

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
CENTRAL ZONE, BHOPAL**

Original Application No. 206/2024

IN THE MATTER OF:

Applicant

Chandrikant Jha

Versus

Respondents

State of Madhya Pradesh & Ors.

I N D E X

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Date: 22.01.2025

Place: Bhopal



**Through Counsel
Prashant M. Harne
Standing Counsel
State of Madhya Pradesh**

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**REPLY ON BEHALF OF RESPONDENT STATE OF MADHYA
PRADESH**

IT IS MOST RESPECTFULLY SUBMITTED HEREINUNDER :

1. That the, grievance of the applicant in the present Original Application is the alleged inaction on the part of the Respondent no. 11 in handling, treatment and disposal of fly ash waste generated by Moser Baer Thermal Power Plant Anuppur (Madhya Pradesh). Anuppur Thermal Power project is a 250-megawatt (MW) coal based thermal power project in Anuppur district of Madhya Pradesh. The project is located in Laharpur Murra, Gwari, Belia and Jethari viallages situated in Jithari and Anuppur Tehsil of Anuppur district of Madhya Pradesh, even guidelines of disposal of fly ash have not been fellow by the Respondent no. 11.

2. It is submitted that this Hon'ble Tribunal vide Order dated 06.12.2024 constituted a Joint Committee comprising of, 1) Senior Scientist, MPPCB; 2) Divisional Forest Officer, Anuppur; 3) District Mining Officer, Anuppur; 4) District Collector, Anuppur. That in compliance of the aforementioned directions a joint committee was constituted and an inspection as conducted on 03.01.2025 and thereafter the Joint Committee Report was submitted before this Hon'ble Tribunal.
3. That the answering respondent being a member of the committee, undertakes the Joint Committee Report *in toto* and that for the convenience of this Hon'ble Tribunal the conclusions and recommendations are reproduced hereinbelow :

“Conclusion :-

- (i) Ash disposal is done in eco-friendly purposes (filling in low lying area and mine voids) as listed in MoEF&CC ash utilization notification 31.12.2021.*
- (ii) M/s M.B Power (M.P) Ltd. has obtained necessary permissions from the concerned departments for ash filling in low lying area/mine voids.*
- (iii) During joint committee visit, no ash is observed to be dumped in any of the river's (River Sone, River*

Tipan and River Godaru) mentioned in the petition.

(iv) No adverse effect on environment or any sign of pollution be it air pollution, water pollution or noise pollution observed.

(v) No ash dumped or obstruction in flow of common drain/nalla flowing through railway under bridge near Flyash filling site (Jamuna Opencast Mine Void), Village- Harad, observed near this ash fill site.

Recommendations :-

1. Regular surveillance and monitoring of ash disposal site's shall be carried out by the M/ s M.B Power (M.P) Limited.

2. M/s M.B Power (M.P) Limited should carry out regular checking and maintenance work of earthen embankments constructed at all the ash fill site's”

4. It is further submitted that, The utilization of fly ash for filling low-lying areas shall be carried out in strict compliance with the Central Pollution Control Board (CPCB) Guidelines, 2019, particularly as specified under Para 5.1.4. Furthermore, adherence to the provisions outlined by the Ministry of Environment, Forest and Climate Change (MoEF&CC) is mandatory as per the gazette notification on fly ash utilization dated 14th September 1999, along with subsequent amendments notified on 27th August 2003 and 3rd November 2009.

These notifications collectively mandate that the soil required for such activities must be excavated exclusively from the designated landfill site and stored separately prior to initiating the filling process with fly ash. Moreover, it is expressly required that the excavated topsoil be preserved and subsequently utilized for covering the filled area to restore its surface. A copy of gazette notification on fly ash utilization dated 14th September 1999, along with subsequent amendments notified on 27th August 2003 and 3rd November 2009 is marked and annexed herewith as **Annexure R-1 (Colly.)**.

5. That, in accordance with the Central Pollution Control Board (CPCB) Guidelines for the disposal and utilization of fly ash, specifically outlined in Para 5.2.3, it is imperative to ensure the protection of ponds and other water bodies located either adjoining or within the designated site of operation. These guidelines mandate that if any water body exists in proximity to or within the operational area, necessary preventive measures must be implemented to safeguard such water bodies from potential contamination. This includes the construction of an earthen embankment around the perimeter of the

water body, designed to effectively prevent the spillage or seepage of fly ash into the water body.

6. That, in light of above submissions the answering respondent is not filing a para-wise reply, however the same shall be filed if the Hon'ble Tribunal may so direct.
7. Hon'ble Tribunal may kindly be pleased to take the aforesaid reply on record. An Affidavit in support is filed herewith.

Date: 22.01.2025

Place: Bhopal



**Through Counsel
Prashant M. Harne
Standing Counsel
State of Madhya Pradesh**

BEFORE THE NATIONAL GREEN TRIBUNALCENTRAL ZONAL BENCH BHOPALOriginal Application No. 206/2024IN THE MATTER OF:

CHANDIKANT JHA APPLICANT

VERSUS

STATE OF MADHYA PRADESH RESPONDENT

AFFIDAVIT

I, Sushri Asha Lata Vaidhya D/o Shri Mahendra Vaidhya, aged about 36 years, posted as Deputy Director Mining, Anuppur, Office Address District Collector Office, Mining Branch, Anuppur (M.P.), do hereby state on oath and solemnly affirm as under :

1. That, I have been appointed as the Officer In-Charge to represent this case on behalf of State of M.P. and as such I am well conversant with the facts of the case and therefore, competent to swear this affidavit.
2. That, the accompanying Reply has been prepared and filed as per my instructions and has also been explained to me.
3. That, the contents of the accompanying Reply are true to my knowledge based upon official records and legal averments made therein are true on the legal advice and believed to be true.

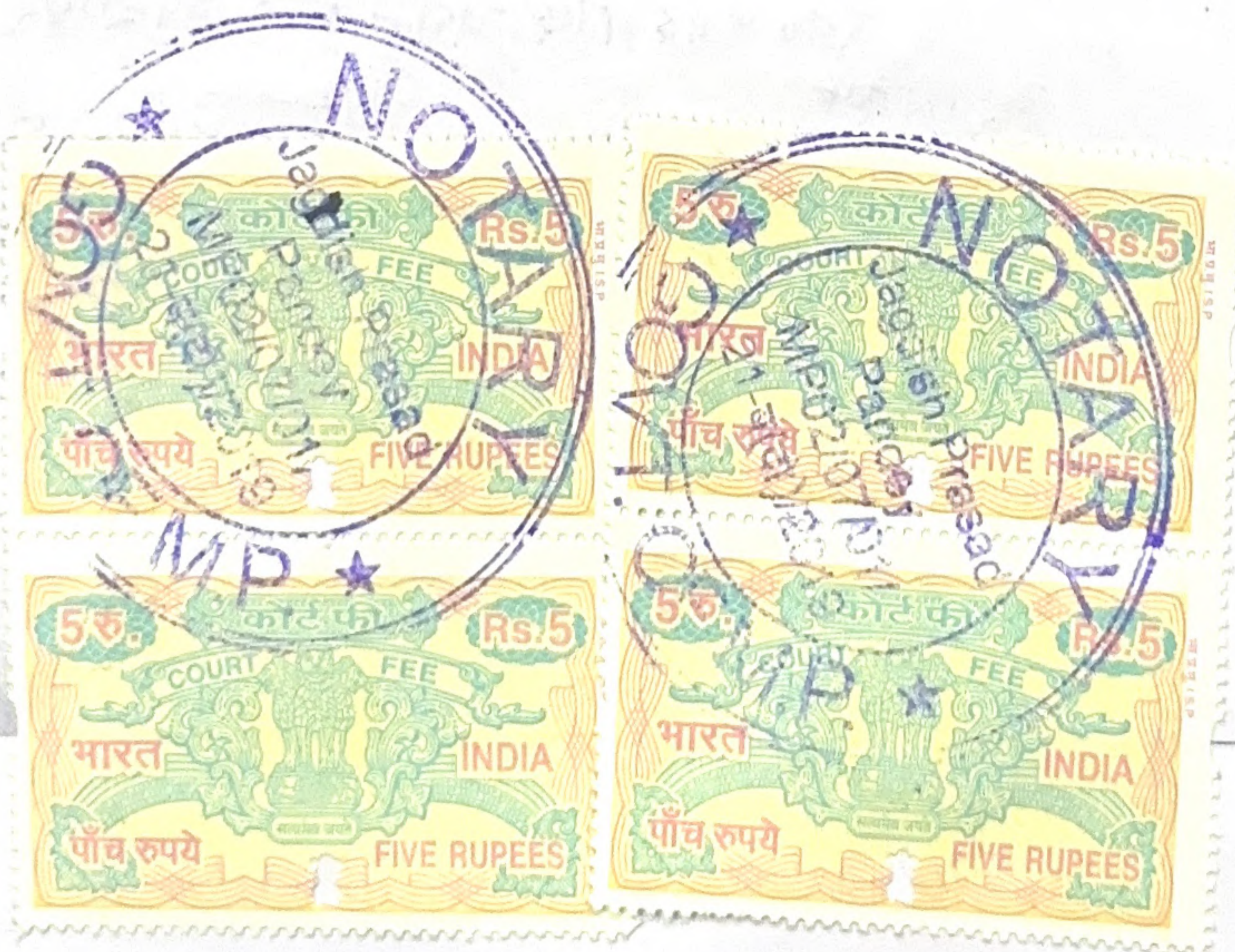

DEPONENT

VERIFICATION

I, above-described deponent do hereby verify that the contents of para 1 to 3 of the affidavit are true to my personal knowledge and belief.

Verified and signed on this 20 day of 01 2025 at _____ (M.P.)


DEPONENT




भारत का राजपत्र
The Gazette of India
 असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
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नई दिल्ली, मंगलवार, सितम्बर 14, 1999/भाद्र 23, 1921
NEW DELHI, TUESDAY, SEPTEMBER 14, 1999/BHADRA 23, 1921

पर्यावरण एवं वन मंत्रालय

अधिसूचना

नई दिल्ली, 14 सितम्बर, 1999

का.आ. 763(अ).— पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) द्वारा यथाअपेक्षित एक प्रारूप अधिसूचना जिसमें कतिपय निदेश अंतर्विष्ट हैं, भारत सरकार के पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 453(अ), तारीख 22 मई, 1998 द्वारा प्रकाशित किए गए थे जिसमें उन व्यक्तियों से, जिनके उससे प्रभावित होने की संभावना थी, आक्षेप और सुझाव उस तारीख से जिसको उक्त अधिसूचना की राजपत्रित प्रतियां जनता को उपलब्ध करा दी जाती हैं, साठ दिन की अवधि की समाप्ति के पूर्व, आमंत्रित किए गए थे ;

और उक्त राजपत्र की प्रतियां जनता को उसी तारीख को उपलब्ध करा दी गई थी ;

और उक्त प्रारूप अधिसूचना की बाबत जनता से प्राप्त आक्षेपों और सुझावों पर केन्द्रीय सरकार द्वारा सम्यक् रूप से विचार कर लिया गया है ;

और पर्यावरण का संरक्षण, उपरिमृदा संरक्षण और भूमि पर कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों से निस्सारित फ्लाइं एश का संनिक्षेपण और व्ययन करने का निवारण करना आवश्यक है ;

और ईंटों के विनिर्माण के लिए उपरिमृदा के उत्खनन को निर्बंधित करने की तथा कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों से पचास किलोमीटर के विनिर्दिष्ट व्यास के भीतर भवन निर्माण सामग्री के विनिर्माण में और सन्निर्माण क्रिया कलापों में फ्लाइं एश के उपयोग को सम्प्रवर्तित करने की आवश्यकता है ;

और माननीय दिल्ली उच्च न्यायालय ने सेंटर फार पब्लिक इन्ट्रेस्ट लिटिगेशन दिल्ली बनाम युनियन आफ इन्डिया की सिविल रिट याचिका संख्यांक 2145/99 में अपने 25 अगस्त, 1999 के आदेश द्वारा केन्द्रीय सरकार को फ्लाइं एश की बाबत अन्तिम अधिसूचना 26 अक्टूबर, 1999 को या उससे पूर्व प्रकाशित करने का निदेश दिया है ;

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (2) के खंड (v) के साथ पठित उसकी उपधारा (1) और धारा 5 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, तथा माननीय दिल्ली उच्च न्यायालय के उपरिक्थित आदेशों के अनुसरण में निम्नलिखित निर्देश जारी करती है जो इस अधिसूचना के प्रकाशन की तारीख को प्रवृत्त होंगे, अर्थात् :-

(1)

1. ईटों के विनिर्माण और अन्य सन्निर्माण क्रिया कलापों के फ्लाई एश, बोटम एश या पॉड एश का उपयोग :-
 - (1) कोई व्यक्ति, कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों से पचास किलोमीटर के व्यास के भीतर सन्निर्माण क्रिया कलापों में उपयोग के लिए मृदा में भार दर भार के आधार पर (फ्लाई एश, बोटम एश या पॉड एश) के कम-से-कम पच्चीस प्रतिशत मिश्रण के बिना मिट्टी, ईटों या टाइलों या ब्लोकों का विनिर्माण नहीं करेगा।
 - (2) ऊपर पैरा (1) के अनुसार एश की विनिर्दिष्ट मात्रा के उपयोग को सुनिश्चित करने के लिए, यथास्थिति सम्बद्ध राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति का क्षेत्रीय अधिकारी प्राधिकारी होगा। इसका अनुपालन न किए जाने की दशा में उक्त प्राधिकारी ईट भट्टा की स्थापना के लिए जारी अनुमति आदेश को रद्द करने के अतिरिक्त उक्त खनन पट्टा रद्द किए जाने के लिए जिला प्रशासन से अनुरोध करेगा। उक्त खनन पट्टा रद्द करने का विनिश्चय सम्यक् सुनवाई के पश्चात् किया जाएगा। उक्त प्राधिकारी को वास्तविक एश के उपयोग का सत्यापन करने हेतु समर्थ बनाने के लिए तापीय विद्युत संयंत्र प्रत्येक ईट भट्टे को उपलब्ध कराई गई एश का मासिक अभिलेख बनाए रखेगा।
 - (3) उक्त विद्युत संयंत्र द्वारा यथा प्रमाणित पर्याप्त मात्रा में तापीय विद्युत संयंत्र से एश की अनुपलब्धता की दशा में सम्बद्ध राज्य/संघ राज्यक्षेत्र की सरकार ऊपर पैरा (1) के अधीन अनुबंध को समुचित रूप से उपान्तरित (त्यज/शिथिल) करेगा।
 - (4) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र एक विवाद निपटारा समिति का गठन करेगा जिसमें तापीय विद्युत संयंत्र का महाप्रबंधक और अखिल भारतीय ईट और टाइल विनिर्माण संघ का प्रतिनिधि होगा। ऐसी समिति बिना कोई समय गंवाए एश की अबाध लदाई और परिवहन सुनिश्चित करेगी। किसी अनसुलझे विवाद की बाबत कार्यवाई राज्य/संघ राज्यक्षेत्र की सरकार द्वारा स्थापित की जाने वाली किसी राज्य/संघ राज्यक्षेत्र स्तर की समिति द्वारा की जाएगी, जिसमें राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति के सदस्य सचिव, राज्य/संघ राज्यक्षेत्र सरकार के विद्युत मंत्रालय के प्रतिनिधि और अखिल भारतीय ल विनिर्माण संघ के प्रतिनिधि होंगे।

तापीय विद्युत संयंत्र द्वारा एश का उपयोग -

सभी कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र नीचे दिए गए विद्युत संयंत्रों में उत्पादित एश का उपयोग करेंगे, अर्थात् :-

- (1) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, इस अधिसूचना के प्रकाशन की तारीख से कम-से-कम दस वर्ष के लिए एश आधारित भवन सामग्री जैसे सीमेंट, कंक्रीट, ब्लाक, ईटें, पैनल या किसी अन्य सामग्री के विनिर्माण के प्रयोजनों के लिए या सड़कों, तटबंधों, बांधों, नहरों के सन्निर्माण के लिए या किसी अन्य सन्निर्माण क्रियाकलापों के लिए बिना किसी संदाय या किसी अन्य प्रतिफल के एश उपलब्ध कराएगा।
- (2) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र जिसे ऐसी पर्यावरणीय अनापत्ति शर्तों के अधीन आरंभ किया गया है, जिसमें संपूर्ण फ्लाई एश का उपयोग करने के लिए कार्य योजना अनुबद्ध की गई हो, इस अधिसूचना के प्रकाशन से नौ वर्ष की अवधि के भीतर योजना के अनुसार भूमि पर फ्लाई एश के सन्निक्षेपण और व्ययन को बंद कर देगा। ऐसी कार्य योजना में विद्युत संयंत्र में उत्पादित सम्पूर्ण एश का नवें वर्ष की समाप्ति तक उपयोग करने में समर्थ बनाने के लिए इस अधिसूचना के प्रकाशन से तीन वर्ष के भीतर तीस प्रतिशत फ्लाई एश के उपयोग के साथ आगामी छह वर्षों में उपयोग में उत्तरोत्तर प्रति वर्ष कम-से-कम दस प्रतिशत की और वृद्धि की व्यवस्था होगी। इस संबंध में पांच वर्ष के पश्चात् प्रगति का पुनरावलोकन किया जाएगा।

- (3) ऊपर पैरा (2) के अंतर्गत न आने वाले प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, इस अधिसूचना के प्रकाशन की तारीख से पन्द्रह वर्ष की अवधि के भीतर, विद्युत संयंत्रों द्वारा तैयार की जाने वाली कार्य योजना के अनुसार फ्लाई एश के उपयोग को बंद कर देंगे। ऐसी कार्य योजना में विद्युत संयंत्र में उत्पादित संपूर्ण फ्लाई एश का उपयोग करने में समर्थ बनाने के लिए, इस अधिसूचना के प्रकाशन की तारीख से तीन वर्ष के भीतर फ्लाई एश के बीस प्रतिशत के उपयोग के साथ आगामी बारह वर्षों के लिए उत्तरोत्तर प्रति वर्ष उपयोग में वृद्धि की व्यवस्था होगी।
- (4) इस अधिसूचना के पैरा 2 के उपपैरा (2) और (3) के अधीन कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र द्वारा तैयार की गई सभी कार्य योजनाएं, इस अधिसूचना के प्रकाशन की तारीख से छह मास की अवधि के भीतर केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संबद्ध राज्य प्रदूषण नियंत्रण बोर्ड/समिति तथा पर्यावरण और वन मंत्रालय के संबद्ध क्षेत्रीय कार्यालय को भेजी जाएंगी।
- (5) केन्द्रीय और राज्य सरकार अभिकरण, राज्य विद्युत बोर्ड, नेशनल थर्मल पावर कारपोरेशन और तापीय विद्युत संयंत्रों के प्रबंधक, उत्पादन क्रियाकलापों के प्रयोजनों के लिए भूमि, विद्युत और जल की व्यवस्था करेंगे और उस क्षेत्र के समीप जहां विद्युत संयंत्र में फ्लाई एश का उत्पादन होता है, एश आधारित उत्पादन एककों की स्थापना और संवर्धन करने के लिए एश उत्पादन क्षेत्र तक पहुंचने की व्यवस्था करेंगे।
- (6) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों द्वारा इस अधिसूचना के उपबंधों की अनुपालना के बारे में जानकारी देने वाली क्रियान्वयन रिपोर्ट केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संबद्ध राज्य प्रदूषण नियंत्रण बोर्ड/समिति तथा पर्यावरण और वन मंत्रालय के संबद्ध क्षेत्रीय कार्यालय को प्रति वर्ष 30 अप्रैल तक भेजी जाएगी।
3. एश आधारित उत्पादों के उपयोग के लिए विनिर्देश-
- (1) एश आधारित उत्पादों जैसे सीमेंट, कंक्रीट, ब्लॉक, ईंटों, पैनल या किसी अन्य सामग्री का विनिर्माण या सन्निर्माण क्रियाकलापों जैसे सड़कें बिछाना, तटबंधों में एश का उपयोग या ढलाऊँ क्षेत्रों को उपयोगी बनाने के लिए भूमिभरण के रूप में उपयोग जिसके अंतर्गत खाली पड़ी खानों या गड्ढों की पृष्ठभूमि भरना भी है या कोई अन्य उपयोग भारतीय मानक ब्यूरो, भारतीय खान ब्यूरो, भारतीय सड़क कांग्रेस, केन्द्रीय भवन अनुसंधान संस्थान, लुइकी, केन्द्रीय सड़क अनुसंधान संस्थान, नई दिल्ली, भवन सामग्री और प्रौद्योगिकी संवर्धन परिषद्, नई दिल्ली, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभाग और अन्य केन्द्रीय तथा राज्य अभिकरणों द्वारा अधिकथित विनिर्देशों और मार्गदर्शक सिद्धांतों के अनुसार किया जाएगा।
- (2) केन्द्रीय लोक निर्माण विभाग, राज्य/संघ राज्यक्षेत्रों की सरकारों के लोक निर्माण विभाग, विकास प्राधिकरण, आवासन बोर्ड, भारतीय राजमार्ग प्राधिकरण और अन्य सन्निर्माण अभिकरण, जिसके अंतर्गत वे भी हैं जो प्राइवेट सेक्टर में हैं, इस अधिसूचना के प्रकाशन की तारीख से चार मास की अवधि के भीतर अपने-अपने विनिर्देशों और सन्निर्माण उपयोजनाओं की अनुसूचियों में, जिसके अंतर्गत समुचित मानक और आचार संहिता है, एश और एश आधारित उत्पादों का उपयोग विहित करेंगे।
- (3) सभी स्थानीय प्राधिकरण, इस अधिसूचना के प्रकाशन की तारीख से चार मास की अवधि के भीतर, अपनी-अपनी भवन उपविधियों और विनियमों में, भवन सामग्री, सड़कों, तटबंधों में या किसी अन्य उपयोग के लिए एश और एश आधारित उत्पादों का उपयोग और सन्निर्माण तकनीकें विहित करेंगे।

[फा०सं० 16-2/95-एच एस एम डी]

बी. राजगोपालन, संयुक्त सचिव

THE GAZETTE OF INDIA

EXTRAORDINARY

PART II -- Section 3 -- Sub-section (ii)

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 14th September, 1999

S.O.763(E).- Whereas a draft notification containing certain directions was published, as required by subrule (3) of rule 5 of the Environment (Protection) Rules, 1986 under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 453(E) dated 22nd May, 1998 inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which the copies of the Gazette of India containing the said notification are made available to the public;

And, whereas, copies of the said Gazette were made available to the public on the same date;

And, whereas, the objections and suggestions received from the public in respect of the said draft notification have been duly considered by the Central Government;

Where as it is necessary to protect the environment, conserve top soil and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And, whereas, there is a need for restricting 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 within a specified radius of fifty kilometers from coal or lignite based thermal power plants;

And, Whereas, the Hon'ble High Court of Judicature, Delhi vide its order dated 25th August, 1999 in CWP No. 2145/99 Centre for Public Interest Litigation, Delhi v/s Union of India directed that the Central Government to publish the final notification in respect of fly ash on or before 26th October, 1999;

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 pursuance of the orders of the Hon'ble High Court, Delhi stated above, the Central Government hereby issues the following directions which shall come into force on the date of the publication of this notification, namely:-

1. Use of fly ash, bottom ash or pond ash in the manufacture of bricks and other construction activities.-

(1) No person shall within a radius of fifty kilometers from coal or lignite based thermal power plants, manufacture clay bricks or tiles or blocks for use in construction activities without mixing at least 25 per cent of ash (fly ash, bottom ash or pond ash) with soil on weight to weight basis. '

(2) The authority for ensuring the use of specified quantity of ash as per para (1) above shall be the concerned Regional Officer of the State Pollution Control Board or the Pollution Control Committee as the case may be. In case of non-compliance, the said authority, in addition to cancellation of consent order issued to establish the brick kiln, shall move the district administration for cancellation of mining lease. The cancellation of mining lease shall be decided after due hearing. To enable the said 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) In case of non-availability of ash from thermal power plant in sufficient quantities as certified by the said power plant, the stipulation under para (1) shall be suitably modified (waived/ relaxed) by the concerned State/Union Territory Government.

(4) Each coal or lignite based thermal power plant shall constitute a dispute settlement committee which shall include the General Manager of the thermal power plant and a representative of All India Brick and Tile Manufacture's Federation (AIBTMF). Such a committee shall ensure unhindered loading and transport of ash without any undue loss of time. Any unresolved dispute shall be dealt with by a State/Union Territory level committee to be set up by State/Union Territory Government comprising Member Secretary of the State Pollution Control Board/Pollution Control Committee, representatives of Ministry of Power in the State/Union Territory Government and a representative of AIBTMF.

2. Utilisation of ash by Thermal Power Plants.

All coal or lignite based thermal power plants shall utilise the ash generated in the power plants as follows: -

(1) Every coal or lignite based thermal power plant shall make available ash, for at least ten years from the date of publication of this notification, without any payment or any other consideration, for the purpose of manufacturing ash-based products such as cement, concrete blocks, bricks, panels or any other material or for construction of roads, embankments, dams, dykes or for any other construction activity.

(2) Every coal or lignite based thermal power plant commissioned subject to environmental clearance conditions stipulating the submission of an action plan for full utilisation of fly ash shall, within a period of nine years from the publication of this notification, phase out the dumping and disposal of fly ash on land in accordance with the plan. Such an action plan shall provide for thirty per cent of the fly ash utilisation, within three years from the publication of this notification with further increase in utilisation by at least ten per cent points every year progressively for the next six years to enable utilisation of the entire fly ash generated in the power plant at least by the end of ninth year. Progress in this regard shall be reviewed after five years.

(3) Every coal or lignite based thermal power plant not covered by para (2) above shall, within a period of fifteen years from the date of publication of this notification, phase out the utilisation of fly ash in accordance with an action plan to be drawn up by the power plants. Such action plan shall provide for twenty per cent of fly ash utilisation within three years from the date of publication of this notification, with further increase in utilisation every year progressively for the next twelve years to enable utilisation of the entire fly ash generated in the power plant.

(4) All action plans prepared by coal or lignite based thermal power plants in accordance with sub-para (2) and (3) of para 2 of this notification, shall be submitted to the Central Pollution Control Board/Committee and concerned, State Pollution Control Board/Committee and concerned regional office of the Ministry of Environment and Forests within a period of six months from the date of publication of this notification.

(5) The Central and State Government Agencies, the State Electricity Boards, the National Thermal Power Corporation and the management of the thermal power plants shall facilitate in making available land, electricity and water for manufacturing activities and provide access to the ash lifting area for promoting and setting up of ash-based production units in the proximity of the area where ash is generated by the power plant.

(6) Annual implementation report providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April every year to the Central Pollution Control Board, concerned State Pollution Control Board/Committee and the concerned Regional Office of the Ministry of Environment and Forests by the coal or lignite based thermal power plants.

3. Specifications for use of ash-based products.-

(1) Manufacture of ash-based products such as cement, concrete blocks, bricks, panels or any other material or the use of ash in construction activity such as in road laying, embankments or use as

landfill to reclaim low lying areas including back filling in abandoned mines or pitheads or for any other use 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.

(2) The Central Public Works Department, Public Works Departments in the State/Union Territory Governments, Development Authorities, Housing Boards, National Highway Authority of India and other construction agencies including those in the private sector shall also prescribe the use of ash and ash-based products in their respective schedules of specifications and construction applications, including appropriate standards and codes of practice, within a period of four months from the publication of this notification.

(3) All local authorities shall specify in their respective building bye-laws and regulations the use of ash and ash-based products and construction techniques in building materials, roads, embankments or for any other use within a period of four months from the date of publication of this notification.

[F. No. 16-2/95-HSMD]

V RAJAGOPALAN, Jt.. Secy.

