

SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Eliminating or minimizing air, soil and water pollution generated by construction activities.
- B. Complying with legal requirements applicable to Construction Generated Hazardous Wastes, including preparation and implementation of Contractor generated Waste Management Plan and Storm Water Pollution Prevention Plan.
- C. Designing and installing Water Treatment System (if required).
- D. If applicable to the Work, the Contractor shall operate and maintain the Water Treatment System in accordance with all applicable permits.
- E. Designating a qualified staff member as Pollution Control Representative.

1.02 RELATED SECTIONS

- A. Section 01 33 00: Submittal Procedures
- B. Section 01 43 20: Project Quality Program Requirements - Design/Bid/Build
- C. Section 01 50 00: Temporary Facilities and Controls

1.03 REFERENCES

- A. Standard Specifications for Public Works Construction (SSPWC):
 - 1. Provide products for required Work in accordance with Standard Specifications for Public Works Construction (SSPWC) adopted by Board of Public Works of City of Los Angeles, and supplements that are adopted by the Board of Public Works of City of Los Angeles.
- B. South Coast Air Quality Management District (SCAQMD) rules and regulations.
- C. Caltrans Stormwater BMP Manuals and Handbooks:
<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>
- D. California Stormwater Quality Association (CASQA) BMP Handbooks:
<https://www.casqa.org/resources/bmp-handbooks>

1.04 QUALITY ASSURANCE

- A. Comply with Project Quality Program Requirements (see 1.02 above).

1.05 SUBMITTALS

- A. Refer to Section 01 33 00 – Submittal Procedures, for submittal requirements and procedures.
- B. Contractor- Generated Hazardous Waste (CGHW) Management Plan: Required to be submitted within 30 days after the Notice to Proceed (NTP) with required documents.
- C. Storm Water Pollution Prevention Plan (SWPPP): Required to be submitted 30 days prior to mobilization. SWPPP shall be prepared in accordance with Section 01 35 35 – Water Pollution Control, if applicable, or prepared in accordance as specified in Section 3.03 below.
- D. Wastewater Management Plan: If applicable, required to be submitted within 30 days after the date of NTP. Submit monthly reports of daily monitoring wastewater discharges as specified in this section. A comprehensive Wastewater Management Plan submittal will include the following:
 - 1. Projected discharges for approval by Metro or its designee.
 - 2. Illustrate the location of contractor water treatment unit, and the location of Metro furnished water treatment system.
 - 3. Depict layout of waste water transmission lines, associated pumps, valves, meters and utility supply and disposal systems.
 - 4. Provide a list of equipment and its associated manufacturer's specifications.
 - 5. Provide Shop Drawings, in accordance with Section 01 33 00 – Submittal Procedures that detail the design, installation, operation, and maintenance of the Contractor water treatment unit in CADD drawings and the associated electronic files.
- E. Sewer Connection and Location Drawings: Related to the Industrial Wastewater Permit to be submitted to the City of Los Angeles Bureau of Sanitation.
- F. Storm Drain Connection and Location Drawings: Related to outfalls referenced in permit applications.
- G. Fugitive Dust Emissions Control Plan: Required within 30 days after the NTP. Submit monthly reports of daily monitoring of fugitive dust emissions and control measures. Submittal of the Fugitive Dust Emissions Control Plan for Metro is independent of any SCAQMD requirement for a Fugitive Dust Emissions Control Plan under Rule 403 or other applicable Rule.

1.06 DEFINITIONS

- A. Contractor Waste Water Treatment Unit: A compilation of equipment that the Contractor provides to treat wastewaters except hydrocarbon-contaminated groundwater.

- B. Contractor-Generated Hazardous Waste: Hazardous Waste and Solid Waste generated, released or discharged by the Contractor or the Contractor's agents or Subcontractors or their respective employees not related to hazardous waste and hazardous materials scope that is defined as part of the Project.
- C. Contractor-Generated Hazardous Waste (CGHW) Management Plan: A written waste management plan properly governing CGHW prepared and implemented in accordance with Title 22, Division 4.5, California Code of Regulations, and other applicable laws and regulations.
- D. Storm Water Pollution Prevention Plan (SWPPP): A written plan that details the requirements described herein related to management of storm water and storm water runoff during construction.
- E. Additional Contaminated Groundwater treatment and Disposal: Contaminated groundwater to be treated and disposed of above capacity of Metro furnished Water Treatment System (s).

1.07 WORKSITE CONDITIONS

- A. Contractor shall delegate environmental control, pollution monitoring and record keeping requirements to Contractor's Safety Engineer, Contractor's Environmental Manager, or most appropriate personnel.

