**CONSTRUCTION**

**MANAGEMENT**

**MASTER SPECIFICATIONS**

**DIVISION 1**

**(Environmental Protection)**

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| **ISSUE HISTORY** |
| Issue/CR # | Date | Pages Affected | Comments |
| 002 | 01/03/05 | All | Format changes only. |
| 003 | 03/10/05 | All | General change. |
| 004 | 04/21/05 | All | General change. |
| 005 | 07/06/05 | 2 | 1.1.B, 1.1.C |
| 006 | 09/27/07 | All | Change title of Specification. Consolidated sections of 01561, edited all of 01557, 01558, 01563. Deleted all content related to fines and penalties, Pantex rights, see T&Cs. Moved qualifications to 01200, key personnel. Deleted EPP, not required.  |
| 007 | 6/14/10 | All | General changes. |
| 008 | 4/18/11 | 5, 6, 8-11 | Change to vegetation requirements. Added Requirements for Protection of Environmental Resources |
| 009 |  | All | Global changes to clarify Contractor requirements. |
| 010 | Published Date: 10/12/12 | 8 | To incorporate CR #48267 to make updates to Vegetation requirements. |
| 011 | 9/8/13 | 18-20 | Update Storm Water Pollution Prevention Plan requirements. |
| 012/U-51540 | 5/14 | 15 | Subcontractors scrap metal disposal responsibility. |
| 013/U-52247 | 8/14 | 10-11 | Bulk Fuel -Above ground Storage Tank (AST) requirements |
| 014/U-60394 | 5/19 | 6, 9, 12, 13, 14, 15, 16, 24, 25, 26 | Update requirements for changes in regulations, permits, and regulatory procedures. |

**Level of Use: Reference**

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SECTION **0**1600 – ENVIRONMENTAL PROTECTION

NOTE: This section is to be included in all contracts.