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भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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पर्यावरण और वन मंत्रालय

अधिसूचना

नई दिल्ली, 27 अगस्त, 2003

क्र.आ. 979(अ).— भारत सरकार के पर्यावरण और वन मंत्रालय की अधिसूचना सं० 763(अ) तारीख 14 सितम्बर, 1999 (जिसे इसमें इसके पश्चात् उक्त अधिसूचना कहा गया है) में कतिपय संशोधनों का प्रारूप जिसे केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) के अधीन बनाने का प्रस्ताव करती है, का०आ० सं० 1164(अ) 5 नवम्बर, 2002 द्वारा भारत के राजपत्र असाधारण भाग 2, खंड 3, उपखंड (ii) तारीख 6 नवम्बर, 2002 में प्रकाशित किया गया था, जिसमें उन सभी व्यक्तियों से, जिनके उससे प्रभावित होने की संभावना थी, उस तारीख से, जिसको उक्त प्रारूप संशोधनों से युक्त राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिन की सामप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे;

और उक्त राजपत्र की प्रतियां जनता को 27 नवंबर, 2002 को उपलब्ध करा दी गई थी;

और उक्त प्रारूप अधिसूचना की बाबत ऐसे सभी व्यक्तियों से, जिनके उससे प्रभावित होने की संभावना थी, प्राप्त आक्षेपों और सुझावों पर केन्द्रीय सरकार द्वारा सम्यक् रूप से विचार कर लिया गया है;

अतः, अब केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए उक्त अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात्:-

संशोधन

1. उक्त अधिसूचना की उद्देशिका में “पचास किलोमीटर” शब्दों के स्थान पर “एक सौ किलोमीटर” शब्द रखे जाएंगे।

2. उक्त अधिसूचना के पैरा 1 में,-

(क) उपपैरा (1) में “पचास किलोमीटर” शब्दों के स्थान पर “एक सौ किलोमीटर” शब्द रखे जाएंगे;

(ख) उप पैरा (1) के पश्चात् निम्नलिखित उप पैरा अंतःस्थापित किया जाएगा, अर्थात् :-

“(1क) ऐसा प्रत्येक संनिर्माण अभिकरण जो कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र से पचास से एक सौ किलोमीटर तक के अर्द्ध व्यास के भीतर भवनों के संनिर्माण में लगा हुआ है, प्रत्येक संनिर्माण परियोजना में उपयोग की गई, यथास्थिति, समग्र ईंटों, ब्लाकों और टाइलों के निम्नलिखित न्यूनतम प्रतिशत (परिमाण के अनुसार) के अनुसार, ऐसे संनिर्माण में फ्लाई ऐश ईंटों या ब्लाकों या टाइलों या मृदा फ्लाई ऐश ईंटों या सीमेन्ट फ्लाई ऐश ईंटों या ब्लाकों या वैसे ही उत्पादों या उनके किसी पुंज या समग्र का उपयोग करेगा, अर्थात्:-

(i) 25 प्रतिशत, 31 अगस्त, 2004 तक;

(ii) 50 प्रतिशत, 31 अगस्त, 2005 तक;

(iii) 75 प्रतिशत, 31 अगस्त, 2006 तक;

(iv) 100 प्रतिशत, 31 अगस्त, 2007 तक।

कोयला या लिग्नाइट तापीय विद्युत संयंत्र से 50 किलोमीटर के अर्ध व्यास के भीतर भवनों के संनिर्माण की बाबत, ईंटों, ब्लाकों और टाइलों के उपयोग की निम्नलिखित न्यूनतम प्रतिशतता (परिमाण के आधार पर) निम्नलिखित को लागू होगी:-

(i) 50 प्रतिशत 31, अगस्त, 2004 तक;

(ii) 100 प्रतिशत 31, अगस्त, 2005 तक ।

(1ख) उप पैरा (1क) के उपबंध सभी संनिर्माण अभिकरणों जैसे आवास बोर्ड और प्राइवेट सेक्टर के उन अभिकरणों को अपार्टमेंटों, होटलों जो आश्रय स्थलों तथा कुटीरों, इत्यादि के में निर्माणकर्ता हैं, लागू होंगे । संनिर्माण करने वाले या डिजाइन अनुमोदित करने वाले या दोनों अभिकरणों का यह उत्तरादायित्व होगा कि वे पैरा (1क) के उपबंधों का अनुपालन सुनिश्चित करें और ऐसी विवरणियां जो मांगी जाएं और अनुपालन रिपोर्ट, राज्य सरकार या संघ राज्य क्षेत्र प्रशासन को प्रस्तुत करें”

(ग) उप पैरा (2) के स्थान पर निम्नलिखित उप पैरा रखे जाएंगे, अर्थात् :-

“(2) उप पैरा (1) के अनुसार ऐश की विनिर्दिष्ट मात्रा का उपयोग सुनिश्चित करने के लिए, प्राधिकारी, यथास्थिति, राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति का सम्बद्ध क्षेत्रीय अधिकारी होगा ।

(2क) सम्बद्ध राज्य सरकार, उप पैरा (1क) के उपबंधों का अनुपालन सुनिश्चित करने के लिए प्रवर्तनकारी और मानिट्रिंग प्राधिकारी होगी ।”;

(घ) उप पैरा (3) में “पैरा (1) के अधीन” शब्दों, कोष्ठकों और अंक के स्थान पर “उप पैरा (1) के अधीन” शब्द, कोष्ठक और अंक रखे जाएंगे;

(ङ) उप पैरा (3) के पश्चात् निम्नलिखित उप पैरा अंतःस्थापित किए जाएंगे, अर्थात् :-

“(3क) फ्लाई ऐश ईंटों, ब्लाकों और टाइलों और वैसे ही अन्य फ्लाई ऐश आधारित उत्पादों के विनिर्माण के लिए आवेदन पर कोई विनिश्चय सक्षम प्राधिकारी द्वारा आवेदन की प्राप्ति की तारीख से तीस दिन के भीतर किया जाएगा । ईंट भट्टा स्थापित करने के लिए सम्मति पर

विनिश्चय, यथास्थिति, प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा, उसके द्वारा आवेदन की प्राप्ति की तारीख से तीस दिन की अवधि के भीतर किया जाएगा।

(3ख) पैरा 1 के उप पैरा (1) के उपबंधों के अनुपालन की दशा में सक्षम प्राधिकारी, ईंट भट्टा स्थापित करने के लिए जारी सम्मति आदेश को रद्द करने के अतिरिक्त खनन पट्टे के रद्दकरण के लिए जिला प्रशासन को लिखेगा।

(3ग) किसी भूमि, मुदा या, मिट्टी खनन पट्टे को मंजूर या इन्हें नवीकृत करने वाले सभी प्राधिकारी उन दशाओं में कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र के एक सौ किलोमीटर के अर्ध व्यास के भीतर मिट्टी की ईट, ब्लाक या टाइल का विनिर्माण करने वाली यूनिट को ऐसे पट्टे या पट्टे का विस्तार या नवीकरण अनुवृत्त नहीं करेंगे जहाँ विनिर्माता ईटो या ब्लाको या टाइलों के विनिर्माण में फ्लाइ एश या मान्ड एश के भार के आधार पर न्यूनतम 25 प्रतिशत का मिश्रण नहीं करता है। खनन पट्टे का रद्दकरण ऐसे पट्टे के धारक को सुने जाने का अवसर दिए जाने के पश्चात् ही जिला प्रशासन द्वारा विनिश्चित किया जाएगा। एश के वास्तविक उपयोग का सत्यापन करने के लिए सक्षम प्राधिकारी को समर्थ बनाने के लिए तापीय विद्युत संयंत्र प्रत्येक ईंट भट्टा को उपलब्ध कर्षार्थ गई एश का मासवार अभिलेख रखेगा।

(3घ) इस अधिसूचना का पर्याप्त अनुपालन तब होगा जब कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र के 50 से 100 कि०मी० के अर्ध व्यास के भीतर अवस्थित मिट्टी ईंटों, ब्लाकों और टाइलों के विनिर्माता इस अधिसूचना के जारी होने की तारीख से 12 मास के भीतर उप पैरा (1) और उप पैरा (2) के उपबंधों का अनुपालन करते हैं।

(3ङ) उप पैरा (4) में "(अखिल भारतीय ईट और टाइल विनिर्माण संघ)" कोष्ठकों और शब्दों के पश्चात् "या स्थानीय ईट भट्टा स्वामियों का संघ, संघ, समूह का कोई प्रतिनिधि" शब्द अंतःस्थापित किए जाएंगे।

(3च) उप पैरा (4) के पश्चात् निम्नालिखित पैरा अंतःस्थापित किए जाएंगे, अर्थात्—

"(5) कोई अधिकरण व्यक्ति या संघटन अर्थात् उपरोक्त विनिर्देश संख्या एन सी- 2901 का 58 में यथा अन्तर्दिष्ट भारतीय टाइल कर्षा (आर्जेंट एक्ट 1957) द्वारा जारी किए गए मार्गदर्शी शिद्धान्तों/

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विनिर्देशों के उल्लंघन में सड़कों या फ्लाई ओवर के तटबंधों के संनिर्माण के लिए तापीय विद्युत संयंत्र के 100 कि०मी० के अर्द्ध व्यास के भीतर संनिर्माण या उसके लिए डिजाइन अनुमोदित नहीं करेगा। इस निदेश से किसी विचलन पर तकनीकी कारणों के संबंध में तभी सहमति हो सकती है जब इसे मुख्य इंजीनियर (डिजाइन) या सम्बद्ध अभिकरण या संगठन के मुख्य इंजीनियर द्वारा अनुमोदित कर दिया जाता है या संनिर्माण के स्थल से 100 कि०मी० के भीतर अवस्थित कोई तापीय विद्युत संयंत्र (त्रों) से “पांड एश उपलब्ध नहीं है” का प्रमाण पत्र प्रस्तुत कर दिया जाता है। यह प्रमाण पत्र एश के लिए अनुरोध करने की तारीख से दो कार्य दिवस के भीतर तापीय विद्युत संयंत्र द्वारा प्रदान किया जाएगा।

(6) सड़कों या फ्लाई ओवरों के तटबंधों के टाप या साइड कवर्स के लिए अपेक्षित मृदा तटबंध स्थल से उल्लेखित की जाएगी और यदि ऐसा करना संभव नहीं है तो इस प्रयोजन के लिए अपेक्षित मृदा की न्यूनतम मात्रा का ही मृदा उधार क्षेत्र से उल्लेखित किया जाएगा। प्रत्येक मामले में ऊपर की मृदा (टाप स्वायत्त) को पृथक रूप से रखा या भंडारित किया जाना चाहिए। मृदा उधार क्षेत्र के कारण सृजित रिक्त स्थान उचित सुसंहति सहित एश से भरा जाएगा और यथाउपरोक्त पृथक रूप से रखी गई ऊपरी मृदा से ढक दिया जाएगा। इसे परियोजना की समय - सूची के भीतर तक बन्द परियोजना के अभिन्न अंग के रूप में किया जाएगा।

(7) कोई अभिकरण, व्यक्ति या संगठन कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र के 100 कि०मी० के अर्द्ध व्यास के भीतर नृदा वाले निचले क्षेत्रों का भूमि उद्धार और सुसंहति अनुज्ञात करेगा। वे यह भी सुनिश्चित करेंगे कि ऐसा भूमि उद्धार और सुसंहति पैरा 3 के उप पैरा (3) में उल्लिखित प्राधिकारियों द्वारा अधिकारित उपविधियों, विनियमों और विनिर्देशों के अनुसार किया जाएगा।”।

3. उक्त अधिसूचना के पैरा 2 में,-

- (क) “तापीय विद्युत संयंत्र द्वारा एश का उपयोग” पार्श्व शीर्षक के स्थान पर “तापीय विद्युत संयंत्रों के उत्तरदायित्व” पार्श्व शीर्षक रखा जाएगा।
- (ख) “सभी कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र नीचे दिए गए विद्युत संयंत्रों में उत्पादित एश का उपयोग करेंगे:-”, आरंभिक शब्दों के स्थान पर “प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र इसके द्वारा उत्पादित एश का उपयोग सुनिश्चित करने के लिए

निम्नलिखित उपाय करेगा, अर्थात् :-”;

(ग) उप पैरा (1) में,-

(i) “भवन सामग्री जैसे सीमेंट, कंक्रीट, ब्लाक ईटें, पैनल ” शब्दों के पश्चात् “ या उनको कोई संयोजन” शब्द अंतःस्थापित किए जाएंगे ;

(ii) अंत में निम्नलिखित जोड़ा जाएगा, अर्थात् :-

“ तापीय विद्युत संयंत्रों को प्रत्येक उपयोक्ता जिसके अन्तर्गत ईट भट्टा भी है उपयोग के लिए एश की उचित मात्रा की उपलब्धता भी सुनिश्चित करनी है ।”;

4. उक्त अधिसूचना में, पैरा 2 के पश्चात् निम्नलिखित पैरा अंतःस्थापित किया जाएगा, अर्थात् :-

“ 2क. समुद्र के भूमि उद्धार के लिए फ्लाई ऐश का उपयोग

“पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) के अधीन बनाए गए नियमों के अधीन रहते हुए समुद्र का भूमि उद्धार फ्लाई ऐश के उपयोग की अनुज्ञेय पद्धति होगी ।” ।

5. उक्त अधिसूचना के पैरा 3 में, निम्नलिखित उप पैरा अंतःस्थापित किए जाएंगे, अर्थात् :-

“2क. सभी अभिकरण जिसके अन्तर्गत संनिर्माण प्रयोजनों के लिए फ्लाई ऐश के उपयोग से सम्बद्ध केन्द्रीय लोक निर्माण विभाग और राज्य सरकार अभिकरण भी हैं, 1 सितंबर, 2003 से तीन मास के भीतर फ्लाई ऐश और फ्लाई ऐश आधारित ईट, ब्लाक या टाइलों या अनुमोदित सामग्रियों और दरों की अनुसूची में उनके समग्र उपयोग के लिए उपबन्ध करेंगे;

(2ख) सड़कों या फ्लाई ओवर पुलों का संनिर्माण करने वाले सभी अभिकरण जिनके अन्तर्गत सड़क परिवहन और राजमार्ग मंत्रालय (एम ओ आर टी एच), भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (एन एच ए आई), केन्द्रीय लोक निर्माण विभाग (सी पी डब्ल्यू डी), राज्य लोक निर्माण विभाग और अन्य राज्य सरकार के अभिकरण 1 सितंबर, 2003 से तीन मास के भीतर -

क. अपने निविदा दस्तावेजों अनुमोदित सामग्री और दरों साथ ही तकनीकी दस्तावेजों जिनके अन्तर्गत वे दस्तावेज भी हैं जो पैरा 1 के उप पैरा (7) के अनुसार मृदा की अनुसूचियों में उधार क्षेत्र या गर्त से सम्बन्धित हैं, उपबन्ध करेंगे ; और

ख. सड़क या फ्लाई ओवर तटबन्धों, जो भारतीय सड़क कांग्रेस (आई आर सी) द्वारा अधिकथित विनिर्देशों के अन्तर्गत नहीं आते हैं, के लिए आवश्यक विनिर्देश/मार्गदर्शी सिद्धांत बनाएंगे ।” ।

[फा. सं.16-2/95-एच एस एम डी]

डॉ. वी. राजगोपालन, संयुक्त सचिव

टिप्पणी : मूल अधिसूचना, भारत का राजपत्र, असाधारण, भाग II, खण्ड 3, उपखण्ड (ii) में का.आ. 763(अ) दिनांक 14-9-1999 द्वारा प्रकाशित की गई है ।

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:
- 1 "(1A) Every construction agency engaged in the construction of building 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 project, 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 per centage (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 construction 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: -

“(3A) 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.

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- (3B) 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.
- (3C) All authorities sanctioning or renewing any land, soil or clay mining lease shall not grant such lease or extension of lease or renewal to clay brick, block or 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 manufacture 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)."
- (f) in sub-paragraph (4), after brackets and letters "(AIBTMF)", the words "or a representative of local brick-kiln owners association, federation, group." shall be inserted;
- (g) 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 plant undertake construction or approve design for construction of roads or flyover embankments in contravention of the guidelines/specifications issued by the Indian Road 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.

(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."

3. In the said notification, in paragraph 2,

- (a) 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 shall 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 fly ash.";

5. 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 or 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 or fly over embankments that are not covered by the specifications laid down by the Indian Road Congress (IRC)."

[F.No. 16-2/95-HSMD]

Dr. V. RAJAGOPALAN, Jt. Secy.

Footnote:— The principal notification was published in the Gazette of India, Part II, Section 3, sub-section (ii) *vide* S.O.763 (E) dated 14.9.1999.



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असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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अधिसूचना

नई दिल्ली, 3 नवम्बर, 2009

का.आ. 2804(अ).—केन्द्रीय सरकार ने, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) उपधारा (2) के खंड (v) तथा धारा 5 के अधीन जारी की गई भारत सरकार के पर्यावरण और वन मंत्रालय की अधिसूचना सं. का. आ. 763 (अ) तारीख 14 सितंबर, 1999 द्वारा (जिसे इसमें इसके पश्चात् उक्त अधिसूचना कहा गया है) ईंटों के विनिर्माण के लिए ऊपरी मृदा के उत्खनन तथा निर्माण सामग्री के विनिर्माण में फ्लाई ऐश के उपयोग का संवर्धन करने तथा कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों से एक सौ किलोमीटर के विनिर्दिष्ट अर्धव्यास के भीतर संनिर्माण क्रियाकलाप को निर्बंधित करने के लिए निदेश जारी किए हैं;

और "फ्लाई ऐश" पद से तापीय विद्युत संयंत्र में जनित कोयला या लिग्नाइट ऐश के सभी प्रवर्ग या समूह इलेक्ट्रोस्टेटिक प्रेसिपिटेटर (ई एस पी) बैग फिल्टर या उसी तरह के अन्य उपयुक्त उपस्कर ऐश अभिप्रेत और सम्मिलित हैं; या बैग निचली ऐश बायलर की पैंटी में पृथक रूप से संग्रहीत ऐश है; पोन्ड ऐश और माउंड ऐश ई एस पी ऐश या शुष्क फ्लाई ऐश तथा निचली ऐश का सम्मिश्रण है किन्तु, इस अधिसूचना के प्रयोजन के लिए "फ्लाई ऐश" पद इलेक्ट्रोस्टेटिक प्रेसिपिटेटर (ई एस पी), बैग फिल्टर या उसी तरह के अन्य उपयुक्त उपस्कर ऐश, शुष्क, फ्लाई ऐश, निचली ऐश और माइंड ऐश के रूप में सभी ऐश अभिप्रेत और सम्मिलित है क्योंकि सभी ऐशों का उपयोग करना उद्देश्य है।

और ईंटों के विनिर्माण के लिए तथा अन्य संकर्म के लिए जिसमें ऊपरी मृदा का उपयोग तथा कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों द्वारा उत्पादित फ्लाई ऐश के उपयोग का संवर्धन

अधिनियम, 1986 (1986 का 21) की धारा 3 की उपधारा (1) उपधारा (2) के खंड (V) अधीन बनाने का प्रस्ताव करती है जिसे भारत के राजपत्र, असाधारण, भाग 2, खंड 3, उपखंड (ii) तारीख 6 नवंबर, 2008 में का.आ. 2633 (अ) द्वारा प्रकाशित किया गया था जिसमें ऐसे सभी व्यक्तियों से जिनकी उससे प्रभावित होने की संभावना है, उस तारीख से जिससे जनता की उक्त प्रारूप संशोधनों से अंतर्विष्ट राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिन के अवसान के पूर्व आक्षेप और सुझाव मांगे गए थे,

और उक्त राजपत्र की प्रतियां जनता को 6 नवंबर के दिन, 2008 को उपलब्ध करा दी गई थी;

और उक्त प्रारूप अधिसूचना की बाबत उनसे संभावित प्रभावित विभिन्न व्यक्तिया अथवा अभिकारकों से प्राप्त आक्षेप और सुझावों पर केन्द्रीय सरकार के पर्यावरण और वन मंत्रालय द्वारा सम्यक रूप से विचार कर लिया गया है;

अतः अब केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (V) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए उक्त अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात्

संशोधन

1. उक्त अधिसूचना में सर्वत्र, उसके सिवाय जो अन्यथा स्पष्ट रूप से उपबंधित है और उसके सिवाय जो संदर्भ में अन्यथा अपेक्षित है, "ऐश" शब्द के स्थान पर जहां-जहां वह आता है, "फ्लाइ ऐश" शब्द रखे जाएंगे;
2. उक्त अधिसूचना के पैरा 1 में, -
 - (क) उप पैरा (1) के स्थान पर निम्नलिखित पैरा रखा जाएगा, अर्थात् :-
 - (i) संनिर्माण क्रियाकलापों में फ्लाइऐश आधारित उत्पादों का उपयोग ;
 - (ii) उप पैरा (1क) और (1ख) के स्थान पर क्रमशः निम्नलिखित उप पैरा रखे जाएंगे अर्थात्:-

"(1 क) कोयला या लिग्नाइट आधारित तापीय संयंत्र से 100 किलोमीटर के व्यास के भीतर (सड़क मार्ग द्वारा) भवनों के निर्माण में लगा प्रत्येक संनिर्माण अभिकरण, संनिर्माण के लिए केवल फ्लाइ ऐश आधारित उत्पादों का, जैसे प्रत्येक संनिर्माण परियोजना में सीमेंट अथवा कंक्रीट, फ्लाइ ऐश ईटें या ब्लाक या टाइलें या प्ले फ्लाइ ऐश ईटें, ब्लाक या टाइलें या सीमेंट फ्लाइ ऐश ईटें या ईटें या ब्लाक या समरूप उत्पाद या उनके किसी संयोजन या औसत उपयोग करेगा ।"

(1ख) उप-पैरा (1ख) के उपबंध, केन्द्रीय सरकार या राज्य सरकार या स्थानीय सरकार और निजी या लोक क्षेत्र के सभी संनिर्माण अभिकरणों को लागू होंगे और यह अभिकरणों का दायित्व होगा कि वे या तो उप-पैरा (1 क) के उपबंधों के अनुसरण को सुनिश्चित करने के लिए संनिर्माण का वचन दें या डिजाइन या दोनों का अनुमोदन करें और वार्षिक विवरणियों को संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति को प्रस्तुत करें।"

(ग) उप-पैरा (1ख) के पश्चात् निम्नलिखित उप-पैरा अंतःस्थापित किया जाएगा :-

"(1ग) "फ्लाई ऐश आधारित उत्पाद" प्रवर्ग के रूप में अर्हता प्राप्त करने के लिए तथा निर्माण सामग्रियों या उत्पादों के लिए न्यूनतम फ्लाई ऐश अंतर्वस्तु वह होगी, तो नीचे सारणी- 1 में दी गई है :-

सारणी

क्रम संख्या	निर्माण सामग्री या उत्पाद	भार के आधार पर फ्लाई ऐश का न्यूनतम प्रतिशत
(1)	(2)	(3)
1.	फ्लाई ऐश, चूने, जिप्सम, बालू, पत्थरों की धूल, सीमेंट, आदि(क्ले के बिना) से बनी हुई फ्लाई ऐश ईटें, ब्लाक, टाइलें आदि।	कुल कच्ची सामग्री का 50 प्रतिशत
2.	पैविंग ब्लाक, पैविंग टाइलें, चैकर टाइलें, मोजाइक टाइलें, रुफिंग शीटें, प्रीकास्ट एलीमेंट आदि जिनमें सीमेंट का बाइंडर के रूप में उपयोग किया जाता है।	पी पी सी (आई एस - 1489 : भाग 1) या पी एस सी (आई एस - 455) या ओ पी सी (आई एस 269/8112/12269) अंतर्वस्तु का उपयोग
3.	सीमेंट	कुल कच्ची सामग्री का 15 प्रतिशत
4.	क्ले आधारित भवन सामग्री जैसे ईटें, ब्लाक, टाइलें आदि	कुल कच्ची सामग्री का 25 प्रतिशत
5.	कंक्रीट, मोर्टर और प्लास्टर	पी पी सी (आई एस - 1489 : भाग 1) या पी एस सी (आई एस - 45) या ओ पी सी (आई एस 269/8112/12269) अंतर्वस्तु का उपयोग

(घ) उप-पैरा (2) "(1)" कोष्ठकों और अंक के स्थान पर "(1ग)" कोष्ठक, संख्या और अक्षर रखे जाएंगे और उप पैरा (2) की संख्या को 1 (घ) द्वारा रखा जाएगा ;

(ड.) पैरा (2क) में, पैरा 1(क) को 1 (क) और 1 (ख) द्वारा प्रतिस्थापित किया जाएगा और संशोधित पैरा 2 (क) को 1(ड.) के रूप में संख्याकित किया जाएगा ;

(च) उप-पैरा (3) और (3क) के स्थान पर क्रमशः निम्नलिखित उप-पैरा रखे जाएंगे:-

"(3) स्थल के सौ किलोमीटर के भीतर उक्त विद्युत संयंत्रों द्वारा यथाप्रमाणित तापीय विद्युत संयंत्रों से पर्याप्त मात्रा में फ्लाई ऐश के उपलब्ध न होने की दशा में, उप-पैरा (1क) के अधीन नियत मात्रा को, इस अधिसूचना में अन्यत्र उल्लिखित संबंधित राज्य सरकार या संघ राज्य क्षेत्र सरकार स्तर की मानीटरी समिति द्वारा समुचित रूप से उपांतरित (अधित्यक्त या शिथिल) किया जाएगा ।

(3क) फ्लाई ऐश ईटों, ब्लाक और टाइलों तथा उसी प्रकार के अन्य फ्लाई ऐश आधारित उत्पादों के विनिर्माण के लिए आवेदन पर आवेदन की प्राप्ति की तारीख से तीस दिन के भीतर संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा विनिश्चय किया जाएगा ।" ;

(छ) उप- पैरा (3ख) (3ग) और (3 घ) का लोप किया जाएगा ;

(ज) उप- पैरा (4) और (5) के स्थान पर निम्नलिखित उप-पैरा रखे जाएंगे, अर्थात:-

"(4) प्रत्येक कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र एक विवाद निपटारा समिति का गठन करेगा जिसमें तापीय विद्युत संयंत्र का महाप्रबंधक और यथास्थिति, सुसंगत संनिर्माण और फ्लाई ऐश ईट विनिर्माण उद्योग संगम/निकाय का एक प्रतिनिधि सम्मिलित होगा और ऐसी समिति, कोई असम्यक समय नष्ट किए बिना, फ्लाई ऐश की निर्बाध लदाई और परिवहन को सुनिश्चित करेगी । हल न किए गए किसी विवाद का इस अधिसूचना में अन्यत्र उल्लिखित सुसंगत राज्य या संघ राज्य क्षेत्र सरकार के स्तर की मानीटरी समिति द्वारा निपटारा किया जाएगा ।

(5) कोई अभिकरण, व्यक्ति या संगठन, किसी तापीय विद्युत संयंत्र के सौ किलोमीटर की दूरी के भीतर (सड़क मार्ग द्वारा) ऊपरी मृदा के साथ सड़क या फ्लाईओवर के ऊपरी संनिर्माण के लिए संनिर्माण करेगा या संनिर्माण के लिए डिजाइन का अनुमोदन करेगा ; फ्लाई ऐश के उपयोग की बाबत समय-समय पर यथा संशोधित आई आर सी विनिर्देश संख्या एसपी : 2001 का 5 में यथा अंतर्विष्ट भारतीय रोड कांग्रेस द्वारा जारी किए गए मार्गदर्शक सिद्धांतों या विनिर्देशों का अनुपालन किया जाएगा और इस निदेश के किसी विचलन पर तकनीकी कारणों के आधार पर सहमत हो सकती है यदि उसका संनिर्माण के स्थल के सौ किलोमीटर के भीतर अवस्थित तापीय विद्युत संयंत्रों (टीपीपी) से "फ्लाई ऐश उपलब्ध नहीं है" के संबंधित अभिकरण या संगठन के मुख्य इंजीनियर (डिजाइन) या प्रमुख इंजीनियर द्वारा अनुमोदन किया जाता है या कोई प्रमाणपत्र प्रस्तुत किया जाता है और यदि फ्लाई ऐश उपलब्ध नहीं है तो किसी अनुरोध की प्राप्ति की तारीख से दो कार्य दिवस के भीतर टीपीपी द्वारा यह प्रमाणपत्र उपलब्ध कराया जाएगा।";

