

Environmental Management for Construction Industry Coursework

Environmental degradation is not specific to certain borders. Dealing with it is efficient for environmental protection to solve the many environmental issues faced by modern societies such as water and air pollution, industrial accidents, and hazardous waste among others (Croitoru, Sarraf & Arif, 2010). Environmental policies at the European, national, and international policies are put in place to ensure equal and fair competition among the construction industry. In the absence of these common standards and policies, there is a risk of “eco- protection” where the national regulations become barriers to trade (Stubbs & Dering, 2002).

Environmental policies have been adopted by various governments and organizations to ensure that the world is engaged in sustainable activities. In this case, there are legal and constitutional implications. The European Union Environmental policy is central to the European project and has produced tangible evidence of benefits to its citizens. The European Union has been responsible for the great improvement in the quality of air and water. It has also played a critical role in the eradication of hazardous pollutants such as lead in petrol. This high-level protection of the environment promotes eco-innovation, which leads to the improvement of the efficiency of the industry and employment opportunities. Energy conservation, use of natural resources and raw materials, and increasing productivity are key to any economy that is sustainable, resource-efficient, and competitive. This strategy will help the world to develop in a low carbon environment, one that is resource-constrained. This strategy will prevent degradation of the environment loss of biodiversity and resource un-sustainability. Implementation of such policies ensures maintenance of environmental progress and that benefits of health and environment from the policy materialize as intended at the time of its implementation (Department of Environment and conservation, 2004).

Implications of environmental management for a proposed project

Fresh motors of concrete are toxic to life in the marine. Runoff from equipment’s washing, leaking, or disposal of concrete eventually drains into waterways. This can cause serious degradation to the environment. In addition, it is also forbidden by law and mostly results in a penalty from the appropriate management system followed by a notice to clean up (Moncmanová, 2007). Understanding and following the regulations by the environmental management system is meant to reduce the likelihood of environmental pollution to a great extent in concrete activities. The practices include the following:

Wash-down of equipment on a building site

There should be an establishment of a wash-down area on the site. This allows the subcontractors to wash down the equipment properly without polluting the system of the local

storm water. The administrators at the site had to observe the wash-down. They also had to observe the way excess concrete and areas of recycling are handled. Failure to do this results in the deterioration of site conditions. Incidentally, this can lead to prosecution and penalties (Winch, 2010).

Management of handstand construction

The purpose of proper management of handstand construction areas is to reduce the risk of environmental pollution and maximize the recycling opportunities of concrete. This can be applied during storage of equipment used in paving, cleaning of concrete including rinsing, sweeping, and exposing aggregate, and during concrete application and/or coat sealing during footpath, driveway, paving, guttering, and curb surfacing and resurfacing (Sakai and Noguchi, 2012).

Making concrete objects

In this case, concrete objects include bricks and tile among others. The aim of proper administration when dealing with concrete objects is to minimize the risk of environmental degradation. In case the cutting of concrete is likely to result in runoff entering the system of the stormwater, action should be taken to prevent pollution by either using diversion channels or bunds. This will be critical to divert the runoff from street gutters to areas of containment. At the same time, absorbent materials can be used to soak up the runoff (Holder, Lee & Elworthy, 2007).

Cleaning the unprotected aggregate concrete

The aim of this management system is to reduce the possibility of polluted runoff mixing with the stormwater system. This can be applied during washing down the exposed concrete aggregate and cleaning of concrete (Bragança, 2007).

Delivering the concrete

In this regard, the aim of effective management is to prevent the threat of polluting the surrounding environment. This is applied during the ordering of concrete deliveries by site managers. It can also be used during the transportation of concrete to the places where it is needed.

Pumping of concrete

The main aim of an effective administration during this stage is to prevent any risk of environmental degradation. This can be applied to contractors of concrete pumping working at the sites of construction and for site managers in charge of pumping of concrete (UNEP. Industry and Environment Office 1997).

Recommendations for action

The appropriate administration strategies in establishing a wash-down area on a site should include ensuring that it is situated in the right place. This should be constantly inspected and replaced when necessary. The excess concrete from equipment should be scraped off. In addition, a water spray nozzle can be used. The spray nozzle should have great pressure to avoid

wastage of water during the exercise. This also ensured the conservation of water. It also minimizes the maintenance of sediment controls (Thorpe & Sumner, 2005).

Wash down water should never be allowed into a sewer system. In this case, there should be an arrangement with the local authorities before this is done. In addition, the water should be prevented from flowing into the storm water system. For handstand construction management, the best management practice will be to ensure that the concrete or sealing coats are applied during dry weather. This will prevent runoff from entering into the storm water drains or street gutters. It is also important to avoid on-site mixing of excess fresh concrete. This will also divert runoff from street gutters and contain the runoff in pooled areas such as sandbags. It is also important to consider using all possible disposal options and alternatives. Furthermore, one should treat the water and later dispose of it in the sewer or a waste treatment facility that is approved (Griffith, 2011).

The various objects that contain concrete should be covered. This will help in minimizing erosion and dust issues. Furthermore, an enclosure should be established to allow filtration of the solid particles in the concrete. The best management practices for washing down exposed aggregate concrete is by diverting the water into a level area, recycling all excess concrete, or treating the water by filtration then disposing of it. Sweepings that are collected from the exposed aggregate concrete should be returned to a recycling bin or a stockpile (Dhir, Dyer & Halliday 2002).

Reference List

Bragança, L 2007, *Portugal SB07: Sustainable construction, materials and practices : challenge of the industry for the new millenium*, Delft University Press, Amsterdam, Netherlands.

Croitoru, L, Sarraf, M, & Arif, S 2010, *The cost of environmental degradation: case studies from the Middle East and North Africa*, World Bank, Washington, D.C.