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To

The Chairman
Madhya Pradesh Pollution Control Board
Paryavaran Parisar, Sector E-5
Arera Colony, Bhopal-462 016

MODIFIED DIRECTIONS UNDER SECTION 5 OF THE ENVIRONMENT (PROTECTION) ACT, 1986, IN CASE OF M/S KRISHNA CALCINATION AND REFRACTORIES PVT. LTD., PLOT NO. 21&26, LAMTARA INDUSTRIAL AREA, KATNI, MP

WHEREAS, the Central Government has notified the Hazardous and Other Wastes Management and Transboundary Movement) Rules, 2016 (herein referred to as HOWM Rules, 2016) in exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 and in supersession of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 (herein referred to as HWM Rules, 2008), for safe and environmentally sound management of hazardous and other wastes;

WHEREAS, as per Rule 4 (1) of the HOWM Rules, for management of hazardous and other wastes, an occupier shall follow the following steps namely (i) prevention; (ii) minimization; (iii) reuse, recycling, recovery, utilization including co-processing, safe disposal.;

WHEREAS, as per Rule 4 (2) of the HOWM Rules, the occupier shall be responsible for safe and environmentally management of hazardous and other wastes. Similar provisions prevailed under Rule 4(1) of HWM Rules, 2008;

WHEREAS, as per Rule 6(1) of the HOWM Rules, the occupier engaged in handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilization, offering for sale, transfer or disposal of the hazardous and other wastes shall obtain authorization from the State Pollution Control Board/Pollution Control Committee (SPCB/PCC). Similar provisions prevailed under Rule 5(1) of HWM Rules, 2008;

WHEREAS, as per Rule 6 (2) of the HOWM Rules, on receipt of an application complete in all respect for the authorization, the SPCB/PCC may, after such inquiry as it considers necessary, and on , being satisfied that the applicant possesses appropriate facilities for collection, storage, packaging, transportation, treatment, processing, use, destruction, recycling, recovery, pre-processing, co-processing, utilization, offering for sale, transfer or disposal of the hazardous and other waste, as the case may be, and after ensuring technical capabilities and equipment complying with the standard operating procedure or other guidelines specified by the Central Pollution Control Board from time to time and through site inspection, grant authorization to the applicant. Similar provisions prevailed under Rule 5(4) of HWM Rules, 2008;

WHEREAS, as per Rule 9 of the HOWM Rules, utilization of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator (if it is not part of process) shall be carried out only after obtaining authorization from the State Pollution Control Board (SPCB) in respect of waste on the basis of standard operating procedures or guidelines provided by the Central Pollution Control Board (CPCB);

WHEREAS, CPCB has prepared Standard Operating Procedures(SOPs) for utilization of spent pot lining, aluminium dross and used anode butt and circulated the same to all SPCBs/PCCs vide letter no. B-29016 (SC)/1(55-IV)/17/HWMD/462-496 dated 10/04/2017 and B-29016 (SC)/1 (55-IV)/16/HWMD/2879-2913 dated 30/06/2016 respectively to ensure that authorization for utilization of hazardous shall be granted only upon verification and compliance of provisions and minimal requisite facilities outlined in the aforesaid SOPs and in accordance with the provisions under HOWM Rules. Copies of the said SOPs are also available at CPCB website <http://cpcb.nic.in/sop-for-hw-specific/>;

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WHEREAS, a public complaint has been received from various signatories regarding obtaining authorization without having requisite facilities for utilization of spent pot lining, anode butt and aluminum dross by M/s Krishna Calcination and Refractories Pvt. Ltd., Plot No. 21&26, Lamtara Industrial Area, Katni, MP (hereinafter referred as unit);

WHEREAS, officials of Regional Directorate, Bhopal, CPCB, inspected the unit on 28/10/2018 to verify the compliance of aforesaid Standard Operating Procedures for utilization of above hazardous wastes (viz. SPL, Aluminum dross and Used Anode Butt) that were circulated to SPCBs/PCCs vide letter dated 30/06/2016 and 10/04/2017 respectively. Following observations have been made:

1. Madhya Pradesh PCB has issued Consent to Operate under Water (Prevention & Control of Pollution) Act 1974 and Air (Prevention & Control of Pollution) Act 198 for production of Cyanide Free Carbon (15000 TPA), Aluminum (4000TPA), Calcined Minerals & Castable (5000TPA) & High Alumina Refractory Binder (4000TPA). The same is valid up to 08.02.2020.
2. The unit is involved in calcining & sizing of pyrophyllite and bauxite material besides utilization of SPL, Aluminum dross and Used Anode Butts for which the unit possess authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, for recycling of Cathode residues including pot lining (i.e. Spent Pot lining) (11.2) – 15000MTA; Drosses and waste from treatment of salt sludge (11.5) – 6000MTA & Used anode butts (11.6)- 2000MTA having validity till 31/10/2022.
3. The unit was not in operation during the time of visit.
4. The facility provided for utilization of SPL is inappropriate and does not comply with the SOP circulated by CPCB w.r.t to the following:
 - a) Insufficient capacity of storage shed to store incoming SPL. Further, the storage shed was broken from sides. There is no designated space for unloading of SPL within said covered storage shed.
 - b) No breaking facility is available for braking of large chunks (200-500 mm) of SPL.
 - c) The material transfer ducts pertaining to crushing and screening were found broken at many points.
 - d) No separate Air Pollution Control devices provided each for Crushing and Rotary kiln
 - e) The working condition of the kiln in terms of required temperature could not be assessed since the unit was not in operation. However, kiln inlet duct was broken and the flue gas was treated in the same APCD system provided for crushing/screening
 - f) The system for feeding lime & controlled water mist was found defunct. Further, the compressor unit & lime dosing system was also found damaged. Also, water flow meter & emergency recirculation system are not provided with hydro mist reactor.
 - g) No proper personal protective equipment such as goggles; face mask, gloves, gum booth have been provided to personnel involved in the plant operation. Further, fire safety arrangements are also not provided.
5. No plant and machinery were found for storage and treatment/utilization of other authorized hazardous waste viz. Used Anode Butt and Aluminum dross.
6. Representatives of unit informed that he has not seen this plant operational since 3-4 years & similarly one official said that he too hasn't seen the plant operation in the last 04 months of his joining.
7. Growth of the herbs/plant near the working area of the plant was observed.

8. Date, address of seller of SPL and signature & seal of the seller are being maintained in the passbook issued by MP PCB but date of arrival in the unit premises and balance quantity are not maintained in the same which are required as per Rule 6 (7) of the HOWM Rules, 2016.
9. Records are not maintained w.r.t quantity received, utilized and product manufactured. However, a log book for stock balance of SPL is being maintained which reveals that about 493.43 MT of SPL was received by the unit from M/s Mahan Aluminum (HINDALCO) Industries Ltd, Singrauli (Madhya Pradesh) of which about 292 MT of SPL have been sold to M/s Nitin enterprises, Hathras Road, Agra, M/s Shri Ganpati Industries, Hathras Road, Agra and other traders. As on date of inspection about 201.57 MT of SPL was expected to be stored in storage shed. However, only 30-40 Mt of SPL was found lying on the kaccha floor in the plant premises.
10. With regard to activities pertaining to calcining & sizing of pyrophyllite material, it was observed that the unit has provided 4 furnaces of 10T capacity for calcining the pyro phyllite waste. Further, the conveyor system was not enclosed and also not operation; manual crushing & loading in furnace was practiced without proper protective gears; the upper platform was found severely corroded; ID fan was not operation & under maintenance; wet scrubber unit provided has no connection with water pipeline; the sludge that generated was dumped in corner of the plant premises; gaps was visible in joints of the furnace hood to suction pipe attached with ID fan, ash generated after calcination is screened near the furnace area & sent to sizing unit established in plant premise

