

# Library Section

## BUSINESS RECORDER

Dated 23 01 - 2011

### Coal handling and its impact on environment

I had written about the need for Pakistan to have proper and coordinated Port Master Plan (PMP) sometime in November 2009 to generate the maximum benefits for the nation. Any PMP should also create the maximum efficiency for handling and movement of cargo. Efficiency not only involved minimising the tangible cost to those who are directly engaged in the business of handling and moving cargo, but also the intangible impact such as environmental impact on all Pakistanis. One issue, which has not attracted the attention of the policymakers, is the handling of dirty cargo like coal, phosphate in bulk form and its impact on humans and the environment.

This brings to mind the handling of cargo at the Karachi Port. A total of 3.4 million tons of coal was handled as the Karachi Port during 2008-2009. Conservative estimates indicate that this figure will be close to 4 million tons during 2010-2011. This increase in volume will result in an increase in revenues for the port and for allied businesses and bring economic benefits to Karachi and Pakistan. The incessant demand for energy to support a growing population has spurred ports such as Karachi to dedicate spaces as the KPT did at the Keamari, for the imported coal, which is stored in the open after being off-loaded from ships. As the volume of coal imports increases so does the size of the coal yard at Keamari. While economic materials are reaped by businesses, intangible costs are borne by others who live and work in the area.

The area where coal is handled at the Keamari area is adjacent to the residential colonies of Keamari and Jackson, which house thousands of residents, comprising people who cannot afford decent healthcare. The continued handling of coal in an area containing major population centers and storage of explosive material does not consider the long term welfare of the people in Karachi, especially those living right next to the area. The question that must be asked is whether there is any serious long-term plan to move the handling of dirty cargo such as coal, phosphate further away from population centre. For those in daily contact with these

Capt Anwar Shah

polluting substances, there is untold suffering. A port traffic department officer, already suffering respiratory problems, said, on the condition of anonymity that the yard now covers an area of 12.5 hectares with circular mounds of coal piled up to a height of over 150 feet at some places. Coal is transported from the berths to the yard in open top dumper trucks that spill coal on their way to the yard. He added that of all the dirty cargos handled by the port, coal was by far the dirtiest and that he was trying to get a transfer to some other berth as his health continues to deteriorate. Efforts to curb coal dust from being carried away by the strong coastal winds blowing towards densely inhabited areas has remained cosmetic, as

the yard in 2010 at a cost of Rs.55.54 million and also plans to install a new sprinkler system. These investments will do little to reduce the environmental and health hazards posed by the coal yard but might go a long way in ensuring that the coal yard is not relocated as any such shifting of the coal yard might be detrimental to the interests of KPT officials. When queried where the water spill from the sprinkler system would end up it was indicated by staff that this spill, comprising coal slurry, will flow unabated into the sea causing incalculable damage to fisheries and other marine life.

Another matter is that the KPT plans to build a new terminal for the handling of containers in the area adjacent to the coal terminal. Phase I of the ter-

area of 25 hectares. The facility is expected to come into operation within the next three years. If there is proper coordination between the ports under a PMP, instead of investing more funds at Keamari coal yard, the government should, in the better interest of the local residents and port users, exercise greater corporate social responsibility and look towards preparing to transfer all coal and cement handling to Port Qasim away from densely populated areas.

In the interim, while policymakers mull over what to do, there are short term solutions that the Karachi Port may implement. Merchants take a long time to remove the coal from the port area and this is for economic reasons. It has been learnt that KPT's storage yard at Keamari offers storage said to be at cheaper rates than other locations outside the port. Any rational importer would keep this cargo at the port until it is required, as moving them outside would be more costly and there are more restrictions imposed due to its environmental hazard. These costs are externalized to the residents in the area in form of impact on health, with short-term medical cost and in the long-term, reduction in their life span. There is no incentive by officials to increase the charges for the importers as it removes opportunities to secure the coal business. In the light of these gains, the authorities have conveniently turned their backs towards the continuing health and environmental hazards being posed by the KPT's coal storage yard at Keamari. This ignores medical risks to the local population and material risks to surrounding businesses such as those oils storage. Costs are externalized to others. The KPT may consider increasing the storage charges for the owners of coal and this should lead to speedy evacuation of the cargo at the port area. This strategy proved to be effective at the port of Chittagong around 2006 where congestion was resolved when the port doubled the charges to the owners of cargo as once mentioned by ex-Chittagong Port Chairman. This increase in charges gives no incentive for the cargo owners as outside storage charges become lower than those in

**Then, there is the real concern about risk of a major explosion as the Keamari coal yard is situated adjacent to the Keamari oil terminals. Despite repeated warnings of such potential risk by oil terminal owners, coal dust continues to accumulate forming a thick layer on top of the large tanks containing various types of highly inflammable petroleum products**

water sprinkling is being kept to the minimum so as not to increase the moisture contents of the coal thus decreasing its market value and utility.

Then, there is the real concern about risk of a major explosion as the Keamari coal yard is situated adjacent to the Keamari oil terminals. Despite repeated caution warnings of such potential risk by oil terminal owners, coal dust continues to accumulate forming a thick layer on top of the large tanks containing various types of highly inflammable petroleum products. Thus increasing risk of igniting the highly flammable products through what is technically known as the coal dust explosion hazard. Despite this pending risk the KPT continues to ignore occupational safety and health guidelines for coal dust handling and continues to invest more funds in its Keamari coal yard by building a 1.87 km rail link to

terminal will be capable of handling 3.1 million TEUs (twenty foot equivalent boxes). When all the phases are completed, it is capable of handling 10 million TEUs. Experience in other parts of the world demonstrates that it is a natural development that following a plan for container handling, dirty cargo handling is moved to another location. Handling coal so close to a container terminal poses major risks to the employees working at the terminal. The impact of coal dust on equipment leads to frequent breakdown and could cause accidents risking lives.

The long-term solution could be to move the handling of dirty cargo from the Keamari area to Port Qasim. The Port Qasim Authority signed an agreement with Pakistan International Bulk Terminal Ltd in November 2010 establishing a US\$173 million modern bulk coal and cement terminal with a backup

  
A. Afzal

# Library Section

## BUSINESS RECORDER

Dated 23-01-2011

### Coal handling and its impact on the environment

> from page 16  
the port. It may well be that the official revenue received by the KPT will be the same or even higher despite the cargo staying a much shorter period at the port.

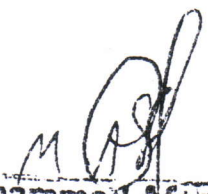
I commend all public and private sector enterprises who have saved the exchequer by using

coal in cement factories, yet my intentions are humble without causing umbrage to any institution. The only compelling reason to pen this column is environmental and fire hazards and the health safety of the residents of the adjoining areas even extending to Clifton. My main concern

was visiting the oil pier, I noticed traces of coal dust on oil tankers berthed on OP-VII/III and imagined the complexities i.e. underwriters of ship owners may demand additional risk premium from ship owners for berthing at Karachi, thus it is essential to raise the issue for

the discretion of those concerned, who are competent and may be concerned equally, but for reasons best known may be ignoring the hazards.

*(The writer is ex. Director  
General Ports & Shipping)  
captshah1@hotmail.com*

  
**Muhammad Afzal**  
Librarian  
Ministry of Planning  
Government of Sindh