

**CONSTRUCTION STANDARD SPECIFICATION**

**SECTION 01505**

**CONSTRUCTION WASTE MANAGEMENT**

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**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section Includes: Construction waste management requirements for all construction, renovation, demolition, repair and land clearing project activities. This section defines the construction waste management requirements for work conducted at SNL, based on waste minimization and diverting construction waste from landfill disposal to the extent practical.

1. Small construction projects (defined in 1.03) shall segregate construction materials and debris as appropriate for disposition at the SNL Construction & Demolition Recycle Center located on the west side of Building 967, Solid Waste Transfer Facility (see Attachment A).
2. Infrastructure projects (defined in 1.03) shall, as appropriate, segregate scrap metal for recycling, and deliver concrete and asphalt to the SNL Concrete and Asphalt Recycle Area (see Attachment B).
3. Large building construction projects (defined in 1.03) shall develop and implement a Construction Waste Management Plan (see Attachment C).

B. Related Sections:

1. Division 1, Section 01065, "Environmental, Safety, and Health for Construction and Service Contracts"

**1.03 DEFINITIONS**

- A. Construction and Demolition (C&D) Waste (per 20 NMAC 9.1, Solid Waste Management): "construction and demolition debris" means materials generally

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considered to be not water soluble and non-hazardous in nature, including, but not limited to, steel, glass, brick, concrete, asphalt roofing materials, pipe, gypsum wallboard and lumber from the construction or destruction of a structure project, and includes rocks, soil, tree remains, trees and other vegetative matter that normally results from land clearing. If construction and demolition debris is mixed with any other types of solid waste, it loses its classification as construction and demolition debris. Construction and demolition debris does not include asbestos or liquids including, but not limited to, waste paints, solvents, sealers, adhesives or potentially hazardous materials.

- B. Clean: Untreated and unpainted; uncontaminated with adhesives, oils, solvents, tapes, textures, mastics, and like products.
- C. Disposal: Acceptance of solid wastes at a legally operating facility for the purpose of landfilling.
- D. Infrastructure Project: Construction projects involving utility supply and distribution systems, central utility plants, roadways, site development, parking lots and walkways.
- E. Large Building Construction Project: New building projects incorporating SNL required sustainable design measures or pursuing certification under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. Such building projects typically include Line Item Projects and General Plant Projects.
- F. Non-Construction Waste: Personnel and/or household trash such as papers, food containers, beverage containers, and other items not resulting from construction activities.
- G. Pollution Prevention (P2) Program: Administers and manages activities to reduce waste in Sandia operations, including construction and demolition projects.
- H. Recycling: The process of sorting, cleansing, and reconstituting materials for the purpose of using the materials in the manufacture of a new product.
- I. Reuse: Materials that are recovered for use in the same form, on- or off-site.
- J. Salvage: To remove waste materials from the site for resale or reuse by a third party.
- K. Sandia Delegated Representative (SDR): Person authorized in the Contract to act as delegated Sandia representative for the specific purpose of review, inspection, and acceptance of work, and to interpret plans, specifications, codes and standards.
- L. Sandia Construction Observer (SCO): SDR's contract field representative to monitor, document, and report on the progress, quality, and safety of construction work in accordance with contract specifications and plans, and applicable codes. The SCO is responsible for coordinating outages associated with construction activities. The SCO does not exercise supervision over Contractor's employees.

M. Small Construction Projects: Construction projects other than those defined as a Large Building Construction Project or an Infrastructure Project. Such projects typically include Facilities Express projects, routine maintenance projects, minor walkway or parking lot repair projects, etc.

N. Waste Minimization: Any practice that reduces the amount of waste generated prior to recycling or disposal.

#### 1.04 SUBMITTALS

##### A. Small Construction Projects

1. No formal submittals are required for small construction projects, only adherence to the applicable practices and procedures defined herein.

##### B. Infrastructure Projects

1. Submit with project closeout documentation, a completed Infrastructure Project Waste Diversion Log (see Section 8 of Attachment B) and supporting weight ticket documentation.

