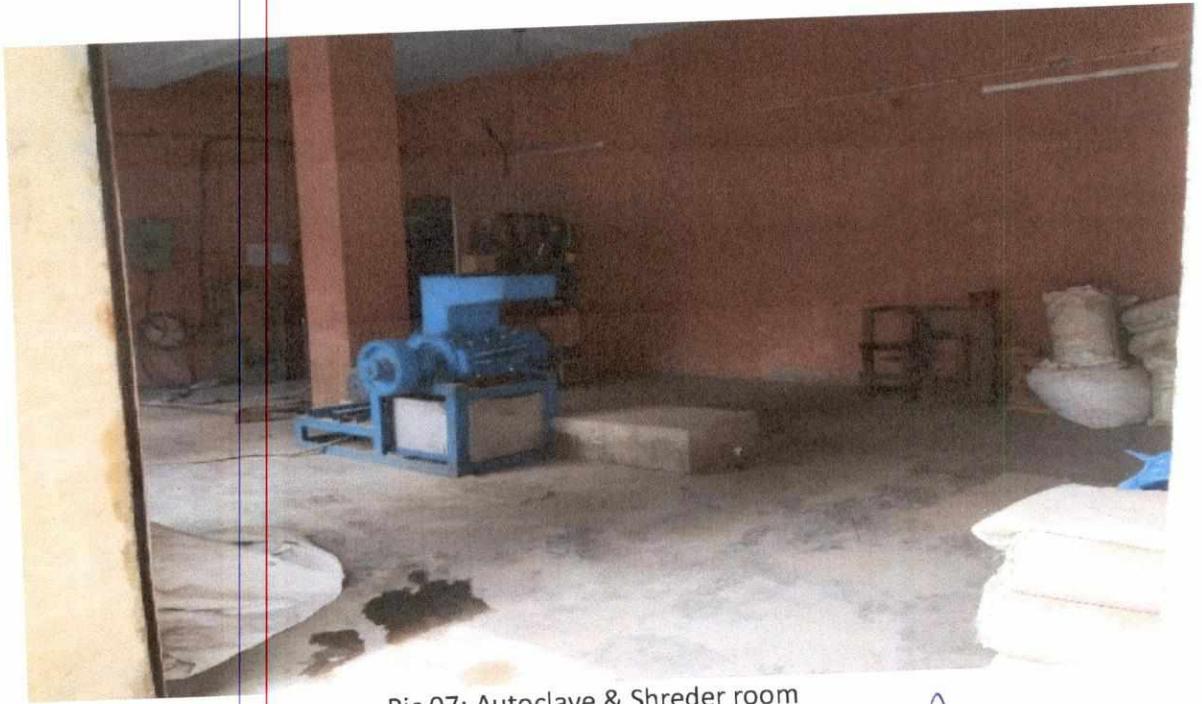
Pic 05: Stack attached incinerator

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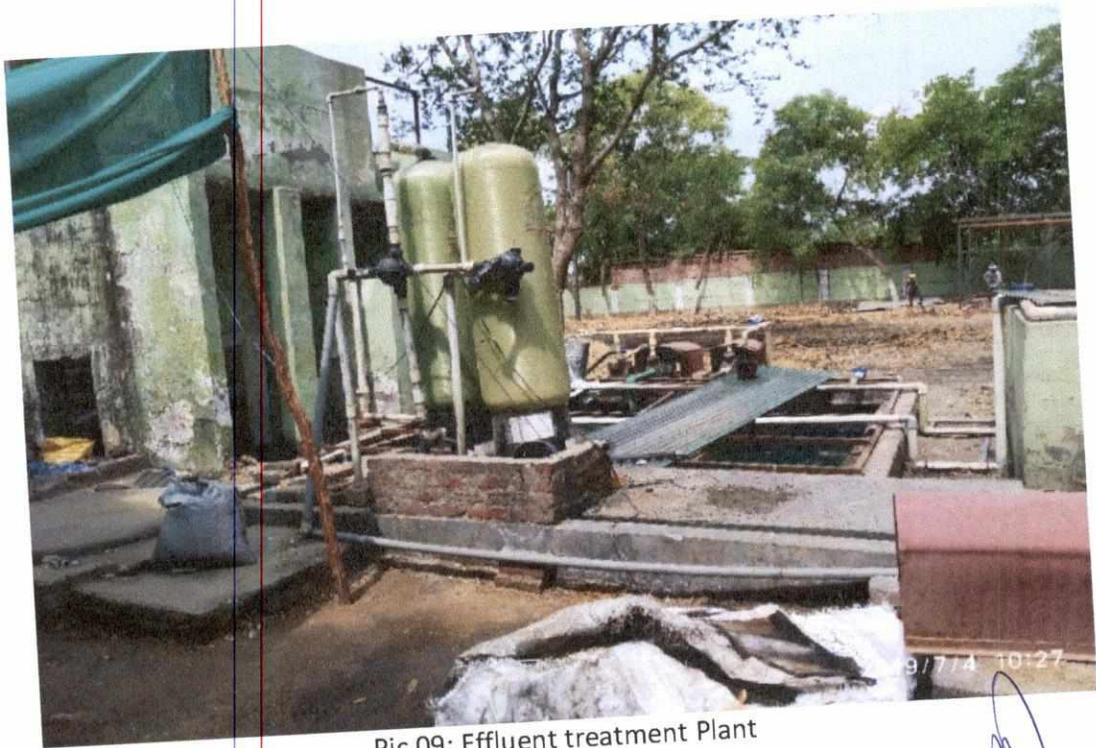
Pic 06: Sharp- pit