(अ) उप-पैरा (6) में "मृदा उधार क्षेत्र के कारण सृजित रिक्त स्थान उचित सुसंहति सहित ऐश से भरा जाएगा और यथाउपरोक्त पृथक रूप में रखी गई ऊपरी मृदा से ढक दिया जाएगा और इसे परियोजना की समय सूची के भीतर तक बंद परियोजना के अभिन्न अंग के रूप में किया जाएगा।" शब्दों के स्थान पर "मृदा उधार क्षेत्र में सृजित रिक्त स्थान उचित सुसंहति सहित फ्लाई ऐश से भरा जाएगा और यथाउपरोक्त रूप से रखी गई ऊपरी मृदा से ढक दिया जाएगा और इसे बंद परियोजना के अभिन्न अंग के रूप में किया जाएगा।" शब्द रखे जाएंगे।

(ज) उप-पैरा (7) के स्थान पर निम्नलिखित उप- पैरा रखे जाएंगे, अर्थात् :-

"(7) कोई अभिकरण, व्यक्ति या संगठन कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र के सौ किलोमीटर के अर्धव्यास के भीतर (सड़क मार्ग द्वारा) मृदा से निचले क्षेत्रों का पुनः उद्धार करने और सुसंहति सहित करने का वचन देगा या उसका अनुमोदन अथवा अनुज्ञात करेगा ; सुसंहति और पुनः उद्धार करने के लिए केवल फ्लाई ऐश का उपयोग किया जायेगा और वे यह भी सुनिश्चित करेगी कि ऐसा पुनः उद्धार और सुसंहति पैरा (3) के उप-पैरा (1) में उल्लिखित प्राधिकारियों द्वारा अधिकथित किन्हीं विनिर्देशों और मार्गदर्शक सिद्धांतों के अनुसार किया जाता है।

(8) (i) कोई व्यक्ति या अभिकरण कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र के पचास किलोमीटर के भीतर (सड़क मार्ग द्वारा) भार से भार के आधार पर उपयोग की गई कुल भार

सामग्री की फ्लाई ऐश के कम से कम पच्चीस प्रतिशत का उपयोग किए बिना खान का भरण करेगा या उसका अनुमोदन करेगा तथा यह महानिदेशक, खान सुरक्षा के मार्गदर्शन के अधीन किया जाएगा :

परंतु यह कि ऐसे तापीय विद्युत केन्द्र अपेक्षित क्वालिटी और फ्लाई ऐश की मात्रा की उपलब्धता को सुकर बनाएंगे जो इस प्रयोजन के लिए उप-पैरा(10) में निर्दिष्ट विशेषज्ञ समिति द्वारा विनिश्चित किया जाएगा ;

(ii) कोई व्यक्ति या अभिकरण, कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र के पचास किलोमीटर के भीतर (सड़क मार्ग द्वारा), बाह्य भंडार के अधिक भार हेतु उपयोग की गई कुल सामग्री के आयतन के आधार पर फ्लाई ऐश के कम से कम पच्चीस प्रतिशत उपयोग किए बिना करेगा या उसका अनुमोदन करेगा तथा खुला आवर्त खानों को पृष्ठ भरण की ऊपरी चिन्ह में वही प्रतिशतता होगी और इसे महानिदेशक, खान सुरक्षा के मार्गदर्शन के अधीन किया जाएगा ;

परंतु यह कि ऐसे तापीय विद्युत केन्द्र अपेक्षित क्वालिटी और फ्लाई ऐश की मात्रा की उपलब्धता को सुकर बनाएंगे जो इस प्रयोजन के लिए उप-पैरा (10) में निर्दिष्ट विशेषज्ञ समिति द्वारा विनिश्चित किया जाएगा ।

(9) उप-पैरा (8) के खंड (i) और (ii) में अंतर्विष्ट उपबंध सरकार के अधीन, सार्वजनिक और निजी क्षेत्र के सभी खान अभिकरणों और सभी खनिजों या धातुओं या मर्दों की खानों को लागू होंगे और उप-पैरा (8) (i) और (ii) में अंतर्विष्ट उपबंधों के अनुपालन को सुनिश्चित करने के लिए खान के पृष्ठ भरण या दोनों को करने या उनका अनुमोदन करने का और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति और भारतीय खान ब्यूरो को वार्षिक विवरणियां प्रस्तुत करने का अभिकरणों दायित्व होगा ।

(10) इस प्रयोजन के लिए कोयला मंत्रालय, फ्लाई ऐश इकाई, विज्ञान और प्रौद्योगिकी विभाग विज्ञान और प्रौद्योगिकी मंत्रालय, खान सुरक्षा महानिदेशक, केन्द्रीय खान नियोजन और डिजाइन संस्थान लिमिटेड, पर्यावरण और वन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय और केन्द्रीय खान और ईंधन अनुसंधान संस्थान, घनबाद के प्रतिनिधियों सहित एक विशेषज्ञ समिति का गठन करेगा ; समिति ऊपर उप-पैरा (8) (i) और (ii) और (9) में अंतर्विष्ट उपबंधों के अनुसार पृष्ठ भरण या भरण करने तथा पैरा (3) के उप-पैरा(1) में यथा उल्लिखित संबंधित प्राधिकारियों द्वारा अधिकथित विनिर्देशों और मार्गदर्शक सिद्धांतों के लिए मार्गदर्शन करेगी और उसकी सलाह भी देगी ।

(11) संबंधित राज्य सरकार या संघ राज्यक्षेत्र सरकार उप-पैरा (8) (i) और (8)(ii) के उपबंधों के अनुसरण को सुनिश्चित करने के लिए प्रवर्तन और मानटरी प्राधिकारी होगी । "

3. उक्त अधिसूचना के पैरा (2) में,-

(क) उप-पैरा (1)(2) और (3) के स्थान पर निम्नलिखित उप-पैरा रखे जाएंगे अर्थात् :-

"(1) सभी कोयला या लिग्नाईट आधारित तापीय विद्युत केन्द्र निम्नलिखित शर्तों के अधीन रहते हुए, उपयोक्ता अभिकरणों को फ्लाई ऐश का विक्रय करने के लिए स्वतंत्र होंगे, अर्थात् :-

(i) पॉड ऐश और माउंड ऐश ईटो, ब्लॉकों या टाइलों के विनिर्माणकर्ता को जिसके अंतर्गत क्ले फ्लाइ ऐश उत्पाद, विनिर्माणकारी इकाईयां, कृषक, केन्द्रीय और राज्य सड़क निर्माण अभिकरण, लोक निर्माण विभाग और खानों के पृष्ठ भरण में लगे हुए अभिकरण भी हैं, " जहां जैसा है " के आधार पर किसी प्रभार के बिना उपलब्ध रहनी चाहिए ।

(ii) शुष्क ईएसपी फ्लाइ ऐश कम से कम की बीस प्रतिशत, अन्य उपयोक्ताओं से अधिमानता के आधार पर फ्लाइ ऐश या क्ले फ्लाइ ऐश ईटो ब्लॉकों, और टाइलों की विनिर्माणकारी इकाईयों को प्रभार के बिना उपलब्ध कराई जाएगी और यदि ऐसे अभिकरणों की मांग, मात्रा की बीस प्रतिशत से कम हो जाती है तो शेष मात्रा का यथासंभव विद्युत केन्द्र द्वारा विक्रय या व्ययन किया जा सकता है ;

परंतु यह कि तापीय विद्युत केन्द्र से अभिप्राप्त फ्लाइ ऐश का केवल उस प्रयोजन के लिए उपयोग किया जाना चाहिए जिसके लिए इसे तापीय विद्युत केन्द्र या संयंत्र अभिप्राप्त किया गया था जिसके न हो सकने पर फ्लाइ ऐश को व्यतिक्रमी उपयोक्ता को उपलब्ध नहीं कराया जाएगा ।

(2) सभी कोयला और या लिग्नाईट आधारित तापीय विद्युत केन्द्र और, या इस अधिसूचना की तारीख से पूर्व प्रवर्तन में विस्तार इकाईयां नीचे दी गई सारणी के अनुसार फ्लाइ ऐश के उपयोग का लक्ष्य प्राप्त करेंगी :

सारणी II

क्रम संख्या	फ्लाइ ऐश के उपयोग की प्रतिशतता	लक्ष्य की तारीख
(1)	(2)	(3)
1	फ्लाइ ऐश उत्पादन का कम से कम पचास प्रतिशत	इस अधिसूचना के जारी करने की तारीख से एक वर्ष
2	फ्लाइ ऐश उत्पादन का कम से कम साठ प्रतिशत	इस अधिसूचना के जारी करने की तारीख से दो वर्ष
3	फ्लाइ ऐश उत्पादन का कम से कम पिछत्तर प्रतिशत	इस अधिसूचना के जारी करने की तारीख से तीन वर्ष
4	फ्लाइ ऐश उत्पादन का कम से कम नब्बे प्रतिशत	इस अधिसूचना के जारी करने की तारीख से चार वर्ष
5	फ्लाइ ऐश उत्पादन का कम से कम सौ प्रतिशत	इस अधिसूचना के जारी करने की तारीख से पांच वर्ष

किसी वर्ष के दौरान लक्ष्य की बाबत लक्ष्य की बाबत उपयोग न की गई फ्लाइ ऐश का, यदि कोई हो, उन वर्षों के लिए नियत लक्ष्यों के अतिरिक्त अगले दो वर्षों के भीतर उपयोग किया जाएगा । पहले पांच वर्षों के दौरान संचय की गई उपयोग न की गई फ्लाइ ऐश का बकाया का (उत्पादन और उपयोग लक्ष्य के बीच का

अंतर) फ्लाई ऐश के चालू उत्पादन के सौ प्रतिशत उपयोग के अतिरिक्त अगले पांच वर्षों में प्रगामी रूप से उपयोग किया जाएगा।

(3) नीचे दी गई सारणी III के अनुसार फ्लाई ऐश उपयोग के लक्ष्य को प्राप्त करने के लिए इस अधिसूचना के पश्चात् शुरु किए गए नए कोयला और लिग्नाईट आधारित तापीय विद्युत केन्द्र और या विस्तार इकाईयां

सारणी III

क्रम संख्या	फ्लाई ऐश के उपयोग की प्रतिशतता	लक्ष्य की तारीख
(1)	(2)	(3)
1	फ्लाई ऐश उत्पादन का कम से कम पचास प्रतिशत	शुरु करने की तारीख से एक वर्ष
2	फ्लाई ऐश उत्पादन का कम से कम सत्तर प्रतिशत	शुरु करने की तारीख से दो वर्ष
3	फ्लाई ऐश उत्पादन का कम से कम नब्बे प्रतिशत	शुरु करने की तारीख से तीन वर्ष
4	फ्लाई ऐश उत्पादन का कम से कम सौ प्रतिशत	शुरु करने की तारीख से चार वर्ष

किसी वर्ष के दौरान लक्ष्य की बाबत उपयोग न की गई फ्लाई ऐश का, यदि कोई हो, इन वर्षों के लिए नियत लक्ष्यों के अतिरिक्त अगले दो वर्षों के भीतर उपयोग किया जाएगा और पहले तीन वर्षों के दौरान संचय की गई उपयोग न की गई फ्लाई ऐश का (उत्पादन और उपयोग लक्ष्य के बीच का अंतर) फ्लाई ऐश के चालू उत्पादन के सौ प्रतिशत उपयोग के अतिरिक्त अगले पांच वर्षों में प्रगामी रूप से उपयोग किया जाएगा।

(ख) उप-पैरा(4) में "छः मास" शब्दों के स्थान पर "चार मास" शब्द रखे जाएंगे ;

(ग) उप-पैरा (6) के स्थान पर निम्नलिखित उप-पैरा रखे जाएंगे, अर्थात् :-

"(6) कोयला और/या लिग्नाईट आधारित तापीय विद्युत केन्द्रों या उनकी सहायक या साथी समुत्थान इकाई द्वारा, जहां लागू हों, फ्लाई ऐश और फ्लाई ऐश आधारित उत्पादों के विक्रय से संग्रहीत रकम को एक पृथक खाते के शीर्ष में रखा जाएगा और उसका केवल अवसंरचना और सुविधाओं के विकास के लिए तथा सौ प्रतिशत फ्लाई ऐश उपयोग स्तर के प्राप्त होने तक फ्लाई ऐश के उपयोग के लिए संवर्धन और सुविधा क्रियाकलापों के लिए उपयोग किया जाएगा ; उसके पश्चात् जहां तक सौ प्रतिशत फ्लाई ऐश का उपयोग स्तर को बनाए रखा जाता है, तापीय विद्युत केन्द्र अन्य विकास कार्यक्रमों के लिए भी संग्रहीत रकम का उपयोग करने के लिए स्वतंत्र होगा और यदि पश्चात्पूर्वी वर्षों में फ्लाई ऐश उपयोग के स्तर में कमी आती है तो फ्लाई ऐश से वित्तीय आय के उपयोग को अवसंरचना या सुविधाओं के विकास तथा सौ प्रतिशत फ्लाई ऐश उपयोग के स्तर को पुनः प्राप्त करने तक फ्लाई ऐश उपयोग के लिए संवर्धन या सुविधा क्रियाकलापों तक निर्वन्धित रखा जाएगा और उसे बनाए रखा जाएगा।

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(7) इस अधिसूचना के उपबंधों के अनुपालन की बाबत जानकारी उपलब्ध कराने वाली वार्षिक कार्यान्वयन रिपोर्ट 1 अप्रैल से 31 मार्च की अवधि के लिए 30 अप्रैल तक प्रत्येक वर्ष केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या समिति और संबंधित पर्यावरण और वन मंत्रालय के प्रादेशिक कार्यालय को कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्रों द्वारा प्रस्तुत की जाएगी तथा उसे जानकारीवार तापीय विद्युत संयंत्र के साथ-साथ तापीय विद्युत संयंत्र की वार्षिक रिपोर्ट का भाग भी बनाया जाएगा और एक तापीय विद्युत संयंत्र से अधिक तापीय विद्युत उत्पादन वाले अभिकरण की वार्षिक रिपोर्ट में उपलब्ध कराया जाएगा।";

4. उक्त अधिसूचना के पैरा 3 में,-

(क) उप-पैरा (2) में, " इस अधिसूचना के प्रकाशन की तारीख से चार मास की अवधि के भीतर अपने-अपने विनिर्देशों और संनिर्माण उपयोजनाओं की अनुसूची में, जिसके अंतर्गत समुचित मानक और आचार संहिता है, " शब्दों के स्थान पर "तुरंत प्रभाव से अपने-अपने विनिर्देशों और संनिर्माण उपयोजनाओं के निविदा दस्तावेजों, अनुसूचियों में जिसके अंतर्गत समुचित मानक और आचार संहिता है, " शब्द रखे जाएंगे ;-

(ख) उप-पैरा (2) (क) के स्थान पर निम्नलिखित पैरा रखा जाएगा, अर्थात् :-

(2क) भवन निर्माण अभिकरण, सार्वजनिक और निजी दोनों में अपनी-अपनी निविदा दस्तावेजों विनिर्देशों और संनिर्माण उप परियोजनाओं में, जिसके अंतर्गत समुचित मानक और आचार संहिता है, फ्लाई ऐश और फ्लाई ऐश आधारित उत्पादों के उपयोग को विहित करेंगे और फ्लाई ऐश तथा फ्लाई ऐश आधारित ईटों, ब्लॉकों या टाइलों अथवा अनुमोदित सामग्री की अनुसूची में उनके संयोजन तथा इस अधिसूचना के प्रकाशन की तारीख से चार मास की अवधि के भीतर दरों के उपयोग का तुरंत उपबंध करेंगे। "

(ग) उप-पैरा(2) (ख) के स्थान पर निम्नलिखित रखा जाएगा, अर्थात् :-

"2(ख) सड़कों या ऊपरी पुलों का संनिर्माण और निचले क्षेत्रों का पुनः उद्धार और संहित कर वाले सभी अभिकरण जिसके अंतर्गत सड़क परिवहन और राजमार्ग विभाग, भारतीय राष्ट्रीय राजमार्ग प्राधिकरण, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभाग और अन्य राज्य सरकार अभिकरण:-

(क) इस अधिसूचना के कार्यान्वयन के लिए तकनीकी दस्तावेजों के साथ-साथ अपनी-अपनी निविदा दस्तावेजों, अनुमोदित सामग्रियों और दरों की अनुसूचियों में, जिसके अंतर्गत वे भी जो पैरा 1 के उप-पैरा(6) के अनुसार मृदा उधार क्षेत्र या विवर्त से संबंधित है, उपबंध करेंगे और

(ख) सड़कों और फ्लाई-ओवर आच्छादों के लिए, जो भारतीय रोड कांग्रेस द्वारा अधिकृत विनिर्देशों के अंतर्गत नहीं आते हैं, आवश्यक विनिर्देश और मार्गदर्शन सिद्धांत बनाएंगे। "

- (3) सभी स्थानीय प्राधिकारी तुरंत प्रभाव से अपनी-अपनी निविदा दस्तावेजों, भवन उपविधियों और विनियमों में भवन सामग्रियों, सड़क तटबंधों या किसी प्रथा के लिए फ्लाई ऐश और फ्लाई ऐश आधारित उत्पादों और संनिर्माण तकनीकों के उपयोग को विनिर्दिष्ट करेंगे।
- (4) केन्द्रीय विद्युत प्राधिकारी और अन्य अनुमोदन अभिकरण पैंतालीस प्रतिशत ऐश अंतर्वस्तु कोयला पर आधारित या कोयला या लिग्नाईट में उपयोग की जाने वाली ऐश अंतर्वस्तु को ध्यान में रखते हुए अन्य क्षमताओं में इकाईयों के लिए उसी अनुपात में पांच सौ मेगावाट इकाईयों के लिए चालीस हेक्टेयर तक के आपात ऐश बॉड या फ्लाई ऐश भंडारण क्षेत्र के लिए भूमि क्षेत्र को अनुज्ञात कर सकेंगे।
- (5) सभी वित्तीय संस्थाएं और अभिकरण जिनके निधि संनिर्माण क्रियाकलापों में इस अधिसूचना के उपबंधों के अनुपालन के लिए उनके ऋण या मंजूरी दस्तावेजों में एक खंड सम्मिलित होगा।
- (6) केन्द्रीय सरकार द्वारा कोयला मंत्रालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, केन्द्रीय विद्युत प्राधिकरण, विज्ञान और प्रौद्योगिकी विभाग तथा भवन सामग्री प्रौद्योगिकी संवर्धन परिसर की फ्लाई ऐश इकाई के प्रमुख से सदस्यों सहित अधिसूचना के उपबंधों के कार्यान्वयन को मानीटर करने के लिए एक मानीटरिंग समिति गठित की जाएगी और यह सचिव, पर्यावरण और वन मंत्रालय को प्रत्येक छः मास में कम से कम एक बार अपनी सिफारिशों या संप्रेक्षणों को पेश करेगी। पर्यावरण और वन मंत्रालय में संबंधित सलाहकार या संयुक्त सचिव इस समिति का संयोजक होगा।
- (7) अधिसूचना के उपबंधों के कार्यान्वयन की मानीटरिंग करने के प्रयोजन के लिए राज्य सरकारों या संघ राज्य क्षेत्र सरकार, पर्यावरण विभाग के सचिव की अध्यक्षता में विद्युत विभाग, खनन विभाग, सड़क और भवन निर्माण विभाग तथा राज्य प्रदूषण नियंत्रण बोर्ड के प्रतिनिधियों सहित इस अधिसूचना के जारी करने की तारीख से तीन मास के भीतर एक मानीटरिंग समिति का गठन करेगी और यह समिति संबंधित राज्य सरकार या संघ राज्य क्षेत्र स्तर पर इस अधिसूचना की मानीटरिंग और सुकर बनाने के कार्यान्वयन के अतिरिक्त पैरा 1 के उप-पैरा (4) में यथाविहित विवाद समझौता समिति द्वारा हल न किए गए किसी मुद्दे का निपटारा करेगी और यह समिति, उक्त विद्युत संयंत्र द्वारा यथा प्रमाणित तापीय विद्युत संयंत्र से पर्याप्त मात्रा में फ्लाई ऐश के उपलब्ध न होने की दशा में उप-पैरा (1) के अधीन निश्चित की गई मात्रा को समुचित रूप से उपांतरित (अधित्यक्त या शिथिल करने) के लिए भी सशक्त होगी और समिति की प्रत्येक तिमाही में कम से कम एक बार बैठक होगी।

[फा. सं. 9-8/2005-एचएसएमडी]

जी. बी. सुब्रहामनयम, वैज्ञानिक 'जी'

पाद टिप्पण :- मूल नियम, भारत के राजपत्र, भाग 2 खंड 3, उपखंड (ii) में अधिसूचना संख्या का.आ.763 (अ), तारीख 14 सितम्बर, 1999 द्वारा प्रकाशित किए गए थे और अधिसूचना संख्या का.आ.979 (अ) 27 अगस्त, 2003 द्वारा संशोधित किए गए।

MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION

New Delhi, the 3rd November, 2009

S.O. 2804(E).—WHEREAS, by notification of the Government of India in the Ministry of Environment and Forests number S.O. 763(E), dated the 14th September, 1998 (hereinafter referred to as the said notification) issued under sub-section (1), clause (v) of sub-section (2) of section 3 and section 5 of the Environment (Protection) Act, 1986 (29 of 1986) the Central Government, issued directions for restricting the excavation of top soil for the manufacture of bricks and promoting the utilisation of fly ash in the manufacture of building materials and in construction activity within a specified radius of one hundred kilometers from coal or lignite based thermal power plants;

AND WHEREAS, the term “fly ash” means and includes all categories or groups of coal or lignite ash generated at the thermal power plant and collected by Electrostatic Precipitator (ESP) or bag filters or other similar suitable equipments; bottom ash is the ash collected separately at the bottom of the boiler; pond ash is the mixture of ESP Fly ash and bottom ash but, for the purpose of this notification, the term “fly ash” means and includes all ash generated such as Electrostatic Precipitator (ESP) ash, dry fly ash, bottom ash, pond ash and mound ash the objective is to utilise all the ashes;

AND WHEREAS, there is a need for restricting the excavation of top soil for the manufacture of bricks and for other works which involve use of top soil and promoting the utilisation of fly ash produced by coal or lignite based thermal power plants including captive power plants and co-generation plants in the manufacture of building materials and construction activity;

AND WHEREAS, it was observed that there was a gradual increase in the use of fly ash in the manufacture of fly ash bricks or products from about 1.5 million tonne in 2002-2003 to 3.19 million tonne in 2006-2007 which needs to be further encouraged for achieving the ultimate objective of conservation of top soil and minimise environmental pollution caused due to fly ash

AND WHEREAS, it is observed that construction agencies are yet to achieve their targets of utilization of fly ash based products even after the 31st August, 2007, the date prescribed for 100% utilisation of fly ash based products in the said notification of 1999 and it is also observed that many thermal power stations or plants are also yet to achieve the targets drawn up in their action plans;

AND WHEREAS, the representations of the brick kiln owners were considered with regard to transporting of fly ash over a long distance and also the logistics involved including the energy cost;

AND, WHEREAS, the issue has been examined by the Government of India in the Ministry of Environment and Forests;

AND WHEREAS, the Central Government is of the opinion that the said notification should be amended;

AND WHEREAS, clause (a) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 provides that whenever the Central Government considers that prohibition or restrictions of any industry or carrying on any processes or operation in any area should be imposed, it shall give notice of its intention to do so;

AND WHEREAS, a draft of amendment to the Government of India, Ministry of Environment and Forests notification no. S.O.763 (E), dated the 14th September, 1999 duly amended vide notification No. S.O. 979 (E), dated the 27th August, 2003 (hereinafter referred to as the said notification) which the Central Government proposes to make under subsection (1), 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, 2008 *vide* S.O. 2623 (E), 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 the day of 6th November 2008;

AND WHEREAS, the objections and suggestions received from various persons or agencies likely to be affected thereby in respect of the said draft notification have been duly considered by the Central Government in the Ministry of Environment and Forests;

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. Throughout the said notification, save as otherwise expressly provided and unless the context otherwise requires, for the word "ash" wherever it occurs, the words "fly ash" shall be substituted.

2. In the said notification, in paragraph 1,—

(a) for sub-paragraph (1), the following shall be substituted, namely:-

"(i) use of fly ash based products in construction activities";

(b) for sub-paragraphs (1A) and (1B), the following sub-paragraphs shall respectively be substituted, namely:-

"(1A) Every construction agency engaged in the construction of buildings within a radius of hundred kilometers from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as: cement or concrete, fly ash bricks or blocks or tiles or clay fly ash bricks, blocks or tiles or cement fly ash bricks or bricks or blocks or similar products or a combination or aggregate of them, in every construction project.

(1B) The provisions of sub-paragraph (1A) shall be applicable to all construction agencies of Central or State or Local Government and private or public sector and it shall be the responsibility of the agencies either undertaking construction or approving the design or both to ensure compliance of the provisions of sub-paragraph (1A) and to submit annual returns to the concerned State Pollution Control Board or Pollution Control Committee, as applicable";

(c) after sub-paragraph (1B), the following sub-paragraph shall be inserted, namely:—

“(1C) Minimum fly ash content for building materials or products to qualify as “fly ash based products” category shall be as given in the Table I below:

Table I

Serial Number	Building Materials or Products	Minimum % of fly ash by weight
(1)	(2)	(3)
1.	Fly ash bricks, blocks, tiles, etc. made with fly ash, lime, gypsum, sand, stone dust etc. (without clay).	50% of total input materials
2.	Paving blocks, paving tiles, checker tiles, mosaic tiles, roofing sheets, pre-cast elements, etc. wherein cement is used as binder.	Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269) content.
3.	Cement.	15% of total raw materials
4.	Clay based building materials such as bricks, blocks, tiles, etc.	25% of total raw materials.
5.	Concrete, mortar and plaster.	Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269) content.

(d) in sub-paragraph (2), for the brackets and number “(1)”, the brackets, number and letter “(1C)” shall be substituted and the number of sub-paragraph (2) shall be substituted by 1(D);

(e) in paragraph (2A), the paragraph 1(A) shall be substituted by 1(A) and 1(B) and the amended paragraph 2(A) is to be numbered as 1(E);

(f) for sub-paragraphs (3) and (3A), the following sub-paragraphs shall respectively be substituted, namely:—

“(3) In case of non-availability of fly ash from thermal power plants in sufficient quantities as certified by the said power plants, within 100 km of the site, the stipulation under sub-paragraph (1A) shall be suitably modified (waived or relaxed) by the concerned State Government or Union territory Government level monitoring committee mentioned elsewhere in this notification.

(3A) A decision on the application for manufacture of fly ash bricks, blocks 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 concerned State Pollution Control Board or Pollution Control Committee.”;

(g) sub-paragraphs (3B), (3C) and (3D) shall be omitted;

(h) for sub-paragraphs (4) and (5), the following sub-paragraphs shall be substituted, namely:

“(4) Each coal or lignite based thermal power plant shall constitute a dispute settlement committee which shall include the General Manager of the thermal power plant and a representative of the relevant Construction and fly ash Brick Manufacturing Industry Association or Body, as the case may be and such a Committee shall ensure unhindered loading and transport of fly ash in an environmentally sound manner without any undue loss of time. Any unresolved dispute shall be dealt with by the concerned State or Union territory Government level monitoring committee mentioned elsewhere in this notification.