PART 2 – PRODUCTS

2.01 PRODUCT FOR POLLUTION CONTROL

- A. Provide products required for Work in accordance with Standard Specifications for Public Works Construction (SSPWC) and supplements adopted by board of Public Works of City of Los Angeles as modified by corresponding issue of Brown Book, and as indicated.

PART 3 – EXECUTION

3.01 AIR POLLUTION CONTROLS

- A. Criteria for Fugitive Dust: Detailed descriptions and explanations of specific fugitive dust control measures are contained in South Coast Air Quality Management District (SCAQMD) Rules and Regulations (Rule 403, Limitation on Fugitive Dust Emissions; Rule 1186, PM10 Emissions from Paved and Unpaved Roads). Key features of Rule 403 are described below. The language of the most current version of Rule 403 and its Implementation Handbook governs unless indicated. Obtain permits or plans as required by the SCAQMD for air pollution controls. Prepare a Dust Control monitoring Plan that includes the following:
 1. Designate a staff member as the Air Pollution Control representative, knowledgeable in environmental matters. The representative shall be responsible for ensuring

compliance with the Fugitive Dust Emissions Control Plan, its preparation, submittal, implementation, monitoring, and record keeping.

2. Do not cause or allow emissions of fugitive dust from transport, handling, construction or storage activity to remain visible in atmosphere beyond property line of the emission source.
 3. Take precautions to minimize fugitive dust emissions from operations involving demolition, excavation, grading, and clearing of land and disposal of solid waste. Utilize one or more of the applicable Best Available Control Measures (BACM) for each potential source of fugitive dust listed in Table 1 of Rule 403.
 4. Do not cause or allow particulate matter to exceed 50 µg/m³ when determined as the difference between simultaneous upwind and downwind samples, collected on high volume particulate matter samplers or other EPA approved equivalent method, for PM-10 monitoring at the property line for a five hour period during the time of active operations. The decision to conduct sampling will be made and performed by the SCAQMD. Design-Builder is responsible for payment of the Ambient Air Analysis fees imposed by SCAQMD under Rule 304.1.
 5. Prevent, or within one hour, remove the track-out of bulk material onto public paved roadways, as a result of Contractor's operation, or utilize at least one of the control measures listed in Table 3 of Rule 403 and prevent track-out of bulk material onto public paved roadways, and remove such material at any time track-out extends for more than 50 feet onto any paved public road, and remove all visible roadway dust tracked-out upon public paved roadways at the end of each Work day when active operations cease.
- B. Use the following procedures and techniques at a minimum:
1. Trucks transporting soil, sand, other excavated, or backfill materials to or from the sites shall be covered with a tarpaulin from the point of origin to the point of unloading. Secure firm or remove loose tarpaulin material from such loads before leaving Worksite.
 2. Remove visible roadway dust tracked-out upon public sidewalks at the conclusion of each shift. If necessary, water down and sweep streets around and near to the site that have heavy volumes of construction vehicles carrying debris and excavated materials, and adjacent sidewalks.
 3. If conveyors are used, cover transfer points along conveyor system moving soil. Minimize drop height to the stockpile. Provide a sprinkler system and apply water to soils to retard dust development. This process does not include the slurry separation system (if used).
 4. Install wheel/undercarriage-washing equipment, or a functional equivalent, at tunnel excavations as the first method by which to ensure that haul trucks have clean wheels and undercarriages before entering public roadways.
 5. Incorporate adapted measures developed by SCAQMD on Best Available Control Measures (BACM) for Fugitive Dust and Rule 403 into the site operations for Fugitive Dust Control.