Pic 07: Autoclave & Shreder room



Pic 8: Worker without PPE



Pic 09: Effluent treatment Plant

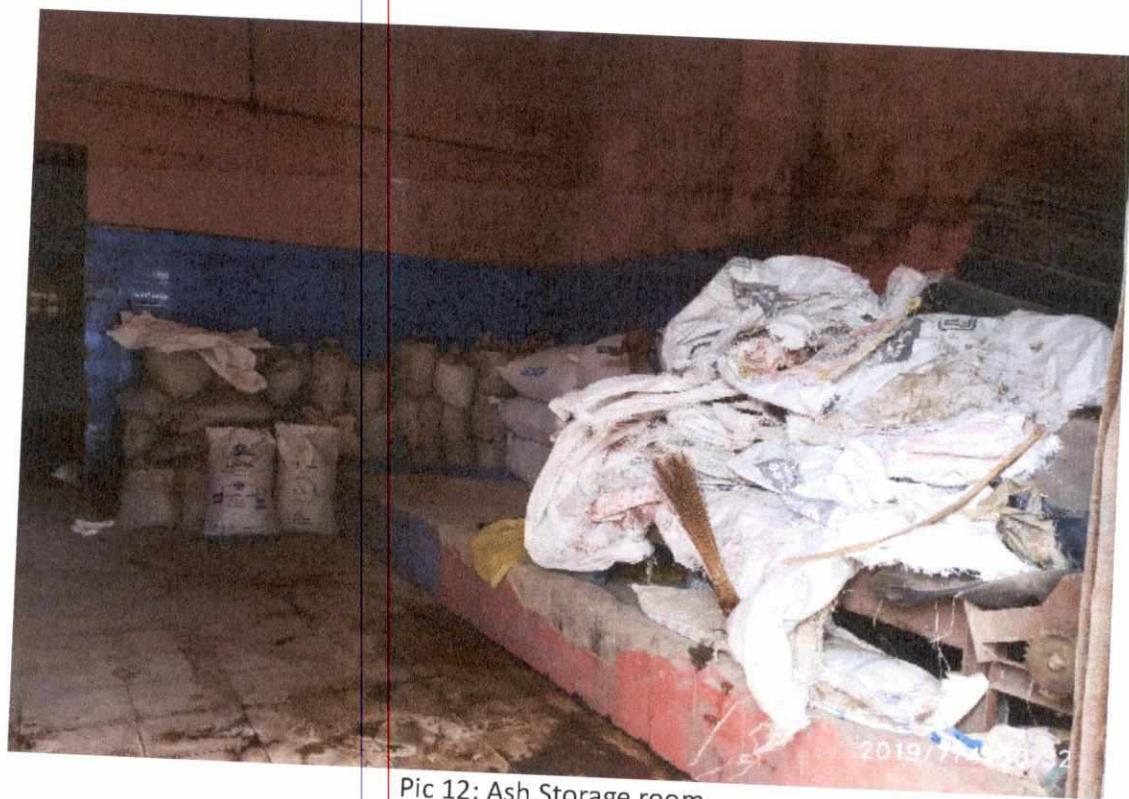
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Pic10: Incinerator attached OCEMS value



