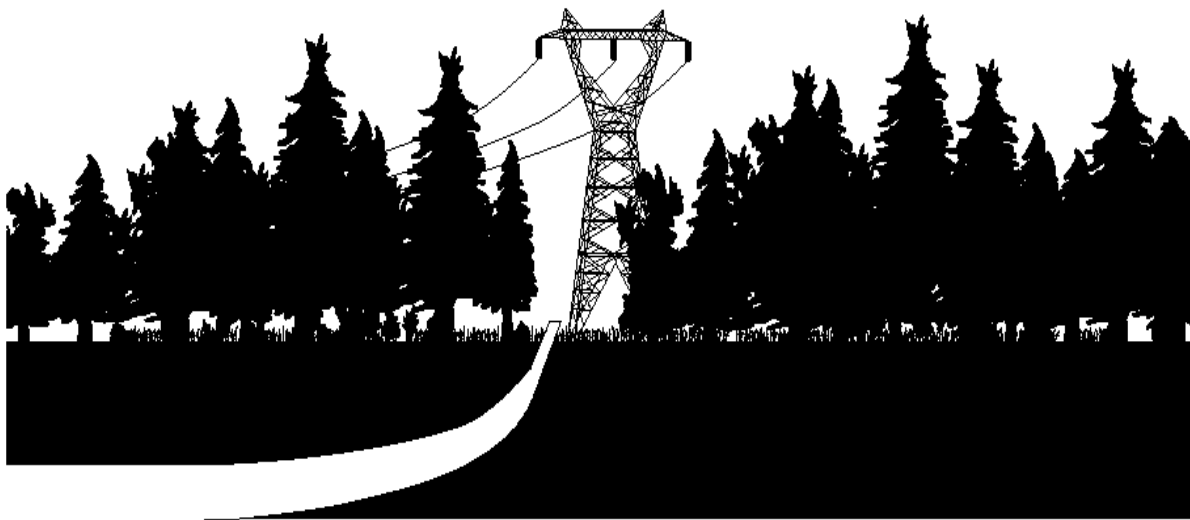




Western Area
Power Administration

CONSTRUCTION STANDARDS

STANDARD 13 ENVIRONMENTAL QUALITY PROTECTION



March 2021

SAFETY
A HABIT TO LIVE BY

STANDARD 13 – ENVIRONMENTAL QUALITY PROTECTION

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SECTION 13.1 – REQUIRED SUBMITTALS, REPORTS AND PLANS

1. **FINAL PAYMENT:** For each section below, final payment will be withheld until the referenced submittal, report or plan is received by the COR.

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SECTION 13.2 – CONTRACTOR FURNISHED DATA

1. **RECYCLED MATERIALS QUANTITY REPORT:** Submit quantities of recycled materials listed in Section 13.7, “Recycled Materials Quantities”, to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
2. **RECOVERED AND BIOBASED MATERIAL PRODUCTS REPORT:** Provide the COR and WAPA’s Environmental Department the following information for purchases of items listed in Section 13.8, “Use of Recovered Material and Biobased Material Products”.
 - (1) Quantity and cost of listed items with recovered or biobased material content and quantity and cost of listed items without recovered or biobased material content prior to submittal of final invoice.
 - (2) Written justification of listed items if recovered material or biobased material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.
3. **REFRIGERANT RECEIPT:** The Contractor must provide a record of all refrigerant usage, recycling or disposal on WAPA HVAC systems to the COR and WAPA’s Environmental Department. In the event refrigerant is either charged into or removed and reclaimed from a WAPA HVAC system, the Contractor must provide either a record of usage or a receipt from the Environmental Protection Agency (EPA)-certified refrigerant reclaimer including whether it was either added to or reclaimed from the equipment, the date and the amount and type of refrigerant used to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
4. **WASTE MATERIAL QUANTITY REPORT:** Submit quantities of total project waste material disposal as listed below to the COR and WAPA’s Environmental Department prior to submittal of final invoice in accordance with Section 13.9.8, “Waste Material Quantity Report”.
 - (1) Unregulated Wastes (i.e., trash): Volume in cubic yards or weight in pounds.
 - (2) Hazardous or Universal Wastes: Weight in pounds.
 - (3) Polychlorinated Biphenyl (PCB) Wastes: Weight in pounds.
 - (4) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).
5. **SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN (Plan):** Submit the Plan as described in Section 13.11.2, “Spill Prevention Notification and Cleanup Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.
6. **TANKER OIL SPILL PREVENTION AND RESPONSE PLAN:** Submit the Plan as described in Section 13.11.3, “Tanker Oil Spill Prevention and Response Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.
7. **PESTICIDE USE PLAN:** Submit a plan as described in Section 13.12.3, “Pesticide Use Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to the date of intended pesticide application. Review of the plan is for the purpose of determining

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compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Within seven (7)-days after application, submit a written report in accordance with Standard 2 – Sitework, Section 2.1.1_5, “Soil-Applied Herbicide”.

