

**SECTION 02072 - REMOVAL OF INTACT INCIDENTAL ASBESTOS CONTAINING  
ROOFING MATERIAL (Rev.9/00)**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions, Special Conditions and Division 1 Specification Sections, apply to this Section.
- B. Refer to Drawing C-1, "Existing Roof System Components Chart" for location of asbestos containing roofing materials.

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for the removal and disposal of intact, non-friable incidental asbestos containing roofing material, including:
  - 1. Flashings.

**1.3 REGULATORY REQUIREMENTS**

- A. Removal and disposal shall be performed in accordance with applicable State and Federal regulations, including:
  - 1. Occupational Safety and Health Administration (OSHA) Standard for Construction; 29 CFR 1926.1101 Asbestos.
- B. U.S. Environmental Protection Agency's (EPA) National Emission Standards for Hazardous Air Pollutants for Asbestos (Asbestos NESHAP); 40 CFR Part 61, Subpart M, is **not** applicable to this project, provided proper work practices are used in the removal of ACRM.
- C. Additional requirements provided in this section are intended to supplement, in some cases exceeding, current State and Federal requirements, but do not relieve the Contractor of responsibility for complying with all current regulations.

**1.4 SUBMITTALS**

- A. Prior to the start of work, submit the names, addresses and telephone numbers of the proposed asbestos waste transporter and disposal facility for Rutgers University review and approval.

Rutgers University reserves the right to reject proposed transporters. The Contractor may contact REHS prior to bidding to obtain names of acceptable asbestos waste transporters. The proposed disposal facility must be one of the pre-approved facilities provided in these specifications.

- B. Submit copies of all waste manifests documenting the proper transport and disposal of all asbestos containing material to the Owner within 30 days after removal from the work site.
  - 1. **No payments will be made to the Contractor for any roof system removal costs until manifests are received.**
  - 2. Submit the original "Generator/Customer" copy, fully executed by all parties, including generator, transporter and disposal facility. Submit, along with a transmittal form, to the Owner's Project Manager. Simultaneously submit a photocopy and a copy of the transmittal to the project's designated Rutgers Environmental Health & Safety (REHS) representative.
- C. Prior to the start of work, the Contractor shall submit written certification to the Owner that all workers and supervising competent persons being utilized for this project have received all training required by OSHA and Article 1.5 of this Section.

#### 1.5 **QUALITY ASSURANCE**

- A. All workers involved with removal and handling of incidental ACRM must be trained, in accordance with OSHA requirements, in the following topics:
  - 1. Identification and Recognition of Asbestos-Containing Roofing Materials
  - 2. Potential Health Effects of Asbestos
  - 3. Federal OSHA Construction Asbestos Standard
  - 4. Intact versus Non-Intact Materials
  - 5. Appropriate Work Practices
- B. In addition to the above topics, competent persons supervising removal of ACRM must also be knowledgeable, in accordance with OSHA requirements, in the following topics:
  - 1. Methods of Determining Presence of ACRM
  - 2. Understanding and Interpreting Air Monitoring Data
  - 3. Notification Requirements for Commercial/Industrial Work

#### 1.6 **PROJECT CONDITIONS**

- A. Owner will occupy the building during removal of ACRM. Conduct removal operations so that Owner's operations will not be disrupted and building occupants and pedestrians in the vicinity are protected. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations or require re-routing of occupants or pedestrians.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Prior to the start of work and as needed during the project, a competent person shall conduct an inspection of the worksite and determine that the roofing material is intact and will likely remain intact.
  - 1. A competent person, for compliance with this section, is an employee of the Contractor who is capable of identifying asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate such hazards.

**3.2 PREPARATION**

- A. Locate dusty activities/equipment, such as dumpsters, chutes, etc., as far away from all HVAC equipment and building entrances as possible.
- B. Plan removal activities occurring near HVAC equipment and building entrances well in advance, during off-hour occupancy times whenever possible, with adequate notification to the Owner.
- C. All outdoor air intakes in the vicinity of removal operations shall be covered to prevent the entrance of dust or other contaminants.
  - 1. Coordinate with the Owner to arrange for the shut-down of mechanical equipment or outside air dampers.
  - 2. Cover all outside air intake louvers, grilles and openings with plastic sheeting. Seal all edges and laps in the sheeting with duct tape.
  - 3. Limit shut-downs and covering of air intakes to the shortest duration possible.

### 3.3 REMOVAL OF ACRM

- A. Manual methods that do not render the material non-intact must be used.
  - 1. Acceptable manual methods include the use of spud, spade, flat-blade or slicing tools (such as axes, mattocks, pry bars, crowbars, shovels, flat-blade knives and utility knives) to slice, strip-off, shear-under or pry-up the material.
- B. Sanding, grinding, abrading and cutting with serrated-edge hand tools, such as handsaws, are prohibited.

### 3.4 HANDLING

- A. Removed ACRM shall be carefully handled and stacked without throwing or intentionally breaking or crushing the material.
- B. All removed ACRM must be removed from the roof as soon as practical, but not later than the end of the work shift.
- C. Material must be carefully lowered to the ground via hoist, crane, enclosed chute, or be hand carried or passed.

### 3.5 DISPOSAL OF ACRM

- A. All ACRM shall be segregated from other construction debris, legally transported and disposed of at one of the following pre-approved landfills:
  - 1. G.R.O.W.S., Inc.  
1513 Bordentown Road  
Morrisville, PA 19067
  - 2. Tullytown Resource Recovery Facility  
200 Bordentown Road  
Tullytown, PA 19007
  - 3. S&S Landfill, Inc.  
Route 5, Box 559  
Clarksburg, WV 26301
  - 4. Grand Central Sanitary Landfill, Inc.  
1963 Penn Argyl Road  
Penn Argyl, PA 18072

**END OF SECTION 02072**