1. GENERAL REQUIREMENTS
	1. The Contractor shall provide, install, and maintain procedures, controls or other protective measures to minimize environmental pollution and damage caused by construction activities associated with this contract.
		1. Environmental pollution and damage is defined as the presence of chemical, physical or biological elements or agents which:
			1. Adversely affect human health or welfare.
			2. Unfavorably alter ecological balances of importance to human life.
			3. Affect threatened or endangered species, species of concern, or nests of birds protected by the Migratory Bird Species Act.
			4. Degrade the environment for aesthetic, cultural, or historical purposes.
		2. Control of environmental pollution and damage shall consider:
			1. The air, water, and land.
			2. Management of noise, solid waste, radiant energy, and other pollutants.
			3. Wildlife.
			4. Historical, Archaeological, and Cultural Resources.
	2. The Contractor shall comply with all Federal, State, and local regulations pertaining to the environment. This includes, but is not limited to:
		1. Water pollution.
		2. Air pollution.
		3. Noise pollution.
		4. Protection of wildlife.
	3. The Contractor shall perform weekly inspections to assure the controls and components of the plans required by this section are in place. Completion of the inspections and any corrective action(s) taken shall be documented in the Contractor’s Daily Log.
2. PROTECTION OF ENVIRONMENTAL RESOURCES
	1. Protection of land resources.
		1. Prior to start of construction, the contractor shall verify that all land resources to be preserved within the work area are identified.
			1. The Contractor shall not remove, cut, deface, injure, or destroy land resources, including trees, shrubs, vines, grasses, topsoil, and landforms, without permission from the Project Subcontract Technical Representative (PSTR).
			2. No ropes, cables, or guys shall be fastened to or attached to any tree for anchorage.
		2. Prior to the start of construction, the Contractor shall mark the areas where no work is to be performed.
			1. Isolated areas within the general work area that are to be saved shall be marked or fenced.
			2. Monuments and markers shall be protected.
			3. Markers shall be visible during darkness if construction operations are conducted during darkness.
			4. The Contractor shall inform all his personnel of the purpose for marking or protecting objects.
	2. Protection of landscape.
		1. The Contractor shall clearly identify trees, shrubs, vines, grasses, landforms, and other landscape features to be preserved. Identification methods may include marking, fencing, wooden enclosures, barricades, or other approved techniques.
		2. The Contractor shall reduce exposure of unprotected erodible soils.
		3. Earthwork brought to final grade shall be finished as indicated and specified.
		4. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading.
		5. All earthwork shall be planned and conducted to minimize the amount of unprotected soil.
		6. All earthwork shall be planned and conducted to minimize the length of time unprotected soil is exposed to wind and water erosion.
	3. Erosion and sediment control.
		1. The Contractor shall construct or install temporary storm water control measures to prevent erosion and sedimentation. Acceptable temporary control measures include, but are not limited to, berms, dikes, sedimentation basins, or bio-degradable products such as soil retention blankets, hay bales, and straw wattles. Temporary control measures shall be inspected and maintained until construction is complete.
		2. Runoff from the construction site may be controlled, diverted to protected drainage courses, or retarded by using diversion ditches, benches, and berms.
		3. Borrow areas shall be managed to minimize erosion.
		4. Bio-degradable straw wattles/logs are preferred in or around Solid Waste Management Units (SWMUs) and high runoff areas. The Contractor shall verify with the PSTR all location where the bio-degradable straw wattles/logs shall remain in place after contract completion.
	4. Stabilization of disturbed soil.
		1. Stabilization shall be initiated on disturbed areas as soon as practicable but no more than 14 days after the construction activity on this portion of the site has been temporarily or permanently ceased except:
			1. Where construction will resume within 21 days from the time when activities temporarily ceased.
			2. Stabilization cannot be initiated due to snow cover.
	5. Temporary Excavation and Embankments shall be controlled to protect adjacent areas from contamination.
	6. Solid waste, chemical waste, and discarded materials shall be disposed of in accordance with the Contractor’s approved Waste Management plan.
	7. Protection of Historical, Archaeological, and Cultural Resources.
		1. Known, existing historical, archaeological, and cultural resources within the Contractor’s work area will be identified by the PSTR.
		2. The Contractor shall take precautions to preserve all such resources in the condition existing at the time they were identified to the Contractor.
		3. The Contractor shall install and maintain protective devices as required by the PSTR. Such devices may include off-limit markings, fences, and barricades.
		4. If items of historical, archaeological, or cultural interest are discovered during construction, the Contractor shall cease work in the area and notify the PSTR immediately.
	8. The Contractor shall supervise and control construction activities to avoid pollution of surface or ground water.
	9. Protection of wildlife resources.
		1. The Contractor shall manage and control construction activities to minimize interference with or disturbance of wildlife.
		2. The Contractor shall cease work in the area and notify the PSTR immediately if a bird nest containing, or potentially containing, eggs or young is encountered during work activities.
		3. Birds cannot be prevented from tending to eggs or young, and this includes by means of physical barriers or by project activity (50 CFR 10, Migratory Bird Treaty Act).
		4. The Contractor should anticipate that delays are possible, and that the PSTR may ask them to discard nests not containing eggs or young or to prevent bird access to structures provided that active nests are not present.
		5. The Contractor shall cease work in the area and notify the PSTR immediately if a bird would be trapped in a structure by work activities.
		6. The Contractor shall have nuisance or hazardous species (e.g., rattlesnakes, skunks, etc.) removed from the area by Pantex. Contact the PSTR to arrange removal if the animal is or could impact work.
	10. Protection of air resources.
		1. The Contractor shall supervise, manage, and control construction activities, inside or outside of the project boundaries, to minimize air pollution.
		2. All equipment and processes operated by the Contractor shall be in accordance with Federal and State emission and performance laws and standards.
		3. Air pollution control techniques shall include, but are not limited to, the following:
			1. Dust particles, aerosols, and gaseous by-products from construction activities and processing and preparation of materials shall be controlled to levels permitted by law at all times; including weekends, holidays, and hours when work is not in progress.
			2. Excavations, stockpiles, haul roads, access roads, spoil areas, borrow areas, and other work areas inside or outside the job site shall be kept free of particulates which would exceed air pollution standards or create a hazard or nuisance.
			3. Hydrocarbon and carbon monoxide emissions from equipment shall be controlled to Federal and State limits at all times.
			4. Odors shall be controlled during all construction activities, processing of materials, and preparation of materials.

**NOTE: Reserve Paragraphs 2.11 thru 2.13 of this section if the project does not involve performance of routine maintenance. If you are unsure if these requirements will be applicable to your project, contact your National Environmental Policy Act (NEPA) representative.**

* 1. Requirements for routine maintenance.
		1. The Contractor is required to comply with the recordkeeping and reporting requirements necessary to provide Pantex with the necessary data required by the Texas Commission on Environmental Quality (TCEQ) or its successor agency, to demonstrate compliance with Title 30 of the Texas Administrative Code (30 TAC) §106.263 (Routine Maintenance, Start-up and Shutdown of Facilities, and Temporary Maintenance Facilities). 30 TAC §106.263 authorizes routine maintenance, start-up and shutdown of facilities, and specific temporary maintenance facilities. The activities subject to this section include:
			1. Surface cleaning of immovable, fixed structures using abrasive blasting.
			2. Surface preparation of immovable, fixed structures using solvents or other cleaning agents.
			3. Surface coating of immovable, fixed structures (including the use of adhesive agents which generate emissions from their application).
			4. Repairs and prove-in testing of engines or other internal combustion devices.
	2. Environmental record keeping requirements for routine maintenance.
		1. Chemical Material Safety Data Sheet (MSDS) for chemicals used (per requirements of Specification 1500, 1.5 (CONTRACTOR’S HAZARD COMMUNICATION PROGRAM).
		2. Quantities used.
		3. Date(s) of use.
		4. For abrasive blasting: date and duration of operations and quantities of abrasive applied.
		5. For portable generators, the manufacturer’s emission specification sheets, the dates and hours of operations.
	3. Reporting requirements for routine maintenance.
		1. MSDS copies for chemicals to be used and emission specification sheets for any stationary engine will be provided to Pantex through the submittal process prior to the start of activities, and prior to the introduction of any new chemicals to the activities.
		2. Bi-weekly written report containing information identified in Section 1.3.M to the Pantex PSTR for the previous two week period.
1. VEGETATION

NOTE: Reserve this Section if reseeding is not required for this scope of work.