8. TREATED WOOD UTILITY POLES AND CROSSARMS RECYCLING – CONSUMER INFORMATION SHEET RECEIPT: Submit treated wood utility poles and crossarms - consumer information sheet receipts to the COR and WAPA’s Environmental Department prior to submittal of final invoice (see 13.13, “Treated Wood Utility Poles and Crossarms Recycling or Disposal”).
9. PREVENTION OF AIR POLLUTION: Submit a copy of permits, if required, as described in 13.14, “Prevention of Air Pollution” to the COR and WAPA’s Environmental Department 14-days prior to the start of work.
10. EMISSIONS OF COVERED INSULATING GASES (E.G., SULFUR HEXAFLUORIDE (SF₆) GAS, PERFLUOROCARBON (PFC) GAS): A receipt from the covered insulating gas supplier stating that the gas was reclaimed, the amount of covered insulating gas and the date must be submitted to the COR and WAPA’s Environmental Department prior to submittal of final invoice in accordance with Section 13.14.4(3), “Certificates of Disposal and Receipts”.
11. ASBESTOS LICENSES OR CERTIFICATIONS: Submit a copy of licenses, certifications, Demolition and Renovation Notifications and Permits for asbestos work as described in 13.15, “Handling and Management of Asbestos Containing Material” to the COR and WAPA’s Environmental Department 14-days prior to starting work. Submit copies of certificates of disposal and/or receipts for waste to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
12. LEAD PAINT NOTICES: Submit a copy of lead paint notices with Contractor and recipient signatures as described in 13.16, “Material with Lead-based Paint” to the COR and WAPA’s Environmental Department prior to submittal of final invoice. Submit copies of certificates of disposal and/or receipts for waste to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
13. WATER POLLUTION PERMITS: Submit copies of any water pollution permits as described in 13.17, “Prevention of Water Pollution” to the COR and WAPA’s Environmental Department 14-days prior to start of work.
14. PCB TEST REPORT: Submit a PCB test report to the COR and WAPA’s Environmental Department as described in 13.18, “Testing, Draining, Removal and Disposal of Oil-filled Electrical Equipment”, prior to draining, removal or disposal of oil or oil-filled equipment that is designated for disposal.
15. OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT: Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled or reprocessed as described in 13.18, “Testing, Draining, Removal and Disposal of Oil-filled Electrical Equipment”, to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
16. OSHA PCB TRAINING RECORDS: Submit employee training documentation records to the COR and WAPA’s Environmental Department 14-days prior to the start of work as described in 13.19.1.
17. CLEANUP WORK MANAGEMENT PLAN: Submit a Cleanup Work Management Plan as described in 13.19, “Removal of Oil-contaminated Material” to the COR and WAPA’s Environmental Department for review and comment 14-days prior to the start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not

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relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

18. POST CLEANUP REPORT: Submit a Post-Cleanup Report as described in 13.19, "Removal of Oil-contaminated Material" to the COR and WAPA's Environmental Department prior to submittal of final invoice.

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SECTION 13.3 – ENVIRONMENTAL REQUIREMENTS

Comply with Federal, State and local environmental laws and regulations. The sections in this Standard further specify the requirements.

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SECTION 13.4 – LANDSCAPE PRESERVATION

1. **GENERAL:** Preserve landscape features in accordance with the contract clause titled "Protection of Existing Vegetation, Structures, Equipment, Utilities and Improvements". Exercise care to preserve the natural landscape and conduct activities to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the project vicinity. Except where clearing is required for permanent works, approved construction roads or excavation operations, vegetation must be preserved and must be protected from damage by project operations and equipment.
2. **CONSTRUCTION ROADS:** Location, alignment and grade of construction roads shall be subject to the COR's approval. When no longer required, surfaces of construction roads must be scarified to facilitate natural revegetation, provide for proper drainage and prevent erosion. If re-vegetation is required, use seed mixtures as recommended by Natural Resources Conservation Service or other land managing agency as appropriate.
3. **CONSTRUCTION FACILITIES:** Shop, office, material lay down and material and equipment storage areas and yard areas must be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent and prevent impact on sensitive riparian areas and flood plains. Storage and construction buildings, including concrete footings and slabs, must be removed from the site prior to contract completion. The area will be re-graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage and prevent erosion or transport of sediment and pollutants. If re-vegetation is required, use seed mixtures as recommended by Natural Resources Conservation Service or other land managing agency as appropriate.

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SECTION 13.5 – PRESERVATION OF CULTURAL AND PALEONTOLOGICAL RESOURCES

