

# NOTES

## A NOTE ON FLY ASH POLICY IN INDIA

Nearly 73% of India's total installed power generation capacity is thermal, of which coal based generation is 90% and the rest by diesel, wind, gas, and steam. About 60% of total coal production is utilized in power generation and the remaining in other industries like iron and steel, cement, fertilizers, etc. The 85 utility thermal power stations, besides the several captive power plants, use bituminous to sub-bituminous coal and lignite and produce large quantities of ash. These large volumes of ash are due to the high ash content of Indian coals.

Currently about 100 million tonnes of coal ash is being generated annually in India and about 1500 million tonnes of coal ash is estimated as dumped in nearly 65,000 acres of land. Such huge dumps have created problems from the view point of land-usage, health and environment. Studies on coal ash have proved its utility as a resource material. Some of the major areas of ash utilization are (1) Brick manufacturing, (2) Cement manufacturing, (3) Part replacement of cement in mortar and concrete, (4) Roads and Embankment construction, (5) Dyke raising, (6) Structural fill for reclaiming low lying areas, (7) Hydraulic structures (8) Mine stowing, (9) Agriculture and Forestry, (10) Wasteland Management, (11) Extraction of elements.

Considering the need to tackle disposal problems and to promote ash utilization government has taken following decisions (1) Looking at technical advantages of fly ash blended cements and to enhance fly ash utilisation, minimum and maximum percentages of fly ash in portland pozzolana cement have been raised from 10% to 15% and 25% to 35% respectively (2) Every thermal plant has to make ash available without any payment for the purpose of manufacturing ash based products such as cement, brick, blocks, roads, embankments, etc. at least for ten years (3) The PWD, local development and housing authorities as well as National Highway Authority of India are directed to prescribe use of ash and ash-based products in their respective schedules of specifications and codes of practice, etc. (4) On import of capital goods (machinery, equipment, etc) of certain kind used for manufacture of fly ash based products, additional custom duty has been exempted (5) Ministry of Environment and Forests, Govt of India, has brought out a Gazette Notification on use of fly ash in building materials and construction activity. The notification makes it mandatory to use at least 25% ash in manufacture

of clay bricks, blocks or tiles within a radius of 50 km from coal or lignite based thermal power plants (6) To encourage production and use of fly ash based products, Union Govt has withdrawn 8% excise duty imposed earlier on such products. Now no excise duty shall be levied on manufacture of goods in which a minimum of 25% fly ash is used.

At present fly ash utilization is about 16 % of the total generation, so the following policies are not adequate to promote and utilize ash in the present circumstances. Some of the factors behind this inadequate utilisation of fly ash are lack of awareness among people and entrepreneurs about the useful properties of fly ash, higher cost of production, lack of cooperation between power plants and entrepreneurs, lack of technology for production on large and commercially viable basis, lack of awareness about governmental concessions on fly ash, lack of publicity about various ash based products, lack of training and development programmes in fly ash based industry on latest technologies and opportunities.

Following additional measures are suggested to optimally utilise the fly-ash resources of the country (1) Total ban on manufacture and use of clay bricks around coal based power plants so that utilization of fly ash bricks increases and will also conserve top soil (2) Awareness programmes should be organised to inform about various ash based products and their characteristics (3) Where thermal plants are located near mine areas it should be made mandatory to use ash in mine stowing (4) Fly ash based industry should be exempted from sales tax for initial years (5) Government should provide loan facilities at some lower interest rate (6) It should be mandatory for local, regional and national development and housing authorities of government to prescribe use of ash and ash based products (7) A proper ash collection and storage system should be erected so that users can get it easily and of required grade (8) An independent body should be made to continuously monitor and evaluate the implementation of such a policy (9) Government should give more funds for research on technology development for ash based products (10) Fly ash should be recognized as a valuable resource.

*Ganesh Agency Plots  
Babupeth, Ward No 16  
District Chandrapur, PIN 442 403  
Maharashtra*

VINAY SAHAY