

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 GENERAL PROVISIONS

- A. Comply with all Federal, State, local laws and regulations, and the provisions of this Section controlling environmental pollution.
- B. Prevent pollution of streams, lakes, ponds, and reservoirs with sediment, fuels, oils, bitumens, chemicals, or other harmful materials and pollution of the atmosphere from particulate and gaseous matter.
- C. Incorporate Best Management Practices to prevent hazardous material releases by segregating wastes, providing secondary containment and having spill kits and absorbents on hand.

1.2 HAZARDOUS MATERIAL - DISCOVERED DURING CONSTRUCTION

- A. Immediately suspend work in the area and notify the Engineer if abnormal conditions are encountered or exposed during construction that indicates the presence of a hazardous material, toxic or hazardous waste.
 - 1. Treat the conditions with extreme caution.
 - 2. Abnormal conditions include, but are not be limited to, the following: presence of barrels; buried storage tanks; above ground tanks; obnoxious odors; excessively hot earth; stained and discolored soils; smoke; unidentifiable powders, sludges, pellets; or any other condition that could be a possible indicator of hazardous material, toxic or hazardous waste.
- B. Resume operation in this area when directed by the Engineer. Continue working in other areas of the project, unless otherwise directed by the Engineer.
- C. Dispose of the hazardous material, toxic or hazardous waste under the requirements and regulations of the Utah State Department of Environmental Quality and United State Environmental Protection Agency.
 - 1. Perform by change order necessary work required to dispose of these materials.
 - 2. Disposition of waste materials requiring special procedures by certified personnel will be arranged by the Department with qualified persons to dispose of the material.

1.3 HAZARDOUS MATERIAL - CONTRACTOR CAUSED

- A. Notify the Engineer and the Department of Environmental Quality of spills of petroleum based products or hazardous waste if the release would meet the definition of a hazardous waste as defined in 40 U.S. Code of Federal Regulations 261.
 - 1. Notify the Engineer immediately after the discovery of the spill.
 - 2. Notify the Department of Environmental Quality (DEQ) in writing within 5 calendar days of the discovery.
 - 3. Notify the DEQ in accordance with R315.9 of Utah Administrative Code. 24-hour phone number: (801) 5360-1234
- B. Dispose of spilled material according to the requirements and regulations of the Utah State Department of Environmental Quality.
- C. Pay for the required clean-up operations.

1.4 LIVE STREAMS

- A. Ford or work in live streams or any live body of water (live water) only with approval from the Utah Division of Water Quality and Utah Division of Water Rights. Do not operate mechanized equipment in live water unless provided for in the Contract. Minimize stream siltation.
- B. Use a dike or barrier to separate work areas or pits located in or adjacent to streams from the main stream. Prevent sediment from entering adjacent streams.
- C. Treat water used to wash aggregate or water from other operations that produce sediment by filtration, settling basins, or other methods that reduce sediment concentrations to the level of the stream or lake into which it is discharged.

1.5 OPEN BURNING

- A. Not permitted along highway rights-of-way without approval orders from the Executive Secretary of the Utah Division of Air Quality.

1.6 ABRASIVE BLASTING - VISIBLE EMISSION STANDARDS

- A. **Visible Emission Standards:**
 - 1. Abrasive blasting outside of Weber, Davis, Salt Lake and Utah Counties: Do not discharge into the atmosphere an opacity darker than 40 percent for a period or periods aggregating more than 3 minutes in any 1 hour.

2. Abrasive blasting inside Weber, Davis, Salt Lake or Utah Counties where the performance standards in this article, paragraph C are used: Do not discharge into the atmosphere an opacity darker than 20 percent for a period or periods aggregating more than 3 minutes in any 1 hour.
3. Abrasive blasting inside Weber, Davis, Salt Lake or Utah Counties where the performance standards in this article, paragraph C are not used: Do not discharge into the atmosphere an opacity darker than 40 percent for a period or periods aggregating more than 3 minutes in any 1 hour.

B. Visible Emission Evaluation Techniques:

1. Rad emissions from unconfined blasting at the densest point of the emission after a major portion of the spent abrasive has fallen out. Densest point will be between 6 feet and 25 feet from the impact surface of the abrasive blasting nozzle.
2. Judge emissions from unconfined blasting employing multiple nozzles as a single source unless each nozzle meets the emission and performance standards.
3. Read emissions from confined blasting at the densest point after the air contaminant leaves the enclosure.

C. Performance Standards: Any one of the following may be used as a performance standard.

1. Confined blasting
2. Wet abrasive blasting
3. Hydroblasting
4. Unconfined blasting using abrasives defined below:
 - a. Before blasting, the abrasive will not contain more than 1 percent by weight material passing a #70 U.S. standard sieve.
 - b. After blasting, the abrasive will not contain more than 1.8 percent by weight material 5 micron or smaller.
 - c. Abrasives reused for dry unconfined blasting are exempt from the requirements of "after blasting," but must conform with the requirements of "before blasting" above.

D. Abrasive Certification: Sources using the performance standard for unconfined blasting must demonstrate they have obtained abrasives from persons who have certified (submitted test results) to the Utah Air Quality Executive Secretary at least annually that such abrasives meet the requirements outlined above for abrasives.