* 1. Contractor shall re-seed or otherwise re-vegetate all areas denuded by construction activities associated with this contract.
	2. Before re-seeding, the Contractor shall ensure adequate topsoil and repair as needed.
	3. Unless otherwise specified, re-seed damaged or denuded areas as follows:
		1. First, the contractor shall plant (drill) a nurse crop to moisture, if possible. Planting depth will be 1 to 1.5 inches. If dry conditions exist, planting depth shall be 0.25 inches to 0.50 inches. The following schedule shall be used:
			+ Between February 1 and April 30 plant Spring Oats at the rate of 30 lbs/acre.
			+ Between May 1 and July 31 plant German Millet at the rate of 4.0 lbs/acre.
			+ Between August 1 and September 30 plant Hard Red Winter Wheat at the rate of 15 lbs/acre.
			+ Between October 1 and November 15 plant Hard Red Winter Wheat at the rate of 20 lbs/acre.
			+ Between November 15 and January 31 plant Hard Red Winter Wheat at the rate of 30 lbs/acre.
		2. A second planting of native grass mix consisting of green sprangletop, blue gramma, buffalo grass, and annual ryegrass is required. The two plantings, nurse crop and native grass mix, will be two separate planting operations but can be done consecutively back to back the same day. The native grass mix planting (drilling) depth will be 1/16 to 1/8 inches. Approximately 2/3 of the seed will be covered with soil and 1/3 will be on the soil surface. The following seed application rates are minimum:
			+ Green sprangletop = 1.0 lbs/acre.
			+ Blue gramma = 8.0 lbs/acre.
			+ Buffalo grass = 10.0 lbs/acre.
			+ Annual Ryegrass = 4.0 lbs/acre.
	4. The Contractor shall provide, install, and maintain controls to protect newly seeded areas. All projects that have denuded slope areas shall have bio-degradable soil retention blanket installed after the nurse crop and native grass mix are planted. The retention blanket shall have a minimum longevity rating of 18 months. The retention blanket shall be installed per manufacturer’s recommendations or industry guidelines.
	5. At a frequency of 4 times per week and at an application rate of approximately a half-inch of water per acre, water all newly re-seeded areas for a period of 6 weeks following re-seeding. It is preferred that water used to irrigate newly seeded areas be obtained from the Groundwater Pump and Treat System building(s). Treated water from these systems meets drinking water standards, but has not been chlorinated or disinfected in another manner. Treated water received from the pump and treat a system has been approved for surface irrigation use through TCEQ Permit No. WQ0004397000. Contractors can contact the Building Manager or Operations Manager at 477-4128 to coordinate access. Any storm event that results in greater than 0.50” of moisture within a 24-hour period will suffice as an irrigation event. Application of water within SWMUs requires prior approval by the SWMU Coordinator.
1. BULK FUEL STORAGE
	1. Aboveground Storage Tank (AST) is the responsibility of the subcontractor, contracted to perform a project(s) at Pantex.
		1. To gain approval the subcontractor may submit a request to use an AST specifying the location, management plan, and documentation of integrity testing.
		2. Bulk fuels may only be stored in Zone 10 with approved submittal. ASTs cannot exceed 1000 gallons in capacity.
		3. The AST must meet Steel Tank Institute (STI) Guideline Specifications.
		4. The AST must be a double walled and equipped with interstitial monitoring capability.
		5. The subcontractor will follow Division 1200 where applicable in regards to the AST and laydown yard.
	2. Each AST shall be uniquely identified for tracking purposes (See (STI) SP001 AST Record Checklist).
	3. The AST shall be labeled to identify the type of fuel contained in the tank.
		1. Labeling shall identify the type of fuel contained in the tank, be visible and legible, the labeling will meet Department of Transportation (DOT) standards, and be placed on each side and on each end of the tank.
		2. Labeling shall also meet applicable hazard communication, National Fire Protection Association, and Pantex specific requirements.
	4. During fueling of vehicles, equipment and when filling AST secondary containment shall be provided to prevent unanticipated releases to the ground. Secondary containment will be submitted to Subcontract Technical Representative (STR) for approval.
	5. AST inspections:
		1. The subcontractor shall inspect the bulk fuel storage system at least once every 30 days and at each use for: leaks, damage to support structures, and tank abnormalities.
		2. Interstitial monitoring results shall be evaluated no less than every thirty days.
		3. The subcontractor may use “STI SP001 Monthly/Annual Inspection Checklist” from the current Steel Tank Institute (STI) web site (http://www.ecseclipse.com/tl\_files/documents/Guidelines/SteelTankInstitute) or develop for use equivalent check list(s) approved by the STR and available upon request by Plant personnel.
		4. Damaged or leaking components of the bulk fuel storage system shall be repaired or replaced. When damage is identified that affects the bulk storage tank systems integrity or presents a threat to human health or the environment, the tank shall be emptied and repairs or replacement conducted.
		5. Inspection records including interstitial monitoring evaluation results shall be submitted to the PSTR within 10 calendar days of the inspection/evaluation.
	6. Formal inspection by a certified inspector and tank integrity testing is required every five years.