1. **GENERAL:** Do not, at any time, remove, disturb or otherwise alter cultural artifacts or paleontological resources (fossils). Cultural artifacts may be of scientific or cultural importance and include, but are not limited to bones, pottery, projectile points (arrowheads), other stone or metal tools, surface features (stone circles, rock piles, etc.), glass, metal, ceramic or other historic objects, structures and buildings (including ruins). Paleontological resources can be of scientific importance and include mineralized animals and plants or trace fossils such as footprints. Both cultural and paleontological resources are protected by Federal Regulations during Federal construction projects. The Contractor must restrict all ground disturbing activities to areas reviewed/investigated and approved for WAPA by the Federal Preservation Officer (FPO) or Regional Preservation Officer (RPO), as appropriate, and as specified in accordance with Standard 1 – General Requirements, Sections 1.3.1 Rights-of-way and 1.3.2 Access to the Work and Haul Routes.
2. **KNOWN CULTURAL OR PALEONTOLOGICAL SITES:** The Contractor must ensure that all construction activities avoid the boundaries of specific cultural, historic or scientific sites. Following issuance of notice to proceed, WAPA will provide drawings or maps that indicate the area(s) of avoidance in relation to the project area. Prior to any construction activity, the avoidance area(s) must be marked on the ground in a manner approved by the COR and WAPA's Environmental Department in conjunction with the FPO or RPO. When avoidance is not possible, the Contractor must provide WAPA a 90-day notice of their inability to avoid the identified area(s). WAPA will consult with the appropriate authorities and the Contractor will not be permitted to work within or near the boundaries of the avoidance area(s) until the FPO or RPO approves of the work and the COR directs the Contractor to proceed. The Contractor must instruct employees and subcontractors that vehicular or equipment access within these avoidance areas is prohibited. If access is absolutely necessary, the Contractor must first obtain approval from the COR in conjunction with the FPO or RPO. WAPA will remove the markings during or following final cleanup.
3. **WORKING WITH CULTURAL, PALEONTOLOGICAL OR TRIBAL MONITORS:** For some project work, WAPA requires an archaeological, paleontological or tribal monitor(s) at or near cultural or paleontological site locations. The Contractor, its employees and subcontractors must work with the monitor(s) to ensure that sensitive areas are avoided. The monitor(s) must meet with the Contractor, its employees and subcontractors each morning to go over the day's work. The monitor(s) will also conduct awareness training for the Contractor, its employees and subcontractors prior to any work in the field. Untrained personnel must not be allowed in the construction area. For sensitive areas requiring a monitor(s), the Contractor may not access those areas without a monitor being present.
4. **UNKNOWN CULTURAL OR PALEONTOLOGICAL SITES:** On rare occasions cultural or paleontological sites, including buried human remains, may be inadvertently discovered during excavation or other earth-moving or other construction activities.
 - (1) **Reporting:** If evidence of a cultural or paleontological site is discovered, cease all work within a 200-foot radius immediately and notify the COR, and FPO or RPO, of the location and nature of the findings. If a monitor(s) is present, the monitor(s) should also be notified. Work within that radius may not be resumed until directed to do so by the COR.
 - (2) **Care of Evidence:** Protect the area. Do not remove, handle, alter or damage artifacts fossils or other objects uncovered during construction activities.
5. **SPECIAL CONSIDERATIONS:** Refer to Division 13 of the Project Specifications for site-specific requirements including, but not limited to, known and unknown cultural or paleontological resources and the treatment of inadvertently discovered human remains. Disturbance of human remains is covered in most states by statutes that generally preempt Federal regulations. Those requirements are described in the Division 13 specifications.

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SECTION 13.6 – NOXIOUS WEED CONTROL

Comply with Federal, State and local noxious weed control regulations. At Contractor's expense, obtain required permits and conduct required notifications. Provide a "clean vehicle policy" while entering and leaving construction areas to prevent transport of noxious weed plants and/or seed. Transport only construction vehicles that are free of mud and vegetation debris to staging areas and the project right-of-way. All seed mixes and mulch used for reclamation activities will be certified weed-free.

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SECTION 13.7 – RECYCLED MATERIALS QUANTITIES

1. GENERAL: All materials generated from the project that can be recycled, must be recycled. Record quantities of material by category that is salvaged, recycled, reused or reprocessed, including, but not limited to:
 - (1) Transformers, Breakers: Weight without oil in pounds or metric tons.
 - (2) Scrap Metals: Weight in pounds or metric tons. Examples include, but are not limited to:
 - 1) Aluminum Conductor – Steel Reinforced (ACSR).
 - 2) Stainless Steel.
 - 3) Copper.
 - 4) Iron/Steel.
 - 5) Aluminum.
 - 6) Lead.
 - 7) Zinc.
 - 8) Other Metals.
 - (3) Precious Metals (e.g., Silver, Gold, Platinum): Weight in pounds or metric tons.
 - (4) Oil: Gallons (separate by type - less than 2-parts per million (ppm) PCB, 2- to 50-ppm PCB, and 50 or greater ppm PCB).
 - (5) Gravel, Asphalt or Concrete: Weight in pounds or metric tons.
 - (6) Batteries: Weight in pounds or metric tons.
 - (7) Treated Wood Utility Poles and Crossarms: Weight in pounds or metric tons.
 - (8) Wood Construction Material: Weight in pounds or metric tons.
 - (9) Cardboard: Weight in pounds or metric tons.
 - (10) Porcelain/Ceramic Insulators: Weight in pounds or metric tons.
 - (11) Glass: Weight in pounds or metric tons.
 - (12) Fluorescent Bulbs: Weight in pounds or metric tons.
 - (13) Ballasts: Weight in pounds or metric tons.
 - (14) Mercury-Containing Equipment (MCE): Weight in pounds or metric tons.
 - (15) Antifreeze and Freon: Weight in pounds or metric tons.
 - (16) Tires: Weight in pounds or metric tons.
 - (17) Plastic: Weight in pounds or metric tons.
 - (18) Solvent: Weight in pounds or metric tons.
 - (19) Construction and Demolition (C&D) Debris: Weight in pounds or metric tons.
2. RECYCLED MATERIAL QUANTITY REPORT: Submit quantities (pounds, metric tons, gallons) of all recycled material by category to the COR and WAPA's Environmental Department within 30-days of recycling and prior to submittal of final invoice.