##### C. Large Building Construction Projects

1. Construction Waste Management Plan: No later than two weeks (10 business days) prior to initiation of waste generation activities, submit a Construction Waste Management Plan indicating methods and processes for waste minimization and collection, segregation, and disposition of construction waste and debris generated. The Plan shall follow the generic template at Attachment C. The generic Construction Waste Management Plan template shall be revised as appropriate for project-specific application. Additional guidance, if necessary, for completion of the Plan template is available through the Sandia P2 Program. Project specific information to be generated for inclusion in the Plan includes completion of the following worksheets:
  - a. Analysis of Waste Materials: This worksheet provides an estimation of waste material types and amounts to be generated, disposed, and diverted from disposal during the project. This worksheet is provided as an attachment to the generic Plan template.
  - b. Waste Material Disposition: This worksheet identifies the disposition path for each waste material type generated (i.e., recycle, reuse, salvage, dispose) including material handling and collection procedures, transportation methods and requirements, and final destination facilities. This worksheet is provided as an attachment to the generic Plan template.
2. Periodic Progress Reports: Submit Construction Waste Management Plan Progress Reports bi-annually and with project closeout documentation. A

Waste Management Progress Report Worksheet is provided as an attachment to the generic Plan template. The Progress Report Worksheet requires provision of the following information:

- a. Project title, name of company completing report, and dates of period covered by report.
  - b. The amount (in tons) of construction waste material landfilled from the Project.
  - c. The amount (in tons) of each material type recycled, reused, or salvaged from the Project.
3. LEED Certification Documentation: Applicable to Projects seeking LEED certification, complete LEED credit MRC-2.1 (and MRC-2.2, as appropriate) documentation during project closeout, as required to support the Project LEED certification process. Submit with project closeout documentation.

#### 1.05 QUALITY ASSURANCE

##### A. General:

1. Comply with applicable environmental, safety, and health laws, rules and regulations, as amended, of the Federal, State, and local governments, the Department of Energy and SNL concerning management of construction, renovation, alterations, repair, demolition, and land clearing waste.
2. Use only facilities properly permitted by the State of New Mexico, and by local authorities as applicable.
3. Do not perform work until applicable environmental permits are obtained and notifications given for construction activities.
4. Contractor shall bear costs for Project delays due to noncompliance with required permits or failure to provide required notifications.

##### B. Construction Waste Characterization

1. Construction waste resulting from execution of this contract shall be evaluated for the potential to contain or be contaminated with hazardous, chemical, or radiological substances in accordance with Section 01065, "ES&H for Construction and Service Contracts."
2. Construction waste determined to contain or be contaminated with hazardous, chemical, and/or radiological substances shall be managed in accordance with Section 01065, "ES&H for Construction and Service Contracts."

##### C. Construction Material Ownership:

1. Property items and equipment that may be re-used for their intended purpose are not considered waste and shall be managed as US Government Property. Intact and dismantled equipment and material originating from Sandia premises and removed during the work activity shall remain the property of the US Government and shall be managed as Residue Material and Equipment as defined in Section 01065, "ES&H For Construction and Service Contracts."
2. All construction waste materials and debris originating from Sandia premises, regardless of the temporary or permanent nature of the materials and debris, are the property of the US Government.
3. No construction waste materials or debris originating from Sandia premises shall be removed from Sandia property for the purpose of salvage, reuse, recycle, or resale unless specifically stated in contract documents.

D. Regulatory Requirements:

1. Comply with applicable waste management laws, rules and regulations, as amended, of the Federal, State and local governments, the Department of Energy (DOE) and SNL.
2. DOE Orders require waste to be managed according to the following hierarchy: prevention, reuse, recycling, treatment, and compliant disposal.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. On-site Waste Management and Disposal Resources: The following list identifies recycling and disposal resources on site at SNL/NM. Use of on-site SNL resources shall be coordinated through the Sandia P2 Program and/or the SDR.
1. Construction & Demolition Recycle Center: Located on the west side of Building 967 (Solid Waste Transfer Facility). Accepts construction materials and debris from small construction projects for recycling and disposal.
  2. Concrete/Asphalt Recycle Area: Located at the south end of Tech Area III (map to be provided as needed). Accepts concrete and asphalt materials from all SNL/NM construction projects for recycling.
  3. Kirtland Landfill: Accepts general construction & demolition waste for disposal.
  4. Miscellaneous: Other on-site SNL/NM resources may exist such as clean soil reuse, carpet and ceiling tile recycling. Coordinate utilization of "other" on-site SNL/NM waste management resources through the Sandia P2 Program and/or the SDR.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 GENERAL REQUIREMENTS

