

SECTION 01 57 19
TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies regulatory environmental compliance and the control of environmental pollution and damage that the Contractor must consider for air, water, and land resources. It includes management of applicable project permits, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants and resources encountered or generated by the Contractor. The Contractor is obligated to consider specified control measures with the costs included within the various contract items of work.
- B. Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which:
 - 1. Adversely affect human health or welfare,
 - 2. Unfavorably alter ecological balances of importance to human life,
 - 3. Affect other species of importance to humankind, or;
 - 4. Degrade the utility of the environment for aesthetic, cultural, and historical purposes.
- C. Definitions:
 - 1. Debris: Combustible and noncombustible wastes, such as leaves, tree trimmings, ashes, and waste materials resulting from construction or maintenance and repair work.
 - 2. Sediment: Soil and other debris that has been eroded and transported by runoff water.
 - 3. Solid Waste: Rubbish, debris, garbage, and other discarded solid materials resulting from industrial, commercial, and agricultural operations and from community activities.
 - 4. Surface Discharge: The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers, creeks, and/or "water of the United States" and would require a permit to discharge water from the governing agency.
 - 5. Rubbish: Combustible and noncombustible wastes such as paper, boxes, glass and crockery, metal and lumber scrap, tin cans, and bones.
 - 6. Sanitary Wastes:
 - a. Sewage: Domestic sanitary sewage and human and animal waste.
 - b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

1.2 QUALITY CONTROL

- A. Establish and maintain quality control for the environmental protection of all items set forth herein.
- B. Record on daily reports any problems in complying with laws, regulations, and ordinances. Note any corrective action taken.
- C. All regulatory compliance activities shall be reviewed and accepted by the GEMS Coordinator, via the COTR.

1.3 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

- A. U.S. National Archives and Records Administration (NARA): 33 CFR 328 Definitions

1.4 SUBMITTALS

In accordance with Section, 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES, furnish the following:

- A. Environmental Protection Plan:
 - 1. The Contractor shall submit an Environmental Protection Plan at or before the Preconstruction Conference.
 - 2. The Environmental Protection Plan shall include the following:
 - a. Name(s) of person(s) within the Contractor's organization who is (are) responsible for obtaining applicable environmental permits and ensuring adherence to the Environmental Protection Plan.
 - b. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, noise control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.
 - c. Procedures and methods to provide compliance with the applicable laws and regulations.
 - d. Documentation for applicable permits and licenses.
 - e. Drawings showing locations of any proposed temporary excavations, embankments and stockpiles of excess or spoil materials.
 - 3. Approval of the Contractor's Environmental Protection Plan will not relieve the Contractor of responsibility for adequate and continued regulatory compliance and control of pollutants and other environmental protection measures.
 - 4. Work may not begin until the Environmental Protection Plan is approved.

1.5 PROTECTION OF ENVIRONMENTAL RESOURCES

- A. Protect environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire period of this contract. Confine activities to areas defined by the specifications and drawings.
- B. Protection of Land Resources: Prior to construction, identify all land resources to be preserved within the work area. Do not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without permission from the COTR. Do not fasten or attach ropes, cables, or guys to trees for anchorage unless specifically authorized, or where special emergency use is permitted.
 1. Work Area Limits: Prior to any construction, mark the areas that require work to be performed under this contract. Mark or fence isolated areas within the general work area that are to be saved and protected. Protect monuments, works of art, and markers before construction operations begin. Convey to all personnel the purpose of marking and protecting all necessary objects.
 2. Protection of Landscape: Protect trees, shrubs, vines, grasses, land forms, and other landscape features shown on the drawings to be preserved by marking, fencing, or using any other approved techniques.
 - a. Box and protect from damage existing trees and shrubs to remain on the construction site.
 - b. Immediately repair all damage to existing trees and shrubs by trimming, cleaning, and painting with antiseptic tree paint.
 - c. Do not store building materials or perform construction activities closer to existing trees or shrubs than the farthest extension of their limbs.
 - d. Reuse or conserve the collected topsoil sediment as directed by the COTR. Topsoil use and requirements are specified in Section 31 20 00, EARTH MOVING.
 3. Manage and control site activities, including spoil stockpile areas, to limit and/or prevent erosion of soil/sediment/pollutants from migrating and/or entering the storm water system and other areas.
 4. Handle and dispose of solid wastes in such a manner that will prevent contamination of the environment. Place solid wastes (excluding clearing debris) in covered containers that are emptied on a regular schedule. Transport all solid waste off Government property and dispose of solid waste in compliance with Federal, State, and local requirements.