6. Water down construction sites according to SCAQMD Rule 403, as required to suppress dust, during grading, handling of excavation soil or debris, or during demolition.
 7. Establish regular cycles and locations for cleaning trucks that haul soil from site.
- C. Burning of wastes is prohibited. Remove scrap and waste material and dispose of in accordance with laws, codes, regulations, ordinances and permits.
 - D. Use construction equipment designed and equipped to prevent or control air pollution in conformance with most restrictive regulations of EPA, State and local authorities. Maintain evidence of such design and equipment and make available for inspection by Metro or its designee.
 - E. Establish and maintain records of a routine maintenance program for internal combustion engine powered vehicles and equipment used on Project. Keep records available for inspection by Metro or its designee.
 - F. Implement Fugitive Dust Measures listed in tables 1 and 2 of SCAQMD Rule 403 and perform record keeping in accordance with Sections (e)(1)(A)(iv) and (e)(1)(A)(v) of said rule. Make records available to Metro for inspection.
 - G. Apply Best Available Control Technology (BACT) method or use alternative forms of bentonite such as pellets, granules, or biodegradable gel. If bentonite is used in a powder form, implement measures to ensure that PM10 emissions do not exceed permissible levels. Additional measures may include:
 1. Bulk Transport: transport bentonite by pneumatic means or enclosed trucks;
 2. Enclosed Handling and Storage: unload bentonite pneumatically or by enclosed conveyors and chutes. Store bentonite in enclosed containers or silos with fabric filters.
 3. Enclosed Slurry Batch Mixing: Use a mixer that is equipped with a pneumatic loader and a fabric filter or a mixer in an enclosed structure equipped with fabric filters at ventilation openings.
 - H. Criteria for VOC Contaminated Excavated Soils: Detailed descriptions and explanations of control measures are contained in SCAQMD Rule 1166. Contractor shall follow procedures outlined in Rule 1166, for Project specific permit application.

3.02 WATER POLLUTION CONTROLS

- A. Metro has the sole right to determine, by its own discretion, whether the waste waters associated with construction will be discharged to the sanitary sewer or the storm drain systems.
- B. Connections and transport of waste waters shall be by closed conduit. If necessary, install and maintain pumps to deliver waste waters to their destination(s) described herein.
- C. In accordance with Section 01 50 00 – Temporary Facilities and Controls, provide and maintain, for the duration of construction, temporary storm and sanitary sewer

connection(s) in accordance with applicable requirements. Provide Metro with documentation that satisfies both the sanitary sewer and storm drain connection permits one month prior to connection installation.

- D. Groundwater: Do not co-mingle groundwater that is produced from dewatering wells with other waste water stream. Test and treat as necessary any contaminated groundwater for all contaminant parameters in accordance with an individual NPDES permit obtained by the Contractor or LA City Industrial Wastewater Discharge permits. An NPDES permit will require adherence to California Toxics Rule (CTR) discharge standards that will be the strictest among freshwater, saltwater, or human health for consumption (drinking water) limitations. NPDES treatment system will likely require equipment for treatment of dissolved metals, turbidity, chloride, sulfate and volatile organic compounds (VOCs) including MTDB. Transport groundwater, in the same manner as described elsewhere within this Section.
- E. Contractor Testing Requirements: At the frequency required by permit, sample and test effluent quality for those parameters of Contractor's responsibility. Perform analyses on a one-day turn around (24-hour TAT). Record and log daily discharged quantities. Submit certified monthly reports no later than seven days after the end of each month detailing the daily flows and the testing results. Itemize discharges based on source such as groundwater extracted, construction process water, and storm water.
- F. Contractor Noncompliance: Bear fines incurred as a direct result of Contractor's failure to treat parameters that Contractor is responsible for.
- G. Contractor has the option to haul and dispose of wastewaters at a disposal facility at Contractor's expense.
- H. Do not discharge pollutant wastes such as chemicals, fuels, lubricants, bitumens, raw sewage and other harmful wastes onto the land nor into or alongside rivers, streams and impoundments, nor into gutters, storm drains or channels leading thereto.
- I. Control use of lubricating oils, hydraulic fluids, greases and other such products. Promptly clean up and properly dispose of materials contaminated by spillage or leakage of such products. Comply with storage and containment requirements of these materials in accordance with California Storm Water Permit Regulations.

3.03 STORMWATER POLLUTION PREVENTION PLAN

- A. It is anticipated that Contractor will generate two water streams during construction: stormwater and construction wastewater (resulting from truck was-downs, construction activities, etc.) Contractor has the option of adopting a zero discharge option (meaning all water will be collected and hauled off-site), discharging only stormwater, or discharging both waste streams in accordance with applicable permits. Each choice has set of restrictions and requirements.
- B. Zero Discharge Option: Contractor shall not discharge any wastewater on site. All wastewaters must be hauled offsite for disposal by appropriately licensed haulers.

