

Revision Log

Pages Affected	Description of Revision
All	Total Rewrite of this procedure as a result of meetings with the SRS Asbestos Working Group and requests to update and streamline the procedure.
All	This revision has been (re)formatted to align with current Site standards. Due to the reformatting some information has been shifted to different sections than where it was located in previous revisions. Minor, editorial corrections were made throughout the procedure.
3	Section 1.0, <ul style="list-style-type: none"> - Deleted S/RID flag, referencing DOEO433.1B - Deleted the phrase "and occupational" from the PURPOSE Statement
3 through 7	Section 3.0, <ul style="list-style-type: none"> - Added several new Definitions and Abbreviations and updated others - Modified the NOTE to add a reference to South Carolina Department of Health and Environmental Control (SCDHEC)
7 through 12	Section 4.0 (and its subsections), responsibilities for the persons/organizations listed below that were in previous revisions of this procedure were deleted from this one and others were added. The added ones are listed by section in subsequent entries. Deleted Responsibilities: Asbestos Trained Employees, Construction Management Asbestos Coordinator, Field Industrial Hygienist, Implementing Agencies, Medical, Project/Facility Manager, and all responsibilities that included the phrase "for Non-Radioactive Waste" in the title
8	Section 4.2, <ul style="list-style-type: none"> - Moved the responsibility for Asbestos Competent Person up to this section. - Modified the 4th bullet in this section to include the phrase "containerized, labeled, documented, and" Section 4.3, replaced with Responsibilities for "Asbestos Inspection Supervisor"
8 and 9	Section 4.4, <ul style="list-style-type: none"> - Changed the title of the person to performing this "Responsibility to "Asbestos Program Administrator (APA)/Subject Matter Expert (SME)" - Modified the list of Responsibilities for Asbestos Program Administrator
10	Section 4.7, added an entirely new section to list responsibility for EC&ACP Section 4.8, replaced "Project Supervisor" with "Project Manager" and added a NOTE
11	Section 4.10, added to the list of responsibilities for Industrial Hygiene (IH) Section Section 4.11, added the phrase "in accordance with state and federal requirements and for maintaining required certifications to perform the analyses" to the end Section 4.13, slightly edited the responsibilities statements/bullets Section 4.14, added a responsibility for "Providing relevant project documents to the APA" and slightly modified other responsibilities
12	Section 4.15, added the phrase "during transportation" to the last bullet Section 4.16, replaced the abbreviation "CMAC" with "APA"

Revision Log, (cont.)

12 through 17	Section 5.0 (and its subsections), Requirements listed below that were in previous revisions of this procedure were deleted from this one and others were rewritten. Also, many of the (sub)Section titles were modified. Deleted Requirements: General, Conduct of Operations and Routine Plant Inspection Activities, Operations and Maintenance Plans, Scheduled Activities, Abatement/Removal Requirements, Good Work Practices include, but are not limited to, the following requirements, and Disposal Procedure for Radioactive Asbestos Waste
13	Section 5.1, <ul style="list-style-type: none"> - Deleted the "General" Requirements and moved the "Identification and Assessment" section up to here - In the NOTE, modified the 2nd sentence and added a 3rd sentence; also moved the NOTE to place it before the 3rd bullet in this area of the section
14	Section 5.2, <ul style="list-style-type: none"> - Modified the title of the section - Added a NOTE to reference Attachments 8.1 and 8.5 - Moved the second Note to place it before the first bullet and added a line in the second NOTE to reference Attachment 8.5 - Edited the information in the bullets
15	Section 5.3, <ul style="list-style-type: none"> - Modified the title of the section - Added a NOTE to reference Attachment 8.2 - Added the phrase "To ensure that a section of a facility being prepared or modified" to the front of the paragraph - Modified the 1st and 2nd bullets - Added another NOTE with information about the SCDHEC notification procedures and referencing OSR 28-114
15 and 16	Section 5.4, <ul style="list-style-type: none"> - Modified the title of the section - Added a NOTE to reference Attachment 8.3 - Slightly edited information in the first two paragraphs - In the last bullet replaced the word "Hotline" with the acronym "SMEs"
16	Section 5.5, modified the title of the section
17	Section 5.6, rewrote entire "Disposal Requirements and Asbestos Waste" section and added a Note Section 5.7 (and Section 6.0), deleted references to "[S/RID 9], 10 CFR 851, Sub. C. App. A. 8(d)" and "[S/RID 10], 10 CFR 851, Sub. C. App. A. 8(g)"
18	Section 5.8, rewrote entire "Training Requirements" section and added a table to identify and list Asbestos Training Responsibilities for various asbestos workers
19	Section 6.0, deleted (invalid) reference to 1B, 1.1, <i>Purchasing Requisitioning</i> <ul style="list-style-type: none"> - Corrected the S/RID reference of 10 CFR 851, Sub. E. App. A. 6(a) and 10 CFR 851, Sub. E. App. A. 6(c) – from "Sub. C." to Sub. E." - Deleted the Reference to [S/RID 2], DOE0433.1B Section 7.0, moved "Asbestos Abatement Project Quarterly Reports, Asbestos Work Permits, and Waste Certification Statement of the Three Rivers Special Waste Manifest (Section 1) references from Section 7.1 Forms to this section Section 7.1, added "DHEC Form 3428, <i>Demolition License Application</i> " and "DHEC Form 3430, <i>Asbestos Abatement Project License Application</i> "
21 through 24	Section 8.0 (and subsections), replaced Attachments 8.1 through 8.4

1.0 PURPOSE ^[S/RID 1]

This procedure provides a formalized approach to the identification, control, abatement and disposal of asbestos-containing materials to ensure compliance with applicable environmental regulations.

2.0 SCOPE

The provisions of this procedure apply to the Performing Entities at the Savannah River Site (SRS) and to subcontractors performing work for the Performing Entities when required by subcontract or applicable law.

This procedure does not include related Industrial Hygiene (IH) responsibilities (i.e., Manual 4Q1.1, Procedure 109, *Asbestos Monitoring Procedures* or Manual 4Q1.1, Procedure 122, *Performance of Visual Inspection of Asbestos Abatement Projects*).

3.0 DEFINITIONS AND ABBREVIATIONS

The following list identifies the terms selected and defined for this procedure; the complete definitions can be found in the 3Q *Glossary*.

Abatement - Procedure to control fiber release from asbestos-containing materials; including removal, enclosure, encapsulation, repair, and any associated preparation, cleanup and disposal activities having the potential to disturb regulated asbestos-containing material (RACM).

Asbestos - Generic name given to a number of naturally-occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separable into fibers.

Asbestos Building Inspector (ABI) – A person currently licensed by SCDHEC to examine a facility, facility component or structure for the presence of Asbestos Containing Material (ACM), to identify and assess the condition of the material, and to collect bulk samples.

Asbestos Competent Person (ACP) - One who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them; in addition, for Class I and Class II work, who is specially trained in a training course which meets the criteria of the Environmental Protection Agency's (EPA's) Model Accreditation Plan for supervisor, or its equivalent and, for Class III work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance staff.

3.0 DEFINITIONS AND ABBREVIATIONS, (cont.)

NOTE

1. The use of asbestos in common building material has not been banned by the United States Environmental Protection Agency (USEPA), South Carolina Department of Health and Environmental Control (SCDHEC), or the Occupational Safety and Health Administration (OSHA).
2. Asbestos is found today in products such as caulking, mastic, floor tile, adhesive and roof coating.