Pic 11: Incinerator effluent discharge



Pic 12: Ash Storage room

5. It was observed by the team of scientists of CPCB and the Monitoring Committee that the facility in contravention of Rules 8, the facility stores biomedical waste indiscriminately and openly mixed with general waste. According to Standards for Treatment and Disposal of Bio-Medical Wastes laid down in Schedule II of the Biomedical Waste Management Rules 2016, the operating standards for incineration temperature in Schedule II 1 (A) (3) is reproduced hereunder –

“3). The temperature of the primary chamber shall be a minimum of 800 °C and the secondary chamber shall be minimum of 1050 °C + or - 50 °C.”

However, at the time of visit primary chamber and secondary chamber temp. was observed 844°C and 322°C and the facility has not upgraded its incinerator to achieve 2 second residence time in secondary chamber not complying with the standard as laid down in the Rules. There is no provision in the facility to conduct spore tests and neither do any of the employees have PPE.

At the face of record this facility had not segregated and kept waste in accordance to the norms that is evident from photographs reproduced in this report below. The facility has committed heinous offenses in gross violation of the existing rules, thereby posing danger to workers, visitors and the public at large and is liable to be prosecuted under the Environment (Protection) Act 1986 and rules thereunder.

HEALTH HAZARDS OF BMW – WORLD HEALTH ORGANIZATION

6. Several health hazards are associated with poor management of BMW like injury from sharps to staff and waste handlers associated with the health care establishments, Hospital Acquired Infection (HAI) due to spread of infection. Improper incineration of health care wastes can, under some circumstances, result in the emission of dioxins, furans, and particulate matter.

Occupational risk associated with hazardous chemicals, drugs, unauthorized repackaging and sale of disposable items and unused/date expired drugs and other biomedical waste causes bacterial contamination represents the highest and most immediate health risk and water is the main carrier medium. Hazards occur from scavenging at waste disposal sites and during the handling and manual sorting of hazardous waste from health-care facilities. The waste handlers are at immediate risk of needle-stick injuries and exposure to toxic or infectious materials.

Injections with contaminated needles and syringes in low- and middle-income countries have reduced substantially in recent years, partly due to efforts to reduce reuse of injection devices. Despite this progress, in 2010, unsafe injections were still responsible for as many as 33 800 new HIV infections, 1.7 million hepatitis B infections and 315 000 hepatitis C infections.¹A person who experiences one needle stick injury from a needle used on an infected source patient has risks of 30%, 1.8%, and 0.3% respectively of becoming infected with HBV, HCV and HIV.²

7. Environmental Impact

¹Pépin J, Abou Chakra CN, Pépin E, Nault V, Valiquette L. Evolution of the global burden of viral infections from unsafe medical injections, 2000-2010. PLoSOne. 2014 Jun 9;9(6):e99677.

²Id

- Treatment and disposal of healthcare waste may pose health risks indirectly through the release of pathogens and toxic pollutants into the environment.
 - The disposal of untreated health care wastes in landfills can lead to the contamination of drinking, surface, and ground waters if those landfills are not properly constructed.
 - The treatment of health care wastes with chemical disinfectants can result in the release of chemical substances into the environment if those substances are not handled, stored and disposed in an environmentally sound manner.
 - Incineration of waste has been widely practised, but inadequate incineration or the incineration of unsuitable materials results in the release of pollutants into the air and in the generation of ash residue. Incinerated materials containing or treated with chlorine can generate dioxins and furans, which are human carcinogens and have been associated with a range of adverse health effects. Incineration of heavy metals or materials with high metal content (in particular lead, mercury and cadmium) can lead to the spread of toxic metals in the environment.
 - Only modern incinerators operating at 850-1100 °C and fitted with special gas-cleaning equipment are able to comply with the international emission standards for dioxins and furans.
 - Alternatives to incineration such as autoclaving, microwaving, steam treatment integrated with internal mixing, which minimize the formation and release of chemicals or hazardous emissions should be given consideration in settings where there are sufficient resources to operate and maintain such systems and dispose of the treated waste.
8. The environmental considerations must form an integral part of all development and be supplemented by mechanisms to see that environmental safeguards proposed are implemented together with systematic monitoring to assess the effectiveness of such precautions in protecting the environment. Measures to ensure the safe and environmentally sound management of health

care wastes can prevent adverse health and environmental impacts from such waste including the unintended release of chemical or biological hazards, including drug-resistant microorganisms, into the environment thus protecting the health of patients, health workers, and the general public.