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SECTION 13.8 – USE OF RECOVERED MATERIAL AND BIOBASED MATERIAL PRODUCTS

1. RECOVERED MATERIAL PRODUCTS: If the products listed below or other products listed at <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program> are obtained as part of this project, purchase the items with the highest recovered material content possible unless recovered material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.

Examples include, but are not limited to:

- (1) Building Insulation Products.
 - (2) Carpet.
 - (3) Carpet cushion.
 - (4) Cement and Concrete Containing; coal fly ash, ground granulated blast furnace slag, cenospheres or silica fume.
 - (5) Consolidated and reprocessed latex paint.
 - (6) Floor Tiles.
 - (7) Flowable fill.
 - (8) Laminated Paperboard.
 - (9) Modular threshold ramps.
 - (10) Nonpressure pipe.
 - (11) Patio Blocks.
 - (12) Railroad grade crossing surfaces.
 - (13) Roofing materials.
 - (14) Shower and restroom dividers/partitions.
 - (15) Signage.
 - (16) Structural Fiberboard.
2. BIOBASED MATERIAL PRODUCTS: If the products listed at <https://www.biopreferred.gov/BioPreferred/faces/pages/ProductCategories.xhtml> are obtained as part of this project, purchase the items with the highest biobased content possible and no less than the percent indicated for each product unless biobased material products are not available: 1) competitively within a reasonable time frame, 2) meeting reasonable performance standards as defined in the Standards or Project Specifications, or 3) at a reasonable price.

NOTE: All station service and pole mounted transformers will be bio-based oil. WAPA large transformers will be evaluated on a best value basis using life cycle cost analysis.

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3. **RECOVERED MATERIAL AND BIOBASED MATERIAL PRODUCTS REPORT:** Provide the COR and WAPA's Environmental Department the following information for purchases of those items listed above:

Quantity and cost of listed items with recovered or biobased material content and quantity and cost of listed items without recovered or biobased material content prior to submittal of final invoice.

Written justification of listed items if recovered material or biobased material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.

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SECTION 13.9 – DISPOSAL OF WASTE MATERIAL

1. GENERAL: Dispose or recycle waste material in accordance with applicable Federal, State and local regulations and ordinances. In addition to the requirements of the Contract Clause “Cleaning Up”, remove all waste material from the construction site. No waste will be left on WAPA property, right-of-way or easement. Burning or burying of waste material is not permitted.
2. HAZARDOUS, UNIVERSAL AND NON-HAZARDOUS WASTES: Manage and dispose hazardous, universal and non-hazardous wastes in accordance with local, State and Federal regulations.
3. USED OIL: Used oil generated from the Contractor activities must be managed and disposed in accordance with used oil regulations.
4. RECYCLABLE MATERIAL: Reduce wastes, including excess WAPA material, by recycling, reusing or reprocessing. Examples of recycling, reusing or reprocessing includes, but is not limited to, reprocessing of solvents; recycling cardboard; and salvaging scrap metals.
5. REFRIGERANTS AND RECEIPTS: Refrigerants from air conditioners, water coolers, refrigerators, ice machines and vehicles must be reclaimed with certified equipment operated by certified technicians if the item is to be disposed. Refrigerants must be reclaimed and not vented to the atmosphere. A receipt from the reclaimer stating that the refrigerant was reclaimed, the amount and type of refrigerant and the date must be submitted to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
6. HALONS: Equipment containing halons that must be tested, maintained, serviced, repaired or disposed must be handled according to EPA requirements and by technicians trained according to those requirements.
7. SULFUR HEXAFLUORIDE (SF₆)/PERFLUOROCARBONS: All covered insulating gases (e.g., SF₆ gas and other PFCs) must be reclaimed and must not be vented to the atmosphere. See Section 13.14.4(3). After use, all covered insulating gas cylinders must be returned to the manufacturer.
8. WASTE MATERIAL QUANTITY REPORT: Submit quantities and types of all materials disposed of as part of the project to the COR and WAPA’s Environmental Department prior to submittal of final invoice.
 - (1) Non-Hazardous Municipal Solid Waste (MSW) (i.e., trash): Description of waste and volume in cubic yards or weight in pounds.
 - (2) Hazardous Wastes: Hazardous waste description, hazardous waste code and weight in pounds or volume in gallons.
 - (3) Universal Wastes: Universal Waste category and weight in pounds.
 - (4) PCB Wastes: Weight in pounds.
 - (5) Industrial Wastes: Description of waste and weight in pounds.
 - (6) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).

