

Procurement Specification/Statement of Work Cover Sheet

Proc. Ref. E7, 2.14

1. Title Decommissioning of Building 233-23H, RTF Warehouse, and Building 233-24H, Maintenance Shop			
2. Specification No. G-SOW-H-00298	3. Revision 0	4. Page 1 of 26	
5. Functional Classification GS	6. Requester Department EC&ACP	7. Requester Division M&O	
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1.0 SCOPE

1.1 General Description

1.1.1 Summary

- 1.1.1.1 Provide labor, materials, and services required for the Decommissioning of Building 233-23H, Replacement Tritium Facility (RTF) Warehouse, and Building 233-24H, Maintenance Shop as defined in the procurement documentation including this Statement of Work (SOW).

1.2 General Description of Services

- 1.2.1 This SOW describes the activities required for the safe Decommissioning of Buildings 233-23H, RTF Warehouse, and 233-24H, Maintenance Shop.
- 1.2.2 The work to be performed includes demolishing, removing, and disposing of the buildings and all associated appurtenances (such as Heating, Ventilation and Air Conditioning (HVAC) units, ductwork, etc.) as described herein.
- 1.2.3 The proposed decommissioning end-state for Building 233-23H, RTF Warehouse, and Building 233-24H, Maintenance Shop, which have no defined or anticipated future missions, is to "Demolish" to, but not including, the buildings' concrete slabs and removal from the site. **Note:** The existing 233-23H and 233-24H buildings are to later be replaced by new facilities in the same approximate location in support of the Tritium Finishing Facility (TFF) project. Design and/or construction of the new facilities is outside the scope of this SOW.

1.3 Facility Description

- 1.3.1 **Building 233-23H** is located in the center of the Savannah River Site (SRS) near the northeast corner of Savannah River Tritium Enterprise (SRTE) area of the SRS's H-Area, 20'-0' north of and parallel to Building 233-24H (see Attachment 5.1 Photos and Drawings, Figures 1 - 5).
- 1.3.1.1 Building 233-23H is listed in the Shared Site Structures Database as "RTF Warehouse" and was erected in 2000. The single-story building has a footprint of 3,800 ft² (95'-0" long x 40'-0" wide x 18'-6" eave height) with concrete foundation/floor slab, pre-engineered structural steel frame, and painted corrugated metal panel exterior walls and roof.
- 1.3.1.2 The building is a "clean" facility. It was constructed for and since has been used for clean warehouse storage of consumables, spare parts, and repairables (such as pressure relief valves).
- 1.3.1.3 The interior is a large, single rectangular room with no interior partitions. The floor is bare concrete throughout the facility.
- 1.3.1.4 The building has two 3'-0" x 7'-0" hollow metal steel doors in the south wall and one 10'-0" x 14'-0" electrically operated aluminum rollup door in the north wall.
- 1.3.1.5 The building's exterior 18'-6" walls are insulated with vinyl faced fiberglass insulation.
- 1.3.1.6 There are no HVAC unit(s), but there are two 7.5 KW electric unit heaters located diagonally across from each other in the northwest and southeast corners of the building suspended from the roof purlins. A small 1000 CFM electric exhaust fan is mounted in the east wall.

1.3 Facility Description (Continued)

- 1.3.1.7 A wet sprinkler system riser enters the building from beneath the floor slab in the southeast corner of the building. The sprinkler system contains 44 sprinkler heads suspended 4" below the roof purlins.
- 1.3.1.8 The building contains no sumps, pits, or drains.
- 1.3.1.9 The building is no longer occupied. Contents of the warehouse (storage racks, shelving, consumables, spare parts, repairables, etc.) have been moved out of the facility in preparation for building decommissioning.
- 1.3.1.10 Building services (i.e., Public Address, telecommunications, electrical, Fire Water, and Fire Alarm) have been air-gapped to render the facility isolated/"cold and dark" in preparation for facility decommissioning.
- 1.3.1.11 Other sources/forms of hazardous energy have also been removed or isolated from the building in preparation for facility demolition.
- 1.3.2 **Building 233-24H** is located in the center of the SRS near the northeast corner of the SRTE area of the SRS's H-Area, 20'-0" south of and parallel to 233-23H (see Attachment 5.1 Photos and Drawings, Figures 6 - 9).
 - 1.3.2.1 Building 233-24H is listed in the Shared Site Structures Database as "Maintenance Shop" and was erected in 2000. The single-story building has a footprint of 3,800 ft² (95'-0" long x 40'-0" wide x 16'-0" eave height) with concrete foundation/floor slab, pre-engineered structural steel frame, and painted corrugated metal panel exterior walls and roof.
 - 1.3.2.2 The building is a "clean" facility. Although called Maintenance Shop, the building was originally designed and constructed to be a maintenance training facility. Due to a need for additional warehouse storage, the building was re-purposed and has been used as a clean warehouse for sensitive spare parts storage.
 - 1.3.2.3 The interior is comprised of three spaces. A 17'-4" x 10'-0" conference room is located on the west end and contains Vidmar® cabinets for small parts storage. A 10'-0" x 10'-0" telecommunications room is located in the northeast corner and still serves its original design purpose. The third space is the remaining large open area at the building's center, originally designed for maintenance training, but has been used for sensitive spare parts storage. The floor is bare concrete throughout the facility.
 - 1.3.2.4 The building has five 3'-0" x 7'-0" hollow metal steel doors (two in the north exterior wall, one in the south exterior wall, two interior), and one 12'-0" x 14'-0" electrically operated steel rollup door in the north wall.
 - 1.3.2.5 The building's exterior 16'-0" walls are insulated with vinyl faced fiberglass insulation. The interior walls are nail-able steel studs faced with gypsum board extending to the underside of the building's roof deck.
 - 1.3.2.6 There is one HVAC unit, a packaged 90,000 BTU heat pump, located outside the building's south wall on a concrete equipment pad. There is one electric exhaust fan located in the telecommunications room mounted in the east wall.
 - 1.3.2.7 The Thermal System Insulation (TSI) on the exterior ductwork has a fiberglass lining on the interior of the duct. On the interior of the building the duct is suspended from the upper structural members and has TSI finished with Foil Skim Kraft (FSK) paper.
 - 1.3.2.8 A wet sprinkler system riser enters the building from beneath the floor slab on the east side of the building. The sprinkler system contains 33 sprinkler heads suspended 4" below the roof purlins.
 - 1.3.2.9 The building contains no sumps, pits, or drains.

1.3 Facility Description (Continued)

- 1.3.2.10 The building is no longer occupied. Contents of the warehouse (storage racks, shelving, consumables, spare parts, repairables, etc.) have been moved out of the facility in preparation for building decommissioning.
- 1.3.2.11 Building services (i.e., Public Address, telecommunications, electrical, Fire Water, and Fire Alarm) have been air-gapped to render the facility isolated/"cold and dark" in preparation for facility decommissioning.
- 1.3.2.12 Other sources/forms of hazardous energy have also been removed or isolated from the building in preparation for facility demolition.