HARMFUL EFFECT OF INCORRECT TEMPERATURES OF PRIMARY AND SECONDARY CHAMBERS OF INCINERATOR AND OPEN INDISCRIMINATE DUMPING OF BIOMEDICAL WASTE

9. The negligence on the part of health care waste management has been evident from the sporadic epidemics experienced in different parts of the country. Hospitals and other waste management establishments have a "duty of care" for the environment and for public health, and have particular responsibilities in relation to biomedical waste. Negligence, in terms of biomedical waste management, significantly contributes to polluting the environment, affects the health of human beings, and depletes natural and financial resources.

10. Incineration is the process by which combustible materials are burned, producing combustion gases and non-combustible residue and ash. Another major objective of the incineration process is the destructive of infectious organisms (pathogens) that may exist in the waste. Two additional objectives achievable through proper operation of hospital waste incineration plants are waste reduction and controlling atmospheric emissions to acceptable levels. Hazardous waste incineration plants for hospitals are potentially significant sources of air pollutants. Pollutants include particulate matter; toxic organics; carbon monoxide; acid gases; hydrogen chloride; sulphur dioxide and nitrous oxides. The primary objectives associated with the proper operation of hospital waste incineration system are to operate the system in a manner so that infectious materials in the waste are rendered harmless, waste volume reduced, good ash quality is ensured, and air pollution emissions are minimized to a level less than the standard levels. The temperature achieved is the result of heat released by the oxidation process, and has to be maintained high enough to ensure that combustion goes to completion. According to the European Waste Incineration Directive, incineration plants must be designed to ensure that the flue gases reach a temperature of at least 850 °C (1,560 °F) for 2 seconds in order to ensure proper breakdown of toxic organic substances.

11. Biomedical waste when not disposed properly can pose serious risks to society and the environment through air emissions, contamination of water and physical contact. Improper disposal refers to open dumping, unrestrained burning, and improper handling of waste during generation, collection, storage, transport and treatment. Improper handling involves unsafe procedures followed during handling of wastes i.e. without wearing protective equipment, poor storage, transporting manually for longer distances, uncovered or unpacked containers instead of puncture proof bags, etc. all of which effect hospital workers in different ways. The ashes, effluents and other wastes kept open indicates inadequate waste management that can cause environmental pollution, unpleasant odours, growth and multiplication of insects, rodents and worms and may lead to transmission of diseases like typhoid, cholera, etc. Infectious agents such as faeces, vomit, saliva, secretions, blood can cause serious health risks on individuals by affecting organs or systems like gastrointestinal, respiratory, eye, skin and cause Anthrax, Meningitis, AIDS, Haemorrhagic Fever, Hepatitis A, B, C, Influenza etc.

Thus, the statement given by the villagers in adjoining areas which is on record appears to be correct and the facility is guilty of running the facility causing environmental hazard.

STATUTORY PROVISIONS

12. It is submitted that **Common Bio Medical waste treatment facilities (CBWTF) operated by M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P.,** based on the observations made during inspection has failed to comply with the BMW Rules 2016 that apply to those who generate, collect, receive, store, transport, treat, dispose, or handle bio-medical waste. The institution falls under the definition of 'operator of a common biomedical waste treatment facility' within the rules and are mandated to follow the standards of bio-medical waste management. The facility has failed to take all necessary steps to ensure that the bio-medical waste is handled without any adverse effect to human health and the environment and the contravention of the following provisions of the BMW Rules 2016 has been noted observed -

"5. Duties of the operator of a common bio-medical waste treatment and disposal facility.-It shall be the duty of every operator to -