(5) No agency, person or organization shall, within a radius of hundred kilometers of a thermal power plant undertake construction or approve design for construction of roads or flyover embankments with top soil; the guidelines or specifications issued by the Indian Road Congress (IRC) as contained in IRC specification No. SP: 58 of 2001 as amended from time to time regarding use of fly ash shall be followed and 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 “fly ash not available” from the thermal power plant(s) (TPPs) located within hundred kilometers of the site of construction and this certificate shall be provided by the TPP within two working days from the date of receipt of a request for fly ash, if fly ash is not available”;

(i) in sub-paragraph (6), for the words “Voids created due to soil borrow area shall be filled up with ash with proper compaction and covered with topsoil kept separately as above and this would be done as an integral part of embankment project within the time schedule of the project”, the words “Voids created at soil borrow area shall be filled up with fly ash with proper compaction and covered with topsoil kept separately as above and this would be done as an integral part of embankment project” shall be substituted;

(j) for sub-paragraph (7), the following sub-paragraphs shall be substituted, namely:—

“(7) No agency, person or organisation shall within a radius of hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with the specifications and guidelines laid down by the authorities mentioned in sub-paragraph (1) of paragraph 3.

(8)(i) No person or agency shall within fifty kilometers (by road) from coal or lignite based thermal power plants, undertake or approve stowing of mine without using at least 25% of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of the Director General of Mines Safety (DGMS);

Provided that such thermal power stations shall facilitate the availability of required quality and quantity of fly ash as may be decided by the expert committee referred in sub-paragraph (10) for this purpose.

(ii) No person or agency shall within fifty kilometers (by road) from coal or lignite based thermal power plants, undertake or approve without using at least 25% of fly ash on volume to volume basis of the total materials used for external dump of overburden and same percentage in upper benches of back filling of opencast mines and this shall be done under the guidance of the Director General of Mines Safety (DGMS);

Provided that such thermal power stations shall facilitate the availability of required quality and quantity of fly ash as may be decided by the expert committee referred in sub-paragraph (10) for this purpose.

(9) The provisions contained in clauses (i) and (ii) of sub-paragraph (8) shall be applicable to all mine agencies under Government, public and private sector and to mines of all minerals or metals or items and it shall be the responsibility of agencies either undertaking or approving the external dump of overburden, backfilling or stowing of mine or all these activities to ensure compliance of provisions contained in clauses (i) and (ii) of sub-paragraph (8) and to submit annual returns to the concerned State Pollution Control Board or Pollution Control Committee as applicable.

(10) The Ministry of Coal for this purpose shall constitute an expert committee comprising of representatives from Fly Ash Unit, Department of Science and Technology, Ministry of Science and Technology, Director General of Mines Safety (DGMS), Central Mine Planning and Design Institute Limited (CMPDIL), Ministry of Environment and Forests, Ministry of Power, Ministry of Mines and the Central Institute of Mining and Fuel Research (CIMFR), Dhanbad; the Committee shall also guide and advise the back filling or stowing in accordance with the provisions contained in sub-paragraphs (8) (i), 8 (ii) and (9), and specifications and guidelines laid down by the concerned authorities as mentioned in sub-paragraph (1) of paragraph 3.

(11) The concerned State Government or Union territory Government shall be the enforcing and monitoring authority for ensuring compliance of the provisions of sub-paragraphs (8) (i) and (8) (ii)";

3. in the said notification, in paragraph 2,—

(a) for sub-paragraphs (1), (2) and (3), the following sub-paragraphs shall be substituted, namely:—

"(1) All coal or lignite based thermal power stations would be free to sell fly ash to the users and agencies subject to the following conditions, namely:—

(i) the pond ash should be made available free of any charge on "as is where is" basis" to manufacturers of bricks, blocks or tiles including clay fly ash producing manufacturing unit(s), farmers, the Central and the State road construction agencies, Public Works Department, and to agencies engaged in backfilling or stowing of mines.

(ii) at least 20% of dry ESP fly ash shall be made available free of charge to users manufacturing fly ash or clay-fly ash bricks, blocks and tiles on a priority basis over other users and if the demand from such agencies falls short of 20% of quantity, the balance quantity can be sold or disposed of by the power station as may be possible;

Provided that the fly ash obtained from the thermal power station should be utilized only for the purpose for which it was obtained from the thermal power station or plant failing which no fly ash shall be made available to the defaulting users.

(2) All coal and, or lignite based thermal power stations and, or expansion units in operation before the date of this notification are to achieve the target of fly ash utilization as per the Table II given below:

Table II

Serial Number	Percentage Utilization of Fly Ash	Target Date
(1)	(2)	(3)
1.	At least 50% of fly ash generation	One year from the date of issue of this notification.
2.	At least 60% of fly ash generation	Two years from the date of issue of this notification.
3.	At least 75% of fly ash generation	Three years from the date of issue of this notification.

4.	At least 90% of fly ash generation	Four years from the date of issue of this notification.
5.	100% fly ash generation	Five years from the date of issue of this notification.

The unutilised fly ash in relation to the target during a year, if any, shall be utilized within next two years in addition to the targets stipulated for those years and the balance unutilized fly ash accumulated during first five years (the difference between the generation and the utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.

(3) New coal and, or lignite based thermal power stations and, or expansion units commissioned after this notification to achieve the target of fly ash utilization as per Table III given below:

Table III

Serial Number	Fly ash utilization level	Target date
(1)	(2)	(3)
1.	At least 50% of fly ash generation	One year from the date of commissioning.
2.	At least 70% of fly ash generation	Two years from the date of commissioning.
3.	90% of fly ash generation	Three years from the date of commissioning.
4.	100% of fly ash generation	Four years from the date of commissioning.

The unutilised fly ash in relation to the target during a year, if any, shall be utilized within next two years in addition to the targets stipulated for these years and the balance unutilized fly ash accumulated during first four years (the difference between the generation and utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.”;

(b) in sub-paragraph (4), for the words “six months”, the words “four months” shall be substituted;

(c) for sub-paragraph (6), the following sub-paragraphs shall be substituted, namely:—

“(6) The amount collected from sale of fly ash and fly ash based products by coal and/or lignite based thermal power stations or their subsidiary or sister concern unit, as applicable should be kept in a separate account head and shall be utilized only for development of infrastructure or facilities, promotion and facilitation activities for use of fly ash until 100 percent

fly ash utilization level is achieved; thereafter as long as 100% fly ash utilization levels are maintained, the thermal power station would be free to utilize the amount collected for other development programmes also and in case, there is a reduction in the fly ash utilization levels in the subsequent year(s), the use of financial return from fly ash shall get restricted to development of infrastructure or facilities and promotion or facilitation activities for fly ash utilization until 100 percent fly ash utilisation level is again achieved and maintained.

(7) Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Committee and the concerned Regional Office of the Ministry of Environment and Forests by the coal or lignite based thermal power plants, and also be made a part of the annual report of the thermal power plant as well as thermal power plant wise information be provided in the annual report of thermal power producing agency owning more than one thermal power plant.”;

4. in the said notification, in paragraph 3,—

(a) in sub-paragraph (2), for the words “schedules of specifications and construction applications, including appropriate standards and codes of practice, within a period of four months from the publication of this notification”, the words “tender documents, schedules of specifications and construction applications including appropriate standards and codes of practice within a period of four months from the publication of this notification” shall be substituted;

(b) for sub-paragraph (2A), the following sub-paragraph shall be substituted, namely:—

“(2A) Building construction agencies both in public and private shall prescribe the use of fly ash and fly ash-based products in their respective tender documents, schedules of specifications and construction applications, including appropriate standards and codes of practice and 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 within a period of four months from the publication of this notification.”;

(c) for sub-paragraphs (2B) and (3), the following sub-paragraphs shall be substituted, namely:—

“(2B) All agencies undertaking construction of roads or fly over bridges and reclamation and compaction of low lying areas, including Department of Road Transport and Highways (DORTH), National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Departments and other State Government Agencies, shall within a period of four months from the publication of this notification:-

(a) make provisions in their tender documents, schedules of approved materials and rates as well as technical documents for implementation of this notification, including those relating to soil borrow area or pit as per sub-paragraph (6) of paragraph 1; and

(b) make necessary specifications or guidelines for road or fly over embankments that are not covered by the specifications laid down by the Indian Road Congress (IRC).

(3) All local authorities shall specify in their respective tender documents, building bye-laws and regulations, the use of fly ash and fly ash-based products and construction techniques in building materials, roads embankments or for any usage with immediate effect.

(4) The Central Electricity Authority and other approving agencies may permit the land area for emergency ash pond or fly ash storage area up to 50 hectares for a 500 MW unit, based on 45% ash content coal, or in the same proportion for units in other capacities taking into account the ash content in coal or lignite to be used.

(5) All Financial institutions and agencies which fund construction activities shall include a clause in their loan or grant document for compliance of the provisions of this notification.

(6) A Monitoring committee shall be constituted by the Central Government with Members from Ministry of Coal, Ministry of Mines, Ministry of Power, Central Pollution Control Board, Central Electricity Authority, Head Fly Ash Unit of Department of Science and Technology and Building Material Technology Promotion Council to monitor the implementation of the provisions of the notification and submit its recommendations or observations at least once in every six months to the Secretary, Ministry of Environment and Forests. Concerned Advisor or Joint Secretary in the Ministry of Environment and Forests will be the convener of this committee.

(7) For the purpose of monitoring the implementation of the provisions of this notification the State Governments or Union territory Government shall constitute a Monitoring Committee within three months from the date of issue of this notification under the Chairmanship of Secretary, Department of Environment with representatives from Department of Power, Department of Mining, Road and Building Construction Department and State Pollution Control Board and this Committee would deal with any unresolved issue by Dispute Settlement Committee as prescribed in sub-paragraph (4) of paragraph 1, in addition to monitoring and facilitating implementation of this notification at the respective State Government or Union territory level and this Committee would also be empowered to suitably modify (waive or relax) the stipulation under sub-paragraph (1) in case of non-availability of fly ash in sufficient quantities from thermal power plant as certified by the said power plants and the Committee will meet at least once in every quarter.

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

G. V. SUBRAHMANYAM, Scientist 'G'

Foot Note :—The principal notification was published in the Gazette of India, Part II, Section 3, Sub-section (ii) *vide* notification number S.O. 763(E), dated the 14th September, 1999 and was amended *vide* notification number S. O. 979(E), dated the 27th August, 2003.



भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 25 जनवरी, 2016

का.आ. 254(अ).—भारत सरकार, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. का.आ. 763(अ), तारीख 14 सितंबर, 1999 (जिसे इसमें इसके पश्चात् उक्त अधिसूचना कहा गया है) में कतिपय संशोधनों का प्रारूप, जिन्हें केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) के अंतर्गत करने का प्रस्ताव करती है, भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में अधिसूचना सं. का.आ. 1396(अ), तारीख 25 मई, 2015 द्वारा प्रकाशित किया गया था, जिसके द्वारा ऐसे सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, उस तारीख से, जिसबो उक्त प्रारूप संशोधनों को अंतर्विष्ट करने वाली राजपत्र की प्रतियां जनता को उपलब्ध करा दी जाती हैं, साठ दिनों के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे;

और उक्त राजपत्र की प्रतियां 25 मई, 2015 को जनता को उपलब्ध करा दी गई थी;

और उक्त प्रारूप अधिसूचना के संबंध में, ऐसे सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, प्राप्त सभी आक्षेपों और सुझावों पर केन्द्रीय सरकार द्वारा सम्यक् रूप से विचार कर लिया गया है;

अतः, अब, केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए उक्त अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात् :-

1. उक्त अधिसूचना के पैरा 1 में-

- (क) उप पैरा 1(क) में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (ख) उप पैरा 3 में "100 कि.मी." अंकों और शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (ग) उप पैरा 5 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (घ) उप पैरा 7 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;

- (10) संबद्ध प्राधिकारी सभी सरकारी स्कीमों या कार्यक्रमों में, उदाहरणार्थ महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम, 2005 (मनरेगा), स्वच्छ भारत अभियान, शहरी और ग्रामीण आवासन स्कीम, जहां संनिर्मित क्षेत्र एक हजार वर्ग फुट से अधिक है और अवसंरचना संबंधी संनिर्माण में, जिसके अंतर्गत अभिहित औद्योगिक संपदाओं या पार्कों या विशेष आर्थिक जोनों में भवन निर्माण भी है, ऐश आधारित ईटों या उत्पादों के आजापक उपयोग को सुनिश्चित करेंगे।
- (11) कृषि मंत्रालय कृषि क्रियाकलापों में ऐश के मृदा अनुकूलक के रूप में उपयोग का संवर्धन करने पर विचार कर सकेगा।"
5. सभी संबद्ध प्राधिकारियों द्वारा उपरोक्त उपबंधों का अनुपालन करने की समयावधि 31 दिसंबर, 2017 है। कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, उनके द्वारा उत्पादित फ्लाई ऐश के 100 प्रतिशत उपयोग के अतिरिक्त उपरोक्त उपबंधों का अनुपालन 31 दिसंबर, 2017 से पूर्व करेंगे।

[फा. सं. 9-8/2005-एचएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

टिप्पण:- मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में अधिसूचना सं. का.आ. 763(अ), तारीख 14 सितंबर, 1999 द्वारा प्रकाशित की गई थी और इसमें पश्चातवर्ती संशोधन अधिसूचना सं. का.आ. 979(अ), तारीख 27 अगस्त, 2003 और का.आ. 2804(अ), तारीख 3 नवंबर, 2009 द्वारा किए गए थे।

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE
NOTIFICATION

New Delhi, the 25th January, 2016

S.O. 254(E).—Whereas a draft of certain amendments to the Government of India in the Ministry of Environment, Forests and Climate Change number S.O. 763(E), dated the 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, was published in the Gazette of India, Extraordinary, Part II, section 3, Sub-section (ii), vide S.O. 1396(E), dated the 25th May, 2015 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 25th May, 2015;

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:—

1. In the said notification, in paragraph 1,-
 - (a) in sub-paragraph 1(A), for the words "hundred kilometers", the words "three hundred kilometers" shall be substituted;
 - (b) in sub-paragraph (3), for the figures and letters "100 km", the words "three hundred kilometers" shall be substituted;
 - (c) in sub-paragraph (5), for the words "hundred Kilometers", the words "three hundred Kilometers" shall be substituted;
 - (d) in sub-paragraph (7), for the words "hundred Kilometers", the words "three hundred Kilometers" shall be substituted.

2. In the said notification, in paragraph 2:-
- (a) after sub-paragraph (1), the following proviso shall be inserted, namely:-
 "provided further that the restriction to provide 20 % of dry ESP fly ash free of cost shall not apply to those thermal power plants which are able to utilise 100 % fly ash in the prescribed manner."
- (b) after sub-paragraph (7), the following sub-paragraphs shall be inserted, namely:-
- "(8) Every coal or lignite based thermal power plants (including captive and or co-generating stations) shall, within three months from the date of notification, upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month.
- (9) Every coal or lignite based thermal power plants shall install dedicated dry ash silos having separate access roads so as to ease the delivery of fly ash.
- (10) The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based thermal power plant shall be borne by such coal or lignite based thermal power plant and the cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared equally between the user and the coal or lignite based thermal power plant.
- (11) The coal or lignite based thermal power plants shall promote, adopt and set up (financial and other associated infrastructure) the ash based product manufacturing facilities within their premises or in the vicinity of their premises so as to reduce the transportation of ash.
- (12) The coal or lignite based thermal power plants in the vicinity of the cities shall promote, support and assist in setting up of ash based product manufacturing units so as to meet the requirements of bricks and other building construction materials and also to reduce the transportation.
- (13) To ensure that the contractor of road construction utilizes the ash in the road, the Authority concerned for road construction shall link the payment of contractor with the certification of ash supply from the thermal power plants.
- (14) The coal or lignite based thermal power plants shall within a radius of three hundred kilometers bear the entire cost of transportation of ash to the site of road construction projects under Pradhan Mantri Gramin Sadak Yojna and asset creation programmes of the Government involving construction of buildings, road, dams and embankments".
3. In the said notification, in paragraph 2, sub-paragraph (2A) be read as sub-paragraph (15) and at the end of the said sub-paragraph, the following sub-paragraph shall be added, namely:-
 "and the coal or lignite based thermal power plants located in coastal districts shall support, assist or directly engage into construction of shore line protection measures."
4. In the said notification, in paragraph 3, after sub-paragraph (7), the following shall be inserted, namely:-
- "(8) It shall be the responsibility of all State Authorities approving various construction projects to ensure that Memorandum of Understanding or any other arrangement for using fly ash or fly ash based products is made between the thermal power plants and the construction agency or contractors.
- (9) The State Authorities shall amend Building Bye Laws of the cities having population One million or more so as to ensure the mandatory use of ash based bricks keeping in view the specifications necessary as per technical requirements for load bearing structures.
- (10) The concerned Authority shall ensure mandatory use of ash based bricks or products in all Government Scheme or programmes e.g. Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MNREGA), SWACHH BHARAT ABIYAN, Urban and Rural Housing Scheme, where built up area is more than 1000 square feet and in infrastructure construction including buildings in designated industrial Estates or Parks or Special Economic Zone.

(11) The Ministry of Agriculture may consider the promotion of ash utilisation in agriculture as soil conditioner."

5. The time period to comply with the above provisions by all concerned authorities is 31st December, 2017. The coal or lignite based thermal power plants shall comply with the above provision in addition to 100 % utilization of fly ash generated by them before 31st December, 2017.

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

BISHWANATH SINHA, Jt. Secy.

Note:- The principal notification was published in the Gazette of India, Extraordinary, Part II, section 3, Sub-section (ii) *vide* notification S.O. 763(E), dated the 14th September, 1999 and was subsequently amended *vide* notification S.O. 979(E), dated the 27th August, 2003 and S.O. 2804(E), dated the 3rd November, 2009.

UTILISATION OF FLYASH FROM COAL OR LIGNITE BASED
THERMAL POWER PLANTS

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 14th September, 1999

S.O.763(E):- Whereas a draft notification containing rule (3) of rule 5 of the Environment (Protection) Rules, 1986 under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 453(E) dated 22nd May, 1998 inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty-days from the date on which the copies of the Gazette of India containing the said notification are made available to the public;

And, whereas, copies of the said Gazette were made available to the public on the same date;

And, whereas, the objections and suggestions received from the public in respect of the said draft notification have been duly considered by the Central Government;

Whereas it is necessary to protect the environment, conserve top soil and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And, whereas, there is a need for restricting 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 within a specified radius of [one hundred kilometers] from coal or lignite based thermal power plants;

And, Whereas, the Hon'ble High Court of Judicature, Delhi vide its order dated 25th August, 1999 in CWP No: 2145/99: Centre for Public Interest Litigation, Delhi v/s Union of India directed that the Central Government to publish the final notification in respect of fly ash on or before 26th October, 1999;

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 pursuance of the orders of the Hon'ble High Court, Delhi stated above, the Central Government hereby issues the following directions which shall come into force on the date of the publication of this notification, namely:-

¹ Substituted by para 1 of the Notification S.O.979 (E), dated 27.8.2003.

1. Use of fly ash, bottom ash or pond ash in the manufacture of bricks and other construction activities.-

(1) No person shall within a radius of ¹[one hundred kilometers] from coal or lignite based thermal power plants, manufacture clay bricks or tiles or blocks for use in construction activities without mixing at least 25 per cent of ash (fly ash, bottom ash or pond ash) with soil on weight to weight basis.

²[(i) use of fly ash based products in construction activities];

³[1(A) Every construction agency engaged in the construction of buildings within a radius of hundred kilometres from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as cement or concrete, fly ash bricks or tiles or clay fly ash bricks, or bricks, blocks or tiles or cement fly ash bricks or blocks or similar products or a combination or aggregate of them, in every construction project.

1(B) The provisions of sub-paragraph (1A) shall be applicable to all construction agencies of Central or State or Local Government and private or public sector and it shall be the responsibility of the agencies either undertaking construction or approving the design or both to ensure compliance of the provisions of sub-paragraph-(1A) and to submit annual returns to the concerned State Pollution Control Board or Pollution Control Committee, as applicable.]

⁴[1(C) Minimum fly ash content for building materials or products to qualify as "fly ash based products" category shall be given in the Table I below:

TABLE I

Serial No.	Building Materials or Products	Minimum % of fly ash by weight
(1)	(2)	(3)
1.	Fly ash bricks, blocks, blocks, tiles, etc. made with fly ash, lime, gypsum, sand, stone duct etc. (without clay).	50% of total input materials
2.	Paving blocks, paving tiles, checker tiles, mosaic tiles, roofing sheets, pre-cast elements, etc. wherein cement is used as binder.	Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269) content.

¹ Substituted by para 2 (a) of the Notification S.O.979 (E), dated 27.8.2003.

² Substituted by para 2(a) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

³ Substituted by para 2(b) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

⁴ Inserted by para 2(c) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

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3.	Cement	15% of total raw materials
4.	Clay based building materials such as bricks, blocks, tiles, etc.	25% of total raw materials
5.	Concrete, mortar and plaster	Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269) content.]

¹[(D) The authority for ensuring the use of specified quantity of ash as per sub-paragraph ³[(1C)] shall be the concerned Regional Officer of the State Pollution Control Board or the Pollution Control Committee, as the case may be.]

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

²[(3) In case of non-availability of fly ash from thermal power plants in sufficient quantities as certified by the said power plants, within 100 km. of the site, the stipulation under sub-paragraph (1A) shall be suitably modified (waived or relaxed) by the concerned State Government or Union Territory-Government level monitoring committee mentioned elsewhere in this notification.]

(3A) A decision on the application for manufacture of fly ash bricks, blocks 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 concerned State Pollution Control Board or Pollution Control Committee.]

³[*****]

⁴[(4) Each coal or lignite based thermal power plant shall constitute a dispute settlement committee which shall include the General Manager of the thermal power plant and representative of the relevant Construction and fly ash Brick Manufacturing Industry Association or Body, as the case may be and such a

¹ Substituted by para 2(e), of the Notification S.O.979 (E), dated 27.8.2003.

² Number of sub-paragraph (2) substituted as paragraph (E) by para 2(d) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

³ Substituted by para 2(d) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

⁴ Substituted by para 2(f) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

⁵ Sub-paragraphs (3B), (3C), and (3D) omitted by para 2(g) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

⁶ Sub-paragraphs (4) and (5) substituted by para 2(h) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

Committee shall ensure unhindered loading and transport of fly ash in an environmentally sound manner without any undue loss of time. An unresolved dispute shall be dealt with by the concerned State or Union territory Government level monitoring committee mentioned elsewhere in this notification.

- (5) No agency, person or organisation shall, within a radius of hundred kilometres of a thermal power plant undertake construction or approve design for construction of roads or flyover embankments with top soil; the guidelines or specifications issued by the Indian Road Congress (IRC), as contained in IRC specification No.SP:58 of 2001, as amended from time to time regarding use of fly ash shall be followed and 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 "fly ash not available" from the thermal power plant(s) (TPPs) located within hundred kilometres of the site of construction and this certificate shall be provided by the TPP within two working days from the date of receipt of a request for fly ash, if fly ash is not available.]
- (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 at soil borrow area shall be filled up with ash with proper compaction and covered with topsoil kept separately as above and this would be done as an integral part of embankment project.]
- ²(7) No agency, person or organisation shall within radius of hundred kilometres of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with the specifications and guidelines laid down by the authorities mentioned in sub paragraph (1) of paragraph 3.
- (8) (i) No person or agency shall within fifty kilometres (by road) from coal or lignite based thermal power plants, undertake or approve stowing of mines without using at least 25% of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of the Director General of Mines Safety (DGMS);

¹ Substituted by para 2(i) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

² Sub-paragraphs (7), (8), (9), (10) and (11) substituted by para 2(G) of Amendment Notification S.O.2804 (E), dated 3.11.2009.

Provided that such thermal power stations shall facilitate the availability of required quality and quantity of fly ash as may be decided by the expert committee referred in sub paragraph (10) for this purpose.

(ii) No person or agency shall within fifty kilometres (by road) from coal or lignite based thermal power plants, undertake or approve without using at least 25% of fly ash on volume to volume basis of the total materials used for external dump of overburden and same percentage in upper benches of back filling of opencast mines and this shall be done under the guidance of the Director General of Mines Safety (DGMS);

Provided that such thermal power stations shall facilitate the availability of required quality and quantity of fly ash as may be decided by the expert committee referred in sub-paragraph (10) for this purpose.

(9) The provisions contained in clause (i) and (ii) of sub paragraph (8) shall be applicable to all mine agencies under Government, public and private sector and to mines of all minerals or metals or items and it shall be the responsibility of agencies either undertaking or approving the external dump of overburden, backfilling or stowing of mine or all these activities to ensure compliance of provisions contained in clause (i) and (ii) of sub-paragraph (8) and to submit annual returns to the concerned State Pollution Control Board or Pollution Control Committee as applicable.

(10) The Ministry of Coal for this purpose shall constitute an expert committee comprising of representatives from Fly Ash Unit, Department of Science and Technology, Ministry of Science and Technology, Director General of Mines Safety(DGMS), Central Mines Planning and Design Institute Limited(CMPDIL), Ministry of Environment and Forests, Ministry of Power, Ministry of Mines and the Central Institute of Mining and Fuel Research(CIMFR), Dhanbad; the Committee shall also guide and advise the back filling or stowing in accordance with the provisions contained in sub-paragraphs (8) (i), (8) (ii) and (9), and specifications and guidelines laid down by the concerned authorities as mentioned in sub-paragraph(1) of paragraph 3.

(11) The concerned State Government or Union Territory Government shall be the enforcing and monitoring authority for ensuring compliance of the provisions of sub-paragraphs (8) (i) and (8) (ii).]

2. ¹[Responsibilities of Thermal Power Plants].

²[Every coal or lignite based thermal power plant shall take the following steps to ensure the utilization of ash generated by it, namely: -]

³[(1) All coal or lignite based thermal power stations would be free to sell fly ash to the user agencies subject to the following conditions, namely:-

(i) the pond ash should be made available free of any charge on "as is where basis" to manufacturers of bricks, blocks or tiles including clay fly ash product manufacturing unit(s), farmers, the Central and the State road construction agencies Public Works Department, and to agencies engaged in backfilling or stowing of mines.

(ii) at least 20% of dry ESP fly ash shall be made available free of charge to units manufacturing fly ash or clay-fly ash bricks, blocks and tiles on a priority basis over other users and if the demand from such agencies falls short of 20% of quantity, the balance quantity can be sold or disposed of by the power station as may be possible;

Provided that the fly ash obtained from the thermal power station should be utilized on for the purpose for which it was obtained from the thermal power station or plant failing which no fly ash shall be made available to the defaulting users.

(2) All coal and, or lignite based thermal power stations and, or expansion units in operation before the date of this notification are to achieve the target of fly ash utilization as per the TABLE-II given below:-

TABLE-II

Serial No. (1)	Percentage Utilization of Fly Ash (2)	Target Date (3)
1.	At least 50% of fly ash generation	One year from the date of issue of this notification.
2.	At least 60% of fly ash generation	Two years from the date of issue of this notification.

¹ Substituted by para 3(a), of Notification S.O.No.979 (E), dated 27.8.2003.

² Substituted by para 3(b), Ibid.

³ Sub-paragraphs (1), (2) and (3) substituted by para 3(a) of Amendment Notification S.O.2804 (E), dated 3.11.2009

3.	At least 75% of fly ash generation	Three years from the date of issue of this notification.
4.	At least 90% of fly ash generation	Four years from the date of issue this notification.
5.	100% of fly ash generation	Five years from the date of issue of this notification.

The unutilised fly ash in relation to the target during a year, if any, shall be utilized within next two years in addition to the targets stipulated for those years and the balance unutilised fly ash accumulated during first five years (the difference between the generation and the utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.