1.4 Facility Condition

1.4.1 Buildings 233-23H and 233-24H

- 1.4.1.1 Based on visual inspections on December 2, 2020, both structures are in good condition and do not pose a potential for unplanned partial or total collapse for the duration of decommissioning activities. (Reference 2.4.2.4)
- 1.4.1.2 Prior to demolition, Buildings 233-23H and 233-24H shall be disconnected from any associated utilities (mechanical and electrical) and verified isolated in accordance with Employee Safety Manual 8Q, Procedure 121, Rev. 4, "Out of Commission (OOC) Process", Reference 5.10.
- 1.4.1.3 There are no overhead electrical lines that can interfere with the demolition of these buildings.
- 1.4.1.4 A revalidation of the asbestos report conducted in 2013 for 233-23H was performed October 7, 2019 and revised on November 11, 2020 to correct the construction data and square footage (Reference 2.4.2.1). On November 11, 2020, an inspection was performed on 233-24H to revalidate the 2013 asbestos report for that building (Reference 2.4.2.2). The results of both those revalidations were negative for asbestos containing materials (ACMs).
- 1.4.1.5 All underground utilities are buried deep enough that the equipment may safely operate over them.
- 1.4.1.6 Figures 1, 5 and 6 in Reference 2.4.2.4 show an approximately 4' deep manhole containing an electrical raceway and electrical cables that run parallel to and between the two buildings, and then south from the raceway under 233-24H to the cooling tower. The manhole is accessed by a lightweight aluminum cover. All efforts should be exercised to demolish or dismantle the buildings without damaging the manhole and its contents. Due to this manhole having an active electrical feed from 233-23H and an active drain line from the sump to the drainage ditch, TFF may have to reroute the drainage line and electrical feed prior to demolition of the buildings to insure they do not present an interference to the demolition process.

2.0 REFERENCES

2.1 Definitions

2.1.1 Acronyms

ACM	Asbestos Containing Material
BMP	Best Management Practice
C&D	Cold and Dark
CFR	Code of Federal Regulations

2.1 Definitions (Continued)

CLSM	Controlled Low Strength Material
CMC	Commercial Metal Company
DOE	Department of Energy
D&D	Deactivation & Decommissioning
EC&ACP	Environmental Compliance and Area Completion Projects
EDR	Engineering Document Requirements
FAI	Final Acceptance Inspection
FPP	Fire Protection Plan
ft ²	Square Feet
GCO	Generator Certification Official (for SRS waste)
GET	General Employee Training
HSO	Health and Safety Officer
HVAC	Heating Ventilation and Air Conditioning
in.	inch, inches
KW	kilowatt
NCR	Non-Conformance Report
OOC	Out of Commission
OSHA	Occupational Safety and Health Administration
PO	Purchase Order
PDF	portable document format
PHSS	Packaging, Handling, Shipping, and Storage Requirements (PHSS)
RTF	Replacement Tritium Facility
S.C.	(State of) South Carolina
SCDHEC	South Carolina Department of Health and Environmental Control
SDDR	Supplier Deviation Disposition Request
SOW	Statement of Work
SRNS	Savannah River Nuclear Solutions
SRS	Savannah River Site
STR	Subcontract Technical Representative
TSP	Task Specific Plan
WIF	Waste Identification Form
WPP	Worker Protection Plan

2.1.2 Terms

- 2.1.2.1 Administrative Hold Point: A designated verification beyond which work does not proceed until verification is performed and documented by a Subcontract Technical Representative.
- 2.1.2.2 Repro: Reproducible paper copy.
- 2.1.2.3 Verification: The act of reviewing, inspecting, testing, checking, auditing, or otherwise determining and documenting whether items, processes, services, or documents conform to specified requirements.

2.1 Definitions (Continued)

- 2.1.2.4 Competent Person: One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsafe, unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them - usually also identified as "Qualified" (29 CFR 1926.32 incl.1101).
- 2.1.2.5 Qualified (Person): One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.
- 2.1.2.6 Engineering Survey/Report: The Subcontractor shall be required to prepare an engineering survey/report that outlines the methods, equipment to be used and sequence of events for all demolition and removal activities, including but not limited to asbestos abatement, removal and placement in supplied containers of all recyclables, removal and handling of any hazardous materials, segregation, appropriate size reduction and disposition of all materials, etc. Also include as a minimum a proposed layout/location for office trailers, toilet facilities, equipment staging area, material staging areas, etc. A competent (qualified) person shall perform the survey.
- 2.1.2.7 Facility: Any building, structure, or other improvement to real property including their functional systems and equipment; site development features such as landscaping, roads, walks, and parking areas; outside lighting and communications systems; central utility plants; utility supply and distribution systems; and other physical plant features. For purposes of this SOW, this facility consists of the structure, appurtenances, etc. identified within the body of this SOW and Attachment A.

2.2 Codes / Standards

2.2.1 General

- 2.2.1.1 Use the edition in effect at date of contract award unless noted otherwise.
- A. Material standard editions dated within the previous 10 years from the date of contract award are acceptable.
- 2.2.1.2 Obtain SRNS acceptance for Codes / Standards not required by this SOW prior to use.
- 2.2.1.3 Obtain SRNS acceptance for editions and/or addenda of Codes / Standards not specifically authorized by this SOW prior to use.

2.3 Orders / Regulations

2.3.1 Regulations

- 2.3.1.1 10 CFR 851 – Worker Safety and Health Program
- 2.3.1.2 29 CFR 1910 – Occupational Safety and Health Standards
- 2.3.1.3 29 CFR 1926 – Safety and Health Regulations for Construction
- A. 29 CFR 1926 Subpart T – Demolition
- B. 29 CFR, 1926.32, 1101 (Labor, Definitions), including Subpart Z, Asbestos
- 2.3.1.4 40 CFR Part 61.145 Standard for Demolition and Renovation
- 2.3.1.5 S.C. Reg. 61-107.19, Solid Waste Landfill Regulation”
- 2.3.1.6 SCDHEC Stormwater Management BMP Handbook, (2006)

1.3 Orders / Regulations (Continued)

Notes: This SOW is based on codes and standards with a date of issue that is current on the date proposals are received, unless noted otherwise. The use of any other edition, addenda, revision or issue requires SRNS concurrence before use.

Drawings listed in Section 2.4.1 are intended to assist the Subcontractor in planning his work and provide a better understanding of the building and its associated equipment/layout.