		1. These are documented inspections conducted by a certified inspector to assess the condition of the AST and determine its suitability for continued service.
		2. The inspector’s certification must be obtained from a nationally recognized organization (for example, the Steel Tank Institute).
		3. Proof of inspection within the last five years must be provided to the PSTR before an AST is brought on-site.
		4. If periodic testing must be conducted while a tank is on the Pantex site, the Tank integrity testing shall be conducted using an Environmental Protection Agency (EPA) approved method.
		5. Results of the integrity testing shall be submitted to the PSTR within 10 calendar days of test completion.
	7. Any tank determined not suitable for continued use or leaking must have its contents immediately emptied into a suitable tank (suitable for the purpose of this section means a transport tank [for transport of fuel off the Pantex site] or a tank with integrity test documentation). The tank must be repaired and integrity testing performed prior to storing fuel again. Should repairs not be conducted, the tank shall be removed from the Pantex site.
	8. If gasoline or diesel fuel is spilled, the subcontractor shall immediately stop the fueling process and contact the Emergency Services Dispatch Center at 477-3333 and Operations Center at 477-5000.
	9. At project completion, the tank shall be removed from the Pantex site.
2. SPILL RESPONSE AND NOTIFICATION
	1. The Contractor shall report all spills to the Fire Department through the Emergency Services Dispatch Center (ESDC) at 477-3333 AND the Operations Center at 477-5000.
	2. The Contractor will make an approved spill response kit available at each job site and during all heavy equipment operations. The spill response kit will include:
		1. A clean, plastic five gallon bucket labeled "Spill Kit".
		2. A piece of plastic measuring 10 feet x 10 feet for placement of contaminated soils during clean up.
		3. A shovel.
	3. The Contractor shall take immediate action to:
		1. Minimize the amount of material spilled.
		2. Dam, dike, or otherwise stop the flow of materials to reduce the environmental impact of a spill.
		3. Cleanup all materials spilled.
	4. The Contractor will follow all directions given by the Fire Department/Operations Center and the Spill Response teams.
3. WASTE MANAGEMENT
	1. The Contractor shall practice good housekeeping. The work site and associated lay down yard areas shall be kept clean and orderly with debris, scrap, and waste removed as it is created and accumulated.
	2. The Contractor shall minimize the generation of waste.
	3. Waste material shall not be removed from Pantex Plant without prior approval from the PSTR.
	4. Burning of waste is prohibited.
	5. The Contractor shall segregate waste appropriately and handle it in accordance with the Contractor Waste Management Plan and all applicable rules, orders, laws and regulations.
4. WASTE CLASSIFICATIONS
	1. Hazardous Waste is defined in 40 CFR §261.3 Resource Conservation and Recovery Act (RCRA). Examples of Hazardous Waste include, but are not limited to:
		1. Solvent or heavy metal‑contaminated solids or soils.
		2. Mineral spirits or solvents.
		3. Paint waste.
		4. Paint thinners.
		5. Acids.
		6. Used batteries.
		7. Sandblasting sand contaminated with a hazardous material.
		8. Aerosol containers.
	2. Class I Waste is defined in 30 TAC §335.1 and is regulated by TCEQ rules as posing "substantial present or potential danger to human health or the environment". It does not meet the RCRA definition of Hazardous Waste. Examples of Class I Waste include, but are not limited to waste oil, antifreeze, and asbestos.
	3. Class II Waste is defined in 30 TAC §335.1 as "any individual solid waste or combination of industrial solid waste which cannot be described as Hazardous or Class I Waste." Examples of Class II Waste include, but are not limited to paper, cardboard recyclables, plastic wrapping, and dumpster waste.
5. CONTRACTOR'S WASTE MANAGEMENT PLAN (CWMP)
	1. The Contractor shall submit, prior to construction mobilization, a project-specific CWMP to Pantex for review and approval. The Contractor shall not deviate from the approved CWMP or change the CWMP without Pantex approval.
	2. The Contractor shall modify the CWMP and submit the modifications to Pantex for review and approval in the event of:
		1. Changes in waste generation processes.
		2. Changes in the number or location of storage and accumulation sites.
		3. Changes in the type or volume of materials and waste.
		4. Changes in the schedule.
		5. Changes in the operations.
	3. The contractor may request a generic model CWMP from Waste Operations Department through the PSTR. At a minimum, the CWMP shall address the following:
		1. Scope.
		2. Waste management responsibilities.
		3. Waste minimization practices and procedures.
		4. Inventories of hazardous materials to be used including estimated quantity to be used and estimated volume of storage.
		5. Descriptions of all proposed waste streams including: hazardous constituents, characteristics, waste classification, generation processes and estimated volumes.
		6. Descriptions of proposed Hazardous Waste and Class I Waste accumulation sites including less than 55 gallons accumulation sites.
		7. Spill prevention and control plans including personnel protective equipment, equipment, response procedures, and clean‑up and mitigation.
		8. Schedule and activities for closure of the work sites.
		9. Immediate action procedures in the event a bulging drum is discovered.