Asbestos Containing Material (ACM) - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than 1 percent.

- **Friable ACM** - Any ACM that, when dry, can be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This includes non-friable materials which have become friable or are likely to release asbestos fibers during demolition or renovation.
- **Non-Friable ACM** - Any ACM that, when dry, cannot be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations.
- **Category I – Non-Friable ACM** – Non-friable asbestos or non-friable asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos.
- **Category II – Non-Friable ACM** - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I non-friable ACM, containing more than 1 percent asbestos.

Asbestos Containing Waste Material - All waste containing, or with the potential to contain, asbestos fibers requiring disposal at a permitted disposal site and appropriate waste manifesting.

Asbestos Disturbance Notice (ADN) - A job-specific or quarterly report that documents asbestos waste generation. The ADN is used for projects that generate regulated asbestos-containing waste products in less than National Emission Standards for Hazardous Air Pollutants (NESHAP) quantities (less than 260 linear feet, 160 square feet or 35 cubic feet of regulated asbestos-containing waste). At SRS ADNs are documented on the OSR 28-114, *SRS Asbestos Disturbance Notice*.

Asbestos Inspection Supervisor (AIS) – The AIS is responsible for coordinating SRNS building inspections as needed and cataloging existing inspection reports for future reference.

Asbestos Program Administrator (APA) - Individual designated to ensure site compliance with EPA and SCDHEC regulations pertaining to asbestos abatement and demolitions.

3.0 Definitions and Abbreviations, (cont.)

Asbestos Supervisor (Asbestos Hazard Emergency Response Act [AHERA] Supervisor)

– An individual demonstrating adequate knowledge and training to be designated responsibility for compliance with all applicable SCHDEC asbestos regulations prior to and during abatement projects. This individual meets the SCDHEC and OSHA definition for “area project supervisor/asbestos competent person.”

Asbestos Waste Container (AWC) - A modified skid pan with locking doors and permanently attached labeling to meet the requirements of 29 Code of Federal Regulations (CFR) 1926.1101, *Safety and Health Regulations for Construction - Toxic and Hazardous Substances - Asbestos*, and the SCDHEC, Regulation 61-86.1, *Standards of Performance for Asbestos Projects*.

Asbestos Waste Staging Area - An area designated for the location of asbestos waste containers in which asbestos waste may be kept until approval has been received from SCDHEC granting disposal at an approved landfill.

Class I Asbestos Work - Activities involving the removal of thermal systems insulation (TSI) and surfacing ACM and presumed ACM.

Class II Asbestos Work - Activities involving the removal of ACM which is not TSI or surfacing material. This includes but is not limited to the removal of asbestos containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastic.

Class III Asbestos Work (Operation and Maintenance (O&M) Activity) - Repair and maintenance operations where ACM, including thermal systems insulation and surfacing material, is likely to be disturbed (See Disturbance definition).

Class III work activities include, but are not limited to:

- Removal of asbestos-containing pipe insulation
 - Removal of small quantities of asbestos-containing insulation on beams and above ceilings
 - Removal of an asbestos-containing gasket or packing material
 - Installation or removal of a small section of drywall
 - Installation of electrical conduits through or proximate to asbestos-containing materials
 - Removal of small quantities of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement
 - Removal of asbestos-containing thermal system insulation not to exceed amounts greater than those which can be contained in a single glove bag
 - Minor repairs to damaged thermal system insulation which do not require removal
 - Repairs to a piece of asbestos-containing wallboard
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3.0 DEFINITIONS AND ABBREVIATIONS, (cont.)

Class III Asbestos Work (Operation and Maintenance (O&M) Activity), (cont.)

- Repairs, involving encapsulation, enclosure, or removal, to small amounts of friable ACM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than can be contained in a single, prefabricated mini-enclosure. Such an enclosure must conform spatially and geometrically to the localized work area, in order to perform its intended containment function.

Class IV Asbestos Work – Maintenance and custodial activities during which employees contact but do not disturb ACM or Presume Asbestos Containing Material (PACM). This work includes activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

Demolition - Wrecking or removing any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or the moving of a structure (i.e., trailer, handi-house).

Disturbance – An activity that removes (abates) ACM or PACM. All disturbance activities are recorded on an OSR 28-114 and reported to SCDHEC on a quarterly basis. For disturbance of RACM, waste must be less than NESHAP quantities (less than 260 linear feet, 160 square feet or 35 cubic feet) of waste. Non-regulated asbestos waste of any quantity may be recorded on an OSR 28-114 and will be considered a disturbance.

Facility Component – Any part of a facility including equipment.

Intact ACM - ACM that has not been crumbled, pulverized or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

Leak tight – Waste packaged or wrapped in such a manner that solids, liquids, or dust cannot escape or be released when transported or disposed.

Minor Project – A project where 25 or fewer square or linear feet of regulated ACM (RACM) are removed.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Project - An asbestos project which includes at least 160 square feet or 260 linear feet of RACM, or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several simultaneous projects in the same area, performed by the same contractor, are smaller than 160 square or 260 linear feet individually, but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project. NESHAP projects require an individual SCDHEC license be obtained prior to project commencement.

3.0 DEFINITIONS AND ABBREVIATIONS, (cont.)

Operation and Maintenance (O&M) Activity - The disturbance of RACM only when required in the performance of an emergency or routine maintenance activity which is not intended solely as asbestos abatement. In no event shall the amount of RACM disturbed exceed that which can be contained in one glove bag or 6-mil polyethylene bag which shall not exceed 60 inches in length and width.

O&M Worker – An individual currently licensed under the SRS Asbestos Group License as issued by SCHDEC to perform operation and maintenance activities at a site facility.

Permitted Disposal Site - Disposal site or landfill that has been approved by SCDHEC for asbestos waste disposal.

Presumed Asbestos Containing Material (PACM) - Thermal system insulation (TSI) and surfacing material found in buildings constructed no later than 1980.

Regulated Asbestos Containing Material (RACM) - (a) Friable asbestos containing material; (b) Category I non-friable ACM that has become friable; (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or (d) Category II non-friable ACM that is likely to become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations subject to this regulation.

Renovation - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

Responsible Attendant (RA) - Individual responsible for physically overseeing an AWC or asbestos staging area. This individual is generally designated by the Construction Management Asbestos Coordinator (CMAC).

Small Project – A project where more than 25 but fewer than 160 square feet or more than 25 but fewer than 260 linear feet of RACM are to be abated.

Waste Generator - Individual who, in performing maintenance activities or an asbestos abatement project, generates asbestos waste requiring disposal at a permitted disposal site.

4.0 RESPONSIBILITIES

4.1 Asbestos Building Inspector (ABI)

The ABI is licensed by DHEC to examine a facility or structure for the presence of ACM, to identify and assess the condition of the material, and to collect bulk samples. The ABI will issue an inspection report documenting these findings to the facility ECA and/or facility contact.

4.2 Asbestos Competent Person (ACP)

The ACP is trained as an AHERA Supervisor and oversees projects involving ACM removal and disposal.