- (a) take all necessary steps to ensure that the bio-medical waste collected from the occupier is transported, handled, stored, treated and disposed of, without any adverse effect to the human health and the environment, in accordance with these rules and guidelines issued by the Central Government or, as the case may be, the central pollution control board from time to time;
- (b) ensure timely collection of bio-medical waste from the occupier as prescribed under these rules;
- (c) establish bar coding and global positioning system for handling of bio- medical waste within one year;
- (d) inform the prescribed authority immediately regarding the occupiers which are not handing over the segregated bio-medical waste in accordance with these rules;
- (e) provide training for all its workers involved in handling of bio-medical waste at the time of induction and at least once a year thereafter;
- (f) assist the occupier in training conducted by them for bio-medical waste management;
- (g) undertake appropriate medical examination at the time of induction and at least once in a year and immunise all its workers involved in handling of bio-medical waste for protection against diseases, including Hepatitis B and Tetanus, that are likely to be transmitted while handling bio-medical waste and maintain the records for the same;
- (h) ensure occupational safety of all its workers involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipment;
- (i) report major accidents including accidents caused by fire hazards, blasts during handling of bio-medical waste and the remedial action taken and the records relevant thereto, (including nil report) in Form I to the prescribed authority and also along with the annual report;
- (j) maintain a log book for each of its treatment equipment according to weight of batch; categories of waste treated; time, date and duration of treatment cycle and total hours of operation;
- (k) allow occupier , who are giving waste for treatment to the operator, to see whether the treatment is carried out as per the rules;
- (l) shall display details of authorisation, treatment, annual report etc on its web-site;
- (m) after ensuring treatment by autoclaving or microwaving followed by mutilation or shredding, whichever is applicable, the recyclables from the treated bio-medical wastes such as plastics and glass, shall be given to recyclers having valid consent or authorisation or registration from the respective State Pollution Control Board or Pollution Control Committee;
- (n) supply non-chlorinated plastic coloured bags to the occupier on chargeable basis, if required;

- (o) common bio-medical waste treatment facility shall ensure collection of biomedical waste on holidays also;
- (p) maintain all record for operation of incineration, hydroor autoclaving for a period of five years; and
- (q) upgrade existing incinerators to achieve the standards for retention time in secondary chamber and Dioxin and Furans within two years from the date of this notification."

7. Treatment and disposal.-

- (1) Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards provided in Schedule-II by the health care facilities and common bio-medical waste treatment facility.
- (2) Occupier shall hand over segregated waste as per the Schedule-I to common bio-medical waste treatment facility for treatment, processing and final disposal: Provided that the lab and highly infectious bio-medical waste generated shall be pre-treated by equipment like autoclave or microwave.
- (3) No occupier shall establish on-site treatment and disposal facility, if a service of `common biomedical waste treatment facility is available at a distance of seventy-five kilometer.
- (4) In cases where service of the common bio-medical waste treatment facility is not available, the Occupiers shall set up requisite biomedical waste treatment equipment like incinerator, autoclave or microwave, shredder prior to commencement of its operation, as per the authorisation given by the prescribed authority.
- (5) Any person including an occupier or operator of a common bio medical waste treatment facility, intending to use new technologies for treatment of bio medical waste other than those listed in Schedule I shall request the Central Government for laying down the standards or operating parameters.
- (6) On receipt of a request referred to in sub-rule (5), the Central Government may determine the standards and operating parameters for new technology which may be published in Gazette by the Central Government.

(7) Every operator of common bio-medical waste treatment facility shall set up requisite biomedical waste treatment equipment like incinerator, autoclave or microwave, shredder and effluent treatment plant as a part of treatment, prior to commencement of its operation.

(8) Every occupier shall phase out use of non-chlorinated plastic bags within two years from the date of publication of these rules and after two years from such publication of these rules, the chlorinated plastic bags shall not be used for storing and transporting of bio-medical waste and the occupier or operator of a common bio-medical waste treatment facility shall not dispose of such plastics by incineration and the bags used for storing and transporting biomedical waste shall be in compliance with the Bureau of Indian Standards. Till the Standards are published, the carry bags shall be as per the Plastic Waste Management Rules, 2011.

(9) After ensuring treatment by autoclaving or microwaving followed by mutilation or shredding, whichever is applicable, the recyclables from the treated bio-medical wastes such as plastics and glass shall be given to such recyclers having valid authorisation or registration from the respective prescribed authority.

(10) The Occupier or Operator of a common bio-medical waste treatment facility shall maintain a record of recyclable wastes referred to in sub-rule (9) which are auctioned or sold and the same shall be submitted to the prescribed authority as part of its annual report. The record shall be open for inspection by the prescribed authorities.