2.4 SRNS Documents

2.4.1 Drawings (for Subcontractor reference).

- 2.4.1.1 A-A2-H-07837, Building 233-23H Tritium Facility Floor Plan (U)
- 2.4.1.2 A-A2-H-07838, Building 233-24H Tritium Facility Floor Plan (U)
- 2.4.1.3 VPF QB00299K-000007, CLWR – Tritium Extraction Facility, Building 233-23H, Concrete Slab and Foundation Plan
- 2.4.1.4 VPF QB00299K-000008, CLWR – Tritium Extraction Facility, Building 233-24H, Concrete Slab and Foundation Plan
- 2.4.1.5 VPF QB00299K-000009, CLWR – Tritium Extraction Facility, Building 247-H, 233-23H & 233-24H, Concrete Sections and Details
- 2.4.1.6 VPF QB00299K-000086, Building 233-23H, Tritium Facility, Roof Plan & Details
- 2.4.1.7 VPF QB00299K-000087, Buildings 233-24H & 247-H, Tritium Facility, Reflected Ceiling Plans & Roof Plans
- 2.4.1.8 VPF QB00299K-000088, Buildings 233-23H, 233-24H & 247-H, Tritium Facility, Building Sections
- 2.4.1.9 VPF QB00299K-000089, Buildings 233-23H, 233-24H & 247-H, Tritium Facility, Wall Sections & Wall Types
- 2.4.1.10 VPF QB00299K-000090, Building 233-23H, Tritium Facility, Building Elevations
- 2.4.1.11 VPF QB00299K-000091, Building 233-24H, Tritium Facility, Building Elevations
- 2.4.1.12 VPF QB00299K-000102, Building 233-23H, Tritium Facility, HVAC Plan
- 2.4.1.13 VPF QB00299K-000103, Building 233-24H, Tritium Facility, HVAC Plan
- 2.4.1.14 VPF QB00299K-000104, Building 233-233H, 233-24H, 247-H, Tritium Facility, HVAC Legend, Schedules & Details
- 2.4.1.15 VPF QB00299K-000024, Metal Building Shop Drawings for 233-23H
- 2.4.1.16 VPF QB00299K-000022, Metal Building Shop Drawings for 233-24H
- 2.4.1.17 VPF QB00299K-000070, HVAC Operations & Maintenance Manual
- 2.4.1.18 VPF QB00299K-000071, Overhead Door Operations & Maintenance Manual
- 2.4.1.19 VPF QB00299K-000051, Overhead Coiling Door
- 2.4.1.20 C-CT-H-7879, CLWR – Tritium Extraction Facility, Replacement Buildings, Miscellaneous Civil Details, Sheet 1 of 2
- 2.4.1.21 C-CT-H-7880, CLWR – Tritium Extraction Facility, Replacement Buildings, Miscellaneous Civil Details, Sheet 2 of 2
- 2.4.1.22 C-CT-H-7868, CLWR – Tritium Extraction Facility, Tritium North East Corner Site Plan
- 2.4.1.23 C-CY-H-0071, CLWR – Tritium Extraction Facility, Tritium North East Corner Site Utilities Plan

2.4 SRNS Documents (Continued)

2.4.2 Documents

- 2.4.2.1 Q-APG-H-00015, Rev. 1, dated Nov. 12, 2020, "Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report Of 233-23H"
- 2.4.2.2 Q-APG-H-00080, Rev. 0, dated Nov. 11, 2020, "Environmental Compliance & Area Completion Projects Revalidation Asbestos Inspection Report Of 233-24H"
- 2.4.2.3 V-PMP-H-00044, Rev. 0, dated January 28, 2021, "Decommissioning End Points Document Building 233-23H, RTF Warehouse, and 233-24H, Maintenance Shop"
- 2.4.2.4 Q-SDD-H-00002, Rev. 0, dated January 28, 2021, "Engineering Survey and Interference Report for Building 233-23H, RTF Warehouse, and Building 233-24H, Maintenance Shop"
- 2.4.2.5 SDD-2005-00170, Rev. 2, dated October 22, 2020, "Environmental Compliance and Area Completion Projects (EC&ACP) Deactivation and Decommissioning (D&D) Policy on Decommissioning End Points for Slabs, Pits, Basements and Basins (U)"
- 2.4.2.6 OSR 45-4 Supplier Deviation Disposition Request (SDDR),
 - A. With Instructions
- 2.4.2.7 SRNS-T0000-2020-00218, dated August 13, 2020, "Waste Identification Form, Building ID: 233-22H"

3.0 WORK REQUIREMENTS

3.1 General Scope

- 3.1.1 Employ all measures as required to protect personnel and the environment during the performance of this work.
 - 3.1.1.1 Prescriptive worker safety requirements are identified in 29 CFR 1926.
 - 3.1.1.2 Provide all management, supervision, labor, materials, tools, equipment, and services required for the completion of this SOW.
 - 3.1.1.3 Work shall be performed in accordance with all applicable OSHA, SCDHEC and S.C. construction/demolition regulations and codes.
 - 3.1.1.4 SRNS furnished material, equipment, services
 - A. SRS specific requirements for Subcontractor work on SRS site in accordance with Special Provisions / Field Conditions which may include:
 - 1. General Employee Training (GET)
 - 2. Emergency Response Briefing
 - 3. Site Badging
 - 4. Site Clearance Permit
 - 5. ACP Waste Generator/Waste Verifier Training and Area Specific Training
 - B. Containers/roll-off pans for disposition of all recyclable materials.
 - C. STR will provide OSR Form 4-356s for shipments of recyclable materials.
 - D. Special Waste Manifests/Worksheets for the disposition of special waste materials to the Three Rivers Landfill.
 - E. Asbestos project design/management services to represent SRNS for the duration of Building 233-23H and Building 233-24H demolition, if any asbestos containing material (ACM) or presumed asbestos containing material (PACM) is subsequently identified during performance of this subcontract.

3.1 General Scope (Continued)

- F. Containers/roll-off pans, skid pans, and trucks for collection, transportation, and disposal of waste materials and debris to the C&D Landfill or Three Rivers Landfill as directed per Reference 2.4.2.7 (WIF).
 - G. Work completed prior to Subcontractor mobilization shall include:
 - 1. Mechanical and electrical isolations (i.e., air-gapped) and other sources of hazardous energy removed or isolated rendering Building 233-23H and Building 233-24H Out of Commission (OOC)/Cold and Dark
 - 2. Isolation, relocation and/or elimination of all power/communication systems to/from the buildings.
 - 3. Removal and disposal of all Lead Acid Battery and Mercury switches prior to the award of subcontract.
 - 4. Asbestos inspections of the structure, equipment, pipes, etc. prior to award of subcontract (Reference 2.4.2.1 and Reference 2.4.2.2).
 - 5. Design, relocation, and rework, as necessary, of the fence system and entrance to the demolition area to allow the subcontractor access to the buildings/area without the constraints of a Controlled Access Area.
 - 6. Removal of Universal & Special Wastes (i.e., light bulbs, ballasts, thermostats, etc.)
 - H. As-built the final Demolition configuration and closure of the Site Clearance Permit for Building 233-23H and Building 233-24H.
- 3.1.1.5 Subcontractor furnished material, equipment, and/or services
- A. Generators, as needed, qualified to site requirements
 - B. Tools, equipment, and consumables for non-radiological demolition work
 - C. Portable toilets for work location
 - D. Worker break/change facilities
 - E. All required personal protective safety equipment
 - F. All other required safety equipment
 - G. Prepare an Engineering Survey (Section 2.1.2.6) as required by 29 CFR 1926, Subpart T, for inclusion in the Subcontractor's Worker Protection Plan (Reference 3.1.1.7.G)
- 3.1.1.6 Prepare and submit a Fire Protection Plan (FPP) that defines and establishes the process and program for protecting life and property from fire during demolition operations.
- A. The FPP shall outline the assignments of key personnel in the event of a fire and provide an evacuation plan for workers on the site.
 - B. The FPP may be included in the Worker Protection Plan (WPP) and shall consider requirements, programs and life safety plans already in place as well as adherence to all applicable OSHA guidelines.
 - C. Work shall be performed in accordance with the approved and accepted FPP.
 - 1. Where guidelines are or may be in conflict, the strictest criteria shall apply.
 - D. The FPP shall specifically address and include as a minimum the following:
 - 1. Implementation of 29 CFR 1926 requirements.
 - 2. Use of and adherence to S.C. Reg. 61-107.19
 - 3. Control of exits in and around the facilities.

