

SECTION 013543.22 - ENVIRONMENTAL SPECIFICATIONS - AIR

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents:

1. Drawings and general provisions of the contract, including general and supplemental conditions, and Division 01 sections apply to this Section.
2. Review these documents for coordination with additional requirements and information that apply to work under this Section.

1.2 SECTION INCLUDES:

- A. This specification section describes Subcontractor requirements that apply to those portions of projects at the University that include environmental protection and environmental restoration activities involving air emissions.
- B. All activities shall be planned and conducted with full regard to protecting site workers, the public, and the environment, as well as complying with all applicable environmental laws and regulations.
- C. The Environment, Health & Safety - Environmental Services Group (ESG) shall review proposed documented work products, including but not limited to work packages, instructions, sampling and quality assurance plans, permit applications, and associated reports to determine if they are consistent with University policies and comply with regulatory requirements.
- D. The Subcontractor shall provide, in the performance of University environmental activities, labor, materials, equipment, services, and supervision required to conduct work in accordance with all applicable federal, state, and local environmental laws and regulations, and University policies protective of public health and the environment as specified in this section.

1.3 REFERENCE STANDARDS

- A. 40 CFR 1910.120 - Hazardous waste operations and emergency response; 2019.
- B. BAAQMD - Bay Area Air Quality Management District Regulations; 2022.
- C. DOE Order 231.1b - Environment, Safety, and Health Reporting; 2011.
- D. DOE Order 243.1 - Records Management Program; 2022.
- E. DOE Order 414.1D - Quality Assurance; 2020.
- F. DOE Order 458.1 - Radiation Protection of the Public and the Environment; 2011.
- G. ISO 14001 - Environmental Management Systems — Requirements with Guidance for Use; 2015.
- H. RCRA - Resource Conservation and Recovery Act; Online.
- I. Regulation 11 Rule 1 - Lead; 2022.
- J. Regulation 11 Rule 2 - Asbestos Demolition, Renovation, and Manufacturing; 1998.
- K. Title 17 - Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards; 2008.
- L. Title 29 - OCCUPATIONAL SAFETY AND HEALTH STANDARDS; 1974.

1.4 OVERVIEW OF RELEVANT ENVIRONMENTAL REGULATIONS, UNIVERSITY DOCUMENTS, AND SPECIFICATIONS

- A. This section provides a list of potentially relevant environmental regulations, University documents and procedures, and specifications pertaining to ambient air and stack emissions, vehicle emissions, air sampling, and associated reporting requirements. University documents can be downloaded from the University website and can also be provided in electronic format upon request.

1.5 ENVIRONMENTAL REGULATIONS

- A. Bay Area Air Quality Management District ((BAAQMD))) Rules and Regulations – below is a subset of rules and regulations that cover the requirements associated with permits related to generators, fueling stations, paint spray booths, sand blast booths, boilers, soil vapor extraction systems, and construction work associated with concrete demolition, asbestos demolition, excavations, ambient air and stack emissions monitoring, and building indoor air sampling that shall be met during the course of a project. The below list of rules and regulation is not a comprehensive list but contractors are required to abide by any regulations that may impact the project.

1. Regulation 2, Rule 1: Permits
2. Regulation 2, Rule 2 – New Source Review;
3. Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants
4. Regulation 6, Rule 6 – Prohibition of Trackout;
5. Regulation 8, Rule 4 – General Solvent and Surface Coating Operations;
6. Regulation 8, Rule 7 – Gasoline Dispensing Facilities;
7. Regulation 8, Rule 16 – Solvent Cleaning Operations;
8. Regulation 8, Rule 40 – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (USTs);
9. Regulation 8, Rule 47 – Air Stripping and Soil Vapor Extraction Operations;
10. Regulation 8, Rule 51 – Adhesive and Sealant Products;
11. Regulation 9, Rule 7 – Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters;
12. Regulation 10 – Standards of Performance for New Stationary Sources;
13. Regulation 11, Rule 1Regulation 11 Rule 1 – Lead;
14. Regulation 11, Rule 2 – Asbestos Demolition, Renovation and Manufacturing;
15. Regulation 11, Rule 14 – Asbestos-Containing Serpentine; and
16. Regulation 12, Rule 4 – Sandblasting.