(3) New coal and, or lignite based thermal power stations and, or expansion units commissioned after this notification to achieve the target of fly ash utilization as per the TABLE-III given below:-

TABLE-III

Serial No.	Fly Ash Utilization Level	Target Date
(1)	(2)	(3)
1.	At least 50% of fly ash generation	One year from the date of commissioning.
2.	At least 70% of fly ash generation	Two years from the date of commissioning.
3.	90% of fly ash generation	Three years from the date of commissioning.
4.	100% of fly ash generation	Four years from the date of commissioning.

The unutilised fly ash in relation to the target during a year, if any, shall be utilized within next two years in addition to the targets stipulated for these years and the balance unutilised fly ash accumulated during first four years (the difference between the generation and the utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.]

- (4) All action plans prepared by coal or lignite based thermal power plants in accordance with sub-para (2) and (3) of para 2 of this notification, shall be submitted to the Central Pollution Control Board, concerned State Pollution Control Board/Committee and concerned regional office of the Ministry of Environment and Forests within a period of [four months] from the date of publication of this notification.
- (5) The Central and State Government Agencies, the State Electricity Boards, the National Thermal Power Corporation and the management of the thermal power plants shall facilitate in making available land, electricity and water for manufacturing activities and provide access to the ash lifting area for promoting and setting up of ash-based production units in the proximity of the area where ash is generated by the power plant.
- ²[(6) The amount collected from sale of fly ash and fly ash based products by coal and /or lignite based thermal power stations or their subsidiary or sister concern unit, as applicable should be kept in a separate account head and shall be utilised only for development of infrastructure or facilities, promotion and facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved, thereafter as long as 100% fly ash utilization levels are maintained, the thermal power station would be free to utilize the amount collected for other development programmes also and in case, there is a reduction in the fly ash utilization levels in the subsequent year(s), the use of financial return from fly ash shall get restricted to development of infrastructure or facilities and promotion or facilitation activities for fly ash utilization until 100 percent fly ash utilization level is again achieved and maintained.]
- (7) Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Committee and the concerned Regional Office of the Ministry of Environment and Forests by the coal or lignite based thermal power plants, and also be made a part of the annual report of the thermal power plant as well as thermal power plant wise information be provided in the annual report of thermal power producing agency owning more than one thermal power plant.]

¹ Substituted by para 3(b) of the Amendment Notification S.O.2804 (E), dated 3.11.2009.

² Sub-paragraphs (6) and (7) substituted by para 3(c) of the Amendment Notification S.O.2804 (E), dated 3.11.2009.

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 fly ash.]

3. Specifications for use of ash-based products.-

(1) Manufacture of ash-based products such as cement, concrete blocks, bricks, panels or any other material or the use of ash in construction activity such as in road laying, embankments or use as landfill to reclaim low lying areas including back filling in abandoned mines or pitheads or for any other use 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.

(2) The Central Public Works Department, Public Works Departments in the State/Union Territory Governments, Development Authorities, Housing Boards, National Highway Authority of India and other construction agencies including those in the private sector shall also prescribe the use of ash and ash-based products in their respective ²[tender documents, schedules of specifications and construction applications including appropriate standards and codes of practice within a period of four months from the publication of this notification.]

³[(2A) Building construction agencies both in public and private shall prescribe the use of fly ash and fly ash based products in their respective tender documents, schedules of specifications and construction applications, including appropriate standards and codes of practice and 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 within a period of four months from the publication of this notification.]

¹ Inserted by para 4 of the Notification S.O.No. 979(E), dated 27.8.2003.

² Substituted by para 4(a) of the Amendment Notification S.O.2804 (E), dated 3.11.2009.

³ Substituted by para 4(b) of the Amendment Notification S.O.2804 (E), dated 3.11.2009.

(2B) All agencies undertaking construction of roads or flyover bridges and reclamation and compaction of low lying areas, including Department of Road Transport and Highways (DORTH), National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Department and other State Government Agencies, shall within a period of four months from the publication of this notification:-

(a) make provisions in their tender documents, schedules of approved materials and rates as well as technical documents for implementation of this notification, including those relating to soil borrow area or pit as per sub-paragraph (6) of paragraph 1; and

(b) make necessary specifications or guidelines for road or fly over embankments that are not covered by the specifications laid down by the Indian Road Congress (IRC).

(3) All local authorities shall specify in their respective tender documents, building bye-laws and regulations, the use of fly ash and fly ash-based products and construction techniques in building materials, roads embankments or for any usage with immediate effect.

(4) The Central Electricity Authority and other approving agencies may permit the land area for emergency ash pond or fly ash storage area up to 50 hectares for a 500 MW unit, based on 45% ash content coal, or in the same proportion for units in other capacities taking into account the ash content in coal or lignite to be used.

(5) All Financial institutions and agencies which fund construction activities shall include a clause in their loan or grant document for compliance of the provisions of this notification.

(6) A Monitoring committee shall be constituted by the Central Government with Members from Ministry of Coal, Ministry of Mines, Ministry of Power, Central Pollution Control Board, Central Electricity Authority, Head Fly Ash Unit of Department of Science and Technology and Building Material Technology Promotion Council to monitor the implementation of the provisions of the notification and submit its recommendations or observations at least once in every six months to the Secretary, Ministry of Environment and Forests, Concerned Adviser or Joint Secretary in the Ministry of Environment and Forests will be the convener of this committee.

¹ Sub-paragraphs (2B), (3), (4), (5), (6) and (7) substituted by para 4(c) of the Amendment Notification S.O 2804(1), dated 3.11.2009.

(7) For the purpose of monitoring the implementation of the provisions of this notification the State Governments or Union Territory Government shall constitute a Monitoring Committee within three months from the date of issue of this notification under the Chairmanship of Secretary, Department of Environment with representatives from Department of Power, Department of Mining, Road and Building Construction Department and State Pollution Control Board and this Committee would deal with any unresolved issue by Dispute Settlement Committee as prescribed in sub-paragraph (4) of paragraph 1, in addition to monitoring and facilitating implementation of this notification at the respective State Government or Union Territory level and this Committee would also empowered to suitably modify (waive or relax) the stipulation under sub-paragraph (1) in case of non-availability of fly ash in sufficient quantities from thermal power plant as certified by the said power plants and the Committee will meet at least once in every quarter.]

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

G.V.SUBRAHMANYUM, Scientist 'G'

Foot Note:- The principal notification was published in the Gazette of India, Part II, Section 3, Sub-section (ii) vide notification number S.O.763(E), dated the 14th September, 1999 and was amended vide notification number S.O.979 (E), dated the 27th August, 2003.

F. No. 22-13/2019-IA.III

Government of India

Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Aliganj, Jorbagh Road
New Delhi-110 003Dated: 28th August, 2019**Office Memorandum****Sub: Change in conditions stipulated in the Environmental Clearances of Thermal Power Plants and Coal Mines in line with the Fly Ash Notification and subsequent amendments - reg.**

The Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 mandates the requirement of prior environmental clearance to the projects/activities listed in the schedule to the said Notification. These projects/activities have been categorized under category A or B and require appraisal/and approval by the respective regulatory authorities (MoEF&CC/SEIAAs) at the Central/State level.

2. As per the provisions of the EIA Notification, 2006, read with subsequent amendments, mining of minerals is covered under Category A/B of the Schedule to the EIA Notification, 2006 based on their areal extent, and thus requiring prior environmental clearance from the concerned regulatory authority.

3. Based on the proposals submitted by the project proponent and recommendations of the sectoral Expert Appraisal Committee, mining projects and thermal power plants were granted Environmental Clearance by the Ministry/State Environment Impact Assessment Authorities (SEIAAs) from time to time, subject to compliance of certain terms and conditions as environmental safeguards necessitated at that stage, which also included the condition for backfilling of mines voids, use/disposal of fly ash in low lying areas, etc.

4. In order to address the environmental concerns of fly ash and to improve its utilization, MoEF&CC has issued a Notification on 14th September, 1999 and subsequent amendments issued vide Notifications dated 27th August, 2003, 3rd November, 2009 and 25th January, 2016 from time to time.

The Fly Ash Notification issued vide S.O.2804 (E) dated 3rd November, 2009 provides for mandatory use of fly ash in the external overburden dump, backfilling or stowing of mines. The main concern is poor fly ash utilization by the pithead power plants mainly because of limited potential in cement industries/road projects and non-utilization of fly ash in stowing and overburden in coal mines.

5. An Expert Committee was constituted for developing a focussed strategy for best utilization of flyash to manufacture end products. The Committee has made recommendations for enhanced utilization of flyash in various sectors viz. mines, roads, bricks manufacturing, cement manufacturing, etc. During an Inter-ministerial consultation held on 21st January, 2019 under the Chairmanship of Secretary (EF&CC), recommendations of the Expert Committee were accepted, which *inter-alia* included the following:-

- a) MoEF&CC should revisit the conditions stipulated in the existing environmental clearances of Thermal Power Plants for flyash utilization and modify them in consonance with the flyash notification.
- b) Appropriate conditions need to be incorporated in the environmental clearances for utilization of flyash in mines backfilling/stowing.

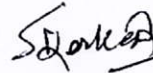
6. The matter has been examined in the Ministry. Further, the matter has been also been referred to the EAC (Thermal Power Projects) in its meeting held on 28.5.2019 and 12.7.2019. The EAC mentioned that though the Flyash Notification, 1999 and subsequent amendments allow the unrestricted use of flyash in abandoned mines, low lying areas, soil conditioner in agriculture, there are no specific guidelines/methodology available for safe disposal of flyash so as to minimize the damage to the environment. In absence of methodology, EAC has been examining the proposals on case to case basis and recommending for disposal of flyash in abandoned mines. Further, the EAC has also expressed the concerns over the long term impacts of flyash disposal on groundwater, soil quality and impact on associated flora and fauna. Now, the guidelines for disposal of fly ash utilisation in low lying areas and mine voids have been prepared by the Central Pollution Control Board and placed before the EAC (Thermal Power and Coal Mining) in its meeting held on 12.7.2019.

7. In view of the recommendations of the EAC (Thermal Power) in its meeting held on 12.7.2019, after careful examination of the matter and to meet the objectives of the Fly Ash Notification, 1999 & its amendments, the Ministry hereby stipulates the following conditions in the existing Environmental Clearances of Thermal Power Plants and Coal mines which have valid Environmental Clearance accorded by the Ministry/SEIAA, that will replace the existing conditions (Specific & General) which prohibited the use of fly ash in abandoned mines/low lying areas/soil conditioner in agriculture:

- i. The guidelines prepared by CPCB for disposal of flyash for reclamation of low lying areas and in stowing/backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.
- ii. There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failures and flyash flowing into the nearby water body.
- iii. The top layer of the flyash disposal area in the abandoned mines shall be kept moist during disposal.
- iv. Top layer of the disposed area should have 70 cm overburden or gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.
- v. Bioaccumulation and bio-magnification tests shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals escaped through groundwater or runoff.
- vi. Surface runoff and supernatant water, in any case shall not be let into the surrounding areas. It shall be collected by providing adequate drains around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.
- vii. To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.



- viii. Flyash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the State Agricultural Universities/Colleges based on the soil testing.
 - ix. Approval from DGMS shall be obtained before disposing the ash in the mine voids.
 - x. Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.
 - xi. All the power plants should install different silos for dry collection of flyash.
 - xii. Records pertaining to details of month-wise quantity of flyash disposed and water consumption along with nature/source of water shall be maintained and submitted to Ministry/Regional Office annually.
 - xiii. Before starting the disposal of ash into mine voids, the NOC/Permission from the mine owner is to be obtained incase the mine closure activities are not completed or State Government incase the mine has been handed over to the State Govt. after its closure. A copy of such NOC/Permission is to be submitted to the Ministry and its Regional Offices.
8. This issues with the approval of the Competent Authority.



(Dr. S. Kerketta)
Director, IA Division

To

1. The Chairman, Central Pollution Control Board (CPCB)
2. The Chairman/Member Secretaries all the Expert Appraisal Committees
3. The Chairman /Member Secretaries of all the SEIAAs/SEACs
4. The Chairman/Member Secretaries of all SPCBs/UTPCCs
5. All the Power Plant Operators/ Coal Mining Operators who were accorded Environmental Clearance.
6. All the ROs of MoEF&CC.
7. All the Officers of I.A. Division

Copy for information to:

1. PS to Hon'ble Minister for Environment, Forest and Climate Change
2. PS to Hon'ble MoS (EF&CC)
3. PPS to Secretary(EF&CC)
4. PPS to SS(AKJ) / AS (RSP)
5. Sr.PPS to JS (GM)/ JS(NK)
6. Website of MoEF&CC.
7. Guard file.

Guidelines for disposal/utilisation of Fly Ash for reclamation of Low Lying Areas and in stowing of Abandoned mines/Quarries



**Central Pollution Control Board
March, 2019**

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Guidelines for disposal/utilisation of flyash for reclamation of Low Lying Areas and in stowing of Abandoned mines/Quarries

1.0 Introduction:

Management of huge quantity of ash (fly ash, bottom ash and pond ash) generated from coal fired Thermal Power Plants (TPPs) is a serious environmental challenge. Ash generation from coal or lignite based thermal power plants, has increased from 40 Million tonne per year in 1993-94, to more than 200 Million tonne per year in 2017-18 and is projected to increase to 275 Million Tons / year by 2032.

The ash generation in coal and lignite based thermal power plants in various forms such as dry ash, bottom ash, pond ash and mound ash that are required to be managed in such a manner that it does not affect the environment. Utilisation of ash for reclamation of low lying areas and abandoned quarries is recognised as an alternate option and therefore, MoEF&CC has issued a notification to address utilisation off ash for various purposes including these two options

The Ministry of Environment, Forest and Climate Change (MoEF&CC) issued the Fly Ash notification on 14th September, 1999, which has subsequently been amended in 2003, 2009 and 2016. The Fly Ash notification (1999) mandates the use of fly ash for the purpose of manufacturing ash-based products such as cement, concrete blocks, bricks, panels or any other material and for construction of roads, embankments, dams or for any other construction activity within a radius of 300 km from thermal power stations (TPPs). Besides, it also mandates use of fly ash in mines backfilling or stowing of mines within a distance of 50 km.

2.0 Status of fly ash utilisation:

Since 1999 when flyash utilisation was made mandatory, the utilization of fly ash has increased from 6.64 million-ton in 1996-97 to 147.7 million-ton in 2017-18. Fly ash generation and utilization in 2017-18 from 182 coal/lignite based TPPs of various power utilities in the country was 220.7 and 147.7 million-ton, respectively. The percentage of fly ash utilization during 2017-18 has been 66.9%. During 2017-18, out of total fly ash generation, 35.6 % of total fly ash was used in the cement sector, followed by 14.28 % in making bricks & tiles, 11.57 % stored in ash dyke raising,

7.99% in mine filling, 16.85 % in reclamation of low lying area, 5.43 % in roads & embankments, 1.34% in concrete making, 0.21 % in agriculture, 6.73 % in others and 33.1% remained as unutilized fly ash.

Mine reclamation represents a potential beneficial use of flyash that has been receiving increased attention in recent years. Coal mining operations have produced both open pits and deep underground mine voids that can be filled by flyash. Placement of flyash into deep mines can provide structural support to abate subsidence, and placement of flyash in surface mines or other open pits can aid in restoring mined land to beneficial use. The use of flyash as mine backfill may provide the additional benefit of limiting impacts of acid mine drainage (AMD). Mostly flyash is alkaline material that can neutralize acidic water and/or inhibit production of acid. Placement of fly ash may also reduce the permeability of mine strata and divert water away from acid-generating materials. Although flyash possess these beneficial physical and chemical properties, there are concerns regarding potential for release of toxic chemicals in the leachates from the fly ash. Therefore, scientifically sound fly ash management is needed so that environmental concerns can be adequately and reliably identified and addressed.

3.0 Need of Guidelines:

Ministry of Environment and Forests and Climate Change (MoEF&CC) vide Notification No. S.O. 763 (E) dated 14th September 1999, last amended on 25th January, 2016 issued following directions for reclamation low lying area and stowing of mines;

- i. No agency, person or organization shall within a radius of three hundred Kilometres of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low-lying areas with soil; only ash shall be used for compaction and reclamation.
- ii. 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 at soil borrow area shall be filled up with fly ash with proper compaction and covered with topsoil kept separately as above and this would be done as an integral part of embankment project.

- iii. No person or agency shall within fifty kilometers (by road) from coal or lignite based Thermal Power Plants, undertake or approve stowing of mine without using at least 25 % of fly ash on weight to weight basis, of the total stowing materials used and this shall be done under the guidance of the Director General of Mines Safety (DGMS).
- iv. No person or agency shall within fifty kilometers (by road) from coal or lignite based Thermal Power Plants, undertake or approve external dump of mining Over Burden (OB) without using at least 25 % of ash on volume to volume basis of the total materials used for external dump of overburden and same percentage in upper benches of back filling of opencast mines and this shall be done under the guidance of the Director General of Mines Safety (DGMS);
- v. All agencies undertaking construction of roads of flyover bridges and reclamation and compaction of low lying areas, including Department of Road Transport and Highways (DORTH), National Highways Authority of India (NHAI), Central Public Works Department (CPWD), State Public Works Department and other State Government Agencies, shall within a period of four months from the publication of this Notification " make provisions in their tender documents, schedules of approved materials and rates as well as technical documents for implementation of this Notification, including those relating to soil borrow area or pit".
- vi. The pond ash should be made available free of any charge as is as where basis to manufacturers of bricks, blocks, tiles including clay flyash bricks production manufacturer's units, farmers, central and the state road construction agencies, Public Works Department and to agencies engaged in backfilling or stowing of mines.

Though, flyash utilisation has gained momentum progressively over the years, further efforts are required to explore new areas of ash utilisation. With suitable safeguards, mine backfilling including disposal of flyash in abandoned quarries and road construction specially in the construction of National Highways and Expressways could be the major mode of flyash utilisation in the near future as these areas have vast potential. It would perhaps be desirable that the concerned Ministries should take steps in sorting out the bottlenecks such as declaring a list of abandoned mines, making adequate provisions in respective schedules for flyash utilisation by the Indian Road Congress & construction agencies etc.

MoEF & CC vide letter dated 01.03.2019 asked CPCB to come out with guidelines based on Odisha Pollution Control Board experience for reclamation of low lying areas and abandoned quarries with ash as recommended by the Expert Committee that was constituted by Niti Aayog vide O.M. No. 25 (11)/2014-Minerals dated 12.06.2018 for developing a focus strategy for best utilisation of fly ash to manufacture end products recommended.

The scope of guidelines covers transportation and disposal of flyash in low lying areas and abandoned quarries in an environmentally friendly manner.

4.0 Loading/unloading and transportation of flyash

4.1 Current Practice for Handling & Disposal of Flyash & Bottom ash (within the power plant)

Flyash is collected in dry form from ESP hopper and disposed either in dry form or through wet slurry form. While, bottom ash collected at the bottom of boiler and is disposed in wet slurry form into the ash ponds.

Following technologies are conventionally used for handling & disposal of flyash and bottom ash collected from ESPs hoppers and boiler bottom respectively within the plant or upto the ash pond area:

- I. Dry Pneumatic conveying
- II. Dry (moist) Conveying system through belt conveyor/tube belt conveyor
- III. High concentration slurry disposal system
- IV. Medium concentration slurry disposal system
- V. Lean concentration slurry disposal system

Amongst the above technologies, Dry Pneumatic conveying, Medium concentration slurry disposal system, High concentration slurry disposal system, and Dry (moist) Conveying system through belt conveyor/tube belt conveyor are preferable as compared to Lean concentration slurry disposal system.

The dry ash is typically conveyed pneumatically from the ESP or filter fabric hoppers to storage silos where it is kept dry, pending utilization or further processing, or to a system where the dry ash is mixed with water and conveyed (sluiced) to an on-site storage pond. Fly ash is stored in silos, domes and other bulk storage facilities. Fly ash can be transferred using air

slides, bucket conveyors and screw conveyors, or it can be pneumatically conveyed through pipelines under positive or negative pressure conditions.

Dry fly ash collected is also be suitably moistened with water and wetting agents, as applicable, using specialized equipment (conditioned) and hauled in covered dump trucks for special applications such as structural fills. Water conditioned fly ash can also be suitably stockpiled at jobsites. Exposed stockpiled material must be kept moist or suitably covered to prevent fugitive emission.

The dry bottom ash removal and its transportation is certainly more environment friendly, compared to that of wet ash removal and transport system.

4.2 Guidelines for loading, unloading, storage, transportation of flyash

The power plants need to maximise dry collection of fly ash & bottom ash and also adopt adequate measures to prevent fugitive dust emission during loading, unloading, storage, transportation and various uses of dry as well as ash bottom ash and pond ash. Following guidelines are, therefore, suggested for prevention of pollution and augmentation of flyash utilisation

4.2.1 Maximise dry collection of fly ash and bottom ash

- a. Coarse fly ash from first field of ESP hoppers need to be collected and stored separately.
- b. Fine fly ash from second field onwards of ESP Hoppers should be collected separately. For some specific usage, fine fly ash may be passed through Classifier for further separation of fine fly ash and stored in separate silo.
- c. Bottom ash which is not utilised presently could also be collected in dry form and converted into a valuable resource if processed to match the end use specification. Wet collection & disposal of bottom ash should be minimised as far as possible

4.2.2 Loading, Unloading and Storage

Installation of Bag Filters with dry flyash collection and storage in Silos at loading and unloading points are standard practices at both locations i.e loading at power plant site as well as at the unloading point at user's site. Suggestions for further improvement in existing practices are as under:

- a. Current practice of loading of fly ash in Bulklers/Tankers requires improvement at the stage of loading of fly ash in Tankers. The opening of telescopic chutes at the loading end should be air tight and confined to avoid fugitive dust emission.
- b. The Pollution Control Equipment / Cascade Filters, attached with fly ash loading chute should be periodically cleaned along with regular scheduled maintenance of bag filter to avoid choking and malfunctioning of Bag Filter. It would mitigate the dust emission during loading of fly ash.
- c. Malfunctioning of level sensors can be avoided, with regular maintenance, to prevent over filling of fly ash in Tankers .
- d. The Weigh Bridge to be installed under fly ash loading chute to fill just the required quantity of fly ash in tankers so that overflow/spillage of fly ash in open areas is avoided which otherwise results in heavy fugitive emission all around.
- e. Opening of tankers need to be properly locked during transportation of fly ash. Automatic opening / closing system need to be installed without fail.
- f. Current practice of unloading of fly ash from tanker to storage hopper through pneumatic system is fairly good. Otherwise, the leakage of fly ash will occur at bends and joints of transportation pipe line. The fly ash being abrasive in nature causes damage at bends and joint locations. Fly ash should, therefore be transported through PVC coated pipes to avoid abrasion otherwise it may lead to leakage of flyash. The mechanical unloading system should be envisaged to avoid high pressure and dust leakage from unloading pipe lines. As far as possible, number of bends should be minimised.
- g. The fly ash storage silo should be of or coated with anti-abrasive or anti-corrosive material. It is better to provide concrete silo/hopper to avoid leakages.

- h. Proper functioning of all the level sensor of Storage Hopper to be ensured to avoid any possible spillage from Hopper opening.
- i. The Bag Filter made of anti-abrasive material/cloth be provided with telescopic chute.
- j. Dumping of ash in Ash pond should be done mechanically in moist condition so that ash does not get air borne and pose fugitive dust problem.
- k. The bottom ash discharged from boiler bed, may be transported pneumatically in dry form / in slurry form to the ash pond

4.2.3 Transportation

Fly ash transportation has many challenges like distance to be transported, form of ash i.e. dry or wet ash, user's requirement, economic feasibility, requirement of surrounding vicinity and many other site specific issues. In any case, control of dust emission during transportation is prime concern and more challenging being a non-point source of pollution and larger area coverage due to movement from one place to other passing through various receptors. As flyash is used by different users for different purposes such as cement manufacturing, brick manufacturing, mine back filling, road construction and filling of low lying area, the handling and transportation have to accordingly decided. Following modes of transportation and precautions are suggested for mine back filling and development of low lying areas by disposal of flyash or bottom ash to avoid fugitive dust emission:

a. Transportation for abandoned mine back filling

- I. Pipe conveyors, wherever feasible, based on the topography of the area should be used.
- II. Tankers/ railway wagons/ bulkers or mechanically designed covered trucks need to be used
- III. Thermal Power Plants using wet ash disposal, if permitted can transport ash slurry directly to abandoned mine through ash slurry pipe line.

b. Transportation for filling of low lying area

- I. Tankers/ bulkers or mechanically designed covered Trucks need to be used.

In no case, flyash or bottom ash shall be transported by open trucks / trollies irrespective of distance or end use. Thermal power plants and fly ash user agency shall collectively ensure that fly ash or bottom ash is transported in environmentally sound manner by following the guidelines mentioned in para 4.2.3 & 4.2.4.

4.2.4 General Code of Practices for Maintenance of roads, vehicles and conditioning of flyash

- a. Roads inside power plant and that of flyash user agency should be paved and plantation of adequate width should be done at both sides. Mechanised road sweepers should be deployed. In addition, adequate arrangements for water sprinkling should be made to suppress fugitive dust emission, if any.
- b. Thermal power plants and user agencies should make arrangements (two stages) for washing of wheels of the vehicles (bulkiers/trucks) before deployed for fly ash transportation.
- c. Fly ash to be transported should be conditioned with water to maintain minimum of 15% moisture at the disposal point so that ash does not get air borne and cause fugitive emission.
- d. Adequate free board in trucks should be kept to avoid overflow/spillage during transportation.
- e. In case of any spillage enroute during transportation of fly ash, the agency shall ensure that spilled ash is collected and transported to the disposal/usage site immediately.
- f. All the bulkiers and trucks responsible for carrying fly ash should be with valid Pollution Under Control certificates.
- g. Provision should be preferably made for weighing of fly ash loaded into tankers/ railway wagons/bulkiers etc under the silo.
- h. The speed limit of vehicles carrying flyash should be strictly enforced and it should not exceed 40 km per hour.

- i. State Pollution Control Boards shall clearly indicate mode of transportation and method of loading and unloading while granting the consent.
- j. Transportation of flyash through thickly populated areas should be avoided as far as possible.
- k. General awareness/ training programmes be organised regularly for tanker operating staff like drivers and cleaners on the impact of hazards of fly ash.

5.0 Reclamation of Low Lying area using Ash

Filling of Low lying areas inside the plant premises and outside within 300 km. of power plant may be taken up using ash. Low lying area reclamation with ash should be taken up adopting standard practices as per 2015 technical specification mentioned in NTPC Policy. Following steps should be taken up prior to initiate low lying area developmental activities.

5.1 Preconditions:

- 5.1.1 **Consent from land owner:** Consent/ permission should be obtained in writing from the land owner before start of work.
- 5.1.2 **Permission from Regulatory authority:** Power plant/ land owner/ agency shall obtain statutory permission from regulatory authorities such as SPCB as per the requirement.
- 5.1.3 **Prevention of pollution:** Suitable methods should be adopted and necessary arrangement should be made to prevent pollution during excavation of pond ash at ash pond, filling area and during transportation of ash.
- 5.1.4 **Soil Cover on the top of ash fill:** As per the MOEF&CC gazette notification of ash utilization dated 14-09-1999 and as amendment on dated 27-08-2003 and 03-11-2009, the soil required for soil cover shall be excavated from land fill site itself and kept separately before taking for ash filling. If it is not possible to do so, only the minimum quantity of soil required for the purpose of cover shall be excavated from the soil borrow area. The voids so created due to removal of soil shall be filled up with ash with proper compaction and covered at top with soil cover. About 300-500 mm thick soil layer shall be placed over the ash fill area. This should be done as an integral part of low lying area development work.