3.1 General Scope (Continued)

4. Control of transient combustibles (wood, paper, plastic, oily rags, etc.).
 5. Control of flammable/combustible liquids.
 6. Temporary enclosures – self-extinguishing polyethylene.
 7. Temporary barricades.
 8. Use/refueling of internal combustion engines.
 9. No Smoking inside the Tritium exclusion area fence. Smoking allowed only outside the Tritium exclusion area fence only in designated smoking areas.
 10. Temporary lighting.
 11. Maintenance of access around the buildings for firefighting purposes
 12. Hot work operations:
 - a. Generate and submit a Hot Work Permit Procedure.
 - b. Notify the SRNS STR that the permit is in place prior to beginning hot work.
- 3.1.1.7 Prepare a Worker Protection Plan (WPP) and submit for the demolition of Building 233-23H and Building 233-24H and all associated appurtenances as described herein. (see Section 1.3)
- A. The WPP shall cover the entire scope of field activities, potential hazards and describe the measures to be implemented to safeguard the health and welfare of workers in these demolition efforts.
 - B. As noted in 3.1.1.6.B, the WPP may also include the FPP.
 - C. No work will be allowed to start until WPPs have been reviewed and accepted by SRNS.
 - D. Include WPPs for the Subcontractor and any Sub-tier Subcontractors (if not covered by the Subcontractor's WPP) completely describing all measures in place to ensure the safety and wellbeing of those involved in these demolition activities.
 - E. Work shall be performed in accordance with approved and accepted WPPs.
 - F. Describe the implementation requirements of 10 CFR 851, 29 CFR 1910 and 29 CFR 1926 for this scope.
 - G. Include the Engineering Survey required by 29 CFR 1926, Subpart T.
 - H. Proposed location(s) for parking individual workers' vehicles.
 - I. Proposed location(s) for lay-down and material sorting/segregating areas.
 - J. Proposed areas for loading SRNS supplied skip pans, containers, trucks, etc.
- 3.1.1.8 Prepare and submit Task Specific Plans (TSPs) including any other safety and health provisions described in this SOW as necessary for each specific task/job.
- A. No task work will be allowed to start until TSPs have been reviewed and accepted by SRNS.
 - B. Include TSPs for the Subcontractor and any Sub-tier Subcontractors that describe in detail how each aspect of the work by the performing entity will be handled.
 - C. TSP shall demonstrate how the Decommissioning End Points Document (Reference 2.4.2.3) requirements shall be met.
 - D. Work shall be performed in accordance with SRNS approved and accepted TSPs

3.1 General Scope (Continued)

- 3.1.1.9 Verify the existing physical conditions, utilities, dimensions and details affecting the work in each area/site of this project.
- 3.1.1.10 Prepare a Demolition Plan and Activities Schedule which identifies in detail the step-by-step activities associated with the demolition of Building 233-23H and Building 233-24H including, but not limited to:
 - A. Mobilization/demobilization
 - B. Staffing level to meet project schedule
 - C. Removal, collection, and packaging for transportation and final disposition of materials identified by the WIF. (Reference 2.4.2.7).
 - D. No work or demolition activities shall start until the Demolition Plan and Activities Schedule has been reviewed and accepted by SRNS
- 3.1.1.11 Inform the SRNS STR immediately of any spills or releases to the environment (air, water, soil, pads, pavement, etc.), regardless of amount.
 - A. STR will provide guidelines for any required remedial action.
 - B. Subcontractor is responsible for performing remedial actions.
- 3.1.1.12 Install sediment control Best Management Practice (BMP) as required around storm water drainage system prior to starting any demolition activities.
 - A. Prepare and submit placement, sizing and modifications of Sediment Control BMPs. Additional information on the design and proper use of Sediment Control BMPs can be found in SCDHEC Stormwater Management BMP Handbook.
 - B. BMP Description:
 - 1. Inlet protection is achieved by placing a temporary filtering device around any inlet to trap sediment.
 - 2. The mechanism shall prevent sediment from entering inlet structures.
 - C. Inspect/document every 7 calendar days and after a storm event of 0.5 inch or greater.
 - D. Remove accumulated sediment once it reaches 1/3 the height of the inlet filter.
 - E. Sediment tubes may be installed in conjunction with or in place of a silt fence to provide additional protection to the storm water system.
- 3.1.1.13 Obtain demolition permit as required by South Carolina Department of Health and Environmental Control (SCDHEC) Codes and Regulations, SC Reg. R61-86.1, Section V for Building 233-23H and Building 233-24H.
 - A. In accordance with 40 CFR Part 61.145 permit shall be requested at least ten (10) working days before any demolition begins.
 - B. Submit two (2) copies of the SCDHEC approved demolition permit to SRNS.
- 3.1.1.14 All demolition work shall be performed, as a minimum, in compliance with 29 CFR 1926, Subpart T.
- 3.1.1.15 Work shall be performed in accordance with all applicable OSHA and S.C. construction/demolition regulations, codes, permits and guidelines.
- 3.1.1.16 Implement waste management requirements to handle, segregate, package, and containerize waste materials as directed by the SRNS GCO and described in ACP Waste Generator/Waste Verifier Training and Area Specific Training.
- 3.1.1.17 Submit copies of the Three Rivers Sanitary Landfill scale ticket for each waste shipment to the Three Rivers Sanitary Landfill.