The ACP is responsible for:

- Reviewing job packages to confirm that regulatory requirements for the management of asbestos removal and disposal are satisfactorily addressed
- Confirming that quarterly or job-specific ADNs are accurately completed and submitted to the APA at the end of the job or quarter
- Reviewing and supervising work activities that involve the removal/disposal of ACM
- Confirming that asbestos waste that is appropriately containerized, labeled, documented, and shipped to the SRNS temporary storage area at the end of O&M, Minor and Small asbestos projects
- Completing Sections 6 through 9 of the DHEC Form 3688, *SCDHEC Asbestos Waste Shipment Record*, and the Waste Certification Statement of the *Three Rivers Special Waste Manifest* (Section 1), as required. Alternatively, the Generator Certification Official (GCO) overseeing the project can complete these sections of documents.

4.3 Asbestos Inspection Supervisor (AIS)

The AIS is responsible for:

- Attending, passing, and keeping documentation current for necessary and required training for the ABI position
- Maintaining the SRS Area Completion Projects Building Inspection Database located in the SRS Site Deactivation and Decommissioning (D&D) Project Files and providing copies of completed building inspections, where needed
- Scheduling SRNS ABI's for inspections, as needed
- Being accessible to work planners to support requests for building inspections

4.4 Asbestos Program Administrator (APA)/Subject Matter Expert (SME)

The APA/SME is the designated program coordinator for the Asbestos Management Program and is responsible for:

- Ensuring the protection of the environment and compliance with DOE directives (orders, policies, standards and guidelines) in addition to site-wide compliance with federal, state, and local regulatory statutes.
 - Providing interpretation of regulations and coordinating with site tenants and DOE-SR for field execution and implementation
 - Communicating and negotiating with SCDHEC, EPA, and other regulatory entities regarding permits, permit exceedances, or other potential issues regarding the Asbestos Management Program
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4.4 Asbestos Program Administrator (APA), (cont.)

- Conducting periodic reviews and assessment to ensure compliant execution of the program
- Maintaining applicable program procedures current and accurate
- Providing environmental guidance for SRS asbestos abatement activities
- Obtaining and maintaining the SRS group asbestos abatement license
- Maintaining asbestos waste disposal documentation files
- Completing waste documentation records (the *Three Rivers Special Waste Manifest* and the DHEC Form 3688 as required for renovation/demolition projects and submitting these documents to SCDHEC per project requirements
- Reviewing, revising, and verifying technical content of this and other programmatic documents associated with this procedure (3Q-4.14).
- Screening asbestos-related training requirements and/or requests in concert with Industrial Hygiene and the Site Support Training Manager
- Maintaining a database of qualified asbestos workers on site, to include copies of their most recent training certificates
- Completing an annual review and revision, as necessary, of the SRNS-IM-2012-00045, *Information Manual to Support 3Q, 4.14*
- Submitting the Asbestos Abatement Project Quarterly report and the SRS Group License Quarterly and Annual updates to SCDHEC, as necessary
- Submitting NESHAP demolition and renovation applications to SCDHEC, as needed, to meet SRS project schedules
- Providing the project supervisor with a checklist of the regulatory requirements (waste manifest documents, demolition/renovation license, etc.) needed for successful completion of their project(s)

4.5 Asbestos – Trained Employees

Asbestos – Trained Employees (O&M Workers, AHERA Workers, AHERA Supervisors, ABIs, Project Designers) performing asbestos abatement are responsible for:

- Attending, passing, and keeping documentation current for required training
 - Participating in a medical surveillance program, as required by their duties and exposures
 - Participating in a respiratory protection program.
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4.6 Environmental Compliance Authority (ECA)

The ECA is responsible for:

- Supporting SRS facilities and projects that must comply with local, state and federal environmental, health and safety regulatory requirements
- Acting as primary contact between the facility and the APA to establish permitting and disposal requirements for a project involving asbestos removal and renovation and demolition permitting requirements
- Informing the Planner and project manager/supervisor for facility projects of the results of pertinent asbestos inspections. The Planner will reflect these results in the Assisted Individual Hazard Analysis (AHA) and the work package to capture pertinent permitting and safety concerns associated with the presence of ACM.
- Attaching the asbestos inspection report issued by the ABI and reflecting these findings, as required, in OSR 14-347LN, *Environmental Evaluation Checklist (EEC)*, for facility projects.

4.7 Environmental Compliance and Area Completion Projects (EC&ACP)

EC&ACP is responsible for the following:

- Ensuring that regulations, guidelines, and standards are identified for asbestos management practices at SRS, and providing written interpretations of such regulations, guidelines, and standards with appropriate coordination with the Office of General Counsel
- Communicating and Negotiating with SCDHEC and EPA regarding permits, permit exceedances, or other issues for sources of air pollutants at SRS

4.8 Facility Management/Project Manager (FM/PM)

FM/PM is responsible for:

- Managing ACM either through an Operation and Maintenance project for in-place ACM or through an abatement program for ACM with the potential to release fibers

NOTE

A list of current certified asbestos personnel can be found at:

<http://shrine01.srs.gov/eshqa/EPD/air/documents/current-asbestos-personnel.pdf>

- Ensuring personnel who perform asbestos-related activities are qualified and licensed for the job they perform in accordance with state requirements
 - Verifying documents provided to implementing agencies are in sufficient detail to perform work per Site requirements, Ensuring all project records are properly retained in accordance with regulatory requirements or Site procedures, whichever is more stringent
 - Accepting risk associated with the facility design authority determination and documentation that equipment, structures or a facility is free of ACM without direct sample results.
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4.9 Generator Certification Official (GCO)

The GCO is responsible for:

- Completing the chain of custody for all asbestos waste stored in a AWC or staging area awaiting transportation to a permitted disposal site
- Completing Sections 6 through 9 of the DHEC Form 3688 and the Waste Certification Statement of the Three Rivers Special Waste Manifest (Section 1), as required. Alternatively, the ACP overseeing the project can complete these sections of both documents
- Contacting the Construction Management Asbestos Coordinator (CMAC) to arrange asbestos waste shipment to a permitted disposal site and providing the transportation driver (TD) with the completed waste manifest documents. This function can also be performed by the SRNS CMAC.

4.10 Industrial Hygiene (IH) Section

Industrial Hygiene is responsible for:

- Meeting all health and safety requirements for the project
- Completing the OSR 4-560, *Asbestos Work Permit*, where required by projects
- Providing OSHA regulatory oversight for site asbestos abatement activities
- Maintaining health and safety requirements as required by 4Q Procedures

4.11 Industrial Hygiene Laboratory (IH Laboratory)

IH Laboratory is responsible for providing technical support for analyses of asbestos sampling in accordance with state and federal requirements and for maintaining required certifications to perform the analyses.

4.12 Planner

The Planner is responsible for ensuring the findings of the asbestos inspection report are included in the project work package with the AHA.

4.13 Project Waste Generator

The Project Waste Generator is responsible for ensuring that:

- Generated asbestos waste is properly containerized, labeled, and shipped
 - All required asbestos waste shipping documents are signed and received by the GCO, where applicable
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4.14 Subcontract Technical Representative (STR)

The STR is responsible for:

- Implementing asbestos-related requirements, in addition to normal subcontract administration activities, when the project is part of an asbestos abatement/demolition contract or subcontract
- Notifying the APA and the appropriate ECA prior to beginning a subcontracted demolition or abatement project
- Providing relevant project documents to the APA
- Assuring that subcontracted projects involving the potential disturbance of asbestos and the transportation of waste from such projects comply with all appropriate regulations and procedures.