- C. Stormwater Discharge Option: Contractor will collect and have hauled off by an appropriately licensed hauler any construction wastewater (e.g., wash water) generated from the construction effort. Stormwater quality will be controlled by the Contractor developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). If the requirements in Section 01 35 35 – Water Pollution Control, apply to this Work, the Contractor shall adhere to those requirements. If the Work does not require coverage under State Water Resources Control Board Order No. 2012-0009-DWQ, the Contractor shall comply with the following:
- a. Prepare a SWPPP for Metro's review and approval 30 days prior to site mobilization. The submittal shall be consistent with Section 01 33 00 – Submittal Procedures.
 - b. The SWPPP shall provide stormwater controls and BMPs for the following activities as they apply to the Work:
 - i. Perimeter Controls, Inlet protection, Dust Control, Track Out Protections, Stockpile Management, Soil Erosion Controls, Vehicle Washing, Vehicle Fueling, Vehicle Maintenance, Concrete Handling, Concrete Waste Management, Spill Prevention and Control, Hazardous Materials Handling, and Trash
 - ii. Refer to Paragraph 1.03, References, for additional stormwater BMP guidance
 - c. The Contractor shall also provide a brief schedule of when specific BMPs would be deployed
 - d. The Contractor shall provide a map showing where the BMPs and controls would be placed.
 - e. All BMPs and stormwater controls shall be removed at the end of Work.
- D. All Wastewaters: If Contractor elects this option, Contractor shall notify Metro of its intent immediately. Contractor may discharge truck wash-down and other construction generated wastewater (in addition to stormwater) if Contractor obtains an Industrial Wastewater permit from the local jurisdiction and complies with the permit requirements and the remaining requirements of this Subsection.
1. Discharges to the sanitary sewer will require a Discharge Permit from the City of Los Angeles Bureau of Sanitation. The Contractor must obtain and comply with all terms and conditions of the permit, including discharge limitations. The sewer permit may contain a total discharge limitation between 100,000 and 150,000 gallons per day, and may contain hour restrictions for water discharges.
 2. Submit a fully detailed waste-water control and management plan for Project discharges for approval by Metro.
 3. All connections and transport of waste waters shall be by closed conduit. If necessary install and maintain pumps to deliver waste-waters to their destination(s) described herein. All connections may be made only on Metro or the permitting jurisdiction's properties/rights -of-way.

3.04 HAZARDOUS WASTE CONTROLS

- A. This Section applies to Contractor -Generated Hazardous Waste (CGHW).
- B. Contractor-Generated Hazardous Waste Management Plan: Prepare and implement a CGHW Plan in accordance with Title 22, Division 4.5, CCR, and applicable laws and regulations. Metro has the right to enforce Quality Assurance/Quality Control monitoring on Contractor's implementation of CGHW Plan.
- C. Waste Generation: Be responsible for, and indemnify, defend and hold Metro harmless against any and all costs (including attorney's fees and costs), demands, claims, damages, losses, delay costs ("Claims") arising from or associated with the management, abatement, removal, remediation, clean up, transport, reuse, recycling, storage and disposal of any and all Contractor-Generated Hazardous Waste; or any noncompliance with the Contractor-Generated Waste Management Plan.
- D. Waste Classification - In the event that Contractor or Metro reasonably suspects that Contractor has generated, released or discharged Contractor-Generated Hazardous Waste, bear costs of sampling and monitoring tests and other investigations to determine whether said waste is Solid Waste or Hazardous Waste in Accordance with federal, state and local requirements, including without limitation, RCRA and Title 22, CCR Chapter 30, Article II (as amended, modified or replaced from time to time). Metro reserves the right (but not the obligation) to perform its own physical and chemical analyses and tests on suspected CGHW. Furnish samples and test results, at Contractor's cost, as directed by Metro or its designee.
- E. Disposal Regulations: Be responsible for the management, abatement, removal, remediation, clean up, loading, transport, unloading, reuse, recycling, storage and disposal of CGHW in accordance with laws, rules, regulations and orders, including without limitation, Title 22, Chapter 30 et seq California Code of Regulations, California Health and Safety Code Section 25100 et. seq, Titles 23 and 26, California Code of Regulations, and regulations of the waste disposal facility to be used.
- F. Haul Routes: Haul routes for transporting solid or hazardous wastes are subject to the approval of City of Los Angeles, or other agency having jurisdiction over the transportation of such materials. Post copy of Haul route permit at Worksite. Sweep access points and surrounding areas as needed, no less than 3 times daily.
- G. Street Sweeping: Have available, on site, at all times an operable standard size street sweeper capable of operating efficiently within the traffic conditions, and that complies with all applicable environmental standards. All public streets, including but not limited to private driveways and parking areas, impacted by construction vehicle traffic and construction activities, shall be kept clean of all track-out debris and dust build up at all times. Contractor shall monitor all areas, on a continuous basis, that are affected by the work or haul activities and take immediate action to correct any deficiencies. This shall include but not be limited to monitoring and cleaning, as required by Metro, City of Los Angeles, and any other agencies, in and around all staging sites, work areas, and haul routes.

END OF SECTION 01 57 19