(11) The handling and disposal of all the mercury waste and lead waste shall be in accordance with the respective rules and regulations 8. Segregation, packaging, transportation and storage.-

(1) No untreated bio-medical waste shall be mixed with other wastes.

(2) The bio-medical waste shall be segregated into containers or bags at the point of generation in accordance with Schedule I prior to its storage, transportation, treatment and disposal.

(3) The containers or bags referred to in sub-rule (2) shall be labeled as specified in Schedule IV.

(4) Bar code and global positioning system shall be added by the Occupier and common bio-medical waste treatment facility in one year time.

(5) The operator of common bio-medical waste treatment facility shall transport the bio-medical waste from the premises of an occupier to any offsite bio-medical waste treatment facility only in the vehicles having label as provided in part 'A' of the Schedule IV along with necessary information as specified in part 'B' of the Schedule IV.

(6) The vehicles used for transportation of bio-medical waste shall comply with the conditions if any stipulated by the State Pollution Control Board or Pollution Control Committee in addition to the requirement contained in the Motor Vehicles Act, 1988 (59 of 1988), if any or the rules made there under for transportation of such infectious waste.

(7) Untreated human anatomical waste, animal anatomical waste, soiled waste and, biotechnology waste shall not be stored beyond a period of forty –eight hours: Provided that in case for any reason it becomes necessary to store such waste beyond such a period, the occupier shall take appropriate measures to ensure that the waste does not adversely affect human health and the environment and inform the prescribed authority along with the reasons for doing so.

(8) Microbiology waste and all other clinical laboratory waste shall be pre-treated by sterilisation to Log 6 or disinfection to Log 4, as per the World Health Organisation guidelines before packing and sending to the common bio-medical waste treatment facility.

18. Liability of the occupier, operator of a facility.-

(1) The occupier or an operator of a common bio-medical waste treatment facility shall be liable for all the damages caused to the environment or the public due to improper handling of bio- medical wastes.

(2) The occupier or operator of common bio-medical waste treatment facility shall be liable for action under section 5 and section 15 of the Act, in case of any violation.”

13. Further, it is submitted that the Environment (Protection) Act, 1986 imposes a liability to comply with procedural safeguards in disposal of Bio-Medical Waste and provides for imposing a penalty for violation of the provisions. The relevant provisions are reproduced below -

Section 3 of this Act confers power on the Central Government to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution. 'Environment' includes water, air and land and the inter- relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro-organism and property. (vide Section 2(a) of the Environment (Protection) Act, 1986). Under **Section 3(2)(iv)** of the said Act the Central Government may lay down standards for emission or discharge of environmental pollutants from various sources whatsoever. Notwithstanding anything contained in any other law

but subject to the provisions of the Environment (Protection) Act 1986, the Central Government may under **Section 5** of the Act, in the exercise of its powers and performance of its functions under that Act issue directions in writing to any person, officer or authority and such authority is bound to comply with such directions. The power to issue directions under the said section includes the power to direct the closure, prohibition or regulation of any industry, operation or process or stoppage or regulation of the supply of electricity or water or any other service. **Section 9** of the said Act imposes a duty on every person to take steps to prevent or mitigate the environmental pollution. **Section 15** of the said Act contains provisions relating to penalties that may be imposed for the contravention of any of the provisions of the said Act or directions issued thereunder.

OFFENCE

14. We do not feel that in any way, the commission and omission on part of the industry may be justified in permitting and contributing to environmental pollution. **Section 16 of the Environment (Protection) Act** contains the provision under which the companies can be held responsible for damaging the environment. Section 16 of the Act is reproduced as under:

"16. OFFENCES BY COMPANIES. -

(1) Where any offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation--For the purposes of this section,--

- (a) "company" means any body corporate and includes a firm or other association of individuals;
- (b) "director", in relation to a firm, means a partner in the firm.

15. PENALTY FOR CONTRAVENTION OF THE PROVISIONS OF THE ACT AND THE RULES, ORDERS AND DIRECTIONS.-

(1) Whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued thereunder, shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention.

(2) If the failure or contravention referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to seven years."

