

No. RW/NH-33044/30/2001-S&R(R)

Dated the 4th December, 2003

To

The Secretaries of States/Union Territories, Public Works Department (dealing with National Highways, All Chief Engineers of States/Union Territories (Dealing with National Highways), The Chairman, National Highways, Authority of India, The Director General (Border Roads).

**Subject: Use of Flyash in road/flyover embankment construction-Amendment to Clause 305 of the Ministry's Specifications for Road and Bridge Works (Fourth Revision) 2001**

In continuation to the Ministry's letter of even no. dated 30th July, 2003 forwarding thereby the amendments to the Clause 305 "Embankment Construction" of the Ministry's specifications for Road and Bridge Works (Fourth Revision), 2001 alongwith a list of Thermal Power Plants generating Fly/Pond Ash in different States, it is stated that Ministry of Environment & Forests, Government of India vide notification No. S.O. 979(E) dated 27th August, 2003 published in the Gazette of India, Part-II, Section 3-Sub-section (ii) (copy enclosed) has made use of Fly/Pond ash compulsory in road embankment construction. Sub. paragraph(g) of paragraph 2 of the notification at page 10 makes the following amendments:

'No agency, person or organization shall, within a radius of 100 kilometres of a thermal power plant undertake construction or approve design for construction of roads or flyover embankments in contravention of the guidelines/specifications issued by the Indian Roads Congress (IRC) as contained in IRC specification No. SP:58 of 2001. Any deviation from this direction can only be agreed to on technical reasons if the same is approved by Chief Engineer (Design) or Engineer-in-Chief of the concerned agency or organization or on production of a certificate of "Pond ash not available" from the thermal power plant(s) (TPPs) located within 100 kilometres of the site of construction. This certificate shall be provided by the TPP within two working days from the date of making a request for ash'.

2. Further vide Sub paragraph(2B) of paragraph 5 at page 13 of the notification, all agencies undertaking construction of roads or fly over bridges including Ministry of Road Transport & Highways (MoRT&H), National Highways Authority of India (NHAI), Central Public Works Department(CPWD), State Public Works Departments and other State Government Agencies, shall within three months from the 1st day of September, 2003.

- (a.) make 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(7) of paragraph 1; and
- (b.) make necessary specifications/guidelines for road or fly over embankments that are not covered by the specifications laid down by the Indian Roads Congress(IRC).

3. In compliance to above, in second part of Para 2 of the Ministry's letter of even number dated 30th July, 2003 referred above, the words 'economically viable lead' stand substituted as 'a radius of one hundred kilometres of a thermal power plant'.

4. It is, therefore, requested that the requisite amendments may please be carried out at the appropriate places and complied strictly.

5. It is requested that quarterly 'Action Taken Report' on use of fly/pond ash in road/flyover embankment construction on NH/other centrally sponsored works in your State/Organisation may please be forwarded to the Ministry addressed to Shri S.S. Nahar, SE(R) S&R. Room No. 340, Transport Bhavan, 1, Parliament Street, New Delhi-110 001.

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(Enclosure of Ministry's letter No. RW/NH-33044/30/2001-S&R(R) dated the 4th December, 2003)

## MINISTRY OF ENVIRONMENT AND FORESTS

### NOTIFICATION

New Delhi, the 27th August, 2003

**S.O. 979(E)** – Whereas a draft of certain amendments to the Government of India in the Ministry of Environment and Forests notification number S.O. 763 (E) dated 14th September, 1999 (hereinafter referred to as the said notification) which the Central Government proposes to make under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) dated the 6th November, 2002 vide S.O. 1164 (E), dated the 5th November, 2002 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of sixty days from the date on which copies of the Gazette containing the said draft amendments were made available to the public.

And, whereas copies of the said Gazette were made available to the public on 27th November 2002;

And, whereas all the objections and suggestions received from all persons likely to be affected thereby in respect of the said draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments to the said notification, namely:-

### AMENDMENTS

1. In the said notification, in the preamble, for the words "fifty kilometers", the words "one hundred kilometres" shall be substituted.
2. In the said notification, in paragraph 1,-

- (a) in sub-paragraph (1), for the words "fifty kilometers", the words "one hundred kilometres" shall be substituted;
- (b) After sub-paragraph (1), the following sub-paragraphs shall be inserted, namely:-

"(1A) Every construction agency engaged in the construction of buildings within a radius of fifty to one hundred kilometres from a coal or lignite based thermal power plant shall use fly ash bricks or blocks or tiles or clay fly ash bricks or cement fly ash bricks or blocks or similar products or a combination or aggregate of them in such construction as per the following minimum percentage (by volume) of the total bricks, blocks and tiles, as the case may be, used in each construction projects, namely:-

- (i) 25 per cent by 31st August 2004;
- (ii) 50 per cent by 31st August 2005;
- (iii) 75 per cent by 31st August, 2006; and
- (iv) 100 per cent by 31st August 2007

In respect of construction of buildings within a radius of 50 kilometres from a coal or lignite based thermal power plant the following minimum percentage (by volume) of use of bricks, blocks and tiles shall apply:-

- (i) 50 per cent by 31st August 2004;
- (ii) 100 per cent by 31st August 2005.

(1B) The provisions of sub-paragraph (1A) shall be applicable to all construction agencies such as Housing Boards and those in the private sector builders of apartments, hotels, resorts and cottages and the like. It shall be the responsibility of the constructions agencies either undertaking the construction or approving the design or both to ensure compliance of the provisions of sub-paragraph (1A) and to submit such returns as may be called for and compliance reports to the State Government or Union Territory Administration.