4.15 Transportation Driver (TD)

The TD is responsible for:

- Ensuring that the vehicle used to transport asbestos waste is labeled in accordance with 40 CFR 61-149, *Standard for Waste Disposal for Asbestos Mills*, and 49 CFR Parts 171, *General Information, Regulations, and Definitions*; 49 CFR 172, *Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans*; 49 CFR 173, *Shippers-General Requirements for Shipments and Packagings*; and 49 CFR 177, *Carriage by Public Highway*
- Signing the DHEC Form 3688 and the Waste Certification Statement of the Three Rivers Special Waste Manifest (Section 1), as required for the specific project
- Transporting asbestos waste to a permitted disposal site in accordance with the appropriate site, state, and federal requirements
- Obtaining the signature of the landfill attendant on all necessary waste shipping documents
- Returning the signed waste shipping documents to the Project Manager (for Area Completion Projects/D&D projects) or the Transportation Supervisor (for SRNS Construction projects)
- Contacting the Project Manager immediately for guidance and assistance when a visible emission or visible residue is observed during transportation or when other asbestos waste disposal issues occur during transport or unloading

4.16 Transportation Supervisor

The transportation supervisor is responsible for forwarding the signed waste shipment documents to the APA.

5.0 REQUIREMENTS

5.1 Identification and Assessment ^[S/RID 2, 3]

Identification and assessment of installed ACM begins when:

- Any structure is scheduled for demolition
- Facility renovation or maintenance is reasonably expected to disturb ACM
- Deterioration of suspect ACM is observed in an operating or surplus facility
- An O&M plan is initiated
- Devices are planned for excess or salvage (e.g., acetylene cylinders, fire-proof cabinets, gaskets, repositories).

Before a facility or one or more facility components is renovated or demolished, the facility must be thoroughly inspected for the presence of asbestos. A person who has been trained and licensed as an ABI or management planner in accordance with SCDHEC training and licensing requirements must perform the inspection.

An ABI shall collect, in a statistically random manner, at least three bulk samples from each homogeneous area of thermal system insulation and any miscellaneous material that is not assumed to be ACM. Negative results for non-friable organically bound materials such as flooring and roofing shall be verified with at least one transmission electron microscopy (TEM) analysis. An acceptable method would be to have two samples analyzed under polarized light microscopy and the third under TEM. The new TEM requirement is included in the latest revision of SCDHEC Regulation 61–86.1, Standards of Performance for Asbestos Projects, Section VI.D.2. Questions or concerns about the requirement should be directed to the APA.

Identification of ACM can be completed by the following means:

- Material can be visually identified by the ABI and documented as not containing asbestos (e.g., silicone – a material known not to contain asbestos)
- Material can be sampled by an ABI, analyzed by an accredited laboratory, and documented to verify the presence or absence of asbestos

NOTE

1. Material manufactured at any time cannot be assumed to not contain asbestos.
2. The presence/absence of ACM must be proven by laboratory analysis or by visual recognition and documentation by the ABI.
3. SCDHEC reserves the right to reject any documentation it deems unacceptable. The facility manager assumes all risk associated with this method of verification.

- Material can be assumed to contain asbestos and managed as such
 - Material can be identified as not containing asbestos by the manufacturer's material safety data sheet (MSDS) or label ONLY in the case where a direct correlation between the MSDS and the material in question can be visually validated by a third party auditor. Documentation and sign-off by the architect or building design authority is required in such cases.
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5.2 Control and Abatement of ACM for Demolition Projects ^[S/RID 4]

NOTE

Attachment 8.1, *SRS Demolition Process Flow Chart*, and Attachment 8.5, *Aid for Determining Demolition License Requirements*, can be used references for this section.

The project custodian obtains the services of an ABI to perform an asbestos inspection. The inspection and associated documents are required even if asbestos is not present. Attachment 8.5, which can also be located at this link: <http://shrine01.srs.gov/eshqa/EPD/air/documents/demolition-aid-brochure.pdf>, should be used by the project custodian to assist in the identification of demolition projects.

Aid for Determining Demolition License Requirements at the Savannah River Site should be used by the project custodian to assist in the identification of demolition projects.

If ACM is found, the project custodian:

NOTE

1. All asbestos must be removed from a structure or building prior to the permitting and demolition activities.
2. In limited cases, SCDHEC, with prior approval, may not require removal of all Category I and II ACM prior to demolition.
3. Attachment 8.5 has more information on demolition requirements.

- Determines whether a DHEC Form 3430, *Asbestos Abatement Project License Application*, or an OSR 28-114 is required
 - Removes ACM in accordance with approved plans and permits
 - Provides the APA with information as required for the completion of DHEC Form 3428, *Demolition License Application*. Applications must be mailed (along with a \$50.00 fee payable to SCDHEC) at least 10 working days prior to the scheduled start date. A copy of an asbestos survey report no older than 5 years must accompany the application.
 - If ACM is not found, the project custodian provides the APA with information as required for the completion of DHEC Form 3428.
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5.3 Control and Abatement of ACM for Renovation Projects ^[S/RID 4, 5]

NOTE

Attachment 8.2, *SRS Renovation Process Flow Chart.*, can be used as a reference for this section.

To ensure that a section of a facility being repaired or modified, or one or more facility components impacted by renovation has been thoroughly inspected for the presence of asbestos, the facility management/project custodian obtains the services of an ABI to perform an asbestos inspection before any renovation can begin.

If ACM is found in the renovation area, the project custodian:

- Provides the APA with information for the completion of a DHEC Form 3430 if the renovation involves at least 160 square feet, 260 linear feet, or 35 cubic feet of RACM (NESHAP quantities).

NOTE

A ten business day notification is required by SCDHEC for projects abating NESHAP-sized quantities of friable ACM. Amounts of friable ACM less than NESHAP quantities and projects involving removal of non-friable ACM of any quantity can be recorded on an OSR 28-114.

- Contacts the APA and completes an OSR 28-114 if the renovation involves any amount of non-friable ACM or less than NESHAP quantities of friable ACM
- If no potential to disturb ACM is identified, the project custodian continues with renovation in accordance with applicable SRS regulations.

5.4 Control and Abatement of ACM for Operation and Maintenance (O&M) Activities ^[S/RID 4, 5]

NOTE

Attachment 8.3, *SRS Asbestos Abatement Flowchart*, can be used as a reference for this section.

SRS maintenance activities are performed and documented in accordance with Manual 1Y, *Conduct of Maintenance*. The ACP estimates the amount of suspect ACM that may be disturbed when a maintenance activity potentially involves ACM. In no event must the amount of RACM disturbed exceed that which can be contained in one glove bag or one 6-mil polyethylene bag measuring no greater than 60 inches in length and width.

5.4 Control and Abatement of ACM for Operation and Maintenance (O&M) Activities ^[S/RID 4, 5], (cont.)

Prior to beginning O&M work, the competent person/facility management/project custodian for the activity must contact the APA and provide information for a SRS ADN. The APA will issue a unique number for each notice. Immediately upon completion of the activity, the competent person/project custodian will notify the APA of the actual completion date and of any changes that need to be made to the original information. If the activity is cancelled, the APA must be immediately notified. Radiologically-contaminated asbestos waste must be disposed of in accordance with the appropriate Approved Waste Certification Program. After the asbestos waste from the activity is delivered to the proper waste disposal site, the ACP will obtain the disposal site attendant's signature on the disposal documentation and forward the completed documentation to the APA.