WHEREAS, based on the above observations and non-compliances to the CPCB's Standard Operating Procedures for utilization of SPL besides other violations of the HOWM Rules, 2016, CPCB issued directions dated 05/12/2018 to Madhya Pradesh as follows:

1. Immediately close all the industrial operations of M/s Krishna Calcination and Refractories Pvt Ltd, Plot no 21 & 26, Lamtara Industrial Area, Katni (M.P) pertaining to procurement, transportation and utilization of SPL, Aluminum dross and Used Anode Butt;
2. Cancel the authorization issued under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, to the aforesaid unit for utilization of Cathode residues including pot lining (i.e Spent Pot lining) (11.2); Drosses and waste from treatment of salt sludge (11.5) and Used anode butts (11.6);
3. Direct M/s Mahan Aluminum Industries Ltd, Singrauli (Madhya Pradesh) for not selling/handing over SPL, Aluminum dross and Used Anode Butt to M/s Krishna Calcination and Refractories Pvt Ltd, Plot no 21 & 26, Lamtara Industrial Area, Katni (M.P)
4. Impose financial penalty in accordance with Rule 23 (2) of the HOWM Rules, 2016, and CPCB guidelines "*Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty*" for violations of provisions stipulated under the HOWM Rules, 2016;
5. Inform the following to CPCB so as to impose environmental compensation for damages cause to the environment due to the aforesaid violations;
 - i. Dates since when the unit has started procurement of SPL, Aluminum dross and Used Anode Butt from aluminum smelters.
 - ii. Date-wise quantity of SPL, Aluminum dross and Used Anode Butt procured till the aforesaid operation of the unit is closed, in compliance with direction (a) above;
 - iii. SPL, Aluminum dross and Used Anode Butt lying at the premises of the unit.
 - iv. Capacity of plant and machinery installed for utilization of SPL in terms of tons/day.
6. take appropriate action so as to ensure environmentally safe operation of the activities pertaining to calcining & sizing of pyrophyllite and bauxite material;

7. ensure grant of authorization for utilization of hazardous waste to any unit only upon verification and compliance of provisions and minimal requisite facilities outlined in the SOPs issued by CPCB and effective monitoring thereafter;

WHEREAS, MP PCB vide letter dated 28/03/2019 informed about the closure directions issued to M/s Krishna Calcination and Refractories Pvt Ltd, Lamtara Industrial Area, Katni (M.P), u/s 31(A) of the Air (prevention and Control of Pollution) Act, 1981 vide their letter dated 06/03/2019 based on the visit conducted by Regional Office, MPPCB and observations/non-compliances w.r.t Defunct fluoride treatment (damaged lime feeding, controlled water mist & compressor unit; water flow meter & emergency recirculation system not provided); no separate APCD for Crushing and Rotary kiln units; Broken material transfer ducts pertaining to crushing and screening; kiln inlet duct broken; gaps in joints of furnace hood to section pipe attached with ID fan; conveyor belt found without cover; Non-maintenance of the records as per the details mentioned in the SOP, no separate plant and machineries for treatment/utilization of Aluminum dross, etc.

WHEREAS, the unit vide letter dated 12/04/2019 submitted point-wise status of compliance to the directions issued by CPCB vide dated 05/12/2018 and also informed about the upgradations made by the unit;

WHEREAS, the unit was jointly inspected on 16/05/2019 by RD, Bhopal and MPPCB to verify that the unit has upgraded and possess facility conforming to all the provisions of CPCB's SOP for utilization of Spent Pot Lining (SPL), Aluminum Dross and Used Anode Butt and made following observations w.r.t. non-compliances to CPCB's SoP:

- (i) Hydro Mist Reactor not having nozzle to create mist; water flow meter; and emergency re-circulation system as per the prescribed under section 32.4 (10) to (12) of the SOPs for utilization of SPL
- (ii) No separate APCD for rotary kiln and crushing & screening unit has been provided as prescribed under section 32.4 (9) of the said SOPs.
- (i) No online continuous emission monitoring system (OCEMS) has been installed as prescribed under section 32.9 of the said SOPs.
- (ii) No designated space for unloading of SPL has been provided as prescribed under section 32.4 (4) of the said SOPs.
- (iii) Not carried out any fugitive and stack emission monitoring in case of SPL utilization as prescribed under section 32.6 of the said SOPs.
- (iv) Not carried out product analysis w.r.t. concentration of Cyanide and Fluoride in product derived by utilizing SPL as prescribed under section 32.4 (13) of the said SOPs.
- (v) Not sending product to cement kiln but to trader as prescribed under section 32.3 of the said SOPs.
- (vi) Not provided adequate facility for utilization of Aluminum Dross and no plant and machinery for treatment/utilization of Used Anode Butt, though the unit has not procured and processed the Aluminum Dross and Used Anode Butt.

WHEREAS, Hon'ble National Green Tribunal, Principal Bench, New Delhi through its various orders {OA No. 95/2018 (M.A. Vo. 1029/2018); OA No. 593/2017 (WP (Civil) No. 375/2012; OA No. 807/2018 with OA No. 996/2018; and; OA No 739/2018}, has directed the regulatory authorities (i.e CPCB/SPCBs/PCCs) to assess and recover the Environmental Compensation for the damages caused to the environment;

WHEREAS, in compliance of orders dated 12/04/2019 of the Hon'ble National Green Tribunal, Principal Bench, New Delhi, in the matter of the Original Application No. 804/2017 (Earlier O.A. No. 36/2012) With M.A. No. 1302/2018 in Interlocutory Application No. 63 in W. P. (C) No. 657/199; Rajiv Narayan & Anr Versus Union of India & Ors., CPCB has submitted "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016" to the Hon'ble Tribunal. Softcopy of the said document is available on CPCB website at <http://cpcb.nic.in/ngt-mc-hw/>;

WHEREAS, based on the aforesaid document i.e. "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016", the Environmental Compensation is works out to be Rs 1,41,90,900/- (one crore forty-one lakhs ninety thousand and nine hundred only);

WHEREAS, the Central Government vide Notification No S.O. 157(E) of February 27, 1996 and S.O. 730 (E) dated July 10, 2002, has delegated the powers under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board (hereinafter referred as CPCB), to issue directions to any industry or any local or any other authority in case of violation of standards and rules, notified under the Environment (Protection) Act, 1986 and amendments thereof;

NOW, THEREFORE, in exercise of the powers vested under the Section 5 of the Environment (Protection) Act, 1986, MPPCB is directed to:

1. not to allow the industrial operations of M/s Krishna Calcination and Refractories Pvt Ltd, Plot no 21 & 26, Lamtara Industrial Area, Katni (M.P) unless the unit installs /upgrades the facilities as prescribed in the Standard Operating Procedures (SoPs) for utilization of SPL and verification of the same by MPPCB w.r.t the following:
 - a) Separate APCD for rotary kiln as per the details given under section 32.4 (9) of the said SOPs.
 - b) Provide pulse jet bag filter instead of bag house filter for both the APCDs of crusher and rotary kiln separately as given under section 32.4 (9) of the said SOPs .
 - c) Provide rotary hydro mist as per the provisions given under section 32.4 (10) to (12) of the said SOP.
 - d) Install Online emission monitoring system (OCEMS) for PM emission in stacks attached to the screening and crushing section and rotary kiln and connect the online data to server of MPPCB and CPCB as given under section 32.9 of the said SOPs.
 - e) Provide dedicated individual /separate storage shed for SPL, product derived from SPL and processed pyrophyllite. Further dedicated space for unloading of SPL shall also be provided.