		10. An estimate of the amount of excess soil to be excavated at each SWMU.
		11. An estimate of the amount of water required to decontaminate equipment at each SWMU.
6. CONTRACTOR WASTE COORDINATOR (CWC)
	1. The Contractor shall designate a CWC to:
		1. Implement the provisions of the CWMP.
		2. Assure all waste streams are properly characterized and classified for proper disposal.
		3. Request waste containers and waste disposition.
		4. Make appropriate notification in the event of spills.
		5. Perform closure of the site at completion of the contract.
7. EXCESS SOIL
	1. The Contractor is encouraged to use excess uncontaminated soil from excavations for grading and foundations where possible.
	2. Unless other arrangements are proposed by the Contractor and approved by Pantex, excess uncontaminated soils and hydro-vac slurries that are free of concrete, asphalt and debris, will be placed in a designated area in Zone 10. This area is called the Zone 10 Borrow Pit. The Contractor shall make prior arrangements with the PSTR before placing material in the Zone 10 Borrow Pit.
	3. The Contractor shall contact the PSTR prior to disposal to confirm the soils are placed in the correct location.
8. ASPHALT
	1. The Contractor shall segregate asphalt from other materials (concrete, base material, dirt, bollards, fence posts, sign posts, etc.) to the extent possible before removing it from the construction site.
	2. The Contractor shall recycle asphalt that has not been characterized as hazardous waste or unless deemed unsuitable for recycling.
	3. The Contractor shall select a firm to recycle the material and make all arrangements for recycling; including transportation of the material.
		1. The Contractor shall submit the name of the proposed recycling firm to the PSTR. The PSTR will submit the name of the recycler to Waste Operations for approval.
		2. No material shall be removed from the Pantex Plant until the recycling firm has been approved by Waste Operations.
		3. All vehicles removing recyclable material from the Pantex Plant shall be weighed at the scales located in Zone 10 before and after the vehicle is loaded to determine the weight of the material removed.
		4. The Contractor shall provide the PSTR with documentation that the material was delivered to the approved recycling firm. Documentation shall include the:
			* Construction project name.
			* Date the material was removed.
			* Type of material removed.
			* Weight of the material removed.
			* Name of the recycling firm.
	4. Asphaltic roofing material.
		1. Asphaltic roofing material and debris will be characterized as a Class II Waste.
		2. Asphaltic roofing material and debris will be disposed of at an off-site managed landfill capable of receiving this type of material. Contractor will be responsible for procuring a contract for disposal/transportation cost.
		3. The Contractor shall select a landfill and make all arrangements for disposal; including transportation of the material.
		4. The Contractor shall submit the name of the proposed landfill to the PSTR. No material shall be removed from the Pantex Plant until the landfill has been approved by Waste Operations.
		5. The Contractor shall notify the PSTR and Waste Operations Department before scheduling shipments. Waste Operations Department will provide and sign manifest for each shipment.
9. CONCRETE
	1. The Contractor shall segregate concrete from other materials (base material, dirt, bollards, fence posts, sign posts, etc.) to the extent possible before removing it from the construction site.
	2. The Contractor shall recycle all concrete that has been characterized as Uncontaminated and suitable for recycling.
	3. The Contractor shall select a firm to recycle the material and make all arrangements for recycling; including transportation of the material.
	4. The Contractor shall submit the name of the proposed recycling firm to the PSTR. No material shall be removed from Pantex Plant until the recycling firm has been approved by Waste Operations.
	5. All vehicles removing recyclable material from Pantex Plant shall be weighed at the scales located in Zone 10 before and after the vehicle is loaded to determine the weight of the material removed.
	6. The Contractor shall provide the PSTR with documentation that the material was delivered to an approved recycling firm. Documentation shall include the:
		1. Construction project name.
		2. Date the material was removed.
		3. Type of material removed.
		4. Weight of the material removed.
		5. Name of the recycling firm.
	7. All concrete washouts shall be performed at the Batch Plant or managed properly at the jobsite utilizing groundcover (plastic, etc.).
10. SCRAP WOOD
	1. Scrap wood consists of all pallets, crates and all other wood that can be shredded and reused.
	2. Scrap wood will be segregated from other materials prior to leaving the construction site.
	3. Scrap wood will be collected at a designated area within the Pantex Landfill. The Contractor will be responsible for the transportation of scrap wood to this location.
	4. Wood containing preservatives (e.g., creosotes of phenolic preservatives) will be segregated from other scrap wood and managed separately by the Contractor.
	5. No other plant trash or waste will be placed in the collection pile.
	6. Nails and other fasteners shall be removed or bent to minimize hazards when handling the material.
	7. All loads must be weighed at the scales prior to placement into Pantex collection pile.
	8. Weights must be reported to the Waste Operations Landfill Operator.