1.7 NOISE AND VIBRATION CONTROL

- A. Identify haul routes and percussive noise sources that annoy sensitive receptors and prevent these sources from becoming a problem.

- B. Definitions and Standards - Use terminology that meets applicable American National Standards Institute (ANSI) publications and commonly accepted practices of acoustical measurements.
 - 1. Receptor - An occupied residential dwelling, church, hospital, school, outdoor stage, or structure confining other noise sensitive activities.
 - 2. Noise Sensitive Zone - The land enclosed within a 1500 foot radius circle of any receptor.
 - 3. Sound Level - The total sound pressure level from all concurrent construction activities related to the subject project, as measured with a sound level meter using the A-weighting network (ANSI S1.4). The standard notation is dB(A) or dBA.
 - 4. Percussive Noise - Short burst(s) of banging or clattering noise including but not limited to blasting, pile driving, and jack-hammering.

- C. Prohibitions - Suspend construction work under the following conditions:
 - 1. Construction activity in a noise sensitive zone causes the sound level within 10 feet of the nearest receptor to exceed: 95 dBA in daytime (7 a.m. - 9 p.m.), or 55 dBA in nighttime (9 p.m. - 7 a.m.)
 - 2. A noise sensitive zone on Sundays and State Holidays.
 - 3. Project related construction noise or vibration does not meet specifications. Suspend the portion of construction work responsible for the problem until noise is reduced to the required noise standards.

- D. Compliance:
 - 1. Follow all local noise ordinances, except where a variance in accordance with local regulations has been granted.
 - 2. Local noise ordinance variance does not provide an exemption from complying with the requirements of this article, paragraph C.

- E. Percussive Noise: Notify the Engineer at least 2 weeks in advance of any percussive noise activity that is expected to exceed the provisions of this article, paragraph C. Coordinate with the Engineer to notify the public.

1.8 ENVIRONMENTAL CLEARANCE BY THE CONTRACTOR

- A. Obtain and provide the following environmental clearances before beginning project activity when adding or selecting any ground- or resource-disturbing features such as material (gravel, borrow or waste) sites, equipment staging sites, office sites, water lines, holding ponds, etc., not provided in the Contract:
1. Cultural and Paleontological - Initiate consultation concerning proposed additional feature(s) with a Department staff archeologist. (hiring a private archeological subconsultant and coordination with the Utah State Historic Preservation Office may be required.) The Department staff archeologist provides clearance to the Contractor via written notification. See this Section, Article 1.9, Discovery of Historical, Archeological, or Paleontological Objects.
 2. Threatened and Endangered Species: Obtain written clearance from the U.S. Fish and Wildlife Service.
 3. Wetlands: Obtain written clearance from the U.S. Army Corps of Engineers.
 4. Floodplains - Initiate consultation concerning the proposed additional feature(s) with the Region Hydraulics Section. Subsequent coordination with the Federal Emergency Management Agency (FEMA) may be required. Verification of non-interference by the Contractor with a floodplain or compliance with FEMA guidelines will be provided to the Contractor by the Region Hydraulic Engineer.
 5. Prime, Unique, and Important Farmland - Initiate consultation concerning the proposed additional feature(s) with the farmland specialist with the Region's Environmental Engineer. Subsequent coordination by the Contractor with the U.S. Natural Resources conservation service may be required. The Region provides written clearance to the Contractor.
 6. Utah Pollutant Discharge Elimination System (UPDES) - Obtain UPDES permit for storm water discharge from Utah Division of Water Quality (DWQ). Comply with the requirements of the permit including submittal of Notice of Intent (NOI) form to DWQ and development and approval of the storm water pollution prevention plan by the DWQ when required.
 7. Air Quality: Obtain construction approval from the Utah Division of Air Quality if construction project or area of disturbance outside of the project is in an area of air quality non-attainment for any pollutant.
- B. Contractor is responsible for all costs of pursuing and obtaining all the above clearances, and is not entitled to time extension for delays encountered in obtaining these clearances.

1.9 DISCOVERY OF HISTORICAL, ARCHEOLOGICAL, OR PALEONTOLOGICAL OBJECTS

- A. Immediately suspend construction operations in the vicinity of the discovery if a suspected historic, archeological or paleontological item, feature, prehistoric dwelling sites or artifacts of historic or archeological significance are encountered.
- B. Verbally notify the Engineer of the nature and exact location of the findings.
- C. The Engineer contacts the State archeological authorities who will determine their disposition.
- D. Protect the discovered objects and provide written confirmation of the discovery to the Engineer within 2 calendar days.
- E. The Engineer keeps the Contractor informed concerning the status of the restriction.
 - 1. The time necessary for the Department to handle the discovered item, feature, or site is variable and dependent on the nature and condition of the discovered item.
 - 2. Expect a two (2) week or more delay in the vicinity of the discovery.
 - 3. The Engineer will provide written confirmation when the restriction is terminated.
- F. If a changed condition is approved, it will be controlled in accordance with Section 00725, article 1.4, Differing Site Conditions.

PART 2 PRODUCTS Not used.

PART 3 EXECUTION Not used.

END OF SECTION