CRIMINAL NEGLIGENCE

15. **Criminal negligence** refers to a mental state of disregarding known or obvious risks to human life and safety and the facility in question has behaved in a way that is an extreme departure from the way that a "reasonable" person would act. It has over a period of several years acted so recklessly that they created a high risk of death or great bodily injury to surrounding locality and the employees working therein, the act(s) demonstrated a disregard for human life or indifference to the consequences and any reasonable person in a similar situation would have known that the act(s) naturally and probably results in harm to other people. It is more than merely a mistake in judgment, inattention, or simple carelessness. It pertains to the conduct of the facility in question that is so outrageous and reckless that it marks a clear departure from the way an ordinary careful person would act under similar circumstances.

The injury or harm caused has been as a result of the breach of duty of care. The act of injury has been caused because of the breach of the duty to take care on the part of the facility and

it has failed to perform its duty which any other prudent man would do in ordinary course of situation, and injury is caused to the person because of the failure to take care of the other, gross negligence is said to have been committed.

16. The instant case alongwith some others is a case of 'culpable negligence' on the part of UPPCB. (vide (1972) 3 SCC 80 (para 9) *S.N.Husain vs State of Andhra Pradesh*. A man of common prudence in judicial parlance shall reasonably infer that the industry in question as well as alike industries are running with implied consent of UPPCB. (vide (2002) 5 SCC 90 (para 8), *P. John Chandy & Co vs John P. Thomas*).

FINDINGS IN A NUTSHELL AND VIOLATIONS

17. The CBWTF facility operated by M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P. is engaged in collection, transportation, treatment and disposal of Bio-Medical Waste (BMW). CBWTF has installed a double chamber Static incinerator for treating the incinerable bio-Medical Waste from Agra city, Government and Private College & Hospitals through closed vehicles having GPS tracking system. During visit, as per logbook temperature of 865 deg C & 1020 deg C is maintained in the Primary Chamber and Secondary Chamber respectively. The facility does not have separate room for treated and un-treated bio-medical waste was stored in open space. The facility should provide isolated room for temporary storage of the incineration ash as well as ETP sludge and maintain records of the same. The facility has not provided Personal Protective Equipment (PPE) for workers. CBWTF operator should upgrade the APCDs attached so as to achieve the prescribed new emission norms. During visit the facility operator has not developed of green belt areas at the site. Green belt shall be developed in 33% of the total project land area. The CBWTF operator has not provided certificate of incinerator supplier for achieving two seconds flue gas residence time in secondary chamber as per new norms. The facility should ensure timely maintenance of venturi Scrubber for proper temperature in the effluent

flue gases. The facility operator does not maintain records of O&M, calibration of online monitoring system as per SOP / OCEMS guideline. The Facility has not installed Oil & Grease Trap system at inlet of ETP. The facility has installed one bore well to meet its freshwater requirement for industrial and domestic purpose. A flow meter shall be installed at the borewell and logbook of the same shall be maintained. The Facility shall be directed to maintain the record of collection and Disposal of BMW and generation of Hazardous waste. In view of the above observations and recommendations and violation of consented conditions and non-compliance of provisions of BMW Rules, 2016, suitable direction may be issued to the CBWTF."

Assessment of Environment Compensation

18. In view of the aforesaid facts on record and recommendations made by the joint team of scientists of CPCB and UPPCB thereon, undoubtedly the CBWTF appears to be non-compliant with BMW Rules 2016 and keeping in view the findings recorded and observations made, it is a fit case for imposition of environmental compensation on the operator facility, M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P, which is calculated at the rate of Rs. 25,000 per day starting from the date of establishment of M/s JRR Waste Management, i.e. 1st September 2016, up to the date of inspection, i.e. 4th July 2019 making it a total of 1037 days. Environment Compensation is Rs. 2,59,25,000 (Two crores fifty-nine lakhs and twenty five thousand).

PROPOSAL/RECOMMENDATION

19. In view of above, we propose and recommend as under:

(1) **M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P** be saddled with exemplary compensation of Rs. 2,59,25,000 (Two crores fifty-nine lakhs and twenty five thousand), keeping in view that the facility has been running without following BMW Rules 2016 and guidelines.

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(2) A team of doctors and CPCB be sent to check the diseases from which people of adjoining villages within 03 kms of the facility may be suffering from owing to groundwater contamination or air pollution caused by the facility.