- B. National Emission Standards for Hazardous Air Pollutants (NESHAP) – these regulations pertain to radiological effluent and asbestos measurements and sampling in association with NESHAP compliance. All radiological sources above background shall be evaluated for their potential to emit to the atmosphere.

1. Title 40, Part 61, Subpart H – NESHAP – National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy (DOE) Facilities
 2. Title 40, Part 61, Subpart M of the Code of Federal Regulations including Asbestos NESHAP Revision; Final Rule, Federal Register– Guidelines for Asbestos NESHAP Demolition and Renovation Inspection Procedures.
- C. California Air Resources Board (CARB) – Subcontractors shall comply with the most current California CARB requirements for all equipment, trucks, offsite vehicles and offsite construction equipment (construction equipment) when performing work for the University. All construction equipment will be maintained, and usage hours recorded, and reported, in accordance with CARB requirements.
1. Title 13, Section 2485 – regulates emissions for in-use off-road diesel-fueled vehicles (e.g., tractors), heavy duty vehicles, and off-road large spark-ignition engines (e.g., fork-lifts).
- D. Senate Bill 656, Chapter 738 (SB 656, Sher, 2003) – This measure pertains to control measures that can be employed to reduce PM10 and PM2.5, applies to stationary, area-wide, and mobile sources, and designates CARB as the agency charged with coordinating efforts to attain and maintain ambient air quality standards.
- E. CARB, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4 – Pertains to the reduction of Greenhouse Gas Emissions, including the annual reporting requirements associated with the Sulfur Hexafluoride (SF6) Emissions Report for Gas Insulated Switchgear.
1. Section 95356 – Annual Reporting Requirements.
- F. California Code of Regulations (CCR), Title 8, Division 1 – Occupational Safety – Pertains to permitting, reporting, and requirements associated with demolition work impacting asbestos and/or lead containing materials.
1. Section 5208, Asbestos in General Industry.
 2. Section 1529, Asbestos in Construction Industry.
 3. Section 3204, Medical and Environmental Records.
 4. Section 341, Registration and Permits.
 5. Section 1532.1, Contractors State License Board – Lead Standard.
- G. California Department of Toxics Control (DTSC) – Promotes state-wide standard practice and consistency for screening buildings for vapor intrusion and to establish appropriate sampling to protect building occupants from vapors off-gassing from contaminated sources.
1. Vapor Intrusion Guidance, 2011.
 2. Vapor Intrusion Mitigation Advisory, 2011.
 3. Supplemental Guidance: Screening and Evaluating Vapor Intrusion, draft for public comment, February 2020.
- H. Code of Federal Regulations (CFR).
1. Title 40, Part 61: Subpart A – General Provisions of the CFR.
 2. Title 40, Parts 260 to 265 – Hazardous Waste Management.