Employees who have not been trained as an O&M worker are permitted to handle and install new asbestos gasket and packing material if the material remains intact. The material must not be abraded in any way (i.e., drilled, machined, shaped, sanded, or broken).

As a minimum, the employee must have an asbestos-related Hazard Awareness Training course at least once a year that must contain, but is not limited to, the following elements:

- Information regarding asbestos, its uses and forms
- Information on its effects associated with asbestos exposure
- Location of ACM and PACM in the building/facility
- Recognition of ACM and PACM damage and deterioration
- Proper response upon initial discovery
- Name and telephone number of a point of contact for asbestos-related concerns (Asbestos SMEs)

5.5 Control and Abatement of ACM for Unscheduled Activities (e.g., Emergency Activities) ^[S/RID 4, 5]

If damaged suspect ACM is observed, the facility management notifies the Field IH and takes necessary precautions to prevent personnel exposure to the asbestos fibers. The FM/PM will determine a path forward by working with IH, the APA, the API, and the ECA.

5.6 Disposal Requirements for Asbestos Waste**NOTE**

1. Attachment 8.4, *Asbestos Disposal Flowchart*, can be used as a reference for this section.
2. Other reference material for this section can be found in the *Information Manual to Support 3Q 4.14*, located at, http://shrine01.srs.gov/eshqa/EPD/air/documents/information_manual_3Q4_14.pdf

Asbestos Waste is generated and controlled by the assigned ACP. Radiologically-contaminated asbestos waste must be disposed of in accordance with the appropriate Approved Waste Certification Program. The facility management/ project custodian determines waste classification using Manual 1S, *SRS Waste Acceptance Criteria*, and follows applicable waste disposal requirements per facility specific waste procedures or documented guidance from the facility's GCO. This waste must also be reported to the APA for reporting purposes.

5.7 Medical Surveillance Requirements ^[S/RID 6]

Asbestos workers, supervisors, ABIs, and air samplers exposed to airborne concentrations of asbestos fibers at or above the OSHA-permissible exposure limits for more than 30 calendar days per year must participate in a medical surveillance program. Prior to completing asbestos-specific qualifications for an activity and before beginning asbestos abatement work, the employee's supervisor enrolls the employee in the medical surveillance program in accordance with Manual Q3.1, Procedure 1001, *Health Examination Policy*.

5.8 Training Requirements ^[S/RID 7]

To be qualified by SCDHEC to perform asbestos-related work, personnel must receive refresher training within two years of completing the initial training within any asbestos work discipline. To be maintained on the SRS Asbestos Abatement Group License (SCDHEC License Number ASB-8021), refresher training must be completed within one year of successfully completing initial training. The APA must have a copy of the current asbestos training certificate for the employee, and the employee must be listed as "Active" in the SRS Asbestos Group License database. Under any other circumstances, the employee is not allowed to perform any asbestos-related work.

Asbestos Training Responsibilities		
Discipline	Responsibilities	Training
Asbestos O&M Worker	O&M activities include disturbance of a small amount of asbestos during maintenance and repair activities. ACM disturbed cannot exceed one glovebag or bag that is 60 inches by 60 inches in dimension. O&M activities do not include work that is abatement (removal) in nature.	Initial: 2 days Refresher: 1 day
AHERA Worker	Can perform actual abatement of regulated asbestos-containing material (RACM) under the supervision of an asbestos supervisor. Training includes respiratory protection and decontamination activities.	Initial: 4 days Refresher: 1 day
AHERA Supervisor	Can perform all activities involved in complex asbestos abatement work and supervise asbestos workers. Supervisor certification is required to be an asbestos competent person (ACP).	Initial: 5 days Refresher: 1 day
Asbestos Air Sampler	The air sampler is trained to implement air-monitoring plans and analysis schemes. SCDHEC requires that air samplers contracted at SRS cannot be employed by SRNS or SRR. As Air Samplers are required by SCDHCE Regulation 61-86.1 to be third-party, SRS does not retain workers of this discipline onsite.	Air Sampler must be currently certified as an asbestos Supervisor and be a Certified Industrial Hygienist (CIH) or have completed the NIOSH 582 course.
Asbestos Building Inspector (ABI)	This individual is trained to determine the presence and location of regulated and non-regulated ACM. Activities performed by the ABI include visual or physical examination and bulk sample collection of ACM for laboratory analysis.	Initial: 3 day Refresher: ½ day
Asbestos Project Designer	The designer can plan, design and develop procedures for asbestos abatement work through disassembly of abatement barriers. The designer typically will prepare written designs for abatement projects involving great than 3,000 square, 1,500 linear, or 656 cubic feet of RACM within a facility to be reoccupied.	Initial: 4 days Refresher: 1 day

6.0 REFERENCES

[1B](#), 3.31, *Records Management*

[1Q](#), 17-1, *Quality Assurance Records Management*

[1S](#), *SRS Waste Acceptance Criteria*

[2S](#), 4.4, *Shift Routines and Operating Practices*

[2S](#), 5.11, *Equipment and Piping Labeling*

[3E](#), 1.2, *Documenting Procurement Requirements*

[3Q](#), 5.1, *National Environmental Policy Act (NEPA) Implementation and the Environmental Evaluation Checklist*

[3Q](#), *Environmental Compliance Manual*

[4Q](#), 105, *Hazard Prevention and Control*

4Q1.1, 109, *Asbestos Monitoring*

4Q1.6, *Respiratory Protection Program*

5Q1.1, 508, *Control, Identification, and Use of Site Approved HEPA Filters and HEPA Filtered Equipment and Systems*

[7B](#), 1.1, *Purchasing Requisition*

Q3.1, 1001, *Health Examination Policy*

40 CFR 61, *National Emission Standards for Hazardous Air Pollutants*

40 CFR, *Protection of Environment, Part 763, Asbestos*

49 CFR, Subchapter C, *Hazardous Materials Regulations*

ANSI Z-88.2, *Practices for Respiratory Protection*

ANSI Z-9.2, *Fundamentals Governing the Design and Operations of Local Exhaust Systems*

DOE Order 200.2, *Information Management Program*

Information Manual to Support 3Q 4.14, located at,
http://shrine01.srs.gov/eshqa/EPD/air/documents/information_manual_3Q4_14.pdf

SRNS-IM-2012-00045, *Information Manual to Support 3Q, 4.14*

South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, *Standard of Performance for Asbestos Projects*

6.0 REFERENCES, (cont.)

[S/RID 1], Standards/Requirements Identification Document, DOE O 435.1, Att.1.1.b.

[S/RID 2], 10 CFR 851, Sub. C. 851.21(a)(1)

[S/RID 3], 10 CFR 851, Sub. C. 851.21(a)(3)

[S/RID 4], 10 CFR 851, Sub. C. 851.22(b)

[S/RID 5], 10 CFR 851, App. A. 6(a)

[S/RID 6], 10 CFR 851, App. A. 6(c)

[S/RID 7], 10 CFR 851, Sub. C. 8.51.25(a)

[S/RID 8], 10 CFR 851, Sub. C. 851, 26(a)

7.0 RECORDS ^[S/RID 3, 8]

Asbestos program records must be managed in accordance with SRS and SCDHEC requirements. Asbestos program records must be made available to SCDHEC upon request and must be retained for at least five years.