3.1 General Scope (Continued)

- 3.1.1.18 Building demolition shall be accomplished using heavy equipment and/or hand demolition as necessary or as identified and approved in TSPs.
- 3.1.1.19 All demolition work shall be planned and supervised by a "Competent Person".
 - A. This person shall ensure an engineering survey of the building and associated appurtenances listed in Attachment A is performed.
 - B. Submit a copy of the Engineering Survey(s).
 - C. This survey does not require Subcontractor to prepare any drawings.
- 3.1.1.20 Demolish, remove and dispose of Buildings 233-23H and 233-24H (excluding the buildings' concrete floor slabs). Also include all above ground equipment as described in the body of this SOW and as shown in the Attachment A photos in accordance with SRNS approved document V-PMP-H-00044, Decommissioning End Points Document Building 233-23H, RTF Warehouse, and 233-24H, Maintenance Shop, (Reference 2.4.2.3) including all applicable SRS, Federal, State, and local rules and regulations and in accordance with the WIF (Reference 2.4.2.7).
- 3.1.1.21 Recycling containers for scrap metal will be provided by SRNS via the Commercial Metal Company (CMC) which has a recycling contract with SRNS.
- 3.1.1.22 Ensure the buildings' slabs are free of all debris and floor coverings (carpet, vinyl tile, etc.) at conclusion of demolition activities
- 3.1.1.23 Ensure all penetrations have been cut flush with the top of the floor slabs or associated ground, as applicable, and are plugged and filled with a cementitious material (e.g. grout, concrete, CLSM, etc.)
- 3.1.1.24 Ensure all protrusions (anchor bolts, etc.) are cut flush with the top of concrete or grade, as applicable, where equipment, supports, etc. are removed.
- 3.1.1.25 Any curbing remaining on the building slabs or areas around the buildings shall be breached or cleaved at as many locations as necessary to ensure drainage of rainwater.
- 3.1.1.26 Minimize interference with other personnel, roads, streets, fencing, utilities, parking, adjacent buildings, etc. during all demolition activities and CLSM/grout activities at Building 233-23H and Building 233-24H.
- 3.1.1.27 Work area is not an exclusive work zone accessible only to the Subcontractor and their lower-tier subcontractors. SRNS will respect the boundaries of the area. However, there may be occasions where Fire and Rescue and Security require access to the area. Other access by EC&ACP Engineering and other SRNS personnel will be limited to as necessary by agreement (such as Asbestos Designer, SRNS Safety, Centerra security, GCO, Project Manager, etc.).

3.2 Quality Requirements

- 3.2.1 This SOW is a Level 3 procurement – no quality requirements are applicable.

3.3 Site Conditions

- 3.3.1 See Special Provisions / Field Conditions

3.4 Period of Performance / Schedule

- 3.4.1 From the date of award through completion of field activities, including SRNS acceptance, work shall be completed as specified in Subcontract Field Conditions. Demobilization shall be within thirty (30) days of accepted project completion.

3.5 Key Personnel Qualifications/Certifications

- 3.5.1.1 Subcontractor may employ the services of a qualified Sub-Tier Subcontractor to perform work under this subcontract if approved by SRNS
- 3.5.1.2 Copies of worker qualifications and any required licenses shall be submitted to Savannah River Nuclear Solutions (SRNS) a minimum of ten (10) days prior to commencement of demolition activities.
- 3.5.1.3 Engineers/supervisors are expected to possess a minimum of a Bachelor's Degree in Engineering and a minimum of five (5) years of experience in similar operations.
 - A. Personnel with extensive experience but without a degree may be submitted for consideration.
- 3.5.2 Every supervisor, worker, project designer, building inspector, or management planner shall have any current, required license(s) specific to the duties performed under the license for completion of activities required by this SOW.
- 3.5.3 Assign a full-time Health and Safety Officer (HSO) to the project.
 - 3.5.3.1 The HSO shall have documented evidence of field experience as HSO in comparable demolition activities.
 - 3.5.3.2 Submit resume with proposal.
- 3.5.4 Assign a Project Manager/Superintendent who will be responsible for overall contract administration, scheduling and record keeping as well as managing the day-to-day activities of the work.
 - 3.5.4.1 The Project Manager/Superintendent shall have demonstrated ability to conduct and manage the project via previous experience with similar projects.
 - 3.5.4.2 Submit resume with proposal.
- 3.5.5 Assign a full-time competent person/supervisor in accordance with referenced codes, standards, procedures and regulations.
 - 3.5.5.1 Due to the relatively small size of this project, the competent person/supervisor and Project Manager/Superintendent may all be the same person if qualified and accepted as such by SRNS.
 - 3.5.5.2 This/these individuals shall by reason of experience, training, or education be able to identify unsafe fire/life safety acts or conditions and have the authority to "Stop Work" and/or take other corrective action(s), as needed.
 - 3.5.5.3 Submit resume(s) with proposal

3.6 Deliverables and Submittals

- 3.6.1 Required Submittals:
 - 3.6.1.1 Review all documents for completion prior to submission and certify conformance of documents to SOW requirements by signature of the Subcontractor's Authorized Engineering Representative.
 - 3.6.1.2 See Attachment B "Engineering Document Requirement (EDR)" for submittals required for this SOW.
 - 3.6.1.3 List the following on each submittal transmittal cover letter:
 - A. Document category number, and applicable SOW Section and paragraph number.
 - B. Document description.

3.6 Deliverables and Submittals (Continued)

3.6.1.4 Reference the following information on transmittal letters, submittals and other correspondence:

Date of transmittal,
Sequence page number and total number of pages on each page,
Subcontractor Name,
SRNS Purchase Order (PO) No.: _____
_____(Defined on Award)
SRNS Project No.: _____
_____(Defined on Award)
SRNS Project Title: _____
_____(Defined on Award)
Subcontractor's Order Number: _____

A. Transmit with a completed Transmittal Letter.

3.6.1.5 Provide documentation in unprotected Adobe Acrobat - Portable Document Format (PDF), unless specifically directed otherwise.

A. Use the latest version available at time of subcontract award.

B. Files shall print legibly on 8.5 inches by 11 inches, 11 inches by 17 inches, or 22 inches by 34 inches.

C. Title for PDF file: "SRS PO ..."

1. Append the SRS PO number to end of file name.

2. No symbols such as "&" or "," (comma) can be in the pdf file name.

D. Include only 1 PO related information per email.

1. Don't send in multiple PO numbers in a single email.

2. Each email is converted to a single vendor package number and assigned to one PO number.

E. Only pdfs can be sent into email account noted below.

1. Excel, Word, CAD and Tiff formatted files cannot be received.

F. Zip files

1. Multiple PDF files related to identified SRS PO are acceptable.

2. Include only PDF files - folders within a zip file are unacceptable.

G. Maximum email size limit: 30 megabytes

H. Verify each file is virus free.

3.6.1.6 Provide formal transmittal of documentation in Adobe Acrobat Portable Document Format (PDF) attached to an email (unless directed otherwise by the STR) sent to vendordocuments@srs.gov for:

A. EDR submittals,

B. Supplier Deviation Disposition Request forms.

C. Use black markings on white paper.

D. Paper submittals with less than 30% recycled content are acceptable.

3.7 Packaging, Handling, Shipping, and Storage Requirements (PHSS)

None specified

3.8 Deviations

3.8.1 Supplier Deviation Disposition Request (SDDR) Preparation

3.8.1.1 Prepare a SDDR for each proposed exception to this SOW

A. Applies to proposed deviations after award of contract.

3.8.2 Perform the following for each deviation;

3.8.2.1 Identify SOW and revision number.

3.8.2.2 Identify criteria that cannot be met by item and SOW Section number.

3.8.2.3 Present explanation for the deviation.

3.8.2.4 Present proposal for resolution of the deviation.

3.8.2.5 Present price and schedule adjustment for the proposed resolution of the deviation.

3.8.2.6 Do not perform work on or install any item for which a SDDR is submitted until a written disposition of the SDDR is received from SRNS.