5.1.6 Restrictions :

Reclamation of area by ash shall not be permitted in the following areas :

- i. Flood plain area/Ecologically Sensitive Areas.
- ii. Agriculture land / area.
- iii. Reclamation of Forest land / area is permissible only if clearance from MoEF&CC as per Forest Conservation Act, 1980 is available.
- iv. Gochar Kisan Land.

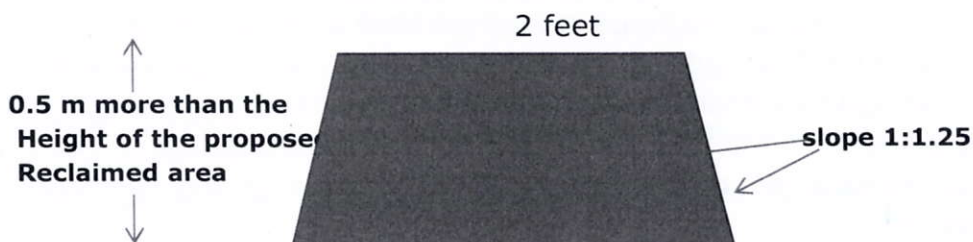
5.2 Preparation of filling area

5.2.1 The entire area meant to receive the ash and earth filling shall be stripped by minimum 150 mm. The exact depth of stripping shall be decided by the Engineer-in-Charge depending upon nature of top soil and the vegetation present. All organic matter, vegetation, roots, stumps, bushes, rubbish, swamp materials, etc. shall be removed from the site. The stripping material and other unsuitable materials as referred above shall be kept away from the area to be filled up so that these do not get mixed up with filling material and disposed off to a place as decided by the Engineer-in-Charge.

5.2.2 Levelling

All existing undulations, holes, cavities and excavations made for plate load rests and other soil investigations, etc. shall be filled with pond ash having requisite moisture content. The ash thus filled shall be compacted with the help of vibratory rollers so as to achieve dry density of not less 95% as per I.S-2720 (Part-VII). This would result in a levelled surface upon which layer wise filling of compacted ash can be done.

5.2.3 Protection of pond or water body adjoining or within the working site: If any pond or water body exists within or adjoining the low lying area /quarry then an earthen embankment of the cross-section as given in the Figure below be constructed around the pond or water body to protect it from spilling of ash or ingress of surface runoff into it.



Cross- section of water body protection embankment

The soil used for the embankment should neither be granular nor black cotton soil. It should be of good quality for geo-technical application. Soil should be compacted to 95% proctor by Vibratory Roller of 15 T minimum capacity, in the layers of 25-30 cm and the optimum moisture content determined before execution of work. After attaining the desired height, the disposal area should be thoroughly compacted, graded followed by soil cover at least 15 cm thickness for proper reclamation of the land by grass turfing or appropriate plantation.

5.3 Excavation of pond ash from borrow area

5.3.1 Borrow Area-location

The location and permissible depth of excavation of the Borrow areas for pond ash shall be got specifically approved from concerned Thermal Power Station. The boundaries and permissible depth of excavation so approved shall be strictly followed and no deviation shall be allowed. Similarly, routes for movement of all ash transportation vehicles, water tankers, equipment, etc. shall be got approved from Thermal Power Station. These shall be strictly followed and no deviation shall be allowed.

The excavation surfaces and surface of waste materials shall be left in a reasonably smooth and even condition. All the excavations within the ash pond shall be at a minimum slope of 4 (Horizontal): 1(Vertical)

5.3.2 Site Clearance

All areas required for borrowing shall be cleared of all trees and stumps, roots, bushes, rubbish and other objectionable material. Particular care shall be taken to exclude all organic matter from the ash to be placed in the fill. The cleared areas shall be maintained free of vegetation growth during the progress of the work.

5.3.3 Stripping

Borrow area shall be stripped of top layer by a depth of minimum 150 mm. The exact depth of stripping shall be decided by the Engineer-in-charge depending upon nature of top layer and the vegetation present.

5.3.4 Borrow area watering & dewatering

The natural moisture content of material in the borrow areas as well as the optimum moisture corresponding to the Proctor's maximum dry density for the material in the particular borrow area shall be obtained from laboratory tests. Additional moisture, if required, shall be introduced into the borrow area by watering well in advance of excavation to ensure uniformity of moisture content. If in any borrow area before or during excavation there is excess moisture, steps shall be taken to reduce the moisture by the selective excavation to secure the materials of required moisture content by excavating drainage ditches, by allowing adequate time for drying or by other means. To avoid formation of pools in the borrow areas during excavation operations, drainage ditches from borrow areas to the nearest outlets shall be excavated so as to obtain homogeneous mix. In general, all materials from a particular borrow area shall be mixture of materials obtained for the full depth of cut.

5.3.5 Earth cover in Borrow Area

It shall be the responsibility of Thermal Power plant to arrange sweet soil from approved external borrows areas. The earth cover material shall consist of sandy loam free of admixture of stiff clay, refuse, stumps, roots, rock, bushes, weeds or any other material which would be detrimental to the proper development of vegetation growth. It shall not contain stone of size 25 mm and over. The loamy top soil shall be of healthy crops, grass or other plant growth, that is of good quality and reasonably free draining. Other specifications for Borrow area e.g. site clearance, stripping, Borrow area watering/De-watering etc. shall be as per relevant clauses of Borrow area for ash as outlined above i.e clause nos. 5.3.1 to 5.3.4.

5.4 Filling with pond ash

5.4.1 Placement

After the area has been prepared and levelled, pond ash excavated from Borrow areas having required moisture content shall be placed in layers not exceeding 300 mm in compacted thickness. The placing operations shall be such that in strips of 10-15 m of the material when compacted in the fill will be blended sufficiently to produce specified degree of compaction and stability. No stones, cobbles or rock fragments, having maximum dimensions more than 100 mm shall be placed in the fill. Stones and

cobbles shall be removed either at the borrow pit site before it is used as soil cover.

5.4.2 Procedure

The material shall be placed in the fill in continuous horizontal layers, stretching right across the whole section, not more than 300 mm in compacted thickness and rolled as herein specified. The length of one layer shall not exceed 150 meters at one stretch. The layers shall be compacted in strips overlapping not less than 600 mm, if the rolled surface of any fill is found to be too wet for proper compaction, it shall be raked up, allowed to dry, or shall be worked with a harrow or any other approved equipment to reduce the moisture content to the required amount and then it shall be re-compacted before the next layer of ash is placed. Ash surfaces are likely to become dry in short intervals especially during hot and dry weather and hence enough moisture shall be added between difference passes to ensure proper compaction

5.4.3 Compaction

The compaction of each layer shall be carried out so as to achieve maximum in-situ dry density 95% of maximum dry density (MDD) of the material found out as per I.S 2720 (Part VII). To achieve maximum compaction level use of vibratory rollers shall be made. Required number of passes shall be made so as to achieve desired compaction. Number of passes required shall be verified through trials tests before actual execution of work. The broad specifications of vibratory rollers required for the purpose is as follows:

- a) Static Weight = 6 to 10 t
- b) Static Linear Load = 20 – 35 kg/cm
- c) Frequency = 18 – 30 Hz (1100 to 1800 vibrations/ minute)
- d) Amplitude of vibrations = 0.5 mm to 1.5 mm

5.4.4 Moisture control

So far as practicable, the materials shall be brought to the proper moisture content in the borrow area before excavation. If additional moisture is required, it shall be added at the fill site by sprinkling water before rolling the layer. Thermal Power Plant shall make arrangements for supply of water to the borrow areas as well as to the fill area. If the moisture content is more than requirement, the material shall be spread and allowed to dry

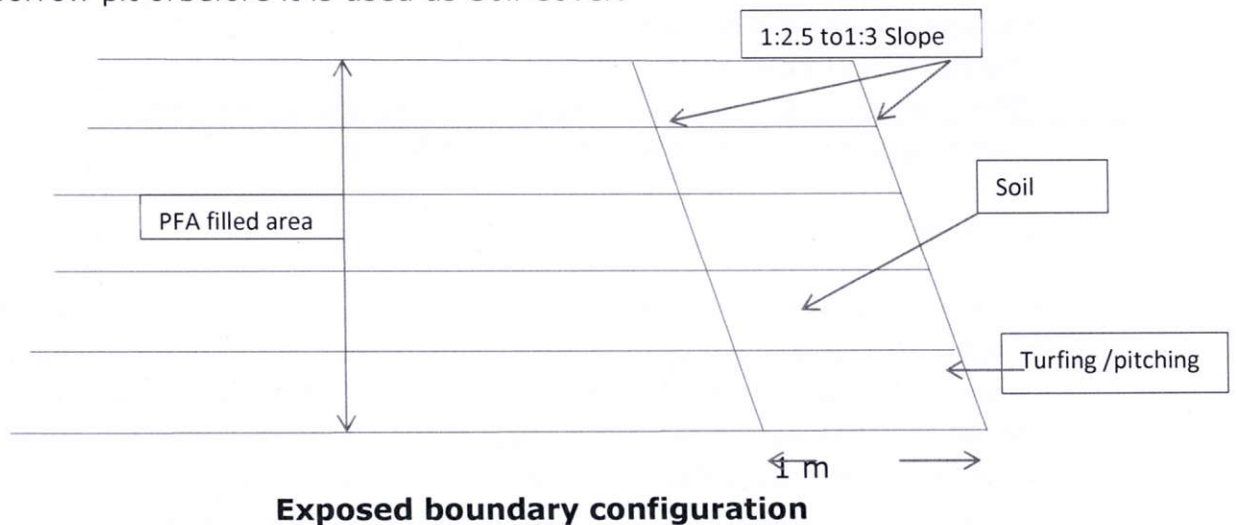
before rolling. The moisture content shall be at most uniform throughout the layer of material and ploughing or other methods of mixing to obtain uniform distribution. If the moisture content is more or less than the range of the required moisture content, or if it is not uniformly distributed throughout the layer, rolling shall be stopped, and shall be started again only when the above conditions are met with.

Fill materials shall be placed only when the weather conditions are satisfactory to permit accurate control of the moisture content in the materials.

5.4.5 Placement of earth cover in filling area

Earth cover shall be laid simultaneously with the laying of compacted ash layers and on side slopes. As in the case of ash layers, compacted thickness of earth layers shall not be exceeding 300 mm. As far as top cover of earth is concerned, after the area has been covered with compacted ash up to 500 mm below the required finished level of the area, a compacted layer of 500 mm thickness of suitable earth shall be placed over ash surface. This cover shall be placed in layers, each layer shall be of 250 mm in compacted thickness.

The combined excavation and placing operations shall be such that the materials when compacted in the fill will be blended sufficiently to produce specified degree of compaction on stability. No stones, cobbles or rock fragments, having maximum dimensions more than 25 mm shall be placed in the earth cover. Such stones or cobbles shall be removed either at the borrow pit or before it is used as Soil Cover.



Other requirements of earth cover laying shall be similar to those of ash laying i.e. as outlined in 5.4.1 to 5.4.4 above.

5.5 Prevention of Pollution

It shall be responsibility of thermal power plant or his contractor that no air borne and water borne pollution shall occur during all stages of operations such as in Borrow areas, during transportation of ash/ earth, during placement of fill material etc. All measures such as water sprinkling covering moist ash/ earth with tarpaulins in open trucks, etc., shall be taken to done care of above.

6.0 Disposal of flyash in voids of abandoned mines

As per notifications 1999 and 2009, power plant shall undertake or approve stowing of mines without using at least 25% of fly ash on weight to weight basis, of the total stowing materials used. Mine void filling on pilot basis is being carried out at the power plants of NTPC Ltd., Bhushan Steel and NALCO in Odisha with prior permission from MoEF & CC and OSPCB. Based on their experience and study conducted by CMPDIL, Ranchi for NTPC Talcher, following methodology is suggested for filling of mine voids with flyash.

6.1 The power plant authority shall carry out following study prior to taking up ash disposal activities in mine void to ensure no change/damage/deterioration in water quality and hydrology in and around the proposed area:

- Ash Characterisation and Leachate Study (Table 1.1)
- Techno-Economic Feasibility Study for disposal of ash into the Quarry
- Topographical Survey of Pipeline Corridor & Mine Void area
- Feasibility of transportation of ash to mine void
- Geotechnical study of the Pipeline Corridor & Mine Void area
- Pre and post filling mine water quality including leachability of metals (Table 1.1)

6.2 Mode of ash transportation to mine void area

One of flowing mode of transport actions of flyash shall be used depending upon the topography of the area:

1. Pipeline using pneumatic conveying system

2. Dumpers/ Trucks
3. Merry Go Round (MGR) System
4. Belt Conveyors in case of dry ash disposal
5. Wet ash (lean slurry or high concentration slurry) through pipeline

6.3 Monitoring:

6.3.1 Regular environmental monitoring to be undertaken during the period of disposal of ash into mine void as well as after the reclamation of mine void. The detailed monitoring programme is given in Tables below:

Table 1.1 : Proposed Monitoring Programme during Disposal of Ash

Samples	Parameters to be Analysed	Frequency
Ash Samples	Chemical Parameters (%): SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , K ₂ O, TiO ₂ , CaO, MgO, Na ₂ O, P ₂ O ₅ , SO ₃ Trace Elements (mg/kg, using TCLP Test): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn Radio-activity (Bq/kg): ²³⁸ U, ²³⁶ Ra, ²³² Th, ²²⁸ Ra, ²³⁰ Pb, ⁴⁰ K, ¹³⁷ Cs	Once before initiation of filling
Ash Leachate Analysis	Trace Elements (mg/kg, using TCLP Test): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Once a year
Piezometer Water Samples	Chemical Parameters (mg/l, except, pH and EC): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO ₄ , NO ₃ , PO ₄ , Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Monthly
Mine Water Sample	Same as above	Monthly
Ground Water	Same as above	Twice a year - Pre-monsoon and Post-monsoon
Surface Water Samples	Same as above	Twice a year - Pre-monsoon and Post-monsoon
Soil Samples	Texture, type, pH & cation exchange capacity. Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Once a year

Survey of Flora and Fauna	<ul style="list-style-type: none"> • Listing of Flora (herbs, shrubs and trees) and Fauna (soil invertebrates and other animals) based on field observations and review of information available • Analysis of trace elements in plants (herbs, shrubs and trees), the invertebrates • Analysis of trace elements in aquatic fauna from the mine void filled with fly ash • Bio-accumulation and Bio-magnification tests 	Once in two years
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Table 1.2: Proposed Monitoring Programme After Reclamation of Mine void

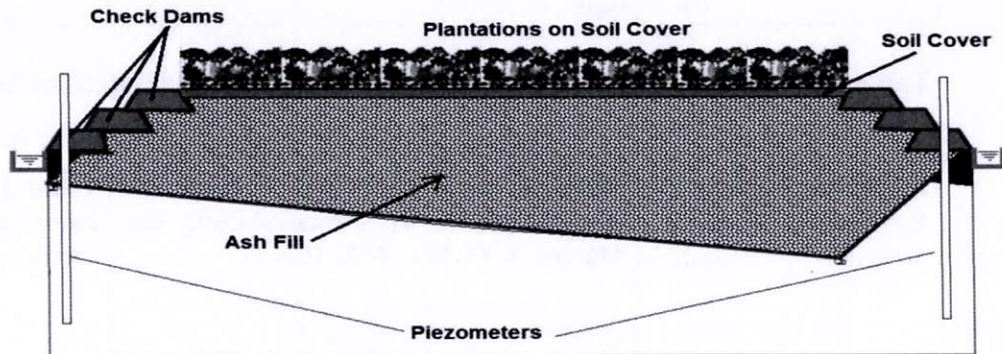
Samples	Parameters to be Analysed	Frequency
Piezometer Water Samples	Chemical Parameters (mg/l, except, pH and EC): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO ₄ , NO ₃ , PO ₄ , Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn	Twice a year - Pre-monsoon and Post-monsoon
Ground Water Samples	Same as above	Once a year - Pre-monsoon
Surface Water Samples	Same as above	Once a year - Pre-monsoon
Survey of Flora and Fauna	<ul style="list-style-type: none"> • Listing of Flora (herbs, shrubs and trees) and Fauna (soil invertebrates and other animals) based on field observations and review of information available • Analysis of trace elements in plants (herbs, shrubs and trees), the invertebrates • Analysis of trace elements in aquatic fauna from the mine void filled with fly ash • Bio-accumulation and Bio-magnification tests 	Once in five years

In the event of deterioration of environmental quality, the same will be reported to concerned SPCB immediately and suitable preventive/corrective action will be undertaken.

6.4 Reclamation of Land filled site

After the quarry is filled to the permitted height as per DGMS, the same shall be provided with a soil cover and plantation shall be done with local fast growing species (preferably trees), to make it a part of the overall

post-mining land use pattern envisaged in the mine closure plan. The design of surface contours and land profile will be in consonance with the surrounding features. A three tier plantation approach (consisting of large trees, smaller trees and shrubs) will be followed for overall eco-restoration of the area. This will also help in checking the surface run-off, preventing the water from percolation and maintaining the aesthetics beauty of the surrounding in general. A conceptual diagram of the reclaimed mine void is presented below.



**Conceptual Plan for Reclamation of Mine Void
(Drawing not to Scale)**

During the mine void reclamation, the following measures are to be undertaken:

- i. Storm water drains shall be constructed for channelizing the run-off water away from the disposal site.
- ii. A 30 cm thick soil cover shall be provided to promote vegetation growth.
- iii. For plantation purpose, preference shall be given to both native species and mixed culture. The species will be selected carefully from the following groups for quick reclamation under the guidance of a taxonomist:
 - Tree species for fuel wood and timber
 - Forestry type tree species.
 - Tree species with dense foliage for shade.
 - Native species.
- iv. However, fruit bearing species shall be avoided.

7.0 Precaution

The following precautionary measures are required for safe working during the reclamation activity:

- (i) Appropriate measures should be taken to prevent entry of cattle/livestock inside the disposal area during execution period.
- (ii) Care shall be taken to avoid any kind of nuisance / inconvenience to the public due to such dumping / filling activities.
- (iii) Water sprinkling for dust suppression during handling of Ash shall be ensured from being air borne.
- (iv) After complete reclamation of the site, sign board shall be kept indicating the low lying land / abandoned quarry has been reclaimed with ash. This will help to propagate the message of mine void using ash.

8.0 Regulatory Procedure for Processing the Application for consideration of grant of permission for Reclamation of Low Lying Areas / Abandoned Quarries :

8.1 The activity of reclamation of Low Lying Areas / Abandoned Quarries will be regulated under the provisions of Water (Prevention and Control of Pollution) Act, 1974 and Air Water (Prevention and Control of Pollution) Act, 1981. The stipulations specified in this guideline is consistent with the provisions of Fly Ash Notification, 1999 and amended thereafter which should be a special condition mentioned in consent order issued under the Water (Water (Prevention and Control of Pollution) Act, 1974 and the Air Water (Prevention and Control of Pollution) Act, 1981. Thereafter any deviations from the guidelines shall be treated as violation of both Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and action as deemed proper shall be taken under Consent Administration by the Board.

8.2 Necessary clearances shall be obtained from the concerned agencies such as DGMS, SPCB, IBM, MoC, etc .

Guidelines for disposal of flyash in open cast mines along with Over Burden (OB)

As per notifications 1999 and 2009, "No person or agency shall within fifty kilometres (by road) from coal or lignite based Thermal Power Plants, undertake or approve without using at least 25 % of ash on volume to volume basis of the total materials used for external dump of overburden (OB) and same percentage in upper benches of back filling of opencast mines and this ***shall be done under the guidance of the Director General of Mines Safety (DGMS).***

The methodology as approved by Directorate General of Mine Safety (DGMS) in case of M/s JSPL & JPL (RGR/JPL/P-98(1) &(3)/Flyash/18/2014/1518 dated 31.07.2014) may be referred for filling ash in coal mines. **However, for each case separate approval of methodology from DGMS shall be sought.** Following methodology for disposal of flyash in open cast mines along with Over Burden in case of JSPL was approved by DGMS.

- 1.1 Distance of the internal/overburden dump area from the working faces of mine shall not be less than 100 m.
- 1.2 The area of filling ash shall be specifically earmarked and the same shall be marked on the plan and dumping fly ash shall be carried out accordingly.
- 1.3 Height of each deck shall not be more than 30 m and the total height of the dump shall not exceed 90 m.
- 1.4 The road leading to the dump site for transportation of fly ash shall be independent from the main haul road for transporting OB to the dump site from the mine.

1.5 Method of dumping fly ash

- 1.5.1 The fly ash shall be dumped in alternate layers/stages, of height not exceeding 5.0 m in each layer/stage.

1.5.2 Initially a row of OB dumps not less than 15.0 m width shall be dumped having height of 5.0 m all around the area proposed for ash dump over a deck (of 30.0 m height) of only overburden dump adequately compacted. A number of such areas shall be formed in a layer/stage wherein the fly ash shall be dumped so that one dump of fly ash is separated by another with 15 m wide over burden dump.

1.5.3 Thereafter, fly ash (25%) and overburden shall be dumped within the area surrounded by such OB dumps. In this manner, the dumping shall be laid in the section/layer of 5.0 m height containing both over burden as well as fly ash so as to form a deck of height not more than 30.0 m , distance between two consecutive decks shall not be less than 30.0 m.

1.5.4 In the next section i.e. immediately above bottom section/stage, only OB dumping shall be made to ensure that the Ash is totally covered and protected from the OB dumps all around.

1.5.5 In the same manner as explained above the alternate layer/section of the over burden and over burden with fly ash shall be dumped. Each layer/stage shall be adequately compacted by dozing.

1.5.6 At the top of the dump i.e. at the final stage, the dump shall be covered with 2.0 m thick soil and adequately compacted by dozing. Adequate precaution against rain fall shall be taken by way of plantation, geo-synthetic, or jute/coir reinforcement and formation of gully drains along the slope of the dump and formation of toe walls and peripheral drains as suggested by the scientific agency conducting geo-technical study. The precaution measures shall periodically be checked for its efficacy.

1.5.7 Plan and section in suitable scale (1:2000) shall be maintained showing the details of the dump both external and interval, height of each deck and dump, distance between the dumps containing fly ash and also the distance from the active working faces, plantation done, gully drains, peripheral drains, toe walls, etc. Such plan shall be signed by the Surveyor and countersigned by the Manager as prescribed in the statute.

1.5.8 Code of practices for transportation, dumping compaction of fly ash as mentioned in para 5(4.2.3 & 5.4.3 of main guidelines), shall be implemented.

1.5.9 **1.6 Dump slope management**

1.6.1 The sides of the OB dumps shall be kept benched and height thereof shall not exceed 30.0 m at an angle of slope not exceeding the angle of repose of the dumped material or 28° whichever is less.

1.6.2 Width of the OB dump shall not be less than 40.0 m which shall also be compacted. The benches shall be laid in such a manner that the overall slope of the dump shall not exceed 21° from horizontal.

1.6.3 The toe of the OB dumps shall be protected or armored in such a manner that the sludge does not flow down into the working faces.

1.6.4 A geotechnical study shall be conducted to assess the stability of the dump and the monitoring of various parameters during the course of dumping and also thereafter till the mine is closed permanently.

1.7 Dust control measures: The fly ash dumping including the OB dumps shall be kept moist all the time to prevent ash getting airborne. The quality of the Ash shall be chemically and physically tested at least once in every quarter.

1.8 Surface and ground water quality monitoring

1.8.1 The surface and ground water measurement (Chemical Parameters (mg/l): pH, EC, TDS, Total Alkalinity, Ca, Mg, Na, K, Cl, SO₄, NO₃, PO₄, Trace Elements (mg/l): As, Ba, Cd, Co, Cr, Cu, F, Fe, Hg, Mn, Ni, Pb, Zn) shall be carried out once in a year (post monsoon) in consultation with the State Pollution Control Board in order to ensure that no harmful heavy metals or any other chemicals pollute the surface or ground water sources or any other water sources present in the area.

1.9 **Provision of check drains** Proper Check Drains/garland drains having width of adequate size and section shall be made around the OB dumps to ensure that the sludge or waste materials along with the ash does not go into any river, nullah, water streams or any other surface water bodies.

1.10 Impact assessment of flora, fauna, aquatic lives and habitat, water & air quality:

1.10.1 A scientific study shall be carried out by an independent scientific organization to study the impact of Ash filling on Flora, Fauna, Aquatic Life and Habitation (once during the filling and at the end of filling).

1.10.2 The Monitoring of all the aforementioned parameters shall be carried out through any accredited institute/organization/Labs and monitoring report shall be submitted to SPCB and DGMS.

1.10.3 A dedicated team of qualified persons headed by senior officer at the level of General Manager shall be established in the mine level, who shall be responsible for the entire ash filling operation, conducting different studies and shall maintain all records as prescribed.

1.10.4 Record of every analysis and study shall be maintained in a bound page register kept for the purpose and the same shall be signed by the person in-charge of the operation and countersigned by the manager of the mine. Records shall also be maintained showing the details about the slope of each dump, quantity of ash filled, quantity of overburden removed, etc.

1.10.5 Risk Analysis about the risk arising out of ash filling operation shall specifically be conducted at regular intervals and Safety Management Plan including the control mechanism shall be prepared as per the guideline contained in DGMS(Tech)(S&T) Circular No.13 of 2002 dated 31.12.2002 and implemented and the same shall be reviewed time to time

1.10.6 In case, any adverse impact is observed, it should be brought to the notice of the DGMS and also to the State Pollution Control Board including the Environment and Forest Ministries of the State and Central Government. No further use of fly ash shall be done in the mine till permitted in writing afresh from DGMS.