11. REFRIGERANT AND REFRIGERANT OIL
	1. The contractor shall coordinate with the PSTR to have a Pantex reclaim any refrigerant and refrigerant oil in a system prior to demolition or replacement.
	2. The contractor shall obtain a copy of the complete PX-5311 for records and verify that a copy is attached to the emptied equipment.
12. METALS
	1. Clean scrap metal that is not contaminated shall be recycled.
	2. Pantex will provide an area for recyclable metals.
	3. The contractor shall verify that any equipment that contained oil’s or refrigerants has been tagged empty and a copy of the completed PX-5311 is attached prior to delivering to the recyclable metals collection area or the material will not be accepted.
	4. The Contractor shall transport recyclable metals to the collection area.
	5. Scrap metals being removed from any radiological areas (radiation area, contamination area, Radioactive Materials Management Area (RMAA), etc.) will be documented per Radiation Safety as “Suspension Impacted Metal.” Scrap metals will be managed as non-releasable to the public for recycling. Contractor will be responsible for segregating this Suspension Impacted Metal from other non-Suspension Impacted Metals. The Contractor will be responsible for transporting all Suspension Impacted Metal to designated collection area.
	6. Scrap metals that are released by Radiation Safety and not considered “Suspension Impacted” will be transported to Zone 10 by the Contractor for final disposition by Pantex. Prior to the movement of scrap metal out of a project area to Pantex’s designated collection area, contractors must have a completed copy of the PX-4008, Waste Operations Department Scrap Metal Disposition Form.  Contact the PSTR prior to the generation and/or movement of scrap metal.
13. CHARACTERIZATION OF WASTE
	1. All waste generated during construction will be characterized and classified for proper disposal by Pantex.
14. HAZARDOUS WASTE MANAGEMENT
	1. The contractor shall coordinate all Hazardous Waste disposal through Pantex Waste Operations Department (WOD).
	2. Hazardous Waste shall be accumulated and managed at Less Than 55 Gallon Waste Accumulation Sites in accordance with 30 TAC §335.69.
	3. Waste containers will be provided by the WOD.
	4. All container labels shall be provided by WOD. Each container or drum shall be labeled with:
		1. "Hazardous Waste" labels.
		2. Waste stream and generator identifications.
		3. A container or drum identification bar code.
	5. Containers shall be stored in a closed condition with lid and bungs secure when not adding waste.
	6. Drums greater than 30 gallons shall be palletized and drums shall not be stacked.
15. LESS THAN 55 GALLON WASTE ACCUMULATION SITES
	1. Only one container per waste stream is normally allowed at each 55 Gallon Waste Accumulation Site. A second container may be allowed if one container is full and awaiting transport from the site.
	2. The Contractor shall contact WOD (573-5449) when a container has been in a site 350 days. WOD will determine if the drum needs to be released to WOD or if there will be an extension to the 1 year time limit for drums in a waste accumulation site.
	3. The Contractor shall have full containers removed within 72 hours. An accumulation start date shall be placed on the label of the full container once 55 gallons has been exceeded at the site.
	4. Each Less Than 55 Gallon waste accumulation site shall meet the following minimum criteria:
		1. Access must be controlled through the use of fences with locking gates.
		2. Secondary containment must be provided to prevent spilled or accumulated wastes contacting the ground.
		3. A minimum of 24 inches of aisle space is required around drums to permit inspection and access.
		4. Incompatible wastes shall be separated by an impermeable barrier.
		5. The following signs, legible from 25 feet, shall be posted at the entrance to accumulation site:
			* "Warning ‑ Unauthorized Personnel Keep Out".
			* "No Smoking within 25 Feet".
		6. The site must be at or near the point of generation of the waste and be under the control of the Contractor of the waste site.
	5. The Contractor shall maintain a current log of waste material and volume of waste at each waste accumulation site by using form PX-2844.
	6. The Contractor shall maintain a current log of empty containers placed in each waste drum using form PX-1447.
16. DISPOSITION OF HAZARDOUS WASTE
	1. When the waste container is full (90% volume capacity) or no more Hazardous Waste is to be accumulated in the container, the Contractor shall prepare the containers for transport. This includes, but is not limited to:
		1. Closing containers.
		2. Tightening bungs and bolts.
		3. Palletizing drums.
		4. Removing contamination from the surface of container.
		5. Including the proper documentation with the container.
		6. The Contractor shall be responsible for staging all containers scheduled for pick-up in an area suitable for loading, (i.e., level ground with easy access, etc.).
	2. The Contractor shall submit the completed PX-2844 or PX-1447 to the PSTR before requesting transport of full waste containers.
17. CLASS I WASTE MANAGEMENT
	1. The Contractor shall accumulate and manage Class I Waste in accordance with applicable regulations.
	2. Class I Waste disposal.
		1. The Contractor can request Class I Waste accumulation containers from Pantex that shall remain in Pantex control. The contractor shall comply will all Pantex requirement of Pantex controlled containment and disposal of Class I Waste.