3.8.2.7 Submit SDDR to STR for disposition prior to SDDR implementation.

3.8.3 Nonconformance

3.8.3.1 Identify on a SDDR.

3.8.3.2 Include supporting technical justification when requesting acceptance of a "Use-As-Is" or "Repair" disposition.

3.8.3.3 Attach a copy of the Non-Conformance Report (NCR)

3.8.3.4 Submit SDDR with NCR to STR for disposition prior to SDDR implementation.

3.8.4 Prior to close-out

3.8.4.1 Complete the SDDR(s), if any, in accordance with the SDDR instructions.

3.8.4.2 Provide completed SDDR(s) to the STR or with turn-over package.

4.0 ACCEPTANCE OF SERVICES

4.1 Inspection / Examination / Testing

4.1.1 None.

4.2 SRNS Surveillance and Audits (HOLD POINTS)

4.2.1 SRNS STR Verification

4.2.1.1 Verification that no internal or external insulation is included with the recyclable waste.

4.2.1.2 Verifications per Decommissioning End Points (Reference 2.4.2.3).

4.3 Final Acceptance Method

4.3.1 Acceptance of Services

4.3.1.1 Successful completion of a walk down activity of the area by the STR and Subcontractor after demolition of Building 233-23H and 233-24H is completed.

4.3.1.2 Confirmation that all decommissioning end points per V-PMP-H-00044 (Reference 2.4.2.3) have been completed.

4.3.1.3 Confirmation that all submittals have been accepted by SRNS.

4.3.1.4 Confirmation of satisfactory performance in accordance with procurement contract as documented by the STR and the SRNS procurement representative.

4.3 Final Acceptance Method (Continued)

4.3.1.5 Successful completion

- A. Services will be accepted based on achieving the requirements of this SOW, including complete removal and disposal of all specifically identified materials and equipment, clean-up of the facilities/location, and final removal of all equipment and materials utilized in performance of this work.
- B. A final acceptance inspection (FAI) of New, Altered, or Dispositioned Facilities or Equipment per SRNS Manual 8Q, Procedure 51, will be conducted by applicable SRNS representatives and the performing entity to confirm satisfactory completion of the specified work (i.e. no open punch list items) prior to final acceptance.