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भारत का राजपत्र

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असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 22 अप्रैल 2021

सा.का.नि. 285(अ).—पूर्व के पर्यावरण और वन मंत्रालय में भारत सरकार की दिनांक 14 सितम्बर, 1999 की, समय-समय पर यथासंशोधित, अधिसूचना सं. का.आ. 763 (अ), द्वारा केंद्रीय सरकार द्वारा कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से तीन सौ किलोमीटर के विनिर्दिष्ट क्षेत्र के भीतर ईटों के विनिर्माण के लिए ऊपरी मिट्टी की खुदाई पर प्रतिबंध लगाने तथा निर्माण सामग्री के विनिर्माण में और निर्माण कार्यक्रमलाप में फ्लाइ-ऐश के उपयोग को बढ़ावा देने हेतु निदेश जारी किए गए थे;

और, प्रदूषणकर्ता द्वारा क्षतिपूर्ति के भुगतान (पीपीपी) के सिद्धांत के आधार पर, ऐसा करके कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा फ्लाइ-ऐश का 100% उपयोग सुनिश्चित करते हुए और फ्लाइ-ऐश प्रबंधन प्रणाली की संधारणीयता के लिए इन अधिसूचनाओं को और अधिक प्रभावकारी ढंग से कार्यान्वित करने हेतु, केंद्रीय सरकार ने मौजूदा अधिसूचनाओं की समीक्षा की; और प्रदूषणकर्ता द्वारा क्षतिपूर्ति के भुगतान के सिद्धांत के आधार पर, जुर्माना/दण्ड निर्धारित किए जाने की आवश्यकता है;

और, विनिर्माण को बढ़ावा देकर तथा निर्माण कार्य के क्षेत्र में राख आधारित उत्पादों तथा निर्माण सामग्रियों के प्रयोग को अनिवार्य करके सतही मिट्टी को संरक्षित करने की आवश्यकता है;

और, सड़क बनाने, सड़क एवं फ्लाई ओवर के रेलिंग बनाने, तटरेखा की सुरक्षा का उपाय करने, अनुमोदित परियोजनाओं के निचले क्षेत्रों को भरने, खनित स्थलों को फिर से भरने में मिट्टी की सामग्रियों से भरने के विकल्प के रूप में राख उपयोग को बढ़ावा देकर सतही मिट्टी और प्राकृतिक संसाधनों को संरक्षित करने की आवश्यकता है;

और, पर्यावरण को सुरक्षित करना तथा कोयला अथवा लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई ऐश के निक्षेपण तथा निपटान की रोकथाम करना आवश्यक है;

और, अधिसूचना में जो 'राख' शब्द का प्रयोग किया गया है उसमें कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई-ऐश और बॉटम-ऐश दोनों शामिल हैं;

और, केंद्रीय सरकार प्रदूषणकर्ता द्वारा क्षतिपूर्ति के भुगतान के सिद्धांत के आधार पर, दण्डों/जुर्मानों की प्रणाली सहित राख के उपयोग के लिए एक व्यापक ढांचा लाना चाहती है;

अतः अब, पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और दिनांक 14 सितम्बर, 1999 की फ्लाई-ऐश अधिसूचना सं. का.आ. 763 (अ) और उसमें किए गए परिवर्ती संशोधनों का अधिक्रमण करते हुए, केंद्रीय सरकार द्वारा अब इससे संभावित तौर पर प्रभावित होने वाले लोगों के सूचनार्थ राख के उपयोग के संबंध में एक अधिसूचना प्रस्तावित की गई है और एतद्वारा यह सूचना दी जाती है कि उक्त प्रारूप अधिसूचना पर सरकारी राजपत्र में प्रारूप के प्रकाशन की तारीख से साठ (60) दिनों की अवधि पूरा होने की तारीख को या उस अवधि के समाप्त होने के उपरांत विचार किया जाएगा;

उक्त प्रारूप अधिसूचना के संबंध में ऊपर विनिर्दिष्ट अवधि के भीतर किसी व्यक्ति से प्राप्त आपत्ति या सुझाव पर केंद्रीय सरकार द्वारा विचार किया जाएगा;

आपत्तियां या सुझाव, यदि कोई हों, संयुक्त सचिव, एचएसएमडी, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, इंदिरा पर्यावरण भवन, जोरबाग रोड, नई दिल्ली-110003 के पते पर भेजे जा सकते हैं, और ई-मेल आईडी : moefcc.coalash@gov.in पर प्रेषित किए जा सकते हैं।

प्रारूप अधिसूचना

क. फ्लाई-ऐश और बॉटम-ऐश का निपटान करने हेतु ताप विद्युत संयंत्रों (टीपीपी) के उत्तरदायित्व:

1. प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र (जिनमें कैप्टिव और/या सह-उत्पादन केंद्र शामिल हैं) की यह प्राथमिक जिम्मेदारी होगी कि वह अपने द्वारा सृजित राख (फ्लाई-ऐश और बॉटम-ऐश) का नीचे अनुच्छेद में दिए गए पारि-अनुकूल तरीके से 100% उपयोग सुनिश्चित करे।
2. कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित राख का उपयोग केवल निम्नलिखित पारि-अनुकूल प्रयोजनों के लिए किया जाएगा:
 - i. ईट/ब्लॉक/टाइल का विनिर्माण;
 - ii. सीमेंट विनिर्माण, रेडी-मिक्स कंक्रीट;
 - iii. सड़क निर्माण और फ्लाई-ओवर के रेलिंग का निर्माण, राख और जिओ-पॉलीमर आधारित निर्माण सामग्री;
 - iv. बांध का निर्माण;
 - v. निचले क्षेत्र को भरना;
 - vi. खनन कार्य से रिक्त हुए स्थान को भरना;

- vii. सिंटेड/शीत-बद्ध राख संचय का विनिर्माण;
 - viii. मृदा परीक्षण के आधार पर नियंत्रित तरीके से कृषि;
 - ix. तटीय जिलों में तटरेखा संरक्षण संरचनाओं का निर्माण;
 - x. अन्य देशों को राख का निर्यात;
 - xi. समय-समय पर यथाधिसूचित किसी अन्य पारि-अनुकूल प्रयोजन के लिए।
3. अध्यक्ष, केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति गठित की जाएगी जिसमें पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय, कृषि अनुसंधान एवं शिक्षा विभाग, सड़क कांग्रेस संस्थान तथा राष्ट्रीय सीमेंट एवं भवन सामग्री परिषद के प्रतिनिधियों को सदस्यों के रूप में शामिल किया जाएगा, जिसका उद्देश्य राख के उपयोग के पारि-अनुकूल तौर-तरीकों की जांच करना, उनकी समीक्षा एवं अनुशंसा करना तथा प्रौद्योगिकीय विकासों तथा हितधारकों से प्राप्त अनुरोधों के आधार पर पैरा क(2) में यथोल्लिखित ऐसे तौर-तरीकों की सूची में समिति द्वारा सुझाए गए तौर-तरीकों को शामिल करना/किसी तौर-तरीके को सूची से हटाना/उसमें संशोधन करना है। जब भी इस प्रयोजन के लिए अपेक्षित हो, यह समिति राज्य प्रदूषण नियंत्रण बोर्ड / प्रदूषण नियंत्रण समिति, ताप विद्युत संयंत्र और खानों के प्रचालकों को आमंत्रित कर सकती है। इस समिति सिफारिश के आधार पर, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ऐसे पारि-अनुकूल प्रयोजन प्रकाशित करेगा।
4. प्रत्येक कोयला/लिग्नाइट आधारित ताप विद्युत संयंत्र उस वर्ष के दौरान सृजित राख (फ्लाई-ऐश और बॉटम-ऐश) का 100% उपयोग करने हेतु उत्तरदायी होगा। तथापि, किसी भी स्थिति में, किसी वर्ष में राख का उपयोग 80% से नीचे नहीं होगा। साथ ही, उसे 3 वर्ष की अवधि में 100% औसत राख उपयोग का लक्ष्य प्राप्त करना चाहिए।

परन्तु, पहली बार के लिए लागू तीन वर्ष की अवधि को ऐसे ताप विद्युत संयंत्रों, जहां राख का उपयोग 60-80% के बीच होता है, हेतु एक वर्ष के लिए और ऐसे संयंत्रों, जहां राख का उपयोग 60% से कम है, हेतु दो वर्ष के लिए बढ़ाया जा सकता है। राख के उपयोग की प्रतिशतता की गणना के लिए वर्ष 2021-22 में उपयोग की प्रतिशत प्रमात्रा को ध्यान में रखा जाएगा। इसका ब्यौरा नीचे तालिका में दिया गया है:

तापीय विद्युत संयंत्रों के उपयोग की प्रतिशतता	100% उपयोगिता प्राप्त करने के लिए प्रथम अनुपालन चक्र	100% उपयोगिता प्राप्त करने के लिए द्वितीय अनुपालन चक्र
>80%	3 वर्ष	3 वर्ष
60-80%	4 वर्ष	3 वर्ष
<60%	5 वर्ष	3 वर्ष

परन्तु, तापीय विद्युत संयंत्रों के लिए 80% न्यूनतम उपयोग प्रतिशतता, क्रमशः 60-80% और <60% की उपयोगिता की श्रेणी के तहत आने वाले ताप विद्युत संयंत्रों के लिए प्रथम अनुपालन चक्र के पहले वर्ष और पहले दो वर्षों पर लागू नहीं है।

परन्तु, अनुपालन चक्र के अंतिम वर्ष में सृजित 20% राख को अगले चक्र में ले जाया जाएगा जिसका उपयोग उस अनुपालन चक्र के दौरान सृजित राख के साथ अगले 3 वर्षों में किया जाएगा।

5. अप्रयुक्त संचित राख अर्थात् लीगेसी ऐश, जिसका इस अधिसूचना के प्रकाशन से पहले भंडारण किया गया है, को तापीय विद्युत संयंत्र (टीपीपी) द्वारा इस रीति से क्रमिक रूप से उपयोग में लाया जाएगा, कि

लीगेसी ऐश को इस अधिसूचना के प्रकाशन की तिथि से 10 वर्षों के भीतर पूरी तरह उपयोग कर लिया जाएगा। यह उस विशिष्ट वर्ष के चालू संचालनों के माध्यम से राख उत्सर्जन के लिए निर्धारित उपयोग लक्ष्यों से अतिरिक्त होगा।

परन्तु, निम्नलिखित प्रतिशतताओं में यथा उल्लिखित लीगेसी ऐश की न्यूनतम मात्रा का उपयोग संगत वर्ष के दौरान कर लिया जाएगा। लीगेसी ऐश की न्यूनतम प्रमात्रा की गणना टीपीपी की संस्थापित क्षमता के अनुसार वार्षिक राख उत्सर्जन के आधार पर की जानी है।

प्रकाशन की तिथि से वर्ष	पहला	दूसरा	तीसरा-दसवां
लीगेसी ऐश का उपयोग (वार्षिक राख की प्रतिशतता)	कम से कम 20%	कम से कम 35%	कम से कम 50%

परन्तु, लीगेसी ऐश का उपयोग वहां अपेक्षित नहीं है, जहां राख के कुंड/डाइक स्थिर हो गए हैं और हरित पट्टी के निर्माण/पौध रोपण से पुनरुद्धार किया गया है। संबंधित राज्य प्रदूषण नियंत्रण बोर्ड इस संबंध में प्रमाणित करेगा। किसी राख तालाब/डाइक के स्थिरीकरण और भूमि-उद्धार का कार्य, जिसमें सीपीसीबी/एसपीसीबी द्वारा प्रमाणन शामिल है, इस अधिसूचना के प्रकाशन की तारीख से एक वर्ष के भीतर किया जाएगा। अन्य सभी राख तालाबों/डाइकों में शेष बचे राख का उपयोग ऊपर उल्लिखित समय-सीमाओं के अनुसार क्रमिक रूप से किया जाएगा।

राख के उपयोग के लक्ष्यों को हासिल करने के लिए पैरा क(4) और क(5) के तहत दायित्व 01 अप्रैल, 2022 की तारीख से लागू होंगे।

6. किसी भी नए तापीय विद्युत संयंत्र (टीपीपी) में 0.1 हेक्टेयर प्रति एमडब्ल्यू क्षेत्रफल के साथ आपातकालीन/अस्थायी राख कुंड की अनुमति दी जा सकती है। राख के कुंडों/ डाइकों का तकनीकी विनिर्देश, केन्द्रीय विद्युत प्राधिकरण (सीईए) के परामर्श से सीपीसीबी द्वारा बनाए गए दिशानिर्देशों के अनुसार होगा। ये दिशानिर्देश राख के कुंड/डाइक के संबंध में इसकी सुरक्षा, पर्यावरणीय प्रदूषण, उपलब्ध प्रमात्रा, निपटान का तरीका, निपटान में जल की खपत/संरक्षण, राख जल पुनर्चक्रण और ग्रीन बेल्ट आदि के वार्षिक प्रमाणन के लिए कार्यविधि भी निर्धारित करेंगे और अधिसूचना के प्रकाशन की तिथि से 3 महीनों के भीतर प्रस्तुत किए जाएंगे।
7. प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र यह सुनिश्चित करेगा कि राख की लदाई, उतराई, ढुलाई, भंडारण और निपटान पर्यावरणीय दृष्टि से अनुकूल रीति से किया गया है और वायु और जल प्रदूषण की रोकथाम के लिए सभी ऐहियतयत किए गए हैं। इस संबंध में स्थिति की सूचना प्रपत्र-क में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (सीएसपीसीबी)/प्रदूषण नियंत्रण समिति (पीसीसी) को दी जाएगी।
8. प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, संस्थापित क्षमता पर आधारित राख के कम से कम 16 घंटों के भंडारण के लिए समर्पित शुष्क फ्लाइऐश साइलोस प्रतिष्ठापित करेगा, जिनके पास पृथक पहुंच मार्ग होंगे, जिससे कि राख पहुंचाने के कार्य को सुगम बनाया जा सके। इसकी सूचना संबंधित राज्य प्रदूषण नियंत्रण बोर्ड/ प्रदूषण नियंत्रण समिति को प्रपत्र-क में दी जाएगी और सीपीसीबी/एसपीसीबी द्वारा समय-समय पर निरीक्षण किया जाएगा।
9. प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैप्टिव और/या सह उत्पादन केन्द्र भी है), वास्तविक उपयोगकर्ता (कर्ताओं) के हित के लिए सीपीसीबी के वेब पोर्टल/मोबाईल फोन एप्प का लिंक उपलब्ध कराकर टीपीपी के पास राख की उपलब्धता के वास्तविक आंकड़े प्रदान करेगा।
10. राख के 100% उपयोग का वैधानिक दायित्व, जहां भी लागू हो, कानून में बदलाव के रूप में माना जाएगा।

ख. राख के उपयोग के प्रयोजनार्थ, अनुवर्ती पैराग्राफ लागू होंगे :

11. ऐसे सभी अभिकरण (सरकारी, अर्द्धसरकारी और निजी), जो सड़क विद्युत, सड़क और फ्लाई ओवर के किनारों, तटीय जिलों में तटरेखा की सुरक्षा संरचनाओं और लिग्नाईट/कोयला आधारित टीपीपी से 300 किमी के भीतर बांधों जैसे निर्माण संबंधी कार्यकलापों में लगे हुए हैं, इन कार्यकलापों में अनिवार्य रूप से राख का उपयोग करेंगे, बशर्ते कि इसको परियोजना स्थल पर निशुल्क पहुंचाया जाए और परिवहन लागत, ऐसे कोयला/लिग्नाईट आधारित तापीय विद्युत संयंत्रों द्वारा वहन की जाए। तथापि, यदि टीपीपी अन्य उपायों के माध्यम से राख का निपटान करने में समर्थ है और ये अभिकरण इसके लिए निवेदन करते हैं तो टीपीपी पारस्परिक सहमत हुई शर्तों के अनुसार राख की लागत और परिवहन के लिए शुल्क ले सकता है। यह भी स्पष्ट किया गया है कि बिना लागत और बिना परिवहन शुल्क के राख उपलब्ध कराने का प्रावधान तभी लागू होगा यदि उसके लिए टीपीपी उस निर्माण अभिकरण को नोटिस जारी करता है।
12. उक्त कार्यकलापों में राख का उपयोग भारतीय मानक ब्यूरो, भारतीय रोड कांग्रेस, केन्द्रीय भवन अनुसंधान संस्थान, रूड़की, केन्द्रीय सड़क अनुसंधान संस्थान, दिल्ली, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभागों और अन्य केन्द्रीय और राज्य सरकार के अभिकरणों द्वारा निर्धारित किए गए विनिर्देशों और दिशानिर्देशों के अनुसार किया जाएगा।
13. तापीय विद्युत संयंत्र की 300 किलोमीटर की परिधि के भीतर अवस्थित सभी खानों के लिए विस्तारित उत्पादक उत्तरदायित्व (ईपीआर) के तहत खुली आवर्त खानों में राख का पृष्ठ भंडारण करना/अधिक भार के ढेरों के साथ राख का मिश्रण करना बाध्यकारी होगा। सभी खान के स्वामी/प्रचालक (चाहे सरकारी, सार्वजनिक और निजी क्षेत्र के हो) कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्रों से 300 (तीन सौ) किलोमीटर (सड़क द्वारा) के भीतर, महानिदेशक, खान सुरक्षा (डीजीएमएस) के दिशानिर्देशों के अनुसार ओवर बर्डन के बाह्य निक्षेप खान की बैकफिलिंग अथवा स्टोविंग (प्रचालित या छोड़ी गई खानों, जैसा भी मामला हो) के लिए उपयोग की गई सामग्रियों के भार-दर-भार के आधार पर कम से कम 25% राख को मिश्रित करने के लिए उपाय करेंगे, बशर्ते कि ऐसे तापीय विद्युत केन्द्र निशुल्क राख प्रदान करके और परिवहन की लागत को वहन करके या पारस्परिक सहमत हुई शर्तों पर लिए गए निर्णय के अनुसार लागत/परिवहन व्यवस्था करके राख की अपेक्षित मात्रा की उपलब्धता को सुकर बनायेंगे।
यह भी स्पष्ट किया जाता है कि लागत मुक्त ऐश और निःशुल्क परिवहन का उपबंध केवल तभी लागू होगा यदि टीपीपी इसके लिए खान मालिक को नोटिस देता है। यह भी स्पष्ट किया जाता है कि अधिभार वाले ढेर के साथ मिश्रित करने और खान में खाली स्थान को भरने के लिए ऐश के 25% हिस्से के उपयोग का अधिदेश तब तक लागू नहीं होगा जब तक कि टीपीपी द्वारा खान मालिक को नोटिस न दिया गया हो।
खानों के खाली स्थानों और ढेरों में अधिभार के साथ ऐश को मिश्रित करना, सृजित अधिभार के लिए इस अधिसूचना के प्रकाशन की तिथि से लागू होगा।
उक्त कार्यकलापों में ऐश का उपयोग, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक, खान सुरक्षा और भारतीय खदान ब्यूरो द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा।
14. सभी खान मालिकों को खान में खाली स्थानों में ऐश को समायोजित करने के लिए संशोधित खान बंद योजना (प्रगामी और अंतिम) तैयार करनी होगी। खान में खाली स्थान में ऐश के निपटान और अधिभार वाले ढेर के साथ ऐश को मिश्रित करने के लिए खान योजनाओं को संबंधित प्राधिकारी अनुमोदित करेगा। पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा ताप विद्युत संयंत्रों और कोयला खदानों की पर्यावरणीय मंजूरी में संशोधन की आवश्यकता से छूट देने के साथ-साथ ऐसे निपटान के लिए अपनाए जाने वाले दिशानिर्देशों के संबंध में दिनांक 28 अगस्त, 2019 को दिशानिर्देश जारी किए गए। मंत्रालय, सीपीसीबी, डीजीएमएस और आईएमबी के साथ परामर्श करके, खानों में खाली स्थानों में ऐश के निपटान

करने तथा अधिभार वाले ढेरों में इसे मिश्रित करना सुगम बनाने के लिए समय-समय पर आगे भी दिशानिर्देश जारी कर सकता है। यह खान मालिकों की जिम्मेदारी होगी कि वे ऐसी खानों को अभिजात करने की तिथि से एक वर्ष के भीतर विभिन्न विनियामक प्राधिकरणों द्वारा जारी की गई अनुमतियों में आवश्यक संशोधन/परिवर्तन प्राप्त करेंगे।

15. पर्यावरणीय प्रदूषण के संदर्भ में सुरक्षा, व्यवहार्यता (आर्थिक व्यवहार्यता नहीं) और पहलुओं की जांच सहित ऐश से खान में खाली स्थान को वापस भरने/अधिभार वाले ढेर के साथ ऐश को मिश्रित करने के लिए खानों की पहचान करने के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, महानिदेशक खान सुरक्षा और भारतीय खान ब्यूरो से प्रतिनिधियों को शामिल करते हुए अध्यक्ष, सीपीसीबी की अध्यक्षता में एक समिति का गठन किया जाएगा। यह समिति हितधारक मंत्रालयों/विभागों के लिए अभिजात खानों (भूमिगत और खुली, दोनों) के संबंध में तैयार की गई तिमाही रिपोर्टों को अद्यतन करेगी। यह समिति, इस अधिसूचना के प्रकाशन के तुरंत बाद उपयुक्त खानों की पहचान करना आरंभ करेगी।

ताप विद्युत संयंत्र/खानों, उपरोक्त अनुसार अधिदेशित उपयोग लक्ष्यों को पूरा करने के लिए उपर्युक्त समिति द्वारा पहचान किए जाने तक ऐश के निपटान हेतु प्रतीक्षा नहीं करेंगी।

16. ऐश से निचले क्षेत्र को भरने का कार्य, अनुमोदित परियोजनाओं के लिए राज्य प्रदूषण नियंत्रण बोर्ड की पूर्व अनुमति से और सीपीसीबी द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा। राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति द्वारा अनुमोदित स्थलों, अवस्थान, क्षेत्र और अनुमत मात्रा को अपनी वेबसाइट पर प्रतिवर्ष प्रकाशित किया जाएगा।
17. सीपीसीबी, संगत हितधारकों के साथ मिलकर, सीपीसीबी/पीसीसी द्वारा अनुमति प्रदान करने के लिए समयबद्ध ऑनलाइन आवेदन प्रक्रिया प्रस्तुत करने के साथ-साथ इस अधिसूचना के तहत परिकल्पित सभी प्रकार के कार्यकलापों के लिए एक (01) वर्ष के भीतर दिशानिर्देश प्रस्तुत करेगा।
18. कोयला अथवा लिग्नाइट आधारित तापीय ऊर्जा संयंत्र से तीन सौ किलोमीटर के दायरे में स्थित सभी भवन निर्माण परियोजनाएं (केंद्रीय, राज्य और स्थानीय प्राधिकरणों सरकारी उपक्रमों, अन्य सरकारी अभिकरणों तथा सभी निजी अभिकरणों) राख की ईटों, टाईल्स, धातुमल राख अथवा अन्य राख आधारित उत्पादों का उपयोग करेंगी बशर्ते कि वे वैकल्पिक उत्पादों की कीमत से अधिक कीमत पर उपलब्ध न हों।
19. राख आधारित उत्पादों के विनिर्माण और ऐसे उत्पादों में राख के उपयोग में भारतीय मानक ब्यूरो, भारतीय सड़क कांग्रेस और केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित विनिर्देशों और दिशानिर्देशों की अनुपालना होगी।

ग. गैर-अनुपालन के लिए जुर्माना:

20. तीन वर्ष के चक्र के प्रथम दो वर्षों में, यदि कोयला/लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव और/अथवा सह-उत्पादक स्टेशनों सहित) ने कम-से-कम 80% राख (फ्लाइ-ऐश और बॉटम-ऐश) उपयोग नहीं की है तो ऐसे गैर-अनुपालन तापीय ऊर्जा संयंत्रों पर वार्षिक रिपोर्टों के आधार पर वित्तीय वर्ष के अंत तक अप्रयुक्त राख पर 1000 रुपए प्रति टन की दर से जुर्माना लगाया जाएगा। इसके अतिरिक्त, यदि यह 3 वर्ष के चक्र के तीसरे वर्ष में 100% राख का उपयोग करने में असमर्थ है, तो वह अप्रयुक्त मात्रा पर 1000 रुपए प्रति टन की दर से जुर्माने देय होगा, जिस पर पहले जुर्माना नहीं लगाया गया है।

बशर्ते कि जुर्माने का पैरा क(4) में उल्लिखित विभिन्न उपयोगी श्रेणियों के अनुसार प्रथम अनुपालन चक्र के अंतिम वर्ष के अंत में अनुमान लगाया जाएगा और अधिरोपित किया जाएगा।

21. अधिकारियों द्वारा एकत्रित जुर्माना सीपीसीबी के निर्दिष्ट खाते में जमा किया जाएगा।

22. धरोहर (लैगैसी) राख के मामले में यदि कोयला/लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव और/अथवा सह-उत्पादक स्टेशनों सहित) ने स्थापित क्षमता पर आधारित उत्पन्न राख का कम-से-कम 20% (प्रथम वर्ष के लिए), 35% (द्वितीय वर्ष के लिए), 50% (तीसरे से दसवें वर्ष तक) उपयोग के बराबर लक्ष्य प्राप्त नहीं किया है तो उस वित्तीय वर्ष के दौरान अप्रयुक्त विरासत (लैगैसी) राख पर 1000 रूपए प्रति टन की दर से जुर्माना लगाया जाएगा। यदि 10 वर्ष के अंत में विरासत राख का उपयोग नहीं किया जाता है तो 1000 रूपए प्रति टन की दर से शेष अप्रयुक्त मात्रा पर जुर्माना लगाया जाएगा जिस पर पहले जुर्माना नहीं लगाया गया।
23. अधिकृत खरीददारों/उपभोक्ता अभिकरणों तक राख भेजने की जिम्मेदारी परिव्राहकों/वाहन मालिक की जिम्मेदारी है। यदि इसका अनुपालन नहीं किया जाता है, तो अनधिकृत उपयोगकर्ताओं अथवा गैर-अधिकृत उपयोगकर्ताओं को ऐसी मात्रा गलत तरीके से वितरित करने पर 1500 रूपए प्रतिटन की दर से जुर्माना लगेगा इसके अतिरिक्त एसपीसीबी/पीसीसी द्वारा गैर अनुपालन कर्ता परिव्राहकों पर अभियोजन लागू होगा।
24. इस अधिसूचना के पैरा ख में विहित पर्यावरण अनुकूल तरीके में राख के उपयोग की जिम्मेदारी खरीददार/उपभोगकर्ता एजेंसियों की है। ऐसा नहीं करने पर एसपीसीबी/पीसीसी द्वारा 1500 रूपए प्रति टन की दर से जुर्माना लगाया जाएगा।
25. यदि उपयोगकर्ता एजेंसियां पैरा ख के अधीन निर्धारित सीमा तक अथवा पैरा घ (27) के तहत दिए गए नोटिस के माध्यम से सूचित की गई सीमा तक, जो भी कम हो, राख का उपयोग नहीं करती है, वे अतिरिक्त राख की मात्रा का 1500 रूपए प्रति टन की दर से भुगतान करने के लिए उत्तरदायी होंगे।
26. तापीय ऊर्जा संयंत्रों तथा अन्य बकायादारों पर सीपीसीबी द्वारा लगाए जुर्माने का उपयोग अप्रयुक्त राख के सुरक्षित निपटान हेतु किया जाएगा। अनुप्रयुक्त मात्रा पर लगाए गए जुर्माने के बाद भी राख उपयोग की जिम्मेदारी तापीय ऊर्जा संयंत्रों की होगी। यदि वाद के चक्रों में जुर्माना लगाने के बार तापीय ऊर्जा संयंत्र किसी विशेष चक्र के राख के उपयोग के लक्ष्य को प्राप्त करता है तो अगले चक्र के दौरान अप्रयुक्त मात्रा पर एकत्र किए गए जुर्माने में 10% कटौती के बाद उक्त राशि तापीय ऊर्जा संयंत्र को वापस कर दी जाएगी। बाद के चक्रों में राख के उपयोग के मामले में एकत्र किए गए जुर्माने की 20 प्रतिशत, 30 प्रतिशत और उसी क्रम में कटौती की जानी है।
- घ. राख/राख आधारित उत्पादों की आपूर्ति हेतु प्रक्रिया :**
27. तापीय ऊर्जा संयंत्रों के मालिक अथवा राख की ईटों/टाईल्स/धातुमल आधारित राख के विनिर्माता उन व्यक्तियों/अभिकरणों को लिखित सूचना देंगे जो बिक्री और/या परिवहन के लिए प्रस्तुत राख अथवा राख आधारित उत्पादों के उपयोग के लिए जिम्मेदार हैं।
28. ऐसे व्यक्ति/उपयोगकर्ता एजेंसियां जिन्हें तापीय ऊर्जा संयंत्रों के मालिक द्वारा अथवा राख की ईटों/टाईल्स/धातुमल आधारित राख के उत्पादकों द्वारा नोटिस दिया गया है, यदि वे पहले ही राख/राख उत्पादों के उपयोग के उद्देश्य से अन्य एजेंसियों के साथ जुड़े हुए हैं, यदि वे किसी भी राख/राख उत्पादों का उपयोग नहीं कर सकते हैं अथवा कम मात्रा का उपयोग कर सकते हैं, तदनुसार तापीय ऊर्जा संयंत्र को सूचित करेंगे।
- ङ. प्रवर्तन, निगरानी, लेखा परीक्षा और संसूचना :**
29. प्रावधानों के अनुपालना सुनिश्चित करने के लिए केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी)/प्रदूषण नियंत्रण समिति (पीसीसी), प्रवर्तन और निगरानी प्राधिकरण होंगे। सीपीसीबी/एसपीसीबी/पीसीसी तिमाही आधार पर एंश के उपयोग की निगरानी करेंगे। सीपीसीबी इस उद्देश्य के लिए अधिसूचना की प्रकाशन तिथि से छः माह के भीतर एक पोर्टल विकसित करेगा। संबंधित जिला अधिकारी के पास इस अधिसूचना के प्रावधानों को लागू करने और निगरानी करने के लिए समवर्ती न्याय अधिकार होगा।