		2. The Contractor can utilize an outside contract to provide approved collection containers, licensed transport and licensed dispose of bulk Class I Waste to an off-site managed landfill capable of receiving this type of material. Contractor will be responsible for procuring a contract for disposal/transportation cost. Certificates of disposal must be provided back to Pantex Waste Operations for each manifested shipment. The landfill utilized must be approved by the Waste Operations Department.
		3. The Contractor shall notify the PSTR and Waste Operations Department before scheduling shipments of all Class I Waste. The contractor must receive a signed manifest for each shipment from the Pantex Waste Operations Department.
	3. Each container or drum shall be labeled with "Class I Non RCRA Regulated" labels and a container or drum identification bar code provided by WOD.
	4. Class I Waste shall be accumulated and managed using care to protect employees and the environment:
		1. Impermeable barriers shall be used to separate incompatible wastes.
		2. Containers shall be stored in a closed condition with lid and bungs secure when not adding waste.
		3. Drums greater than 30 gallons shall be palletized and drums shall not be stacked.
	5. The Contractor shall maintain a current log of waste material and volume of waste at each waste accumulation site by using PX-2844.
	6. The Contractor shall maintain a current log of empty containers placed in each waste drum using form PX-1447.
18. DISPOSITION OF CLASS 1 WASTE
	1. When the waste container is full (90% volume capacity) or no more waste is to be accumulated in the container, the Contractor shall prepare the containers for transport. This includes, but is not limited to:
		1. Closing containers.
		2. Tightening bungs and bolts.
		3. Palletizing drums.
		4. Removing contamination from the surface of container.
		5. Including the proper documentation with the container.
	2. The Contractor shall submit the completed PX-2844 or PX-1447 to the PSTR before requesting transport of full waste containers.
	3. Disposal of asbestos.
		1. Contractor will be responsible for procuring a contract for disposal/ transportation cost of bulk loads of asbestos to BFI Southwest Landfill; or other approved Landfills.
		2. If an asbestos notification to the state is required by Master Spec 01500, the Contractor shall be responsible for providing a copy of the Texas Department of State Health Services (TDSHS) Asbestos Notification Form to WOD for proper waste characterization.
		3. Pantex has profiles that allow Contractors to dispose of all asbestos waste at BFI Southwest Landfill.
		4. Pantex (Waste Operations) personnel will inspect and manifest all asbestos loads.
19. CLASS II WASTE MANAGEMENT
	1. The Contractor shall dispose of Class II Waste at a landfill approved by Pantex. The Contractor shall notify the PSTR and Waste Operations Department before scheduling shipments of all Class II Waste. Waste Operations Department will provide and sign a manifest for each shipment.
	2. The Contractor shall provide all Class II Waste collection containers.
	3. The Contractor shall accumulate Class II Waste in collection containers.
	4. The Contractor may subcontract a reputable organization to provide containers and transport all Class II waste off‑site.
	5. WOD can provide the Contractor with Class II commercial dumpsters to collect approved plant trash (e.g., office trash, packing material, etc.). The Contractor shall inspect Class II commercial dumpsters weekly to prevent unauthorized collection of materials in the commercial dumpsters. WOD will be responsible for the empting and transporting of dumpster waste.
20. SOLID WASTE MANAGEMENT UNITS (SWMU)
	1. Pantex WOD will classify the soil in a SWMU as either:
		1. Hazardous Waste.
		2. Class I Waste.
		3. Class II Waste.
		4. Analysis Pending.
	2. Pantex will coordinate with the State of Texas to:
		1. Approve the disposition of the excess soil excavated from SWMUs.
		2. Determine the type of container required for excess soil excavated from SWMUs.
	3. Excavated SWMU soils shall be placed back into the excavation where it was generated whenever possible.
	4. Excess soils that have been characterized as Class II and meet landfill waste acceptance criteria will be placed in the Environmental Landfill at the Pantex Plant. The Contractor shall contact the PSTR for specific directions for this process.
	5. Equipment Decontamination:
		1. The Contractor shall decontaminate all equipment to applicable release limits or less before removing it from the SWMU.
		2. Dry decontamination must be used whenever possible. If water must be used to decontaminate equipment, it shall be placed in containers and labeled according to the classification of the soil in the SWMU.
21. SITE CLOSURE
	1. The Contractor shall close laydown areas and waste accumulation sites by:
		1. Cleaning and decontaminating the area.
		2. Providing documentation of spills or clean up during the construction project.
		3. Assuring all waste containers have been properly removed from the construction site.
	2. The Contractor shall notify Pantex 5 working days prior to closure of the work site. Notification shall include the number of:
		1. Hazardous materials storage areas.
		2. Waste accumulation sites.
		3. Empty drum storage areas.
		4. Containers at each area.
	3. Pantex shall inspect and approve closure.
22. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Note: Reserve This Section if the scope does not meet the requirements listed below, no SWPPP is required.