3. Title 29, Part 1910 – Occupational Safety and Health Standards – Hazardous Waste Operations and Emergency Response (HAZWOPER).
- I. Department of Energy (DOE).
 1. Order 231.1b – Environment, Safety, and Health Reporting
 2. Order 243.1 – Records Management Program:
 - a. Includes a Contractor Requirements Document (CRD) that applies to "contractors that create, receive, use, maintain, disseminate, and/or dispose of DOE records in connection with the performance of DOE-funded tasks or activities."
 3. Order 414.1D – Quality Assurance and the Environmental Restoration Quality Assurance Program Plan (QAPrP).
 4. Order 436.1 – Departmental Sustainability and ISO 14001:2015 – Environmental Management Systems
 5. Order 458.1 – Radiation Protection of the Public and the Environment
 - J. San Francisco Bay Regional Water Quality Control Board.
 1. Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region, 2014
 - K. U.S. Environmental Protection Agency (US EPA).
 1. Technical Guidance for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air, 2015.
 2. Significant New Alternatives Policy (SNAP) Program.
- 1.6 UNIVERSITY ENVIRONMENTAL DOCUMENTS
- A. The most current version of the following documents will be provided to the Subcontractor upon request by the University:
 1. LBNL Environmental, Health and Safety Manual, PUB-3000.
 2. Annual Site Environmental Report.
 3. Environmental Management System Plan.
 4. Environmental Restoration Program Annual Progress Report.
 5. Quality Assurance Program Plan (QAPrP) for the Environmental Restoration Program.
 6. Quality Assurance Program Plan for NESHAP Compliance.
 7. NESHAP Stack Effluent Flow Rate Measurement and Sampling System Inspection Report.
 8. NESHAP Real-Time Stack Flow Calibration Annual Report.
 9. Annual LBNL Radionuclide Air Emissions Report
 10. Soil Management Plan – Radiological Assessment PP-5006.

11. Assessment Method for Radiological Release of Potentially Contaminated Soil and Sediment TP-5045.
12. Records Management Plan for the Environmental Service Group Environmental Radiological Protection and Environmental Restoration Programs.

1.7 ENVIRONMENTAL SERVICES GROUP (ESG) PROCEDURES

- A. Environmental Document Preparation – Procedure 200.
- B. Categorizing Potential Impact of Radioactive Air Emissions – Procedure 219
- C. Sample Processing, Packaging, and Transport – Procedure 254.
- D. Environmental Sample Tracking and Data Management – Procedure 268.
- E. Sitewide Air Sampling – Procedure 280.
- F. Air Sampling Equipment Maintenance – Procedure 286.
- G. Stack Air Flow Rate Measurement and Calibration – Procedure 287.
- H. ESG Built Air Sampling System Manual.

1.8 POTENTIALLY RELEVANT UNIVERSITY SPECIFICATIONS

- A. Division 01 – General Requirements:
 1. Section 010000 – General Requirements
 2. Section 013500 – Special Procedures
 3. Section 013529 – Environmental Safety and Health Procedures
 4. Section 013543.13 – Hazardous, Mixed and Radioactive Waste Management
 5. Section 017419 – Construction Waste Management
- B. Division 02 Existing Conditions:
 1. Section 024116 – Structure Demo
 2. Section 024119 – Selective Structure Demo
 3. Section 028200 – Asbestos Abatement
 4. Section 028300 – Lead Abatement
- C. Division 23 – Heating, Ventilating and Air Conditioning:
 1. Section 230111.13 – Testing and Maintenance of HVAC.
 2. Section 235223 – Cast Iron Boilers
 3. Section 235233 – Water Tube Boilers
 4. Section 235239 – Fire Tube Boilers
- D. Division 26 - Electrical:

1. Section 261323 – SF6 Gas Insulated Switches
 2. Section 263213 – Stationary Package Engine Generator
 3. Section 263213.13 – Mobile Engine Generator
- E. Division 31 - Earthwork:
1. Section 311000 – Site Clearing
 2. Section 312213 – Rough Grading
 3. Section 312316 – Excavation
 4. Section 312316.13 – Trenching
 5. Section 312323 – Backfilling
- F. Section 013543.13 - Hazardous, Mixed, and Radioactive Waste Management Specification
- 1.9 ACTION SUBMITTALS
- A. The following is a list of documents that may be required to be submitted by the Subcontractor, depending on the specific project's needs. The documents shall be consistent with the University policies listed above and comply with all applicable regulatory requirements.
 - B. The documents will be reviewed by ESG and will be revised by the Subcontractor in accordance with University comments.
 - C. If regulatory agency review is required, the Subcontractor will prepare responses to regulatory agency comments and revise the document in accordance with regulatory-agency-approved responses and as directed by the University. All responses to regulatory agency comments and revised versions of the documents will be submitted to ESG for review and approval prior to submission to the regulatory agency by the University.
 - D. Any deviations from the University-approved documents shall be justified in writing and approved by ESG prior to implementation.
 - E. The University PM and EHS Environmental Project Coordinator shall approve any written communication with regulatory agencies and a University representative shall be present for any verbal communication.
 - F. The minimum requirements for each document, if required, are specified below. Each required document shall be comprehensive to comply with the most recent environmental regulations and University policies listed above.
 - G. Potential document submittals and minimum requirements.
 1. Regulatory Agency Compliance Plan
 - a. If requested by ESG, the Subcontractor will be required to prepare a Regulatory Agency Compliance Plan. The Regulatory Agency Compliance Plan will describe interactions, including notification and reporting requirements, with regulatory agencies with oversight authority for the project. All environmental-related communications between the project and the regulatory agency, and all documents and other correspondence, shall be provided to a University Environmental Project Coordinator unless otherwise specified by the University.
 - b. The Plan shall include, but will not be limited to, the following information:

- 1) All project-specific regulatory agency compliance requirements;
- 2) Applicable state and federal laws, their implementing regulations, and applicable regulatory agency guidance documents;
- 3) Permits and approvals;
- 4) Names, positions, and contact information for all regulatory agencies;
- 5) Release notification requirements and actions;
- 6) Required plans and reports and other deliverables, as applicable;
- 7) Contingency plans for non-compliance conditions;
- 8) Certification requirements;
- 9) Site access;
- 10) Dispute resolution as it pertains to a remedial action, Record of Decision, or other regulatory- approved project plans; and
- 11) Subcontractor personnel responsible for regulatory agency compliance

2. Regulatory Agency Compliance Agreement

- a. If requested by a regulatory agency, the Subcontractor will be required to prepare the Regulatory Agency Compliance Agreement.
- b. A compliance agreement with a regulatory agency such as the US EPA Region 9, California Department of Toxic Substances Control (DTSC), BAAQMD, CARB, and/or the San Francisco Bay Area Regional Water Quality Control Board may be necessary for environmental investigation and cleanup activities that will specify the regulatory processes that shall be followed, including how environmental activities will be conducted and the regulatory agency interactions that will be required.
- c. In coordination with the University and DOE, the content of the agreement will be based on lead agency requirements.

3. Records/Data Management Plan

- a. The Records/Data Management Plan provides the requirements, responsibilities, and procedures for managing records/data, including storage and transfer to the University, and archiving and retention time. The Plan specifies the requirements for documentation be in accordance with:
 - 1) DOE Order 243.1 Records Management Program, which includes a Contractor Requirements Document (CRD) that applies to "contractors that create, receive, use, maintain, disseminate, and/or dispose of DOE records in connection with the performance of DOE-funded tasks or activities."
 - 2) DOE Order 458.1 requires that environmental radiation protection records be retained until final disposition is authorized by the DOE.
- b. LBNL's Requirements and Policies Manual, which describes LBNL's institutional records management program, and which is consistent with all applicable laws and DOE requirements. Records/data to be managed under this Plan include, but are not limited to:

- 1) Work plans and reports;
 - 2) Technical studies;
 - 3) Risk evaluations;
 - 4) Results of air sampling and chain-of-custody forms;
 - 5) Project documents such as Quality Assurance Plans, Health and Safety Plans, and Sampling Analysis Plans;
 - 6) Community relations/public participation documents;
 - 7) Comments and responses;
 - 8) Regulatory agency approvals and decision documents; and
 - 9) Files, photographs, sampling and monitoring data, and laboratory analytical reports including hard copies and Electronic Data Deliverables (EDDs).
- c. Laboratory analysis EDDs shall be in the format required by Specifications for Transmitting Analytical and Quality Assurance/Quality Control (QA/QC) Data from a Subcontract Analytical Laboratory to Environment, Health and Safety Division, LBNL, April 26, 2012 (with updates).
4. Environmental Release Report
- a. During the course of conducting work under this specification, should an unexpected environmental condition be encountered or an unexpected environmental release occur, an Environmental Release Report shall be prepared by the Subcontractor.
 - b. Reports submitted to regulatory agencies shall be signed by a qualified professional approved by ESG.
 - c. If an unexpected release occurs, the report shall include the following, as applicable:
 - 1) A summary of the environmental release, including the location, the material released, and the quantity of material released;
 - 2) A description of potential or known impacts to human and environmental receptors;
 - 3) Corrective actions taken to contain the release and media that were impacted by the release;
 - 4) If additional investigation is required to evaluate the extent of the release;
 - 5) Documentation of required regulatory notifications; and
 - 6) All sampling and analytical data.
 - d. If the unexpected release or condition encountered results in additional investigation, the report shall also include the following, as applicable:
 - 1) A summary of investigation results (include tables and figures that summarize sample locations analytical results);
 - 2) A description of the investigation, including methods and procedures and all data necessary to understand the investigation in its entirety;

- 3) A discussion of key decisions resolved during the investigation; and
- 4) A discussion of any field or laboratory condition(s) that occurred that may influence the results with summary tables documenting the condition(s) and identifying the sample(s) that may be impacted.

5. Annual Environmental Report Attachments

- a. The Subcontractor shall provide the University an annual report prepared by a qualified professional approved by ESG to be included as an attachment to LBNL's Site Environmental Report and/or Environmental Restoration Program Annual Progress Report, if applicable. The report shall include, at a minimum:
 - 1) All actions taken to achieve compliance with regulatory agency requirements;
 - 2) A summary of all findings;
 - 3) All problems or potential problems encountered and solutions;
 - 4) All projected work for the next fiscal year;
 - 5) A discussion of any changes in personnel that occurred during the reporting period;
 - 6) Summaries of all contacts with representatives of regulatory agencies, the press, local community, or public interest groups;
 - 7) The results of any sampling tests and/or other data generated, including maps showing sample locations and tables of analytical results; and
 - 8) A discussion of any deviation from approved plan requirements, with reasons for the deviation.

6. Quality Assurance Project Plan

- a. The Quality Assurance Project Plan (QAPP) provides the project quality assurance requirements for collecting and analyzing project specific environmental data involving the investigation and cleanup if required for ambient air and stack emissions monitoring and building indoor air sampling. The QAPP may be a component of the Sampling and Analysis Plan.
- b. The QAPP shall comply with EPA Region 9 Guidance for Quality Assurance Project Plans and meet the requirements of DOE Order 414.1D Quality Assurance, ESG Environmental Restoration Program QAPrP and the Quality Assurance Program Plan for NESHAP Compliance if sampling radioactive air effluents.
- c. The QAPP shall contain, but is not limited to, the following four main elements:
 - 1) Program Management: Addresses program objectives, roles, and responsibilities.
 - 2) Data Generation and Acquisition: Addresses all aspects of program data generation and describes procedures to ensure that appropriate methods for data collection or sampling; measurement, analysis, and data generation; data handling; and QC activities are employed and properly documented. This includes development of Data Quality Objectives (DQOs).
 - 3) Assessment and Oversight: Addresses the activities to assess the effectiveness of the implementation of the program and associated QA and QC activities.

- 4) Data Review and Usability: Addresses the QA activities that occur after the data collection or generation phase.

