

Guidelines of CIL for Offering Mine Voids for Fly Ash Disposal

1. Preamble

The Ministry of Environment, Forests and Climate Change (MoEF&CC) has issued *Notification No. S.O. 763 (E) dated 14th September, 1999* for effective utilization of fly ash in different sectors in India. This notification specified for construction of roads and fly over with use of fly ash, reclamation and compaction of low lying areas using fly ash, use in UG mines as stowing material and in OB dumps (25% of fly ash) for mines within 50 kms from coal and lignite based TPPs.

In light of the mandatory provisions for use of fly ash in mines from Thermal Power Plants (TPPs) located within 50 kms from the coal mines, many TPPs have approached Coal India Limited and its subsidiaries for offering of mine for fly ash disposal.

In this regard, the issue of utilization of fly ash in operating mines have been examined in detail and it was concluded that this has several safety and environmental and operational issues and hence, the operating mines cannot be spared for fly ash disposal.

Subsequently, TPPs are also pressing hard for sparing the abandoned mine voids for fly ash disposal. Many a times, it becomes difficult to take decisions for offering of mine voids to TPPs. In order to address the issue, the following arrangements are being made to facilitate the subsidiaries for offering abandoned mine voids to TPPs.

2. Criteria of Offer of Mine Voids

The mine voids which are not used for supply of water to surrounding communities for irrigation and domestic needs may only be considered for fly ash disposal. Offer for mine voids to TPPs may be prioritized/given preference as per considerations listed below in decreasing order of preference:

- i. TPPs which are located within 10 kms of any protected areas, ecologically sensitive areas or areas of other ecological significance.
- ii. In case TPPs are located in critically polluted areas (CPAs) and severely polluted areas (SPAs) as identified by NGT/CPCB, may be prioritized for allotment of voids.
- iii. TPPs which have been issued specific directives by Hon'ble Supreme Court/NGT w.r.t ash disposal into mines to get priority accordingly.

- iv. In case of TPPs located in close proximity (within 2 kms) to rivers or reservoirs may get priority.
- v. For TPPs located within 50 kms of high fly ash utilizing sectors (like brick making, tile making, cement plants, civil constructions, etc.), these may get low priority.

3. Responsibility of TPPs

- i. All the regulatory compliances, safety and environmental & operational issues associated with fly ash disposal into mine voids will rest with the TPPs.
- ii. The fly ash disposal will commence only after TPPs get satisfied based on the leachate characterization study and radio-tracer studies have satisfactory results as that fly ash disposal does not harm the surrounding environment including ground water in any way. The TPPs should obtain NoC from concerned State Pollution Control Boards.
- iii. The fly ash disposal should comply to the requirement of OM dated 28.08.2019 issued by MoEFCC including obtaining certificate from DGMS. This also includes the methodology for placement of fly ash in mine voids.
- iv. Fly ash disposal must be accompanied by rigorous environmental monitoring of the surrounding ground water regime to ascertain that there are no adverse environmental impacts on account of disposal.
- v. The closure of the mine void site after fly ash disposal should be associated with blanketing with top soil of minimum 30 cms thickness and ecological restoration of the site through suitable landscaping and plantation of native species alternatively installation of ground mounted solar in such areas may be the better option.
- vi. During post closure, garland drains should be provided around the site to ensure that there is no ingress of water into the disposal site.
- vii. Since the subsidiaries of CIL remain the custodians of the land as per CB Act, the liability in terms of legal, environmental and safety issues lie with the TPPs starting from preparation of the site and fly ash disposal upto the time of closure of the site and not with project or CIL Subsidiary.

4. Arrangement proposed at Subsidiary Level

- i. Area Nodal Officer with multi-disciplinary team will identify the mine voids of the abandoned mine of the concerned area for disposal of fly ash. Only lease rent which has been paid to the State Government by CIL and its subsidiaries is to be recovered from TPPs
- ii. The name of the mine voids to be offered for fly ash disposal, will required approval of Functional Directors of respective Subsidiaries.
- iii. After receipt of data from Subsidiaries, CIL will compile the list of abandoned mines voids & communicate the duly approved list to MoC.
- iv. Director (T/OP) or Director(P&P) of the concerned subsidiary will take priority decision of TPPs or agencies as feasible for fly ash filling in mines based on the criteria in Point No 2 (Criteria of Offer of Mine Voids)
- v. Subsidiary Nodal Officer in consultation with Area Nodal Officer will communicate the same to TPPs or agencies for obtaining NoC from State Pollution Control Board for fly ash disposal and permission from DGMS.
- vi. On receipt the above, concerned TPP shall submit a road map including feasibility report and terms & condition for fly ash disposal and Certificate from DGMS.
- vii. Area Nodal Officer will examine the same vis-à-vis OM dated 28.8.2019 by MoEFCC and if found satisfactory, this will communicate to the concern TPP or agency for enter into a MoU and also related formalities for disposal of fly ash.
- viii. Monitoring and supervision for fly ash disposal will be done by the concerned TPP or agencies with a dedicated team headed by officer of the level of General Manger as per OM dated 28.8.2019 by MoEFCC.
- ix. Risk analysis & safety management plan are to be guided by Safety Department of Subsidiaries /CIL.
- x. Monitoring done by TPPs or agencies for entire ash disposal operation, conducting different studies and maintain all records as prescribed, are to be certified by concerned Area Nodal Officer as per OM of MoEFCC dated 28.8.2019. After closure of the site, it shall be ensured by TPPs that the disposal site has been suitably reclaimed through plantation of native tree species and other measures.