5. Handle discarded materials other than those included in the solid waste category as directed by the COTR.
- C. Protection of Water Resources: Keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters and sewer systems. Implement management techniques to control water pollution by the construction activities that are included in this contract.
1. Washing and Curing Water: Do not allow wastewater directly derived from construction activities to enter sewer or storm water drainage systems. Management of potential wastewater generated onsite shall be discussed with the GEMS Coordinator via the COTR prior to generation.
- D. Protection of Fish and Wildlife Resources: Keep construction activities under surveillance, management, and control to minimize interference with, disturbance of, or damage to fish and wildlife.
- E. Protection of Air Resources: Keep construction activities under surveillance, management, and control to minimize pollution of air resources. Burning is not permitted on the job site. Keep activities, equipment, processes, and work operated or performed, in strict accordance with the State of NH Department of Environmental Services (DES) regulations and Federal emission and performance laws and standards. Maintain ambient air quality standards set by the Environmental Protection Agency for those construction operations and activities specified.
1. Particulates: Control dust particles, aerosols, and gaseous by-products from all construction activities, processing, and preparation of materials at all times, including weekends, holidays, and hours when work is not in progress.
 2. Particulates Control: Maintain all excavations, stockpiles, permanent and temporary access roads, spoil areas, borrow areas, and all other work areas within or outside the project boundaries free from particulates which would cause a hazard or a nuisance.
 3. Hydrocarbons and Carbon Monoxide: Control monoxide emissions from equipment to Federal and State allowable limits.
 4. Odors: Control odors of construction activities and prevent obnoxious odors from occurring.
- F. Reduction of Noise: Minimize noise using every action possible. Perform noise-producing work in less sensitive hours of the day or week as directed by the COTR. Maintain noise-produced work at or below the decibel levels and within the time periods specified.
1. Comply with local noise regulations as in the City of Manchester, NH

Code of Ordinances, Title X: General Regulations, Chapter 94: Noise Regulations.

2. Perform construction activities involving repetitive, high-level impact noise only between 8:00 a.m. and 4:30 p.m., Monday-Friday, in accordance with Manchester's noise regulations. Repetitive impact noise on the property shall not exceed the following dB limitations:

Time Duration of Impact Noise	Sound Level in dB
More than 12 minutes in any hour	70
Less than 30 seconds of any hour	85
Less than three minutes of any hour	80
Less than 12 minutes of any hour	75

3. Provide sound-deadening devices on equipment and take noise abatement measures that are necessary to comply with the requirements of this contract, consisting of, but not limited to, the following:

- a. Maintain maximum permissible construction equipment noise levels at 15 m (50 feet) (dBA):

EARTHMOVING		MATERIALS HANDLING	
FRONT LOADERS	75	CONCRETE MIXERS	75
BACKHOES	75	CONCRETE PUMPS	75
DOZERS	75	CRANES	75
TRACTORS	75	DERRICKS IMPACT	75
SCAPERS	80	PILE DRIVERS	95
GRADERS	75	JACK HAMMERS	75
TRUCKS	75	ROCK DRILLS	80
PAVERS, STATIONARY	80	PNEUMATIC TOOLS	80
PUMPS	75		
GENERATORS	75	SAWS	75
COMPRESSORS	75	VIBRATORS	75

- b. Use shields or other physical barriers to restrict noise transmission.
- c. Provide soundproof housings or enclosures for noise-producing machinery.
- d. Use efficient silencers on equipment air intakes.
- e. Use efficient intake and exhaust mufflers on internal combustion engines that are maintained so equipment performs below noise levels specified.
- f. Line hoppers and storage bins with sound deadening material.

- g. Conduct truck loading, unloading, and hauling operations so that noise is kept to a minimum.
4. Measure sound level for noise exposure due to each noise-producing construction activity a minimum of once per every five successive working days while work is being performed above 55 dB(A) noise level. Measure noise exposure at the property line or 15 m (50 feet) from the noise source, whichever is greater. Measure the sound levels on the A weighing network of a General Purpose sound level meter at slow response. To minimize the effect of reflective sound waves at buildings, take measurements at 900 to 1800 mm (three to six feet) in front of any building face. Submit the recorded information to the COTR noting any problems and the alternatives for mitigating actions.
- G. Restoration of Damaged Property: If any direct or indirect damage is done to public or private property resulting from any act, omission, neglect, or misconduct, the Contractor shall restore the damaged property to a condition equal to that existing before the damage at no additional cost to the Government. Repair, rebuild, or restore property as directed or make good such damage in an acceptable manner.
- H. Final Clean-up: On completion of project and after removal of all debris, rubbish, and temporary construction, Contractor shall leave the construction area in a clean condition satisfactory to the COTR. Cleaning shall include off the station disposal of all items and materials not required to be salvaged, as well as all debris and rubbish resulting from demolition and new work operations.

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