- A. General: Every reasonable effort shall be made to minimize waste generation, as well as recycle, reuse, and salvage generated waste.
- B. Source Separation, Handling, and Storage: Separate, store, protect, and handle at the project site all identified recyclable, reusable, and salvageable waste materials to maximize waste material diversion from landfill. Waste material separation, handling, and storage areas shall be clearly marked and kept neat and clean to avoid contamination or mixing of materials. Provide waste collection containers in sizes adequate to handle waste from construction activities.
- C. Regulated Hazardous Construction Waste Types: All regulated hazardous construction waste types generated shall be managed in accordance with Section 01065, “ES&H for Construction and Service Contracts.” Where classification of any given waste material is unclear, verify the appropriate disposition with the SDR.
- D. Non-Construction Waste: All non-construction waste shall be segregated from construction waste materials, removed from the site, and properly disposed of by the Contractor.
- E. Training: Provide on-site instruction of appropriate separation, handling and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

3.02 WASTE MINIMIZATION REQUIREMENTS

- A. The following measures shall be implemented for proactive waste management by all parties involved in construction-related project activities at SNL.
  - 1. Waste generation shall be minimized to the maximum extent possible.
  - 2. Waste generation shall be avoided by implementing the following measures:
    - d. Reduce packaging of products and materials to minimize packaging waste.
    - e. Ensure proper storage of products and materials to prevent contamination and damage from weather.
    - f. Utilize proper material handling techniques to eliminate breakage.

- g. Plan and sequence work to efficiently utilize products and materials.
  - h. Enforce just-in-time ordering to eliminate over ordering and ordering error.
- 3. All diligent means shall be employed to pursue practical and economically feasible reuse, salvage and recycling options for the inevitable waste generated during project activities.
  - 4. Waste disposal in landfills shall be minimized to the greatest extent possible.

### 3.03 SMALL CONSTRUCTION PROJECTS

- A. The following procedure shall be implemented for planning and use of the Sandia Construction & Demolition (C&D) Recycle Center:
  - 1. Review the C&D Recycle Center Disposition Form for a current list of recyclable construction waste materials and debris, facility hours of operation, facility location, and other general information, instructions, and requirements (see Attachment A).
  - 2. Segregate recyclable construction waste materials and debris and non-recyclable waste materials and debris.
  - 3. Arrange for transportation of all construction waste materials (both recyclable and non-recyclable) to the Sandia C&D Recycle Center. C&D Recycle Center personnel will provide assistance for unloading into the appropriate containers.
  - 4. Provide C&D Recycle Center personnel with applicable project information for completion of the C&D Recycle Center Disposition Form.
  - 5. **NOTE:** If there are no recyclable construction materials within a specific load or shipment, that load or shipment shall be transported directly to the appropriate landfill for disposal.

### 3.04 INFRASTRUCTURE PROJECTS

- A. Follow the processes and procedures described in Attachment B for recycling concrete and asphalt, as well as other recyclable materials as appropriate. Maintain such processes and procedures throughout the life of the project.



3.05 LARGE BUILDING CONSTRUCTION PROJECTS

- A. Implement waste management practices and procedures in accordance with the approved Construction Waste Management Plan. Maintain such practices and procedures throughout the life of the project.
- B. Transportation: Arrange for regular collection, transport from the site, and delivery of recyclable waste materials to approved recycling centers to keep construction site clear.
- C. On-Site Recordkeeping: Maintain record keeping procedures with provisions for:
  - 1. Tracking collections of waste materials at the site and deliveries to recycling, reuse, salvage, and landfill facilities.
  - 2. Maintaining on-site logs that include for each load of materials removed from the site: type of material, load weight, recycling/hauling service, and date accepted by recycling service or landfill.
  - 3. Use of the Waste Diversion/Landfill Log provided as an attachment to the generic Plan template.
  - 4. Accessibility to the SCO for verification of construction waste recycling. Legible copies of on-site logs, manifests, weight tickets, and receipts. Manifests shall be from recycling and disposal site operators that can legally accept the materials for the purpose of recycling, reuse, salvage, or disposal.
- D. Contamination: Prevent contamination of recyclable waste materials. Remove any contamination inadvertently deposited in recyclable waste material containers. Provide cleanup of excessive contamination at recycling vendor locations when such contamination is not controlled at the project site.

END OF SECTION

December 15, 2006

ATTACHMENT A - C&D Recycle Center Disposition Form  
Posted as 01505A

ATTACHMENT B - SNL Infrastructure Project Recycling Procedures  
Posted as 01505B

ATTACHMENT C - Generic Construction Waste Management Plan Template  
Posted as 01505C