(c) for sub-paragraph (2), the following sub-paragraphs shall be substituted, namely:-

"(2) The authority for ensuring the use of specified quantity of ash as per sub-paragraph (1) shall be the concerned Regional Officer of the State Pollution Control Board or the Pollution Control Committee, as the case may be

(2A) The concerned State Government shall be the enforcing and monitoring authority for ensuring compliance of the provisions of sub-paragraph (1A)."

(d) in sub-paragraph (3), for the words, brackets and figure "under para (1)" the words] brackets and figure "under sub-paragraph (1)" shall be substituted;

(e) after sub-paragraph (3), the following sub-paragraphs shall be inserted, namely:-

"(3 A) A decision on the application for manufacture of fly ash bricks, block, and tiles and similar other fly ash based products shall be taken within thirty days from the date of receipt of the application by the competent authority. A decision on consent to establish the brick kiln shall be taken by the Pollution Control Board or the Pollution Control Committee, as the case may be within a period of thirty days from the date of receipt of application by it.

(3 B) In case of non-compliance of the provisions of sub-paragraph (1) of paragraph 1, the competent authority, in addition to cancellation of consent order issued to establish the brick kiln, shall move the district administration for cancellation of the mining lease.

(3 C) All authorities sanctioning or renewing any land, soil or lay mining lease shall not grant such lease or extension of lease or renewal to clay brick block for tile manufacturing unit within a radius of one hundred kilometres of the coal or lignite based thermal power plant in cases where the manufacturer does not mix a minimum of 25 per cent by weight of fly ash or pond ash in the manufacturer of bricks or blocks or tiles. The cancellation of mining lease shall be decided by the district administration after giving the holder of such lease an opportunity of being heard. To enable the competent authority to verify the actual use of ash the thermal power plant shall maintain month-wise records of ash made available to each brick kiln.

(3 D) It shall be sufficient compliance of this notification if within twelve months from the date of issue of this notification, manufacturers of clay bricks blocks and tiles located within a radius of 50 to 100 kilometres of a coal or lignite based thermal power plant comply with the provisions of sub-paragraphs (1) and (2) in sub-paragraph (4), after brackets and letters "(AIBTMF)", the words "or a representative of coal brick kiln owners association, federation, group" shall be inserted;

after sub-paragraph (4), the following sub-paragraphs shall be inserted, namely:-

(5) No agency, person or organization shall, within a radius of 100 kilometres of a thermal power plan undertake construction or approve design for construction of roads or flyover, embankments in contravention of the guidelines specifications issued by the Indian Roads Congress (IRC) as contained in IRC specification No. SP: 58 of 2001. Any deviation from this direction can only be agreed to on technical reasons if the same is approved by Chief Engineer (Design) or Engineer-in-Chief of the concerned agency or organisation or on production of a certificate of "Pond ash not available" from the thermal power plant(s) (TPPs) located within 100 kilometres

of the site of construction. This certificate shall be provided by the TPP within two working days from the date of making a request for ash.

(6) Soil required for top or side covers of embankments of roads or flyovers shall be excavated from the embankment site and if it is not possible to do so, only the minimum quantity of soil required for the purpose shall be excavated from soil borrow area. In either case, the topsoil should be kept or stored separately. Voids created due to soil borrow area shall be filled up with ash with proper compaction and covered with topsoil kept separately as above. This would be done as an integral part of embankment project within the time schedule of the project.

(7) No agency, person or organization shall within a radius of 100 kilometres of a coal or lignite based thermal power plant allow reclamation and compaction of low-lying areas with soil. Only pond ash shall be used for compaction. They shall also ensure that such reclamation and compaction is done in accordance with the bye-laws, regulations and specifications laid down by the authorities mentioned in sub-paragraph (3) of paragraph 3.

In the said notification in paragraph 2,

for the marginal heading "Utilisation of ash by Thermal Power Plants" the marginal heading "Responsibilities of Thermal Power Plants" shall be substituted:.

(b) for the opening words, "All coal or lignite based thermal power plants so utilise the ash generated in the power plants as follows:-" "Every coal or lignite based thermal power plant shall take the following steps to ensure the utilisation of ash generated by it, namely:"

(c) in sub-paragraph (1)-

(i) after the words "products such as cement, concrete blocks, bricks, panels", the words "or a combination thereof" shall be inserted:

(ii) the following shall be added at the end, namely:-

"The thermal power plants have to ensure availability of fair quantity of ash to each user including brick kilns".

4. In the said notification, after paragraph 2, the following paragraph shall be inserted namely:-

#### **2A. Utilization of fly ash for reclamation of sea**

"Subject to the rules made under the Environment (Protection) Act, 1986, (29 of 1986) reclamation of sea shall be a permissible method of utilization of flyash".

In the said notification, in paragraph 3, the following sub-paragraphs shall be inserted namely:-

(2A) All agencies including the Central Public Works Department and State Government agencies concerned with utilization of fly ash for construction purposes shall within three months from the 1st day of September, 2003 make provisions for the use of fly ash and fly ash based bricks, blocks or tiles or aggregates of them in the schedule of approved materials and rates.

(2B) All agencies undertaking construction of roads of fly over bridges including Ministry of Road Transport and Highways (MORTH), National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Departments and other State Government Agencies shall, within three months from the 1st day of September, 2003-

- a. make 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 (7) of paragraph 1; and
- b. make necessary specifications/guidelines for road of fly over embankments that are not covered by the specifications laid down by the Indian Road Congress (IRC).

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**Footnote: The principal notification was published in the Gazette of India Pt. II, Section III, sub section (ii) vide s.o. 763(E) dated 14.9.1999**