* 1. The Contractor must submit to Pantex a SWPPP if any of the conditions below apply to this contract:
		1. Disturbing or exposing soil of a single area 1 acre or more in size.
		2. Disturbing or exposing soil in a combination of areas totaling 1 acre or more in size.
	2. The Contractor shall comply with all requirements specified in Texas Pollutant Discharge Elimination System (TPDES) General Permit for Storm Water Discharges for Construction Activities (Permit No. TXR150000) issued by the TCEQ.
	3. The Contractor shall use the Pantex “Storm Water Pollution Prevention Plan”
	(TMP-0063), as the SWPPP for their construction projects.
	4. The Contractor shall incorporate project-specific information into the Pantex SWPPP including required site maps as specified in TPDES General Permit No. TXR150000.
	5. The SWPPP shall be:
		1. Consistent with and identify the actions taken for compliance with Sections 2.1 through 2.5 and Section 3 of this contract.
		2. Tailored to the site-specific conditions.
		3. Designed to control the amount of pollutants, including sediment, in water discharged from the construction site.
		4. Approved, by signature of the SWPPP by Pantex Environmental Compliance Department manager or designee before the Notice of Intent (NOI), if required, is submitted to the TCEQ and before construction activity begins.
		5. Changes to the scope of work that exceed the boundaries of the SWPPP shall require the Contractor to modify and obtain approval of the revised SWPPP.
1. CONSTRUCTION SITE INSPECTIONS
	1. The Contractor shall inspect the construction site weekly as described in TPDES General Permit No. TXR150000 issued by the TCEQ.
	2. The inspection shall address:
		1. All areas where soil has been disturbed.
		2. Material storage areas.
		3. Construction site entrance/egress.
		4. All erosion and sediment controls identified in the SWPPP.
	3. The Contractor shall provide documentation (PX-5736 signed by inspector and by Responsible Person) of each inspection to the PSTR no later than 5 working days from the day of the inspection.
2. MAINTENANCE OF CONTROLS
	1. All erosion and sediment controls identified in the SWPPP must be installed and maintained according to the manufacturer’s specifications until possession of the facility has been transferred to Pantex.
	2. When the weekly inspection identifies that any erosion or control feature is not functioning as designed, the Contractor will take immediate steps to remediate the issue.
3. RECORD KEEPING
	1. The Contractor shall maintain records of all:
		1. Site inspections.
		2. Maintenance and repairs to control measures either as a result of required inspections or from observation of daily activities.
		3. Dates when major grading activities occurred.
		4. Dates when construction starts and stops.
		5. Dates when the area is stabilized.
	2. All records shall be kept with the SWPPP for at least three years after final stabilization is achieved. Final stabilization is achieved when all soil disturbing activities at the site have been completed and one of the following conditions is met:
		1. A uniform perennial vegetative cover having a density of at least 70% of the native background vegetative cover is established in all areas not covered with pavement, concrete, or permanent structures.
		2. Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
		3. Cultivated land is returned to its original grade and pre-construction condition.
4. REFERENCES
	1. GOVERNING DOCUMENTS
		* 1. <https://pxweb.uad.pxplant.com/RMS/ReqFlowdown.jsp?docno=DIV-01600>
	2. AUTHORIZING DOCUMENTS
		* 1. DIR-0001, “Roles and Responsibilities for the Management and Operation of Pantex Plant”
	3. RELATED DOCUMENTS
		* 1. None
	4. GENERATED DOCUMENTS
		* 1. PX-1447, “Drum Inventory of Empty Containers”
			2. PX-2844, “Inventory of Container at Waste Accumulation Site”
			3. PX-4008, “(U) Waste Operations Department Scrap Metal Disposition Form”
			4. PX-5311, “Refrigerant Service Order Form”
			5. PX-5736, “Construction - Storm Water Inspection Report”
			6. TMP-0063, “Storm Water Pollution Prevention Plan”
	5. RECORDS
		* 1. PX-1447, “Drum Inventory of Empty Containers” R\_026848
			2. PX-2844, “Inventory of Container at Waste Accumulation Site” R\_026848
			3. PX-4008, “(U) Waste Operations Department Scrap Metal Disposition Form” R\_026815
			4. PX-5311, “Refrigerant Service Order Form” R\_026617
			5. PX-5736, “Construction - Storm Water Inspection Report” R\_105700
			6. TMP-0063,”Storm Water Pollution Prevention Plan” , R\_024301
			7. Contractor Daily Logs, R\_024301
			8. Contractor Waste Management Plan, R\_024301

**END OF SECTION 01600**

**EXHIBIT 1**

**PX-1447, “Drum Inventory of Empty Containers”**

**USE MOST CURRENT ISSUE**

**EXHIBIT 2**

**PX-2844, “Inventory of Container at Waste Accumulation Site”**

**USE MOST CURRENT ISSUE**

**EXHIBIT 3**

**PX-5311, “Refrigerant Service Order Form”**

**USE MOST CURRENT ISSUE**

**EXHIBIT 4**

**PX-5736, “Construction - Storm Water Inspection Report”**

**USE MOST CURRENT ISSUE**

**EXHIBIT 5**

**TMP-0063 “Storm Water Pollution Prevention Plan”**

**USE MOST CURRENT ISSUE**