7. Sampling and Analysis Plan

- a. The Sampling and Analysis Plan (SAP) establishes the requirements for collecting environmental data for investigation and monitoring of indoor air, if required.
- b. Guidance for preparing a SAP is provided in EPA Region 9 Sampling and Analysis Plan Guidance and Template Version 4, General Projects R9QA/009, 1 May 2014.
- c. Air sampling specific sampling guidance is provided in the DTSC Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance).
- d. The SAPs shall be prepared by a qualified professional approved by ESG and approved by the Subcontractor PM, and submitted to and approved by ESG before any samples are collected.
- e. Sample analysis shall comply with the University's policies and procedures. Contracted laboratories shall provide EDDs that are compatible with the University's ESM database.
- f. Subcontractors shall use analytical laboratories with existing contracts with the University. Potential exceptions require pre-approval by ESG.
- g. At a minimum, the SAP shall establish DQOs and include, but will not be limited to, the following for all sampling, monitoring, and analytical activities:
 - 1) A description of the activities that require sampling and analysis;
 - 2) Identification of the contaminants of potential concern (COPCs);
 - 3) Sampling design, including specification of the number, locations, and depths where samples will be collected. The sampling design should in most cases include a conceptual site model that incorporates existing data and provides a basis for the sampling design;
 - 4) Sampling and analysis approach, including description of the sampling equipment and requirements for collecting, labeling, storing, and transporting samples to the laboratory;
 - 5) Sample analysis requirements, the analytical methods to be used, holding times, and the required reporting limits;
 - 6) The names, addresses, and telephone numbers of the analytical laboratories; and
 - 7) The SAP shall be submitted as a stand-alone document and as such will reference relevant elements contained in the QAPP.

8. Project-Specific Memoranda

- a. Site Environmental Report for Project Activities:
 - 1) The annual report is prepared by ESG and is due to the DOE at the end of each September. It is the Subcontractor's responsibility to provide details pertaining to project-related tasks involving ambient air and stack emissions monitoring, heavy duty truck and off-road diesel vehicle emissions, and indoor air sampling for the previous calendar year by August 1st so that they can be included in the report.

- 2) The information shall meet the reporting requirements of DOE Order 231.1b, Environment, Safety, and Health Reporting.

b. Environmental Restoration Program Annual Progress Report for Project Activities:

- 1) The Annual Progress Report is prepared by ESG and is due to the DTSC annually by the end of February. It is the Subcontractor's responsibility to provide a project-specific memorandum including details pertaining to activities involving air by December 31st so that they can be included in the report. The memorandum shall describe activities involving air, including, but not limited to, tables and figures summarizing sampling and analysis results, and regulatory agency actions.
- 2) If work conducted is a corrective action, the information shall meet the reporting requirements of the University's approved RCRA Corrective Action Program.

1.10 SUBCONTRACTOR QUALIFICATION, TRAINING AND CERTIFICATION REQUIREMENTS

A. Qualifications of the assigned Subcontractor and personnel include, but are not limited to:

1. Knowledge of federal, State of California, and local environmental regulations and their applicability (Part 3.2 above);
2. Professional registration or applicable certification as required by the regulations;
3. All diesel fueled off-road vehicles (tractors) used onsite shall be registered in CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation having CARB's red and white equipment identification number (EIN) number clearly visible on each side of the vehicle. All heavy duty trucks (>10,000 pounds) will conform to CARB regulations;
4. The Subcontractor shall be properly licensed as required by the State of California. Specialty licenses may be required (e.g. C-57 drilling license).

B. Training requirements of the assigned Subcontractor and personnel include, but are not limited to:

1. If the project involves hazardous substance removal or other activities that expose or potentially expose personnel to hazardous substances and health hazards, those personnel shall possess a current 40- hour HAZWOPER training certificate and have received a minimum of three days field experience under the direct supervision of a trained experienced supervisor as required under 40 CFR 1910.120.
2. Workers that are onsite only occasionally for a specific limited task (such as, but not limited to land surveying or geophysical surveying) and who are unlikely to be exposed over permissible exposure limits (PELs) shall possess a current 24-hour occasional site worker HAZWOPER certificate and one day of field experience under the direct supervision of a trained, experienced supervisor.
3. The Supervisor of HAZWOPER personnel shall have 8-hour HAZWOPER Supervisor training in addition to the 40-hour training.
4. All 40 and 24-hour HAZWOPER-certified personnel shall also possess a current (within the last year) 8- hour HAZWOPER refresher training certification.

