

resources used in the construction activities, through proper utilisation of fly ash, bottom ash and pond ash, generated from coal and lignite based thermal power plants;

Whereas as per the notification S.O. 763(E) dated the 14-9-1999 the progress of the implementation of the provisions of the said notification has been reviewed;

Whereas the review indicated while the generation of ash increased from about 89 million tonnes in 1999-2000 to about 112 million tonnes in 2005-2006 and the utilisation increased from 13 million tonnes to 51 million tonnes;

Whereas every year about 65 to 75 million tonnes of ash continue to remain unutilised and dumped in ash ponds and the quantity of ash in ash ponds has increased from about 450 million tonnes in 1999-2000 to about 900 million tonnes in 2005-2006;

Whereas the land area under active ash ponds is about 16,000 hectares and needs to be put to gainful use;

Whereas the concerned Central and State Governments and their agencies have already laid down specifications for ash and ash based products;

Whereas the brick kiln owners have represented against compulsory mixing of prescribed quantity of ash with clay on account of difficulties in meeting the cost of transportation;

Whereas the quantity of ash utilised by brick kilns in the past was limited to 0.7 million tonnes in 2004-2005 and 1.14 million tonnes in 2005-2006 and constitute only a small percentage of ash utilised;

Whereas the plans for generation of power envisages setting up of large coal based thermal power plants, which, together with existing plants expected to generate about 150 to 170 million tonnes of ash per year by the end of the 11th Five Year Plan, which need to be properly utilised in order to avoid unnecessary extraction of top soil and other materials for construction activities;

Whereas the Central Government is of the opinion that in view of the increased ash generation, there is a need to accelerate the pace of utilisation of fly ash, bottom ash and pond ash;

Now, therefore, in exercise of the powers conferred by Sub-section (1), read with clause (v) of Sub-section (2) of Section 3 and Section 5 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Government of India in the Ministry of Environment and Forests number S.O. 763(E) dated the 14th September, 1999 published in the Gazette of India, Part II, Section 3, Sub-section (ii) dated 14th September, 1999, except as respects things done or omitted to be done before such supersession, the Central Government hereby issues the following directions which shall come into force on and from the date of publication of the final notification, namely:

1. **Use of fly ash in construction activities:**

- (1) After twelve months from the date of publication of this notification, every person engaged in any activity involving building construction shall use buildings materials composed wholly or partly of fly ash (hereafter, the term "fly ash" will refer to fly ash, bottom ash, and pond ash), instead of the corresponding materials made wholly of constructional materials such as clay, top soil, limestone, sand and such other material, wherever the former, on competitive tendering for delivery at the construction site, costs the same or less than the latter, and has not been

**MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION**

New Delhi, the 3rd April, 2007

S.O. 513(E).—The following draft of a notification, which the Central Government proposes to issue, in supersession of the existing notification number S.O.763(E) dated the 14th September, 1999 of the Government of India in the Ministry of Environment and Forests, relating to restrictions on the excavation of top soil for manufacture of bricks and promoting the utilisation of fly ash in the manufacture of building materials and in construction activity is hereby published, as required under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, for the information of all persons likely to be affected thereby; and notice is hereby given that the said draft notification will be taken into consideration by the Central Government on or after the expiry of sixty days from the date on which copies of the Gazette containing this notification are made available to the public.

Any person interested in filing any objection(s) or suggestion(s) on the proposed draft notification may do so in writing to the Secretary, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi -110 003, within the said period of sixty days.

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Whereas, it is necessary to protect the environment, through conserving the top soil, and other non-renewable

found to be technically infeasible for the intended use.

Explanation 1: "Technically infeasible" is to be determined by one or more laboratories to be designated by the Director General, Council of Scientific and Industrial Research.

Explanation 2: "Building materials" in this context refers to bricks, tiles, cement, blocks and similar products or a combination or aggregate of these.

- (2) It shall be the responsibility of all persons and/or the agencies, either undertaking construction, or preparing, or approving the design to ensure compliance of the provisions of sub-paragraph (1).
- (3) The authority for monitoring and enforcing the actual implementation of sub-paragraph (1) above in the construction shall be the concerned local body or development authorities or any other building plan approval or completion certification authority.
- (4) All financial institutions, which fund construction activities, shall include a clause in their loan agreement requesting compliance with sub-paragraph (1) above.
- (5) No person or agency engaged in road (including highways and fly overs) construction may use borrow material excavated from the "right of way" of the road for the construction of road embankments. All construction of road embankments will use fly ash, or municipal inerts, unless:
 - (a) the cost of the fly ash or municipal inerts delivered at the construction site is more than twenty-five per cent higher than the equivalent quantity of soil extracted from other than the "right of way" for embankment use, in which case such soil may be used for the road embankment; or
 - (b) a designated technical authority of the Indian Roads Congress certifies that the use of fly ash or municipal inerts at the location for the intended purpose is technically infeasible;
 - (c) For the top and side covers, soil, other than soil extracted from the "right of way" may be used, notwithstanding (a) above;
- (6) No person or agency shall undertake reclamation and compaction of low-lying areas with soil. Only pond ash shall be used for reclamation or compaction. They shall also ensure that such reclamation and compaction is done in accordance with the byelaws, regulations and specifications laid down by the authorities mentioned in sub-paragraph (3) above.

2. Responsibilities of Thermal Power Plants.—

Owners of Coal or lignite based thermal power plants (including captive and/ or cogeneration plants based on coal or lignite),

- (a) may dispose of fly ash through competitive bids to the best advantage of the owners.

Explanation: In case, the bids are all negative, *i.e.* the bidders require payment to accept the

fly ash for use in accordance with this notification, "best advantage" would mean least payment required bid by the bidders.

- (b) shall not at any time store more than three months ash generation in their storage and/ or ash ponds. In case the quantity of fly ash already in storage and/or ash ponds on and from the date of this notification exceeds three months generation, the same shall be disposed of in accordance with sub-paragraph 1(1) above within a maximum period of five years from the date of issue of this notification.
- (c) shall maintain a record of all sale and/or disposal of the fly ash.
- (d) shall submit annual compliance report, including record of sale and/or disposal of the fly ash as stipulated in sub-paragraph (c) above by the thirtieth day of April every year to the concerned State Pollution Control Board or Committee.

3. Specifications for use of ash-based products/ responsibility of other agencies:

- (1) Manufacture of all ash-based products shall be carried out in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Bureau of Mines, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, New Delhi, Building Materials and Technology Promotion Council, New Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government agencies, as applicable.
- (2) All Government agencies including the Central Public Works Department and State Government agencies concerned with construction activities shall make provisions for the use of fly ash based products or aggregates of them in the schedule of approved materials and rates.
- (3) Central Electricity Authority while formulating norms for land requirement per Mega Watt of installed capacity of thermal power plants shall ensure that the area for ash storage be restricted to a maximum of three months ash generation.
- (4) All agencies undertaking construction of roads or fly over bridges including Department of Road Transport and Highways, National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Departments and other State Government Agencies shall make appropriate provisions in their tender documents, schedules of approved materials and rates, as well as technical documents, including those relating to soil borrow area or pit as per sub-paragraph (5) of paragraph 1.
- (5) All local bodies or development authorities shall specify in their respective building by-laws and regulations the use of ash and ash-based products and construction techniques in building materials, roads, embankments or for any other use.

[F. No. 9-8/2005-HSMD]

R. ANANDAKUMAR, Adviser