5.0 ATTACHMENTS

5.1 Photos and Drawings

5.2. Engineering Document Requirements (EDR)

Attachment 5.1 – Photos and Drawings

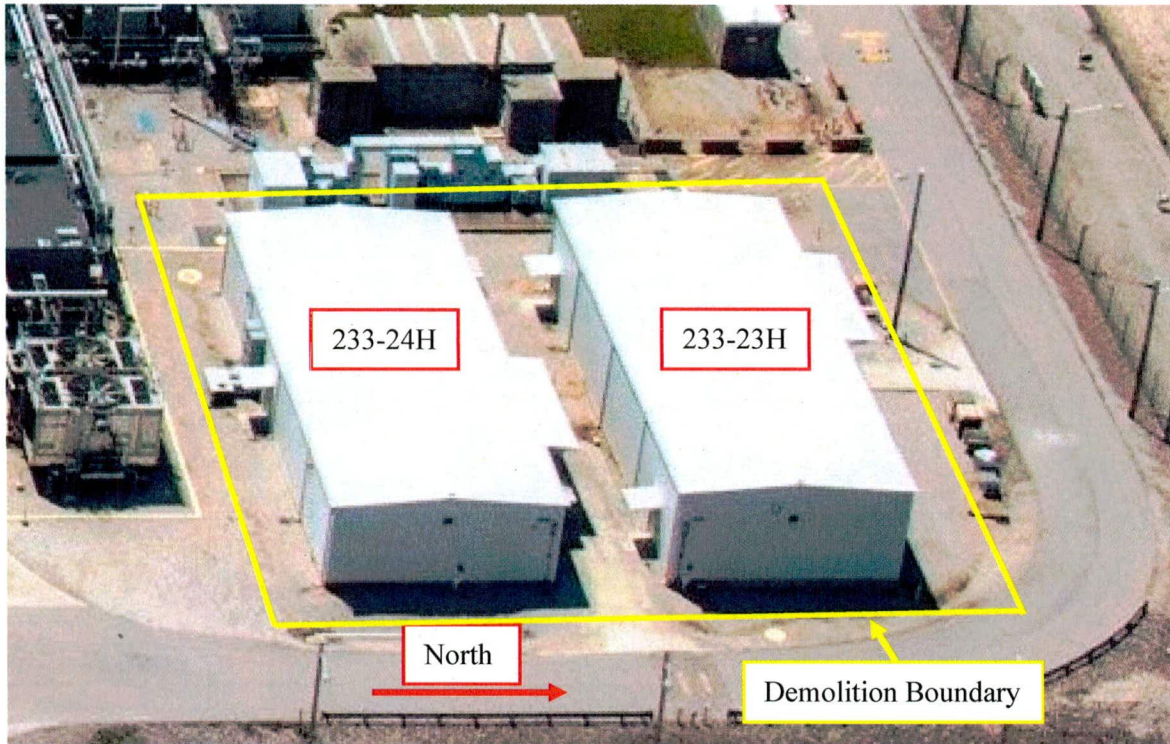


Figure 1. Aerial of Buildings 233-23H and 233-24H Looking West



Figure 2. Building 233-23H Looking Southeast



Figure 3: Building 233-23H Looking Northeast



Figure 4. Building 233-23H Looking Northwest

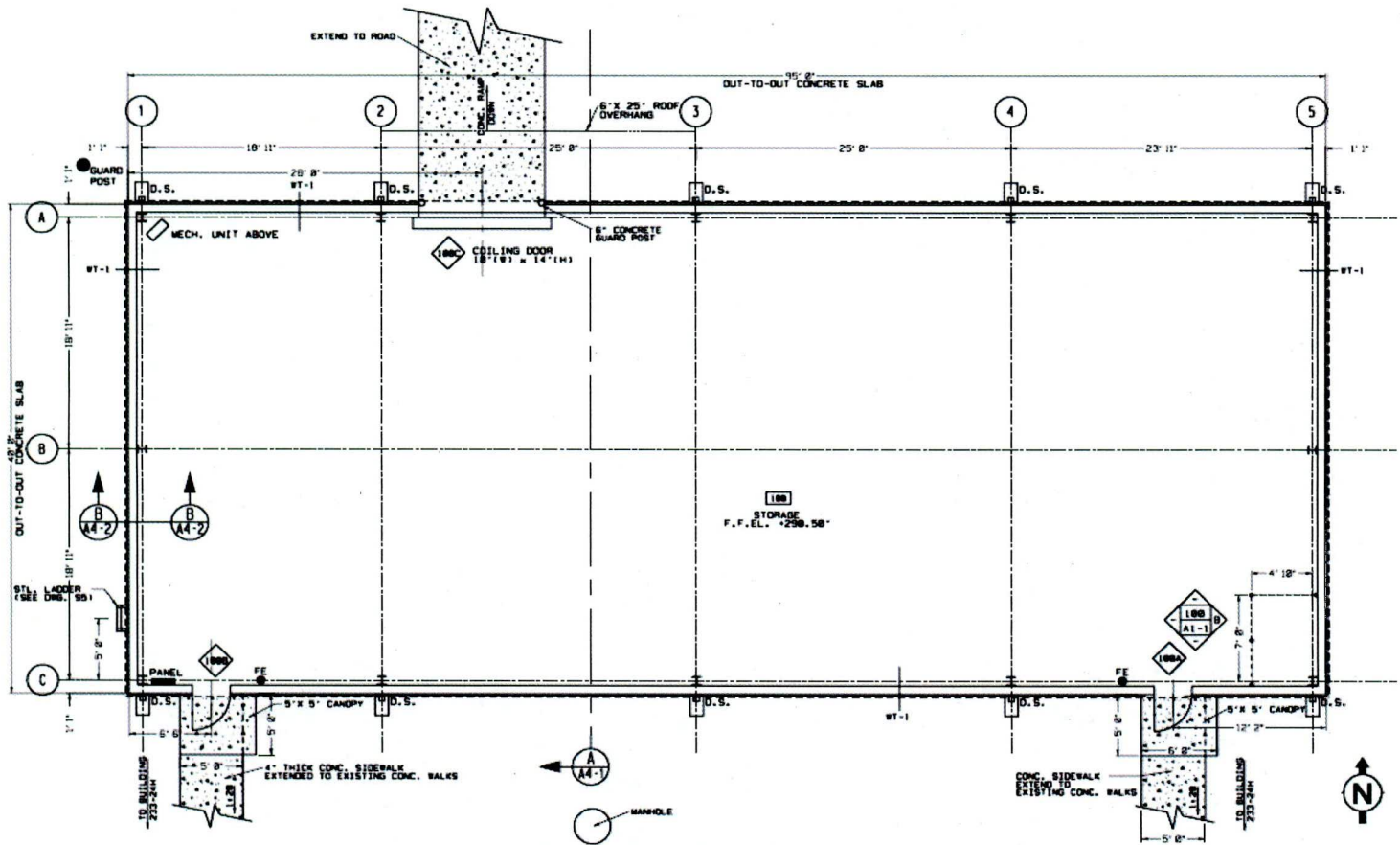


Figure 5. 233-23H Floor Plan Layout



Figure 6: 233-24 H Looking Southeast



Figure 7: 233-24 H Looking Northeast



Figure 8: 233-24 H Looking Southwest

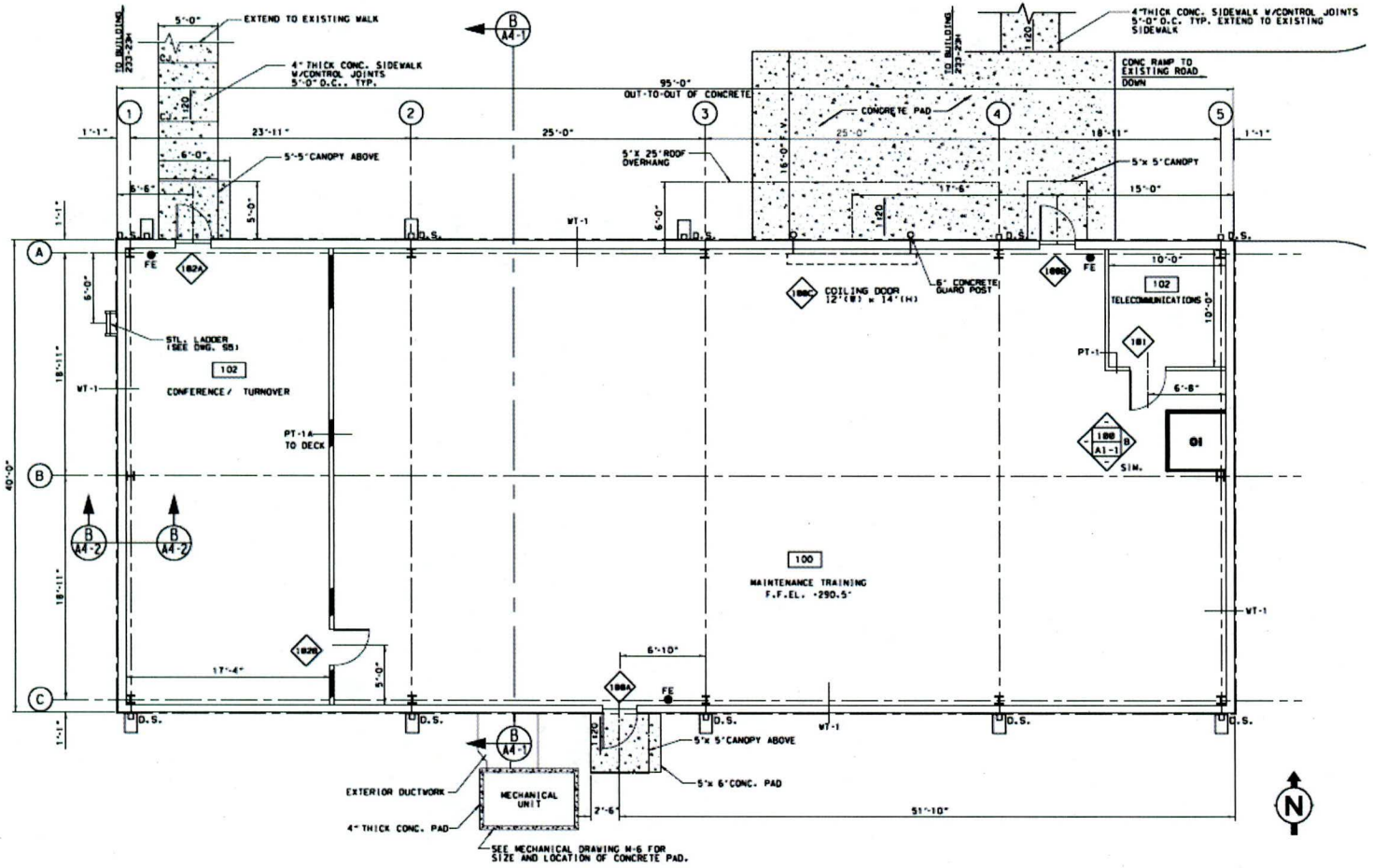


Figure 9: 233-24 H Floor Plan Layout

Attachment 5.2 – Engineering Document Requirements (EDR)

Purpose The Engineering Document Requirements (EDR) form is prepared by the originator, establishes a basis for actions required of a Supplier and provides the schedule for the submittal of engineering documents by the Supplier.

Legend Entry

No.	Information Required
1.	Document category number – see below.
2.	Applicable specification number and appropriate paragraph.
3.	Description corresponding to document category number.
4.	Permission to proceed with fabrication or other specific processes is marked yes, if required.
5.	List a milestone after award i.e., prior to fabrication, prior to test, prior to shipment, or with shipment that the listed document is to be submitted by Supplier.
6.	Number of copies required for submittal.
7.	Reproducible, Mylar, Vellum, etc.
8.	Enter remarks when appropriate.