Asbestos Abatement Project Quarterly Reports

Asbestos Work Permits

Waste Certification Statement of the Three Rivers Special Waste Manifest (Section 1)

Records generated as a result of implementing this procedure are processed in accordance with Manual 1B, Procedure, 3.31, *Records Management*.

7.1 Forms

DHEC Form 3428, *Demolition License Application*

DHEC Form 3430, *Asbestos Abatement Project License Application*

DHEC Form 3654, *Notification of Non-Friable Asbestos Abatement (Contractor Form)*

DHEC Form 3688, *Waste Shipment Record*

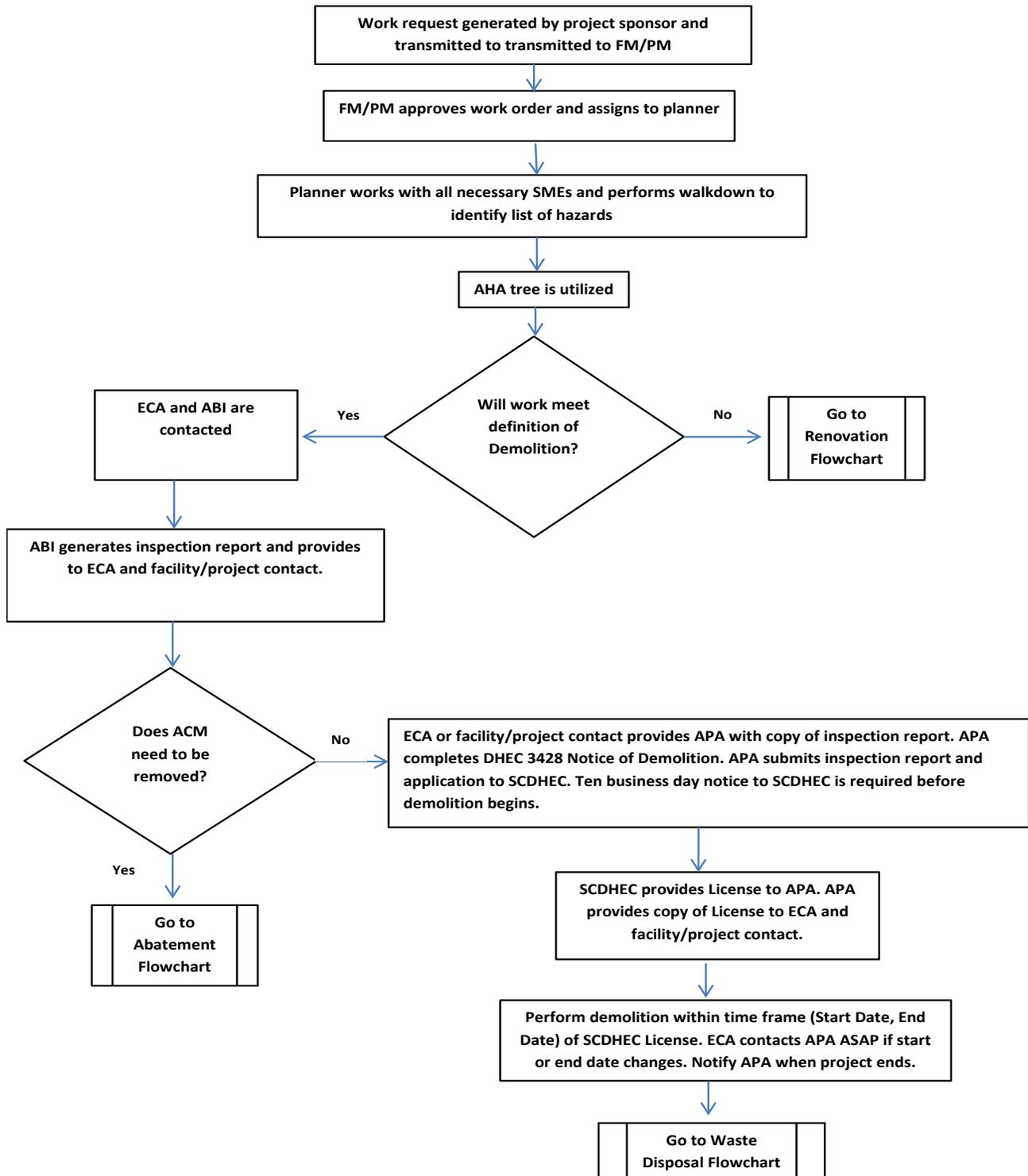
OSR 14-347LN, *Environmental Evaluation Checklist (EEC)*

