G|PRO Construction Management

CM Doc. #4.1: Environmental Standards Document

Overview

The CM should distribute this document to all subs.

This document should address all of the following Compliance Areas in order to establish the minimum sustainability standards for construction activity.

The Document may also address:

- Additional Compliance areas that may be relevant
- Federal/State/Local Regulations, e.g. Clean Air Act (CAA), Endangered Species Act (ESA)
- LEED references for each Compliance Area, specifying LEED category/categories that may apply (Sustainable Sites, Water Efficiency, etc.)
- Areas identified with any level of risk shall be identified within the project's risk register and reviewed and updated on a regular basis.

Environmental Compliance Area: Material / Waste

1. Material Usage

- Each project shall ensure, whenever possible, the procurement of materials for permanent or temporary installations that allow for reuse, recycling, or are made from recycle materials to reduce the demand on natural resources.
- Consider reusing existing materials that are available on the project site. Purchase durable materials that have a long-life span and can be used multiple times before disposal.

2. Generation of Solid Waste

- Each project shall develop and implement a comprehensive construction and demolition waste management plan that shall address reduction, reuse, recycling and disposal of solid hazardous and non-hazardous waste materials.
- Divert a minimum of 75% of the cumulative solid waste from landfill and incineration facilities.
- Waste must be effectively managed by minimization, segregation and recycling, and performance monitored and recorded.
- A waste management system shall be put in place on the job site. All materials to be recycled will be separated from the other construction waste materials and recorded for monthly reporting.
- Monthly recordings of waste removed from the site and diverted from landfills shall be captured and submitted to the General Contractor.

3. Generation of Organic Waste

- Each project shall plan for the generation of organic waste by ensuring any and all restroom, washroom, and break areas are maintained with proper waste receptacles (including recycling) with closing lids, kept clean at all times, and kept clear of the public so not to offend.
- Monthly recordings of waste removed from the site and diverted from landfills shall be captured and submitted to the General Contractor

4. Removal of Contaminated / Hazardous Waste

- Each project shall ensure that the project has been evaluated for existing hazardous substances as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as "Superfund").
- The project site shall also document and monitor any releases of hazardous substances when the amount meets or exceeds the required reportable quantity.

Environmental Compliance Area: Public Welfare

1. Generation of Noise

- Noise levels should be assessed and effective control measures implemented to prevent injury and community disturbance.
- Noise levels shall be reduced where practical by elimination, substitution, attenuation or isolation and personal protection.

2. Generation of Light

- Projects shall ensure lighting utilized during regular work will meet the requirements based upon the demands of the job and location. During off work hours, care shall be taken to not affect the surrounding community.

Environmental Compliance Area: Energy

1. Energy Usage

- Each project shall ensure that the type of energy sources utilized shall be evaluated on the project's supply needs, minimization of use where possible, and mitigation against hazards based on the tasks being performed.
- Adequate lighting must be provided to supplement low levels of natural light to ensure operations can be conducted safely.
- Low energy environmentally friendly light bulbs should be used where practical.
- Where possible, environmentally friendly lamps, such as compact fluorescent or fluorescent tubes should be explored to assist in infrastructure and energy savings, CO2 output reduction and quality goals.

Environmental Compliance Area: Air Pollution

1. Generation of Air Toxins / VOCs / Fumes

- Projects must employ effective dust, noise and vibration control measures.
- Generation of air toxins, VOCs, and fumes shall be assessed and effective control measures implemented to prevent injury and disease.
- Environmental impacts of air toxins, VOCs, and fumes shall be reduced where practical by elimination, substitution, attenuation or isolation and personal protection.

2. Generation of Dust and Air Particulates

- Projects must implement effective dust and air particulate control measures to prevent injury and disease to all employees and to the public.
- Activities involving dust and air particulate generation must be documented and monitored within the project's residual risk register, which shall be based upon the particulate associated with the activity being performed. These records shall be maintained and housed at the project level.
- Where dust and air particulate levels are found to be harmful, they must be reduced through elimination, substitution, or isolation, and personal protection.

Environmental Compliance Area: Land / Water / Habitat

1. Alteration of Vegetation and Habitat

- All projects shall be required to assess the impact of their construction activities against species listed or proposed under the Endangered Species Act (ESA) and, if applicable, develop a Habitat Conservation Plan along with the required permit.

2. Water Stagnation

- Each project shall ensure that precautions are in place to prevent the accumulation of water throughout the project site. Identified areas of concern and mitigation actions shall be entered into the project's risk register.
- Areas of concern or inspection include: uneven grounds, at window openings, near stored materials on project site, on top of storage tanks and containers and at excavations.
- Water ingress into excavations must be controlled to ensure safety. Excavations must be inspected daily by a competent person prior to use and after every rainstorm.

3. Water Intrusion

- Each project team shall develop and implement a program to prevent and control mold growth on the project site (i.e. from pipe breaks, water overflows, roof leaks, etc.).
- Occupational health risks should be assessed and effective control measures implemented to prevent injury and disease.

4. Ground and Water Contamination

- Each project shall develop and implement a prevention program identifying the reduction of spills.
- A formal risk assessment should be performed to identify potential materials to be stored, location of storage, all storm water drain entrances and methods of dealing with the potential risks (i.e. containment areas, plastic sheeting/receptacles, spill kits.)

5. Alteration of Terrain

- Each project shall address stormwater pollution prevention by implementing sediment, erosion, and other pollution prevention control measures. These pollution prevention control measures shall be shown on the project's logistics plan.

6. Water Usage

- Each project team shall make an effort to limit the water usage on their site for specific tasks where water is required. (I.e. dust control efforts, truck wash off, etc.)
- Projects shall eliminate excessive water use and shall only use potable water (in lieu of non-potable water) for construction operations when necessary.
- For each project, an adequate supply of potable water shall be provided for all employees and clearly identified, and used only for that purpose.
- Portable containers used to dispense drinking water shall be capable of being tightly closed and equipped with a tap.
- Single cups shall be supplied along with a sanitary container and a receptacle for disposing the cups after their use next to or near where the potable water is staged.