Document Category Number and Descriptions

- 1.0 Drawings
 - 1.1 Outline Dimensions, Services, Foundations and Mounting Details – Drawings providing external envelope, including lugs, centerline(s), location and size for electrical cable, conduit, fluid, and other service connections, isometrics and details related to foundations and mountings.
 - 1.2 Assembly Drawings – Detailed drawings indicating sufficient information to facilitate assembly of the component parts of an equipment item.
 - 1.3 Shop Detail Drawings – Drawings which provide sufficient detail to facilitate fabrication, manufacture, or installation. This includes pipe spool drawings, internal piping and wiring details, cross-section details and structural and architectural details.
 - 1.4 Wiring Diagrams – Drawings which show schematic diagram equipment, internal wiring diagrams, and interconnection wiring diagram for electrical items.
 - 1.5 Control Logic Diagrams – Drawings which show paths which input signals must follow to accomplish the required responses.
 - 1.6 Piping and Instrumentation Diagrams – Drawings which show piping system scheme and control elements.
- 2.0 Parts Lists and Costs – Sectional view with identified parts and recommended spare parts for one year's operation and specified with unit cost.
- 3.0 Complete SRS Data Sheets – Information provided by Supplier on data sheets furnished by SRS.
- 4.0 Instructions
 - 4.1 Erection/Installation – Detailed written procedures, instructions, and drawings required to erect or install material or equipment.
 - 4.2 Operations – Detailed written instructions describing how an item or system should be operated.
 - 4.3 Maintenance – Detailed written instructions required to disassemble, reassemble and maintain items or systems in an operating condition.
 - 4.4 Site Storage and Handling – Detailed written instructions, requirements and time period for lubrication, rotation, heating, lifting or other handling requirements to prevent damage or deterioration during storage and handling at jobsite. This includes shipping instruction for return.
- 5.0 Schedules: Engineering and Fabrication/Erection – Bar charts or critical path method diagram which detail the chronological sequence of activities, i.e., Engineering submittals, fabrication and shipment.
- 6.0 Quality Assurance Manual/Procedures – The document(s) which describe(s) the planned and systematic measures that are used to assure that structures, systems, and components will meet the requirements of the procurement documents.
- 7.0 Seismic Data Reports – The analytical or test report which provides information and demonstrates suitability of material, component or system in relation to the conditions imposed by the stated seismic criteria.
- 8.0 Analysis and Design Reports – The analytical data (stress, electrical loading, fluid dynamics, design verification reports, etc.) which demonstrate that an item satisfies specified requirements.
- 9.0 Acoustic Data Reports – The noise, sound and other acoustic vibration data required by the procurement documents.
- 10.0 Samples
 - 10.1 Typical Quality Verification Documents – A representative data package which will be submitted for the items furnished as required in the procurement documents.
 - 10.2 Typical Material Used – a representative example of the material to be used.
- 11.0 Material Descriptions – The technical data describing a material which a Supplier proposes to use. This usually applies to architectural items, e.g., metal siding, decking, doors, paints, coatings.
- 12.0 Welding Procedures and Qualifications – The welding procedure, specification and supporting qualification records required for welding, hard facing, overlaying, brazing and soldering.
- 13.0 Material Control Procedures – The procedures for controlling issuance, handling, storage and traceability of materials such as weld rod.
- 14.0 Repair Procedures – The procedures for controlling materials removal and replacement by welding, brazing, etc., subsequent thermal treatments, and final acceptance inspection.
- 15.0 Cleaning and Coating Procedures – The procedures for removal of dirt, grease or other surface contamination, and preparation and application of protective coatings.
- 16.0 Heat Treatment Procedures – The procedures for controlling temperatures and time at temperature as a function of thickness, furnace atmosphere, cooling rate and methods, etc.
- 19.0 UT – Ultrasonic Examination Procedures – Procedures for detecting discontinuities and inclusions in materials by the use of high frequency acoustic energy.
- 20.0 RT – Radiographic Examination Procedures – Procedures for detecting discontinuities and inclusions in materials by x-ray or gamma ray expose of photographic film.
- 21.0 MT – Magnetic Particle Examination Procedures – Procedures for detecting surface or near surface discontinuities in magnetic materials by the distortion of an applied magnetic field.
- 22.0 PT – Liquid Penetrant Examination Procedures – Procedures for detecting discontinuities in materials by the application of a penetrating liquid in conjunction with suitable developing materials.
- 23.0 Eddy Current Examination Procedures – Procedures for detecting discontinuities in materials by distortion of an applied electromagnetic field.
- 24.0 Pressure Test – Hydro, Air, Leak, Bubble or Vacuum Test Procedures – Procedures for performing hydrostatic or pneumatic structural integrity and leakage tests.
- 25.0 Inspection Procedures – Organized process followed for the purpose of determining that specified requirements (dimensions, properties, performance results, etc.) are met.
- 26.0 Performance Test Procedures – Test performed to demonstrate that functional design and operational parameters are met.
 - 26.1 Mechanical Tests – e.g., pump performance, data, valve stroking, load, temperature rise, calibration, environmental, etc.
 - 26.2 Electrical Test – e.g., impulse, overload, continuity, voltage, temperature rise, calibration, saturation, loss, etc.

Attachment 5.2 – Engineering Document Requirements (EDR) (cont.)

1. Document Category Number	2. Specification Paragraph Reference	3. Document Description	4. Permission to Proceed Required		5. Submittal Schedule	6. Quantity Required		7. Kind of copies	8. Remarks
			Yes	No		Initial	Final		
4.0	3.1.1.6	Fire Prevention Plan (FPP)	Yes		30 calendar days after Award		1	Repro / PDF	
16.0	3.1.1.6. D.12.a.	Hot Work Permit Procedure	Yes		Prior to any Hot Work operations		1	Repro / PDF	
4.0	3.1.1.7	Worker Protection Plan (WPP)	Yes		30 calendar days after Award		1	Repro / PDF	
4.0	3.1.1.8	Task Specific Plans (TSP)	Yes		10 calendar days prior to start of each task		1	Repro / PDF	
5.0	3.1.1.10	Demolition Plan & Activities schedule	Yes		30 calendar days after Award		1	Repro / PDF	
8.0	3.1.1.12.A.	Sediment Control BMPs	Yes		Within 10 calendar days prior to starting demolition activities		1	Repro / PDF	
4.0	3.1.1.13.B	Approved Demolition Permit(s)	Yes		4 working days prior to start of any demolition activities		2	Repro / PDF	
4.0	3.5.1.2	Copies of worker qualifications and any required licenses	Yes		10 working days prior to start of any demolition		1	Repro / PDF	
4.0	3.1.1.17	Three Rivers Landfill Scale Tickets for each waste shipment to Three Rivers Landfill		No	Submit to STR within 2 work days after each shipment		1	Repro / PDF	
8.0	3.1.1.19.B	Engineering Survey	Yes		30 calendar days after Award		1	Repro / PDF	