(3) **M/s JRR Waste Management, Khasara No.670, Mauja Dherera, Etmadpur, District Agra, U.P.** be directed to complete all formalities under law keeping in view the observations made by CPCB in the report (supra) and till the industry meets out the requirements under Environment (Protection) Act, 1986, Biomedical Waste Management Rules 2016, Solid Waste Management Rules 2016 and other relevant rules thereunder. The recommendation made by CPCB in its report that may be completed within a period of 3 months, failing which the facility may be closed, are as under

1. The CBWTF facility is engaged in collection, transportation, treatment and disposal of Bio-Medical Waste (BMW). The facility has one incineration system with capacity of 200 Kg/hr, one shredder of capacity of 50 kg/hr. and one Autoclave with capacity of 50 Kg per batch.

2. The CBWTF has installed a double chamber Static incinerator for treating the incinerable bio-Medical Waste. During visit, as per logbook temperature of 865 deg C & 1020 deg C is maintained in the Primary Chamber and Secondary Chamber respectively. The facility operator shall ensure maintaining the required Temperature in Primary and Secondary Chamber as per the guidelines.

3. The facility collects bio-medical waste from Agra city, Government and Private College & Hospitals through closed vehicles having GPS tracking system.

4. The process of adoption of Bar-coding system as well as GPS provision as per BMWM Rules 2016 is under process.

5. On the day of visit, team has observed that the facility does not have separate room for treated and un-treated bio-medical waste was stored in open space. The facility should provide isolated room for temporary storage of the incineration ash as well as ETP sludge and maintain records of the same.

6. The facility has not provided Personal Protective Equipment (PPE) for workers. The Facility should ensure that no worker shall be without proper PPE when present inside the premises.

7. The CBWTF operator shall upgrade the APCDs attached so as to achieve the prescribed new emission norms.

8. During visit the facility operator has not developed of green belt areas at the site. Green belt shall be developed in 33% of the total project land area.

9. Emergency vent is provided as safety measure, attached with incinerator to vent out un-burnt gases in case of power failure/ break downs.
10. During visit, PLC based automatic operational parameters recording system was found installed. It is attached with Online monitoring system.
11. The CBWTF operator has not provided certificate of incinerator supplier for achieving two seconds flue gas residence time in secondary chamber as per new norms.
12. There is provision of flue gas emission through 30m stack height to atmosphere after passing through quenching venturi scrubber and packed bed scrubber mist eliminator. The facility should ensure timely maintenance of venturi Scrubber for proper temperature in the effluent flue gases.
13. The facility operator does not maintain records of O&M, calibration of online monitoring system as per SOP / OCEMS guideline. The facility should ensure timely calibration of online temperature monitoring device to ensure correct values in Primary and secondary chambers.
14. The Facility has installed Effluent Treatment Plant of 20 KLD capacity based on physico-chemical process followed by Biological process and Tertiary treatment for treatment of the wastewater generated from washing, cleaning, scrubbing and vehicle washing.
15. The ETP at the facility is comprised of Collection Tank , Flash Mixer , Primary Clarifier , Aeration tank , Secondary Clarifier Activated Carbon Filter , Pressure sand Filter , Flow meter.
16. The Facility has not installed Oil & Grease Trap system at inlet of ETP and it shall be ensured that oil and grease is separated from the wastewater.
17. It was informed that treated effluent is reused in the venturi scrubber. No effluent is discharged from facility.
18. The facility has installed one bore well to meet its freshwater requirement for industrial and domestic purpose. A flow meter shall be installed at the borewell and logbook of the same shall be maintained.
19. The facility operator is a member of TSDF, and the incinerator ash and ETP sludge are sent to M/s Ramky, Kanpur.
20. The Facility shall be directed to maintain the record of collection and Disposal of BMW and generation of Hazardous waste.

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21. In view of the above observations and recommendations and violation of consented conditions and non-compliance of provisions of BMW Rules, 2016, suitable direction may be issued to the CBWTF."

Let the recommendation be complied with within a period of six months beginning 1 September 2019 failing which Nagar Nigam Agra will pay Rs. 20,000 per day starting from 1 March 2020.

(4) Proposal/Recommendation is subject to any other order or direction passed by NGT.

Let the report be forwarded to NGT forthwith.


(Justice D.P.Singh)
Chairman
Eastern UP Rivers and Water Reservoirs
Monitoring Committee

Date: 31 July 2019

Encls: Inspection Report of CPCB and UPPCB