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SECTION 13.10 – CONTRACTOR'S LIABILITY FOR REGULATED MATERIAL INCIDENTS

1. **GENERAL:** The Contractor is solely liable for all expenses related to spills, mishandling or incidents of regulated material attributable to his actions or the actions of his subcontractors. This includes all response, investigation, cleanup, disposal, permitting, reporting and requirements from applicable environmental regulation agencies.
2. **SUPERVISION:** The actions of the Contractor employees and subcontractors must be properly managed at all times on WAPA property or while transporting WAPA's (or previously owned by WAPA) regulated material and equipment.

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SECTION 13.11 – POLLUTANT SPILL PREVENTION, NOTIFICATION AND CLEANUP

1. **GENERAL:** Provide measures to prevent spills of pollutants and respond appropriately if a spill occurs. A pollutant includes any hazardous or non-hazardous substance that when spilled, will contaminate soil, surface water or groundwater. This includes any solvent, fuel, oil, paint, pesticide, engine coolants and similar substances.
2. **SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN:** Provide the Plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Include the following in the Plan:
 - (1) **Spill Prevention Measures:** Describe the work practices or precautions that will be used at the jobsite to prevent spills. These may include engineered or manufactured techniques such as installation of berms around fuel and oil tanks; storage of fuels, paints and other substances in spill proof containers; and management techniques such as requiring workers to handle material in certain ways.
 - (2) **Notification:** Most States and the EPA require by regulation that anyone who spills certain types of pollutants in certain quantities notify them of the spill within a specific time period. Some of these agencies require written follow up reports and cleanup reports. Include in the Plan the types of spills for which notification would be made, the agencies notified, the information the agency requires during the notification and the telephone numbers for notification.
 - (3) **Employee Awareness Training:** Describe employee awareness training procedures that will be implemented to ensure personnel are knowledgeable about the contents of the Plan and the need for notification.
 - (4) **Commitment of Manpower: Equipment and Material.** Identify the arrangements made to respond to spills, including the commitment of manpower, equipment and material.
 - (5) If applicable, address all requirements of 40 C.F.R. Part 112 pertaining to Spill Prevention, Control and Countermeasures (SPCC) Plans.
3. **TANKER OIL SPILL PREVENTION AND RESPONSE PLAN:** Provide a Tanker Oil Spill Prevention and Response Plan as required by the Department of Transportation if oil tankers with volume of 3,500-gallons or more are used as part of the project. Submit the Tanker Oil Spill Prevention and Response Plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

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SECTION 13.12 – PESTICIDES

1. GENERAL: The term “pesticide” includes herbicides, insecticides, rodenticides and fungicides. Pesticides must only be used in accordance with their labeling and applied by appropriately certified applicators.
2. EPA REGISTRATION: Use only EPA-registered pesticides that are approved for the intended use and location. Follow all applicable label directions.
3. PESTICIDE USE PROPOSAL: Provide a pesticide use proposal that contains: 1) pesticide(s) proposed (include mixtures and surfactants), 2) treatment site, 3) intended rate of application, 4) a copy of labels and Safety Data Sheets and 5) a copy of required applicator certifications. Submit the pesticide use proposal to the COR and WAPA’s Environmental Department for review and comment 14-days prior to the date of intended application. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Within seven (7)-days after application, submit a written final report to the COR and WAPA’s Environmental Department, including the pesticide applicators report, in accordance with Standard 2 – Sitework, Section 2.1.1 5. “Soil-Applied Herbicide, (4) Final Report”.

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SECTION 13.13 – TREATED WOOD UTILITY POLES AND CROSSARMS RECYCLING OR DISPOSAL

Whenever practicable, treated wood utility poles and crossarms removed during the project must be recycled or transferred to the public for some uses. Treated wood utility poles and crossarms transferred to a recycler, landfill or the public must be accompanied by a written consumer information sheet for treated wood as provided by WAPA. Obtain a receipt, part of the consumer information sheet, from the recipient indicating that they have received, read and understand the consumer information sheet. Treated wood products transferred to right-of-way landowners must be moved off the right-of-way. Treated wood product scrap, poles and crossarms that cannot be donated or reused must be properly disposed in a landfill that accepts treated wood and has signed WAPA's consumer information sheet receipt. Submit treated wood utility poles and crossarms consumer information receipts to the COR and WAPA's Environmental Department prior to submittal of final invoice.

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SECTION 13.14 – PREVENTION OF AIR POLLUTION