[OSR 28-114](#), *SRS Asbestos Disturbance Notice*

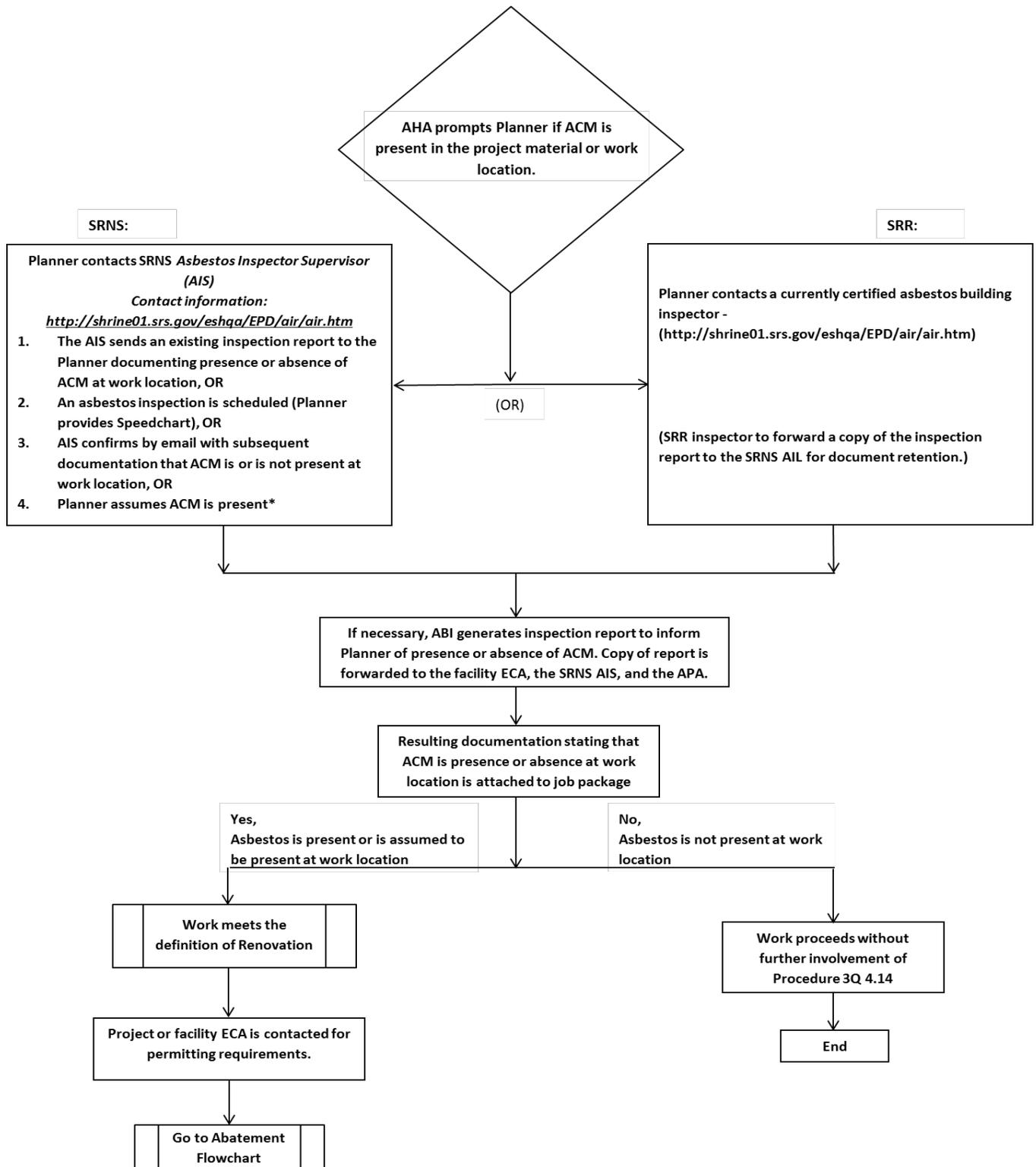
8.0 ATTACHMENTS

- Attachment 8.1 SRS Demolition Process Flowchart
- Attachment 8.2 SRS Renovation Process Flowchart
- Attachment 8.3 SRS Asbestos Abatement Process Flowchart
- Attachment 8.4 SRS Asbestos Disposal Flowchart
- Attachment 8.5 Aid for Determining Demolition License Requirements at the Savannah River Site

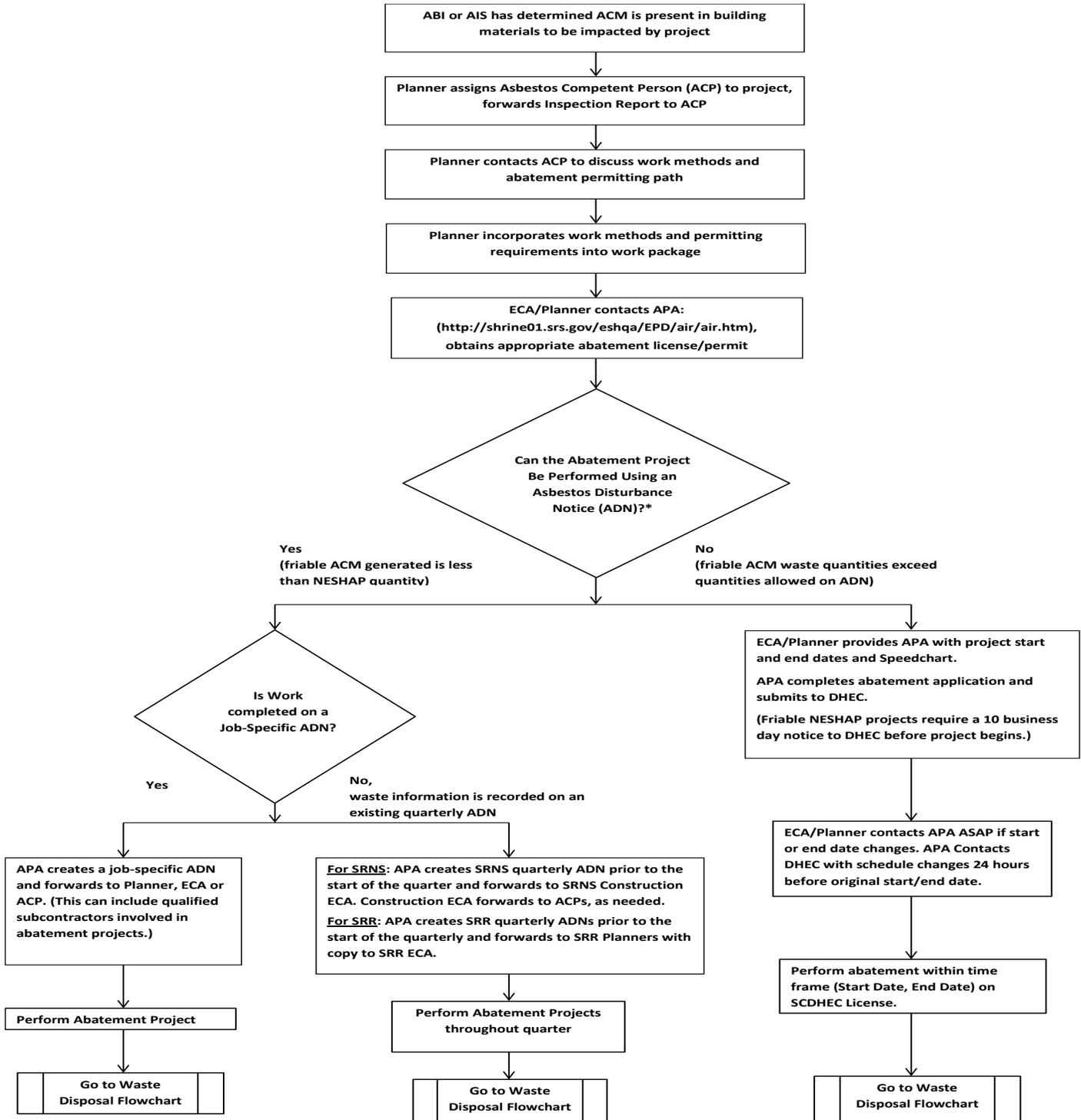
ATTACHMENT 8.1
SRS Demolition Process Flowchart
Page 1 of 1