30. टीपीपी ऐश उत्सर्जन और उपयोग से संबंधित मासिक सूचना वेब पोर्टल पर अगले महीने की 5 तारीख तक अपलोड करेगा। कोयला या लिग्नाइट आधारित ताप ऊर्जा संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति (पीसीसी), केंद्रीय विद्युत प्राधिकरण (सीईए) और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के संबंधित एकीकृत क्षेत्रीय कार्यालयों को इस अधिसूचना के प्रावधानों के अनुपालन संबंधी सूचना उपलब्ध कराते हुए वार्षिक कार्यान्वयन रिपोर्ट प्रत्येक वर्ष (1 अप्रैल से 31 मार्च तक की अवधि के लिए) अप्रैल माह के 30वें दिन तक प्रस्तुत की जाएगी। सीपीसीबी और सीईए द्वारा सभी टीपीपी द्वारा प्रस्तुत वार्षिक रिपोर्टों का समेकन किया जाएगा और उसे पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को 31 मई तक प्रस्तुत किया जाएगा। सभी अन्य उपयोगकर्ता एजेंसियों पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय/एसईआईएए द्वारा जारी पर्यावरणीय मंजूरी अथवा एसपीसीबी/पीसीसी द्वारा जारी संचालन की सहमति (सीटीओ), जो भी लागू हो, की अनुपालना रिपोर्ट में इस अधिसूचना में अधिदेशित अनुसार ऐश के उपभोग/उपयोग/निस्तारण तथा ऐश आधारित उत्पादों के उपयोग संबंधी सूचना प्रस्तुत करेंगे।

सीपीसीबी/राज्य प्रदूषण नियंत्रण बोर्ड/पीसीसी अधिसूचना के प्रावधानों के प्रभावी कार्यान्वयन की समीक्षा करने हेतु तापीय ऊर्जा संयंत्रों के अलावा अन्य सभी एजेंसियों की ऐश उपयोग की वार्षिक रिपोर्ट प्रकाशित करेंगे।

31. इस अधिसूचना के प्रावधानों की निगरानी और कार्यान्वयन के उद्देश्य के लिए सीपीसीबी की अध्यक्षता में एक समिति का गठन किया जाएगा जिसके सदस्य विद्युत मंत्रालय, कोयला मंत्रालय, खनन मंत्रालय, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, सड़क, परिवहन और राजमार्ग मंत्रालय और भारी उद्यम विभाग से होंगे। यह समिति संगत हितधारकों को आमंत्रित कर सकती है। यह समिति इस अधिसूचना के प्रावधानों के प्रभावी और दक्ष कार्यान्वयन के लिए सिफारिशें कर सकती है। यह समिति छः माह में कम से कम एक बार एक बैठक करेगी और वार्षिक कार्यान्वयन रिपोर्टों की समीक्षा करेगी।
32. टीपीपी और ऐश प्रयोक्ताओं/ऐश आधारित उत्पादों के विनिर्माताओं के बीच के विवाद को सुलझाने के उद्देश्य से राज्य सरकारें या संघ राज्य क्षेत्र की सरकारें इस अधिसूचना के प्रकाशन की तिथि से तीन माह के भीतर एसपीसीबी/पीसीसी की अध्यक्षता में एक समिति का गठन करेंगी जिसमें विद्युत विभाग के प्रतिनिधि और एक प्रतिनिधि उस विभाग का होगा, जो विवाद वाली संबंधित अभिकरण का कार्यदेख रहे हैं।
33. सीपीसीबी द्वारा प्राधिकृत लेखा परीक्षकों द्वारा ताप विद्युत संयंत्रों और प्रयोक्ता अभिकरणों द्वारा किए गए ऐश निपटान की अनुपालन लेखा परीक्षा संचालित की जाएगी और प्रत्येक वर्ष 30 नवम्बर तक लेखा परीक्षा की रिपोर्ट सीपीसीबी और संबंधित एसपीसीबी/पीसीसी को प्रस्तुत की जाएगी। सीपीसीबी और संबंधित एसपीसीबी/पीसीसी लेखा परीक्षा की रिपोर्ट प्राप्त होने के पंद्रह दिनों के भीतर अनुपालन न करने वाले टीपीपी के विरुद्ध कार्रवाई प्रारंभ करेंगे।

[फा. सं. एचएसएम-9/1/2019-एचएसएम]

नरेश पाल गंगवार, संयुक्त सचिव

अनुबंध-क

राख अनुपालन रिपोर्ट (1 अप्रैल-31 मार्च की अवधि के लिए) 31 मई को या उससे पहले प्रस्तुत की जाए।

क्र. सं.	विवरण	
1.	कंपनी का नाम और पावर प्लांट का नाम	
2.	पावर प्लांट की क्षमता (एमडब्ल्यू)	
3.	प्लांट लोड फैक्टर (पीएलएफ)	
4.	कोयले की खपत की मात्रा (एमटीपीए)	
5.	राख उत्पादन की मात्रा (एमटीपीए)	
6	1 अप्रैल से पहले लीगेसी राख की मात्रा (एमटीपीए)	
7.	ऐश पॉड का विवरण: (कृपया सभी विवरण स्पष्ट करें, यदि ऐश पॉड की संख्या अधिक है।) क) क्षेत्रफल (हेक्टेयर): ख) आयतन (मि.घन) ग) नियामक (चौड़ाई और लंबाई): (कृपया कम से कम 4 नियामकों का स्पष्ट विवरण दें)	
6	ऐश पॉड की वर्तमान स्थिति: क) आयतन उपलब्धता (मि.घन) ख) संभावित जीवन (वर्ष): ग) भूमि उद्धार का विवरण:	
7	प्रयुक्त फ्लाई-ऐश की मात्रा (एमटीपीए): अप्रैल-मार्च के दौरान प्रयुक्त फ्लाई-ऐश: अप्रैल-मार्च के दौरान प्रयुक्त लीगेसी फ्लाई-ऐश	
8.	अप्रयुक्त फ्लाई-ऐश की मात्रा (एमटीपीए): अप्रैल-मार्च के दौरान प्रयुक्त फ्लाई-ऐश: अप्रैल-मार्च के दौरान प्रयुक्त लीगेसी फ्लाई-ऐश कुल अप्रयुक्त शेष	
9.	अधिकृत हस्ताक्षरकर्ता का हस्ताक्षर ईमेल और संपर्क	

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 22nd April, 2021

G.S.R. 285(E).—Whereas by Notification of the Government of India in the erstwhile Ministry of Environment and Forests vide S.O.763 (E), dated the 14th September, 1999, as amended from time to time, the Central Government, issued directions for restricting the excavation of top soil for manufacturing of bricks and promoting the utilisation of fly ash in the manufacturing of building materials and in construction activity within a specified radius of three hundred kilometres from the coal or lignite based thermal power plants;

And whereas, to implement these Notifications more effectively based on the polluter pays principle (PPP) thereby ensuring 100 % utilisation of fly ash by the coal or lignite based thermal power plants and for the sustainability of the fly ash management system, the Central Government reviewed the existing Notifications; and whereas penalties/fines need to be introduced based on the polluter pays principle;

And whereas, there is a need to conserve top soil by promoting manufacture and mandating use of ash based products and building materials in the construction sector;

And whereas, there is a need to conserve top soil and natural resources by promoting utilisation of ash in road laying, road and flyover embankments, shoreline protection measures, low lying areas of approved projects, backfilling of mines, as an alternative for filling of earthen materials.

And whereas, it is necessary to protect the environment and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And whereas, in the Notification the phrase 'ash', has been used, it includes both fly ash as well as bottom ash generated from Coal or Lignite based Thermal Power Plants;

And whereas, the Central Government intends to bring out a comprehensive framework for ash utilisation including system of fines/penalties based on polluter pays principle;

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, and in supersession of the Notification S.O.763 (E), dated the 14th September, 1999 and the subsequent amendments, the Central Government has now proposed a Notification on ash utilisation for the information of the public likely to be affected thereby and notice is hereby given that the said draft Notification will be taken into consideration on or after the expiry of a period of sixty (60) days from the date of publication of the draft in the official Gazette;

The objections or suggestions, which may be received from any person with respect to the said draft Notification within the period specified above, will be taken into consideration by the Central Government;

Objections or suggestions, if any, may be addressed to the Joint Secretary, HSM Division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110003, and may be sent to e-mail id: moefcc.coalash@gov.in.

Draft Notification

A. Responsibilities of Thermal Power Plants (TPPs) to dispose fly ash and bottom ash:

1. Every coal or lignite based thermal power plant (including captive and / or co-generating stations) shall be primarily responsible to ensure 100% utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in para below.
2. The ash generated from coal or lignite based Thermal Power Plants (TPP) shall be utilised only for the following eco-friendly purposes:
 - i. Manufacturing of brick /blocks/tiles;
 - ii. Cement manufacturing, ready mix concrete;
 - iii. Construction of road and fly over embankment, Ash and Geo-polymer based construction material;
 - iv. Construction of dam;
 - v. Filling up of low lying area;
 - vi. Filling of mine voids;
 - vii. Manufacturing of sintered/ cold bonded ash aggregate;

- viii. Agriculture in a controlled manner based on soil testing;
 - ix. Construction of shoreline protection structures in coastal districts;
 - x. Export of ash to other countries;
 - xi. Any other eco-friendly purpose as notified from time to time.
3. A committee shall be constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and having representatives from Ministry of Environment, Forest and Climate Change (MoEF&CC), Ministry of Power, Ministry of Mines, Ministry of Coal, Ministry of Road Transport and Highways, Dept. of Agricultural Research & Education, Institute of Road Congress, National Council for Cement and Building Materials, to examine and review and recommend the eco-friendly ways of utilisation of ash and make inclusion/ exclusion/modification in the list of such ways as mentioned in Para A(2) based on technological developments and requests received from stakeholders. The committee may invite SPCB/PCC, operators of Thermal Power Plants & mines and other stakeholders as and when required for this purpose. Based on the recommendations of the Committee, MoEF&CC may publish such eco-friendly purpose.
 4. Every coal/lignite based thermal power plant shall be responsible to utilise 100% ash (fly ash and bottom ash) generated during that year. However, in no case shall utilisation fall below 80 % in any year. Also, it should achieve average ash utilisation of 100% in a 3 year cycle.

Provided the three year cycle applicable for the first time is extendable by one year for the Thermal Power Plants where ash utilisation is in the range of 60-80%, and two years where ash utilisation is below 60%. For the calculation of percentage of ash utilisation, the percentage quantity of utilisation in the year 2021-22 shall be taken into account. The same has been detailed in the table below:

Utilisation percentages of Thermal Power Plants	First compliance Cycle to meet 100% utilisation	Second compliance cycle onwards, to meet 100% utilisation
>80%	3 years	3 years
60-80%	4 years	3 years
<60%	5 years	3 years

Provided the minimum utilisation percentage of 80% is not applicable to the first year and first two years of the first compliance cycle for the TPPs under the utilisation category of 60-80% and <60%, respectively.

Provided 20% of ash generated in the final year of compliance cycle may be carried forward to the next cycle which shall be utilised in the next 3 year cycle along with the ash generated during that cycle.

5. Unutilized accumulated ash i.e. legacy ash, which is stored before the publication of this Notification, shall be utilized progressively by the TPPs in such a manner that the utilization of legacy ash shall be completed fully within 10 years from the date of publication of this Notification. This would be over and above the utilisation targets prescribed for ash generation through current operations of that particular year.

Provided the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year. The minimum quantity of legacy ash is to be calculated based on the annual ash generation as per installed capacity of TPP.

Year from date of publication	1 st	2 nd	3 rd -10 th
Utilisation of legacy ash (in percentage of Annual ash)	At least 20%	At least 35%	At least 50%

Provided the legacy ash utilisation is not required where ash pond/dyke has stabilised and the reclamation has taken place with greenbelt/plantation. Concerned State Pollution Control Board shall certify in this regard. Stabilisation and reclamation of an ash pond/dyke including certification by CPCB/SPCB shall be carried out within a year from the date of publication of this Notification. The ash remaining in all other ash ponds/dykes shall be utilised in progressive manner as per the above mentioned timelines.

The obligations under Para A(4) and A(5) above for achieving the ash utilisation targets shall be applicable from 1st April, 2022.

6. Any new Thermal Power Plant may be permitted an emergency/temporary ash pond with an area of 0.1 hectare per MW. Technical specifications of ash ponds/dykes will be as per the guidelines of CPCB made in consultation with Central Electricity Authority (CEA). These guidelines shall also prescribe a procedure for

annual certification of the ash pond/dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption/conservation in disposal, ash water recycling and greenbelt, etc., and shall be put in place within 3 months from the date of publication of the notification.

7. Every coal or lignite based thermal power plant shall ensure that loading, unloading, transport, storage and disposal of ash is done in an environmentally sound manner and that all precautions to prevent air and water pollution are taken. Status in this regard shall be reported to the concerned State Pollution Control Board (SPCB)/Pollution Control Committee (PCC) in Form A.
8. Every coal or lignite based thermal power plant shall install dedicated dry fly ash silos for storage of at least 16 hours of ash based on installed capacity, having separate access roads so as to ease the delivery of ash. It shall be reported upon to the concerned SPCB/PCC in the Form A and shall be inspected by CPCB/SPCBs from time to time.
9. Every coal or lignite based thermal power plant (including captive and or co-generating stations) shall provide real time data of availability of ash with TPP, by providing link to CPCB's web portal/ mobile phone App for the benefit of actual user(s).
10. Statutory obligation of 100% utilisation of ash shall be treated as a change in law, wherever applicable.

B. For the purpose of utilisation of ash, the subsequent paras shall apply:

11. All agencies (Government, Semi Government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within 300 km from the lignite/coal based TPPs shall mandatorily utilise ash in these activities, provided it is delivered at the project site free of cost and transportation cost is borne by such coal/lignite based thermal power plants. However, TPP may charge for ash cost and transportation as per mutually agreed terms, in case TPP is able to dispose the ash through other means and those agencies makes a request for it. It is also clarified that provision of ash free of cost and free transportation would only be applicable, if TPP serves a notice on the construction agency for the same.
12. The utilisation of ash in the said activities shall be carried out in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government Agencies.
13. It shall be obligatory on all mines located within 300 kilometres radius of TPP, to undertake backfilling of ash in mine voids/mixing of ash with external Overburden dumps, under Extended Producer Responsibility (EPR). All mine owners/operators (Government, Public and Private Sector) within 300 (three hundred) kilometres (by road) from coal or lignite based thermal power plants, shall undertake measures to mix at least 25% of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine (running or abandoned as case may be) as per guidelines of the Director General of Mines Safety (DGMS), provided that such thermal power stations shall facilitate the availability of required quantity of ash by delivering ash free of cost and bearing the cost of transportation or cost/transportation arrangement decided on mutually agreed terms.

It is also clarified that provision of ash free of cost and free transportation would only be applicable, if TPPs serve a notice on the mine owner for the same. It is also made clear that mandate of using 25% of ash for mixing with overburden dump and filling up of mine voids would not be applicable unless a notice is served on the mine owner by TPP.

Mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification.

The utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.

14. All mine owners shall get mine closure plans (progressive and final) amended to accommodate ash in the mine voids. Concerned authority shall approve mine plans for disposal of ash in mine voids and mixing of ash with overburden dumps. The MoEF&CC issued guidelines on 28th August, 2019 regarding exemption of requirement of amendment in Environmental Clearance of Thermal Power Plants and Coal mines along with the guidelines to be followed for such disposal. The Ministry in consultation with CPCB, DGMS & IBM may issue further guidelines time to time to facilitate ash disposal in mine voids and mixing with overburden dumps. It shall be the responsibility of mine owners to get the necessary amendments/modifications in the permissions issued by various regulatory authorities within one year from the date of identification of such mines.

15. There shall be a committee headed by Chairperson, CPCB with representatives from MoEF&CC, Ministry of Power, Ministry of Mines, Ministry of Coal, Director General of Mine Safety and Indian Bureau of Mines for identification of mines for backfilling of mine voids with ash/ mixing of ash with overburden dump including examination of safety, feasibility (not economic feasibility) and aspects of environmental contamination. This committee shall get updated quarterly reports prepared regarding identified mines (both underground and opencast) for the stakeholder Ministries/Departments. The committee shall start identifying the suitable mines immediately after the publication of this notification.

Thermal Power Plants/ Mines shall not wait for disposal of ash till the identification is done by the above mentioned committee, to meet the utilisation targets mandated as above.

16. Filling of low lying areas with ash shall be carried out with prior permission of State Pollution Control Board for approved projects, and in accordance with guidelines laid down by CPCB. State Pollution Control Board/PCC shall publish approved sites, location, area and permitted quantity annually on its website.
17. CPCB after engaging relevant stakeholders, shall put in place the guidelines within 01 year for all types of activities envisaged under this notification including putting in place time bound online application process for the grant permission by SPCBs/PCCs.
18. All building construction projects (Central, State & Local authorities, Govt. undertakings, other Govt. agencies and all private agencies) located within a radius of three hundred kilometres from a coal or lignite based thermal power plant shall use ash bricks, tiles, sintered ash aggregate or other ash based products, provided these are made available at prices not higher than the price of alternative products.
19. Manufacturing of ash based products and use of ash in such products shall be in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, and Central Pollution Control Board.

C. Fines for non-compliance:

20. In the first two years of a three year cycle, if the coal/ lignite based thermal power plant (including captive and/or co-generating stations) has not achieved at least 80 % ash (fly ash and bottom ash) utilisation, then such non-compliant TPPs shall be imposed with a fine of Rs. 1000 per ton on unutilised ash during the end of financial year based on the annual reports submitted. Further, if it is unable to utilise 100% of ash in the third year of the 3 year cycle, it would be liable to pay a fine of Rs. 1000 per ton on the unutilised quantity on which fine has not been imposed earlier.

Provided the fine shall be estimated and imposed at the end of last year of the first compliance cycle as per the various utilisation categories at mentioned in Para A(4).

21. Fine collected by the authorities shall be deposited in the designated account of CPCB.
22. In case of legacy ash, if the coal/ lignite based thermal power plant (including captive and/or co-generating stations) has not achieved utilisation equivalent to at least 20% (for the first year), 35% (for the second year), 50% (for third to tenth year) of ash generated based on installed capacity, a fine of Rs. 1000 per ton of unutilised legacy ash during that financial year will be imposed. If the utilization of legacy ash is not completed at the end of 10 years, a fine of Rs.1000 per ton will be imposed on the remaining unutilised quantity which has not been fined earlier.
23. It is the responsibility of the transporters/vehicle owner to deliver ash to authorised purchaser/user agency. If it is not complied, then a fine of Rs. 1500 per ton on such quantity as mis-delivered to unauthorised users or non- delivered to authorised users will be imposed besides prosecution of such non-compliant transporters by SPCB/PCC.
24. It is the responsibility of the purchasers/user agencies to utilise ash in an eco-friendly manner as prescribed at para B of this Notification. If it is not complied, then a fine of Rs. 1500 / per ton shall be imposed by SPCB/PCC.
25. If the user agencies do not utilise ash to the extent obligated under para B or the extent to which they have been intimated through Notice(s) served under Para D(27) whichever is lower, they would be liable to pay Rs. 1500 per ton of ash for the quantity they fall short off.
26. The fine collected by CPCB from the TPPs and other defaulters shall be used towards the safe disposal of the unutilised ash. The liability of ash utilisation shall be with TPPs even after imposition of fines on unutilised quantities. In case TPP achieves the ash utilisation of any particular cycle after imposition of fine in subsequent cycles, the said amount shall be returned to TPP after deducting 10% of the fine collected on the unutilised quantity during the next cycle. Deduction of 20%, 30%, and so on, of the fine collected is to be made in case of utilisation of ash in subsequent cycles.

D. Procedure for supply of ash/ ash based products:

27. The owner of TPPs or manufacturers of ash bricks/tiles/ sintered ash aggregate shall serve written Notice to persons/agencies who are liable to utilise ash or ash based products, offering for sale, and/ or transport.
28. Persons/ user agencies who have been served Notices by owner of TPPs or manufacturers of ash bricks/tiles/ sintered ash aggregate, if they have already tied up with other agencies for the purpose of utilisation of ash / ash products, shall inform the thermal power plant accordingly, if they cannot use any ash / ash products or use reduced quantity.

E. Enforcement, Monitoring, Audit and Reporting:

29. The Central Pollution Control Board (CPCB) and the concerned State Pollution Control Board (SPCB)/ Pollution Control Committee (PCC) shall be the enforcing and monitoring authority for ensuring compliance of the provisions. CPCB/SPCB/PCC shall monitor the utilisation of ash on quarterly basis. CPCB shall develop a portal for the purpose within six months of date of publication of the notification. The concerned District Magistrate shall have concurrent jurisdiction for enforcement and monitoring of the provisions of this Notification.
30. TPPs shall upload monthly information regarding ash generation and utilisation by 5th of the next month on the web portal. Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Pollution Control Committee (PCC), Central Electricity Authority (CEA), and concerned Integrated, Regional Office of MoEF&CC by the coal or lignite based thermal power plants. CPCB and CEA shall compile the annual reports submitted by all the TPPs and submit to MoEF&CC by 31st May. All other user agencies shall submit consumption/utilisation/disposal of ash and use of ash based products as mandated in this Notification in the compliance report of Environmental Clearance (EC) issued by MoEF&CC/SEIAA or Consent to Operate (CTO) issued by SPCB/PCC, whichever is applicable.

CPCB/State Pollution Control Board/PCC shall publish annual report of ash utilisation of all other agencies except Thermal Power Plants to review the effective implementation of the provisions of the notification.
31. For the purpose of monitoring the implementation of the provisions of this notification, a committee shall be constituted under Chairperson, CPCB, with members from Ministry of Power, Ministry of Coal, Ministry of Mines, MoEF&CC, Ministry Road Transportation & Highways and Department of Heavy Industry. The committee may invite relevant stakeholders. The committee may make recommendations for effective and efficient implementation of the provisions of the notification. The committee shall meet at least once in six months and review annual implementation reports.
32. For the purpose of resolving disputes between TPPs and users of ash/ manufacturer of ash based products, the State Governments or Union Territory Governments shall constitute a Committee within three months from the date of publication of this notification under the Chairman, SPCB/PCC with representatives from Department of Power, and one representative from the Department which deals with the subject of concerned agency with which dispute is made.
33. Compliance audit for ash disposal by the Thermal Power Plants and the user agency shall be conducted by auditors, authorised by CPCB and audit report shall be submitted to CPCB and concerned SPCB/PCC by 30th November every year. CPCB and concerned SPCB/PCC shall initiate action against non-compliant TPPs within 15 days of receipt of audit report.

[F. No. HSM-9/1/2019-HSM]

NARESH PAL GANGWAR, Jt. Secy.

Annexure-A

Ash Compliance Report (for the period 1st April-31st March) to be submitted on or before 31st May.

Sl.No.	Details	
1.	Company Name and Power Plant Address:	
2.	Power Plant Capacity (MW):	
3.	Plant Load Factor (PLF):	
4.	Quantity of coal consumption (MTPA):	
5.	Quantity of ash generation (MTPA):	
6	Quantity of Legacy Ash before 1 st April (MTPA):	
7.	Ash pond details: (pls specify all, if number of ash ponds is more) a) area (hectares): b) volume (m ³) : c) co-ordinates (Lat & Long): (pls specify minimum 4 co-ordinates)	
6	Present Status of ash pond: a) Volume availability (m3), b) expected life (years): c) Details of Reclamation:	
7	Quantity of Flaysh Utilised (MTPA): Flyash utilised during the April-March: Legacy Flyash utilised during April-March:	
8.	Quantity of flyash unutilised (MTPA): Flyash utilised during the April-March: Legacy Flyash utilised during April-March: Total balance unutilised:	
9.	Signature of Authorised Signatory E-mail & Contact:	

VAKALATNAMA
BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
CENTRAL ZONE, BHOPAL

Original Application No. 206/2024

IN THE MATTER OF:
CHANDIKANT JHA

APPLICANT

VERSUS


STATE OF M.P. & ORS.

RESPONDENTS

I, the Petitioner/ Appellant/ Applicant/ Claimant/ Respondent/ Non-Applicant/ Defendant named below do hereby appoint, engage and authorise advocate(s) named below to appear, act and plead in aforesaid case proceedings which shall include applications for restoration, setting aside of ex-parte orders, corrections, modifications, review and recall of orders passed in these proceedings, in this Court or in any other court in which the same may be tried/heard/proceeded with and also in the appellate, revisional or executing court in respect of proceedings arising from this case/proceedings as per agreed terms and conditions and authorise them to sign and file pleadings, appeal, cross objection for the prosecution/defence of the said case in all its stages and also agree to ratify and confirm acts done by them as if done by us

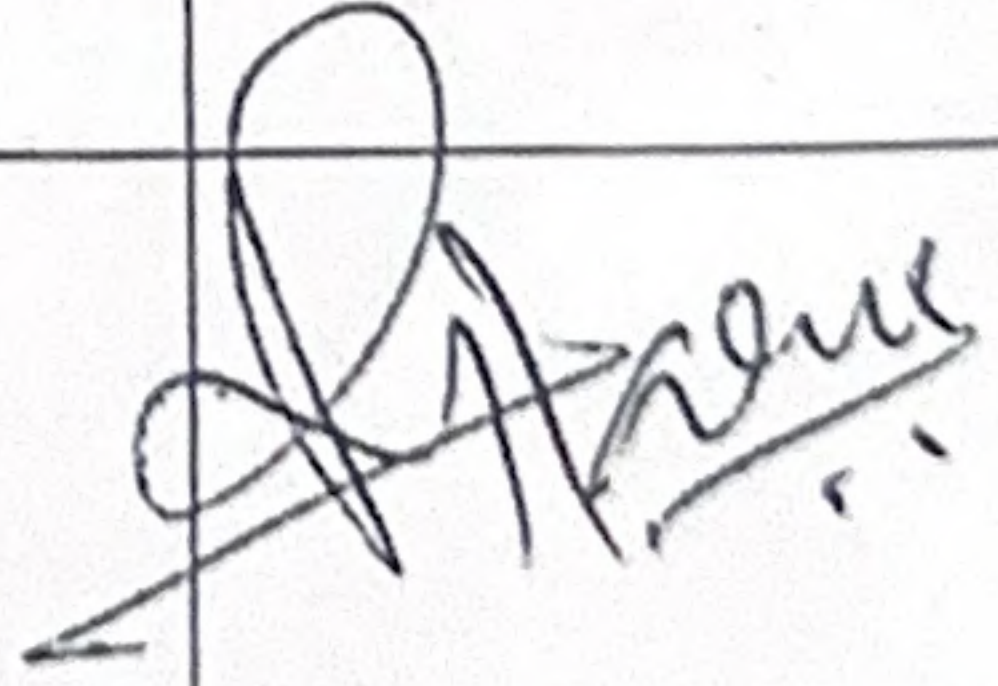
In witness whereof we do hereunto set our hand to these presents, the contents of which have been duly understood by us, this day of _____

Particulars (in block letters) of each Party Executing Vakalatnama

Name & Father's/ Husband Name	Registered Address	E-Mail address (if any)	Telephone No. (if any)	Status in the case	Full Signature/ Thumb Print
MS. ASHA LATA VAIDHYA D/O SHRI MAHENDRA VAIDHYA	DEPUTY DIRECTOR MINING, ANUPPUR, OFFICE ADDRESS DISTRICT COLLECTOR OFFICE, MINING BRANCH, ANUPPUR (M.P.)		9827942416	RESPONDENT	

Accepted:

Particulars (in block letters) of each Advocate Accepting Vakalatnama

Name and Enrollment No. in State Bar Council	Address for Service	E-Mail Address (if any)	Telephone Number	Full Signatures
PRASHANT M. HARNE MP/610A/1995	240, UCI LAWYERS CHAMBERS, ARERA HILLS, BHOPAL		9425041311	
MEHUL BHARADWAJ			9827520642	