1. GENERAL: Ensure that construction activities and the operation of equipment are undertaken to reduce the emission of air pollutants. Submit a copy of permits for construction activities, if required (e.g., “non-attainment” areas, State implementation plans or Class I air-sheds), from Federal, State or local agencies to the COR and WAPA’s Environmental Department 14-days prior to the start of work. The Contractor must fulfill the conditions under any applicable locally prepared Environmental Impact Statements (EISs) or Environmental Assessments (EAs) conducted for the project under the National Environmental Protection Act (NEPA).
2. MACHINERY AIR EMISSIONS: The Contractor and subcontractor machinery must have and must use the air emissions control devices required by Federal, State or local Regulation or ordinance.
3. DUST ABATEMENT: Dust must be controlled. Oil must not be used as a dust suppressant. Dust suppressants must be approved by the COR and WAPA’s Environmental Department prior to use.
4. SULFUR HEXAFLUORIDE (SF₆)/PERFLUOROCARBONS (PFCs) EMISSIONS:
 - (1) General: WAPA complies with State, Federal and local regulations regarding Mandatory Greenhouse Gas Reporting 40 C.F.R. Part 98. The Contractor must provide the information required by this section to the COR and WAPA’s Environmental Department as described. Additional requirements may be required for projects in the State of California. The Contractor must meet the additional requirements and provide any additional information as required by the State of California to the COR and WAPA’s Environmental Department as described in Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 3.1 (17 CCR § 95350 – 95359.1).
 - (2) The Contractor must record quantities of all covered insulating gases (e.g., SF₆ gas and other PFCs), including:
 - 1) Nameplate capacity in pounds of the covered insulating gas containing equipment.
 - 2) Record pounds of the covered insulating gas stored in containers, before transferring into energized equipment. Record the serial numbers of the cylinders/containers from which the gas is transferred.
 - 3) Record pounds of the covered insulating gas left in containers, after transferring into energized equipment. Record the serial numbers of the cylinders/containers from which the gas is transferred.
 - 4) Pounds of covered insulating gas purchased from equipment manufacturers or distributors. Record the serial numbers of the purchased cylinders/containers.
 - 5) Pounds of covered insulating gas returned to suppliers. Record the serial numbers of the returned cylinders/containers.
 - 6) Scales used to weigh cylinders must be accurate to within ±2-pounds and must have current calibration sticker.
 - (3) Contractor Field Quality Testing and Covered Insulating Gas Handling:
 - 1) The Contractor must test all functions to verify correct operation and conduct a leak test. No gas leakage of covered insulating gases must be allowed from any equipment or storage containers.

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- 2) Atmospheric venting of covered insulating gas is not allowed.
 - 3) The Contractor must use cylinders with a current certified hydrostatic test certificate.
 - 4) The Contractor must remove all empty covered insulating gas cylinders and return to supplier.
- (4) Certificates of Disposal and Receipts for Covered Insulating Gas:
- 1) The Contractor can use WAPA's Reporting Form for reporting quantities listed above.
 - 2) The Contractor must return all used covered insulating gas cylinders to supplier and provide receipts from the supplier.
 - 3) The Contractor must submit all covered insulating gas Reporting Forms and copies of receipts to the COR and to WAPA's Environmental Department prior to submittal of final invoice.
5. PROTECTION OF STRATOSPHERIC OZONE: The Contractor must comply with all State, Federal and local regulations regarding ozone depleting substances and the Protection of Stratospheric Ozone, including, but not limited to 40 C.F.R. Part 82. Contractors performing work on HVAC systems must be trained and certified according to the regulations, and releases of ozone depleting substances to the atmosphere must be prevented. The Contractor must provide reclaimed refrigerant receipts to the COR and WAPA's Environmental Department in accordance with section 13.2.3 of this document.

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SECTION 13.15 – HANDLING AND MANAGEMENT OF ASBESTOS CONTAINING MATERIAL

1. **GENERAL:** Obtain the appropriate Federal, State, Tribal or local licenses or certifications prior to disturbing any regulated asbestos-containing material. If a building or portion of a building will be demolished or renovated, obtain an Asbestos Notice of and Permit for Demolition and Renovation from the State or Tribal Department of Environmental Quality, Division of Air Quality (or equivalent). The building(s) must be inspected by a State-Certified or Tribal accepted Asbestos Building Inspector. The inspector must certify the presence and condition of asbestos, or non-presence of asbestos, on site as directed on the State or Tribal Demolition and Renovation Notice/Permit. The inspections must be performed and notifications must be submitted whether asbestos is present or not. Submit a copy of licenses, certifications, Demolition and Renovation Notifications and Permits for asbestos work to the COR and WAPA's Environmental Department 14- days prior to work. Ensure: 1) worker and public safety requirements are fully implemented and 2) proper handling, transportation and disposal of asbestos containing material.
2. **TRANSPORTATION OF ASBESTOS WASTE:** Comply with Department of Transportation, EPA, and State and local requirements when transporting asbestos wastes.
3. **CERTIFICATES OF DISPOSAL AND RECEIPTS:** Obtain certificates of disposal for waste if the waste is a hazardous waste or receipts from a landfill approved to accept asbestos if the waste is a non-hazardous waste. Submit copies to the COR and WAPA's Environmental Department prior to submittal of final invoice.

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SECTION 13.16 – MATERIAL WITH LEAD-BASED PAINT

1. **GENERAL:** Comply with all applicable Federal, State and local regulations concerning work with lead-based paint, disposal of material painted with lead-based paint and management of these materials. OSHA and General Industry Standards apply to worker safety and right-to-know issues. Federal EPA and State agencies regulate waste disposal and air quality issues.
2. **TRANSFER OF PROPERTY:** If lead-based paint containing equipment or material is to be given away or sold for reuse, scrap or reclaiming, the Contractor must provide a written notice to the recipient of the material stating that the material contains lead-based paint and the Hazardous Waste regulations may apply to the waste or the paint in some circumstances. The new owner must also be notified that they may be responsible for compliance with OSHA requirements if the material is to be cut, sanded, abraded or stripped of paint. Submit a copy of lead paint notices with the Contractor and recipient signatures to the COR and WAPA's Environmental Department prior to submittal of final invoice.
3. **CERTIFICATES OF DISPOSAL AND RECEIPTS:** Obtain certificates of disposal for waste if the waste is a hazardous waste or receipts from a landfill if the waste is a non-hazardous waste. Submit copies to the COR and WAPA's Environmental Department prior to submittal of final invoice.