ATTACHMENT 8.2
SRS Renovation Process Flowchart
 Page 1 of 1

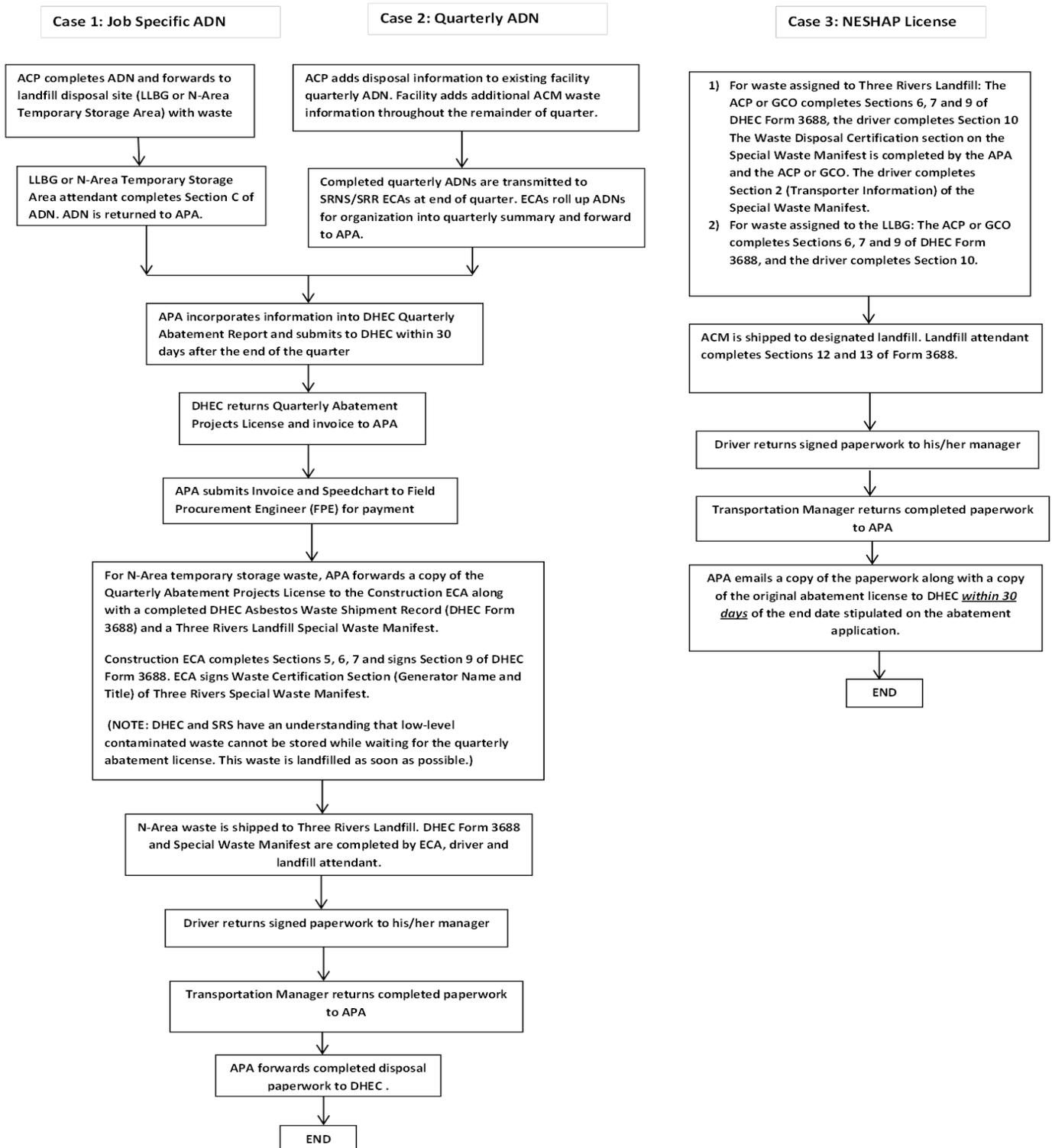


ATTACHMENT 8.3
Asbestos Abatement Process Flowchart
 1 of 1



* THE ADN IS COMPLETED BY THE ACP. QUANTITIES OF GENERATED ACM WASTE THAT CAN BE RECORDED ON AN ADN ARE LIMITED TO O&M, MINOR AND SMALL PROJECTS, WHICH ARE LESS THAN 160 SQUARE FEET, 260 LINEAR FEET OR 35 CUBIC FEET OF FRIABLE ASBESTOS WASTE (REGULATED ASBESTOS-CONTAINING MATERIAL). ANY QUANTITY OF NON-FRIABLE ACM WASTE CAN BE RECORDED ON AN ADN. ABATEMENT OF QUANTITIES OF FRIABLE ACM LARGER THAN THESE AMOUNTS MUST BE PERFORMED UNDER A JOB-SPECIFIC NESHAP ABATEMENT LICENSE.

**ATTACHMENT 8.4
 Asbestos Disposal Flowchart
 Page 1 of 1**



Attachment 8.5
Aid for Determining Demolition License Requirements at the Savannah River Site
Page 1 of 2

**Additional Information
Required for Compliance**

This aid is a supplement to Procedures 3Q 4.14 and 3Q 5.1, and to South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1 as they relate to the demolition of structures. It should not be used as a replacement for compliance with the procedures and regulation. Items to be considered in determining the need for a demolition license:

- A **demolition** is defined as the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations, the burning of a facility, or the moving of a structure.
- **Renovation** is the altering of a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos from a facility component.
- A demolition license is required even if no asbestos is present in the building.
- An inspection by a certified asbestos inspector is required before applying for a license.
- SCDHEC requires a 10-day mandatory waiting period after the application is received and before a license can be issued and work begins.
- Start and finish dates are enforced by SCDHEC but can be modified with 24-hour notice to the RI&ES licensing agent.
- SCDHEC licenses and license modifications must be obtained through the RI&ES licensing agents via the following e-mail address: **“ASBESTOS PERMITTING”** or by calling 2-6553.

Contact your area/
project Environmental
Compliance Authority
for assistance and
more information.



**Aid
for
Determining
Demolition License
Requirements
at the
Savannah River Site**



 This document is provided as a service to Savannah River Site organizations and contractors by the Regulatory Integration and Environmental Services Department

**Regulatory Integration
and Environmental Services**

March 28, 2012
Revision 2

Attachment 8.5
Aid for Determining Demolition License Requirements at the Savannah River Site
 Page 2 of 2

Aid for Determining Demolition License Requirements

**Examples of
 Activities Requiring a Certified
 Asbestos Inspection/Demolition License**

- Buildings/structures being partially/completely demolished
- ALL office trailers demolished/partially dismantled/relocated
- Handi-Houses being demolished
- Portable carports being demolished
- Stacks being demolished/partially demolished

Specifically:

- Buildings/structures that are affixed to foundation or ground
- Structure that contains load-supporting members, beams, or posts
- Structure being moved/demolished that has the appearance of "permanency"

A demolition license application, including an inspection report by a certified inspector, is required before any work begins.

A demolition license is required even if no asbestos is present.



ALL trailers relocated/demolished



Building affixed to the ground



Structure with foundation



Load-bearing wall removal



Building with foundation



Porch with structural posts

**Examples of
 Renovations/Relocations Requiring
 a Certified Asbestos Inspection**

- Handi-Houses with tie-downs and/or utilities being moved
- Mobile offices being moved that have permanent utilities
- Renovations that include alteration of facility
- Portable buildings being moved

Specifically:

- Utility connections the only permanent part of structure
- Structure temporary in nature
- Structure temporary, foundation permanent

Renovations require an inspection report from a certified asbestos inspector—stating that asbestos is not present or that the asbestos will not be disturbed during the relocation—before work begins, with the certified report to be kept on file for three years.



Screw-type tie-downs



Permanent electrical tie-in



Electrical connection and restraints



Foundation break of a "sprung structure" requires inspection



Permanent electrical tie-in



Wheels and tow tongue make unit appear portable

**Examples of
 Activities Not Requiring
 Inspection/License**

- Containers (Seatrains, Mobile Minis) that move—not affixed to the ground
- Handi-House with no utilities—only tie-downs without inground foundation
- Motor homes with no permanent utility connections
- Trailers on stabilizer jacks (temporary)
- "Party tents" – shelters for craft when performing tasks
- Temporary construction features/equipment
- Portable carports (without foundations) that are moved but not disassembled

Concurrence by the area/project ECA is required prior to beginning work.



Portable tents without utilities



No tie-downs, not disassembled



No tie-downs/no utilities



No tie-downs/no utilities



No tie-downs/no utilities; routinely moved around the site