



HARYANA POWER GENERATION CORPORATION LIMITED

COROPORATE ENVIRONMENT POLICY

Policy Statement:-

HPGCL has framed the policy titled 'Corporate Environment Policy'. The guiding principle in the policy is going higher on generation, reducing green house gas intensity, pro-active approach to Environment, Optimum utilization of equipments, adoption of latest Technologies and continual environment improvement. The policy envisages new technology initiatives and efficient utilization of resources, thereby minimizing waste, maximizing ash utilization and ensuring a green belt all around the plant for maintaining ecological balance. HPGCL is a ISO 9001, ISO 14001 and OHSAS 18001 certified company. The Corporate Environment Policy comprises of following:-

- A. Environment Management.**
- B. Occupational Health and Safety.**
- C. Guiding Principles.**
- D. Ash Utilization.**



A. ENVIRONMENT MANAGEMENT :-

HPGCL is committed to:-

1. Protect Environment and continually improve environmental performance by implementing an environmental management system by complying with National and Haryana State Pollution Control Board Norms and as per ISO-14001:2004, involving all employees.

2. Comply with applicable environmental legislations, regulations, special and general conditions laid down by the statutory bodies time to time.

3. **Pollution Control Systems:** -

All plants have provisions for pollution control system incorporating into their blue prints. In order to ensure that HPGCL complies with all the stipulated environmental norms, the following control systems/devices have been installed to control air and water pollution.

- Electro-Static Precipitators (ESP)
- Flue Gas Stacks.
- Low-NOX Burners
- Neutralization Pits
- Coal Settling Pits / Oil Separators
- Dust Extraction & Dust Suppression system
- Ash Dyke and Ash Disposal Systems
- Dry Ash Extraction System
- Liquid Waste Treatment Plants and Management Systems
- Sewage Treatment Plants & Facilities.
- Zero discharge scheme.



The following are the additional measures taken by HPGCL in area of environment management:-

- Environment Management during Operation Phase.
 - Monitoring of Environment Parameters.
 - On-Line Data Base Management.
 - Environment Review.
 - Up-gradation & Retrofitting of Pollution Control Systems.
 - Resources Conservation.
 - Waste Management.
 - Hazardous Waste Management.
 - Green Belts & Afforestation.
4. To minimize the impact of fly ash on the environment.
 5. Strive to reduce, reuse and recycle the wastes.
 6. Increase the competence of employees by providing environmental training to reduce significant environmental impacts.
 7. Conserve fuels, raw material, water and energy.
 8. Ensure effective emergency preparedness.
 9. Develop green belt in and around the plant as per MOEF&CC requirement
 10. Rain water harvesting.
 11. Technological Interventions:- For greater acceptability and assimilation of eco-friendly technologies and practices, methodology of 'Technology Acquisition, Demonstration and Dissemination' has been adopted. For better heat rate, best technology is adopted which ultimately reduces Co₂ emission.

Methodology & Research:-

Boiler Performance Optimization	Predictive maintenance system and technologies for diagnostics
Best practices for air-preheataer, etc. condenser water pressure clearance	Reliability Centered Maintenance
Condenser helium leak detection	Thermodynamic modeling. A tool for performance.
Steam turbine performance assessment & optimization	Thermal audit for accurate assessment of degradations
Real time measurements & balancing of air-fuel ratio	Risk Evaluation & Prioritization
Cooling tower, condenser performance optimization	New overhaul practices
	Online CW flow measurement



OCCUPATIONAL HEALTH AND SAFETY POLICY:-

HPGCL is Committed To:-

- To improve the health and safety of employees and associate while performing various tasks related to generation of power.
- To make continuous improvements in the effectiveness of quality , environment and OH&S management systems.
- To prevent pollution and accidents due to our various plant operations.
- Pursue the Health & Safety efforts in a sustained and consistent way by establishing Health & Safety goals, demanding accountability for Health & Safety performance and providing the resource to make Health & Safety check-up programme work.

GUIDING PRINCIPLES:-

HPGCL follows the following principles:-

- HPGCL firmly believes that most of the accidents are preventable.
- All employees are responsible and accountable for maintaining laid down health & safety standards.
- Health & Safety standards shall be incorporated in all work procedures.
- Imparting training to create safety consciousness and to work safely shall form key elements of our safety programme.
- Make collective efforts to enhance safety through participative safety committees.
- Perform all works in consonance with the local, State and Central Acts, Rules and Regulations on Safety.
- Comprehensive audits of the safety performance shall form an essential part of safety programme.
- Continuous improvement in safety performance is necessary for success.
- All employees /outsourced workers are responsible for following safety norms and safety procedure of HPGCL safety manuals.



ASH UTILIZATION

HPGCL is committed to comply with MOEF&CC Notification dated 03.11.2009 regarding Ash Utilization:-

1. Fly ash is a byproduct of power generation with coal. Sustainable ash utilization is one of the key concerns at HPGCL. Every plant of HPGCL has its Ash Handling Section that strives to derive maximum usage from the vast quantities of ash produced at its power stations. The ash is now being looked at as a commodity that could generate wealth for the company in the long run. Fly ash generated at HPGCL stations is ideal for use in the manufacture of cement, concrete, concrete products, cellular concrete products, bricks/blocks/ tiles etc. Further HPGCL is committed to comply with the latest notification dated 03.11.2009 issued by MOEF&CC .
2. To facilitate easy availability of dry fly ash to end users, dry fly ash evacuation and safe storage system have been set up at power stations. HPGCL offer fly ash as cost basis to user agencies subject to the following namely:-
 - i. The pond ash is made available free of any charge on " as is where is 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. 20 % of dry ESP fly ash is 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.
3. At present the dry fly ash from PTPS, Panipat, DCRTPP Yamunanagar and RGTPP Khedar Hisar has been allocated to various companies for its use in cement companies. The pond ash is being used by NHAI & PWD (B&R) in road constructions and other users for filling purposes as per provision of MOEF&CC notification. Thus HPGCL is complying with all the provisions of the notification.