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SECTION 13.17 – PREVENTION OF WATER POLLUTION

1. GENERAL: Ensure that surface and groundwater is protected from pollution caused by construction activities and comply with applicable regulations and requirements. Ensure that streams, waterways and other courses are not obstructed or impaired unless the appropriate Federal, State or local permits have been obtained.
2. PERMITS: The Contractor must ensure that:
 - (1) A National Pollutant Discharge Elimination System (NPDES) permit is obtained from the US EPA or State as appropriate if the disturbed construction area equals 1-acre or more. The Contractor is responsible for preparation and implementation of the associated Storm Water Pollution Prevention Plan (SWPPP). Disturbed areas include staging, parking, fueling, stockpiling and any other construction related activities. Refer to <https://www.epa.gov/npdes/npdes-stormwater-program> for directions and forms.
 - (2) A dewatering permit is obtained from the appropriate agency if required for construction dewatering activities.
 - (3) Copies of permits and plans, approved by the appropriate regulating agencies, are submitted to the COR and WAPA's Environmental Department 14-days prior to start of work.
3. EXCAVATED MATERIAL AND OTHER CONTAMINANT SOURCES: Control runoff from excavated areas and piles of excavated material, construction material or wastes (to include truck washing and concrete wastes) and chemical products such as oil, grease, solvents, fuels, pesticides and pole treatment compounds. Excavated material or other construction material must not be stockpiled or deposited near or on streambanks, lake shorelines, ditches, irrigation canals or other areas where run-off could impact the environment.
4. MANAGEMENT OF WASTE CONCRETE OR WASHING OF CONCRETE TRUCKS: Do not permit the washing of concrete trucks or disposal of excess concrete in any ditch, canal, stream or other surface water. Concrete wastes must be disposed in accordance with all Federal, State and local regulations. Concrete wastes must not be disposed of on any WAPA property, right-of-way easement or on any streets, roads or property without the owner's consent.
5. STREAM CROSSINGS: Crossing of any stream or other waterway must be done in compliance with Federal, State and local regulations. Crossing of some waterways may be prohibited by landowners, Federal or State agencies or require permits.

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SECTION 13.18 – TESTING, DRAINING, REMOVAL AND DISPOSAL OF OIL-FILLED ELECTRICAL EQUIPMENT

1. **SAMPLING AND TESTING OF INSULATING OIL FOR PCB CONTENT:** Sample and analyze the oil of electrical equipment (which includes storage tanks) for PCB's. Use analytical methods approved by EPA and applicable State regulations. Decontaminate sampling equipment according to documented good laboratory practices (these can be Contractor developed or EPA standards). Use only laboratories approved by WAPA. The COR will furnish a list of approved laboratories.
2. **PCB TEST REPORT:** Provide PCB test reports that contain the information below for disposing of oil-filled electrical equipment. Submit the PCB test report for COR and WAPA's Environmental Department approval prior to draining, removal or disposal of oil or oil-filled equipment that is designated for disposal.
 - (1) Name and address of the laboratory.
 - (2) Copies of Chain of Custody Form(s).
 - (3) Description of the electrical equipment (e.g. transformer, breaker).
 - (4) Serial number for the electrical equipment.
 - (5) Date sampled.
 - (6) Date tested.
 - (7) PCB contents in parts per million (ppm) by Aroclor type.
 - (8) Unique identification number of container into which the oil was drained (i.e., number of drum, tank, tanker, etc.)
3. **OIL CONTAINING PCB:** Comply with the Federal regulations pertaining to PCBs found at Title 40, Part 761 of the U.S. Code of Federal Regulations (40 C.F.R. Part 761).
4. **REMOVAL AND DISPOSAL OF INSULATING OIL AND OIL-FILLED ELECTRICAL EQUIPMENT:** Once the PCB content of the oil has been identified from laboratory results, the oil must be transported and disposed, recycled or reprocessed according to 40 C.F.R. Part 761 (if applicable), Resource Conservation and Recovery Act (RCRA) "used oil" and other applicable regulations. Used oil may be transported only by EPA-registered used oil transporters. The oil must be stored in containers that are labeled "Used Oil." Use only transporters and disposal sites approved by WAPA.
5. **OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT:** Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled or reprocessed to the COR and WAPA's Environmental Department prior to submittal of final invoice.

