

ADOPTION OF CDM PRACTICES AT D.G KHAN CEMENT PLANT KHAIRPUR DISTRICT CHAKWAL

LATEST TECHNOLOGY: COMBUSTION IN CLOSED INCUBATOR WORKING AT 2200⁰C; ASSISTS IN WASTES BEING USED AS FUEL IN AN ENVIRONMENT FRIENDLY MANNER: WIN-WIN SITUATION. FACTORY UNIT ON THRESHOLD OF ACCESSING CARBON CREDITS.

Nishat Group is one of the leading and most diversified business groups in South East Asia. With assets over **Rs.300 billion**, it ranks amongst the top five business groups of Pakistan. The group has strong presence in three most important business sectors namely Textiles, Cement and Financial Services. In addition, the Group has also interest in Insurance, Power Generation, Paper products and Aviation. The Group is considered at par with multinationals operating locally in terms of its quality of products &



services and management skills.

D.G Khan Cement Factory is a project of Nishat Group of companies located at Khairpur in District Chakwal. It is one of the biggest cement plant in Pakistan with a total production capacity of plant is **7000 tons/day**. The plant is spread over **200 acres** of land. Though the basic raw material used in manufacturing of Cement is Lime, Gypsum, Clay, Bauxite & iron ore but it is interesting to note that about 70% of production cost of cement comes from usage of energy (which includes fuel & electricity).



In order to cut down its production cost, this group has commenced two Projects, **“Alternate Fuel Project” & “Waste to Power Generation”** under its programme of **‘Clean Development Mechanism (CDM)’**. Heating is required both for burning raw material during cement production & for generation of electricity. This group has started to use industrial, municipal & agricultural waste as alternate fuel which has not only helped in significantly cutting down its energy cost but also helped in cleaning our country’s environment. The wastages being used for the purpose includes shredded tyres, shoes, poultry waste, husk and other agricultural waste.



The wastages being used for the purpose includes shredded tyres, shoes, poultry waste, husk and other agricultural waste.

The Cogeneration Plant of **32 MW** has been established which is currently using gas for power generation. In future alternate fuels e.g. Coal, solid waste and agricultural waste will be used along with gas. Latest **Kalina Cycle Power technology** will be used for further generation of electricity. For continuous and smooth operations of the plant uninterrupted power supply is very crucial therefore WAPDA supply is kept as an alternate.



In addition to the core business of Cement Production, the Group is also involved in production of **400,000 cement bags per day** at the facility. The cement bags produced by this plant are being used for packing of cement produced by this plant and is also provided to other cement groups in Pakistan as well as to Sri Lanka, India and Middle East.

Under their **Corporate Social Responsibility (CSR's) initiative**, the group has established a medical centre for the provision of free medical facility for the vicinity. Secondly in order to uplift the economic condition of area, a lion's shares of employment opportunities have been provided to the locals. The group has also commissioned a waste water filtration plant to recycle the waste water of residential colony of the Plant in an environmentally friendly manner. The treated effluent is being used for irrigation purposes whereas the solid waste is used as fertilizer.

It is worth mentioning to note that all these initiatives and best practices adopted by the group have not gone unnoticed by the international community. **D.G Khan Cement Factory** has got **Best Performance Award** internationally due to its record operation of **347 days in a single year** which is a record in the world cement industry (internationally performance average is 330 days/year whereas nationally it is 280 days/year). The production processes of the Plant are environment friendly and comply with the World Bank's environmental standards. It has been certified for "Environment Management System" ISO 14001 by Quality Assurance Services, Australia. The company was also certified for ISO-9002 (Quality Management System) in 1998. By achieving this landmark, DG Khan Cement became the first and only cement factory in Pakistan certified for both ISO 9002 & ISO 14001. This plant has also been declared as the **second most beautiful cement plant** of the world by **Global Cement Association**. This cement factory is also exporting cement to Afghanistan, India & Sri Lanka.

In order to study the CDM's adopted by this Group, a visit was conducted by the Policy & Planning Wing of **Ministry of Industries (Moi)** on 29th June, 2011. The officers who visited the factory include **Ms. Shaista Sohail, JS (P&P), Moi** and other officers of Ministry/SPMEC & WTO projects. GM (Works) Dr. Arif Bashir facilitated the visit from the Group side.



Factory's Management was of the view that the government should provide incentives to such industrial concerns which are adopting innovative CDM practices. Especially they were advocating for reduction in import tariff on used tyres. Ministry's delegation assured the factory management that government will provide maximum support to the industry for rapid diffusion of innovative technologies.