Upon verification of the above facilities and commencement of operation, MP PCB shall ensure the following as stipulated in the said SOPs:

- i. Product i.e. carbon mineral (derived from utilization of SPL) shall meet the concentration limits with regard to Cyanide (20 mg/L) and Fluoride (180 mg/L) as prescribed in aforesaid SOP.
 - ii. The above product shall be used as resource/energy recovery in cement kiln.
 - iii. Monitoring of the source and fugitive emission shall be carried out as prescribed in the aforesaid SOP (as per point no 32.6 of the SOP for utilization of SPL);
2. Direct M/s Mahan Aluminum Industries Ltd, Singraulli (Madhya Pradesh) for not selling/handing over SPL, Aluminum dross and Used Anode Butt to M/s Krishna Calcination and Refractories Pvt Ltd, Plot no 21 & 26, Lamtara Industrial Area, Katni (M.P) unless compliances as, above, are verified by MPPCB and communicated in this regard;
 3. cancel the authorization issued under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, to the aforesaid unit for recycling of Drosses and waste from treatment of salt sludge (11.5) – 6000MTA & Used anode butts (11.6)-2000MTA; till requisite facilities as per the relevant SOPs are installed and verified;
 4. take appropriate action w.r.t operation of the activities pertaining to calcining & sizing of pyrophyllite and bauxite material as outlined in the joint inspection report of CPCB and SPCB of inspection carried out on 16/05/2019;

5. to issue show-cause notice to the unit for imposition of financial penalty and Environmental Compensation followed by collection of the same by MPPCB as below;
- financial penalty of Rs. 08 lakhs under Rule 23 (2) of the HOWM Rules, 2016, on M/s Krishna Calcination and Refractories Pvt Ltd, Plot no 21 & 26, Lamtara Industrial Area, Katni (M.P), for violating the provisions of Rules 4(2), 4(6(a)), 4(6(b)), Item under B of the Form 2, 6(2), 6 (7), 8 and 17 (1) of the said Rules;
 - Environmental Compensation of **Rs 1,41,90,900/-** (one crore forty-one lakhs ninety thousand and nine hundred only) for utilizing 473.03 MT of SPL without meeting provisions of SoPs in terms of selling of product for non-cement kiln use; processing without ensuring compliance to work zone standard; stack emission standard and product specifications; not having Online Continuous Emission Monitoring System; not having separate APCD for screening & crushing and rotary kiln and space for unloading of SPL. Further, in case of failure to deposit the Environmental Compensation by the aforesaid unit, MPPCB shall impose EC as below:

Sl. No.	Amount Deposition time period	Environmental Compensation and Financial Penalty Amount
1.	Within 15 days from the stipulated time period as directed by MP PCB	Original amount with interest @ 12% per annum for number of days delayed after the stipulated date of amount deposition
2.	After 15 days but within 03 months after the stipulated time period as directed by MPPCB	Two times the original amount with interest @ 12% per annum for number of days delayed after 15 days of the stipulated date of amount deposition
3.	After 03 months and up to 06 months from the stipulated time period	Four times the original amount with interest @ 12% per annum for number of days delayed after three months of the stipulated date of amount deposition
4.	After 06 months	Closure of unit/facility and court case

Receipt of these directions be acknowledged and point-wise action taken report on compliance of the above directions (as listed at point (1) to (5) above) be submitted to this office within 15 days from issuance of this direction.

(S. P. S. Parihar)
Chairman

Copy to:

- The Joint Secretary, HSM Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi : *For kind information, please*
- The Regional Director Central Pollution Control Board 3rd Floor, Sahkar Bhawan, North TT Nagar, Bhopal-462003 : *To follow-up compliance of above directions, please.*
- ✓ I/c IT Division, CPCB, Delhi

(Prashant Gargava)
Member Secretary

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