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SECTION 13.19 – REMOVAL OF OIL-CONTAMINATED MATERIAL

1. GENERAL: Removing oil-contaminated material includes excavating, stockpiling, testing, transporting, cleaning and disposing of these materials. Personnel working with PCBs must be trained in accordance with OSHA requirements. Submit employee training documentation records to the COR and WAPA's Environmental Department 14-days prior to the start of work.
2. CLEANUP WORK MANAGEMENT PLAN: Provide a Cleanup Work Management Plan that has been approved by applicable Federal, State or local environmental regulation agencies. Submit the plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to the start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. The plan must address onsite excavation of contaminated soil and debris and include the following:
 - (1) Identification of contaminants and areas to be excavated.
 - (2) Method of excavation.
 - (3) Level of personnel/subcontractor training.
 - (4) Safety and health provisions.
 - (5) Sampling requirements including quality control, laboratory to be used.
 - (6) Management of excavated soils and debris.
 - (7) Decontamination procedures for personnel and equipment.
 - (8) Disposal methods, including transportation to disposal.
3. EXCAVATION AND CLEANUP: Comply with the requirements of Title 40, Part 761 of the U.S. Code of Federal Regulations (40 C.F.R. Part 761).
4. TEMPORARY STOCKPILING: Excavated material, stockpiled onsite during construction, must be stored on plastic with appropriate thickness and covered to prevent wind and rain erosion at a location designated by the COR.
5. SAMPLING AND TESTING: Sample contaminated debris and areas of excavation to ensure that contamination is removed. Use personnel with experience in sampling and, in particular, with experience in PCB cleanup if PCBs are involved. Use analytical methods approved by EPA and applicable State regulations.
6. TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL: The Contractor must be responsible and liable for the proper loading, transportation and disposal of contaminated material according to Federal, State and local requirements. Use only transporters and disposal sites approved by WAPA.
7. POST CLEANUP REPORT: Provide a Post-Cleanup Report that describes the cleanup of contaminated soils and debris. Submit the report to the COR and WAPA's Environmental Department prior to submittal of final invoice. The report must contain the following information:
 - (1) Site map showing the areas cleaned.
 - (2) Description of the operations involved in excavating, storing, sampling, testing and disposal.
 - (3) Sampling and analysis results including 1) Name and address of the laboratory, 2) sample locations, 3) sample dates, 4) analysis dates, 5) contents of contaminant (e.g. PCB or total petroleum hydrocarbons) in ppm.
 - (4) Certification by the Contractor that the cleanup requirements were met.

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- (5) Copies of any manifests, bills of lading and disposal certificates.
- (6) Copies of correspondence with regulatory agencies that support completion of the cleanup.

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SECTION 13.20 – CONSERVATION OF BIOLOGICAL RESOURCES

1. **GENERAL:** The Endangered Species Act of 1973 prohibits “take” of threatened or endangered animal and plant species, as well as destruction of designated critical habitat. “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in any such conduct with a protected animal or plant or any part thereof, or attempt to do any of those things without a permit from the U.S. Fish and Wildlife Service. Federal law also prohibits “take” of birds or collection of bird parts or nests protected by the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. Contractor and subcontractor personnel will take precautions to avoid harming animals and plants, restricting all ground disturbing activities to areas specified in accordance with Standard 1 – General Requirements, Sections 1.3.1 Rights-Of-Way and 1.3.2 Access to the Work and Haul Routes.
2. **MIGRATORY BIRDS:** The Migratory Bird Treaty Act of 1918 protects migratory bird species, their nests and eggs from injury or death. Impacts to migratory bird nests will be avoided during nesting season(s) identified in Division 13 of the Project Specifications. If construction activities occur during nesting, WAPA will survey the construction area for active migratory bird nests prior to work and will establish appropriate buffers around any nests that may potentially be disturbed. If work must be conducted within these buffers, the COR may choose to delay work until the nest is no longer active or utilize a provision within WAPA’s Special Purpose Utility permit.
3. **BALD AND GOLDEN EAGLES:** The Bald and Golden Eagle Protection Act of 1940 protects bald and golden eagles from take and collection. In addition, eagle nests are protected by specific buffer distances that will be identified in Division 13 of the Project Specifications. Unlike the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act even protects nests of eagles while they are inactive.
4. **KNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT:** Following issuance of the Notice to Proceed and prior to the start of construction, WAPA will provide information on presence and distribution, as well as avoidance and minimization information, for relevant protected species and habitat. Non-trained personnel will not be allowed in the construction area. Marked avoidance areas will be maintained throughout the duration of work until the COR approves their removal. If access within an avoidance area is absolutely necessary, Contractor and subcontractor personnel must first obtain written permission from the COR before any work is performed within the avoidance area. NOTE: a WAPA and other Federal or State government or tribal agency biologist may be required to accompany Contractor or subcontractor personnel.
5. **UNKNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT:** On rare occasion, an unknown protected species or habitat may be discovered during the project. When evidence of a protected species or habitat is discovered within the project area, Contractor and subcontractor personnel will immediately notify the COR and provide the location and nature of the findings. The Contractor and subcontractor personnel will immediately stop all activity within 100-feet of the protected species or habitat and will not re-start activity until directed to do so by the COR.
6. **SPECIAL CONSIDERATIONS:** Refer to Division 13 of the Project Specifications for site-specific requirements including, but not limited to, protected species, habitats, migratory birds and eagles.