C. Certifications required of the assigned Subcontractor and personnel include, but are not limited to:

1. Environmental investigation and sampling work associated with building indoor air and ambient air and stack emissions monitoring shall be performed under the supervision of a licensed professional approved by ESG with requisite training and experience in conducting environmental investigations.

2. NESHAP-required air monitoring of radiological emissions (also including potential to emit evaluations and impact category determinations) requires a Certified Health Physicist (CHP) to supervise radiological work and to maintain authorizations, permit, and authorization database.
3. Sample locations shall be surveyed either by a licensed surveyor or University-approved personnel with appropriate training in surveying and mapping.
4. Chemical and radiological analyses shall be performed by a laboratory that is certified by both the California State Water Resources Control Board and the Environmental Laboratory Accreditation Program and is accredited by a third party overseen by the Department of Energy.

1.11 SUBCONTRACTOR ROLES AND RESPONSIBILITIES

- A. The Subcontractor is responsible for project oversight and execution of the work; verifying that work is conducted in a safe manner and meets all regulatory requirements; submitting to ESG required documents for review and approval; and preparing permit applications and/or draft notices to regulatory agencies (Part 3.10). Subcontractor shall provide qualified personnel to fulfill the following roles. Depending on the size of the project, one or more of the roles may be assigned to one on-site person:
 1. Subcontractor Project Manager (PM) – The PM has responsibility for project oversight of the work plan development and implementation processes for environmental protection and restoration activities associated with ambient air, stack emissions monitoring, and building indoor air sampling.
 2. Environmental Professional (EP) – The EP will oversee the field activities, verify that all documentation is maintained, and provide input regarding field conditions that may require changes to the work plan or notification to agencies.

1.12 DOCUMENT APPROVAL PROCESS

- A. All documents, whether new or adopted, shall be approved by the University.
- B. Subcontractor-prepared documents will be submitted to the University Technical Representative identified by the Contract, who will distribute documents to their selected the University review team.
- C. Internal draft, draft, and final versions of documents are required. A response to comments table may be required for large deliverables as stipulated by the University.
- D. Subcontractor should assume complete high-quality documents will require 10 working days for review by the University; inadequate or incomplete documents will require longer review, multiple review cycles, or result in document rejection.

1.13 REQUIRED PERMITTING

- A. Unless otherwise specified, permits will be prepared by the Subcontractor and submitted to the applicable agency by the University Project Manager or ESG representative. Required permits may include, but are not limited to, the following:
 1. BAAQMD:
 - a. Internal combustion engines (such as standby generators, air compressors, etc.)
 - b. Fueling Stations
 - c. Boilers

- d. Asbestos demolition/ Asbestos containing structural concrete demolition – Submit proof of notification made to the BAAQMD, 10 working days prior to asbestos demolition or renovation activities, as required by BAAQMD Regulation 11 Rule 2 ;
- e. UST removal – BAAQMD regulates pollutant emissions from soil contaminated by organic or petroleum chemical leaks or spills, and from USTs when they are removed or replaced. Prior to beginning UST removals or associated soil excavation, Tank Removal Excavation of Contaminated Soil Notification shall be completed and submitted to BAAQMD.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 013543.22

NTS: ADD A CHANGE LOG TO THE END OF EACH SECTION. THIS IS FOR INTERNAL USE.

DATE	REVIEWER	PARAGRAPH	SUMMARY OF UPDATE
7/03/2022	EBS		MASTER SPECIFICATIONS UPDATE