HAZARDOUS WASTE MANUAL

Procedure Cover Sheet

Procedure Title: Satellite Accumulation Areas

Procedure Number: TSO-07-04-REV 0

Effective Date: 01 September, 2007

Approved by: [Signature]
Technical Safety Office Director

Date: 20 Aug 07
A. INTRODUCTION

A Satellite Accumulation Area (SAA) is defined in 40 CFR 262.34, but is interpreted differently by each of the 10 EPA regions in the U.S. It allows for accumulation of up to 55 gallons of hazardous waste, or 1 quart of acutely hazardous waste (P-listed) "at or near any point of generation where wastes initially accumulate." EPA region 10 defines this location as being within the room where a waste is first generated, and thus, it cannot pass through a doorway to a hall or be moved to another waste SAA, even though it may contain a compatible or identical waste stream. Thus, a separate SAA must be created for each laboratory or room where a waste stream is generated; more than one SAA may also be needed in the same room if incompatible waste streams with a requirement for separation are generated in that room.

B. PURPOSE

The purpose of this procedure is to explain the steps for creating a new Satellite Accumulation Area (SAA) system and the procedure for closing an unneeded SAA.

C. REQUIRED MATERIAL(S)

SAA Information Form
SAA Binder

D. PROCEDURE

The procedure for creating a Satellite Accumulation Area is as follows:

1. Obtain an SAA Information Form.
2. Fill in the Information Form completely.*
3. Have the Information Form reviewed by a member of the Technical Safety Office staff and approved by the Director of the TSO.
4. Provide SAA management training to the SAA manager. SAA training includes the responsibilities of both the SAA manager and the TSO (SAA training documents can be found in the TSO share Athena directory).
5. Place the SAA label from the SAA packet in a prominent location near the SAA’s location (for example, on the cabinet door) so that all personnel in the vicinity will know that there is an SAA nearby.

6. Provide the SAA manager with the remainder of the packet and inform the manager that it should be stored either at or near the accumulation site.

*When choosing a site for a new SAA, it is important to follow the RCRA standards for an SAA. In 40 CFR 262.34, it states that a doorway is the boundary for any accumulated waste, including doorways between laboratory suites.

E. TERMINATING AN SAA

All that is necessary in SAA termination is the removal of the SAA binder and all hazardous waste stickers from the area. A full clean out of the remaining chemicals completes the process. The SAA information sheet should be moved to the terminated SAA file together with a memo detailing the reason for termination, the person who authorized termination, the date and signatures.

F. ATTACHMENTS

- SAA Information Form
- SAA Training Outline
- SAA Guideline Sheet
- SAA Labels
Idaho State University
Technical Safety Office

Satellite Accumulation Area Information

SAA # (Dept/Bldg. & Rm. #): ________________________________

SAA Manager: ____________________________________________

Phone #: __________________ Email: _________________________

Waste Generation Sources: _________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Projected RCRA Waste Codes (TSO will fill this part out):

Estimated Waste Generation

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______________________________________________

I have received a 2003 edition of the ISU Hazardous Waste Policies and Procedures Manual

SAA Information Reviewed by:

__________________________________________ Date: ______

TSO Personnel
Hazardous Waste Management

__________________________________________ Date: ______

SAA Manager
SAA MANAGEMENT TRAINING

ISU Technical Safety Office

Course Outline

I. Introduction to ISU Chemical Waste Management Program
   A. Hazardous waste generated at ISU should be managed in accordance with state and federal laws:
      1. Resource, Conservation and Recovery Act (RCRA) found in 40 CFR 262.34
      2. Department of Environmental Quality guidelines
   B. The ISU Chemical Hazardous Waste Policy and Procedures Manual summarizes these laws and provides local policy for their implementation.
   C. ISU’s hazardous waste management program
      1. Goals include:
         a. Minimization of waste generation and increase recycling
         b. Maintain a Small Quantity Generator Status (<1000 kg total, 1 kg P-list generated per month) under RCRA.
      2. Individual effort and responsibility (potential personal liability).
         a. These goals cannot be accomplished without personal commitment.
         b. Individuals (including students) generating the waste can also become personally liable for mismanagement of waste.
         c. This training is to help you become familiar with the proper management of chemical waste.

II. Waste Management
    Chemical waste management at ISU involves:
    A. Characterization of Waste
    B. Placement of the SAA
    C. Management of the SAA
       1. Containment, labeling, closed containers
       2. Waste inventory
       3. Weekly inspections
    D. Waste Removal & Record Keeping
III. Waste Characterization

Ideally, waste streams from teaching and research laboratories should be identified before wastes are produced. Identification, or waste characterization, of waste is a cooperative effort between the principal researcher, materials manager, and the Technical Safety Office (ext. 2310).

The researcher may initially identify hazardous waste in his/her laboratory according to the material's specific characteristics or RCRA listing: (see reverse) found in the ISU Chemical Hazardous Waste Policy and Procedures Manual. Waste chemical characterization can also be identified using the Hazardous Material Inventory Tracking System on the ISU computer HP3000 network. See your materials manager to be trained on how to utilize this system. Once proper characterization is completed, disposal of waste can become a fluid process that is non-disruptive to regular research.

IV. Placement of the SAA (40 CFR 264.170-177)

All facilities that generate waste streams that can be characterized as a hazardous waste should maintain a Satellite Accumulation Area (SAA) (40 CFR 262.34(c)(1)). Contact your department's materials manager or the TSO (x 2310) to obtain a form and instructions for creating an SAA.

The SAA must:

1. Be located in an area protected from natural degradation, such as rain, sunlight.
2. Be located at the point of generation (i.e., within the same room as the generation takes place).
3. A sign must designate the area as a Hazardous Waste Satellite Station.
4. Only be used for hazardous waste storage.
5. Have secondary containment such as a tub or drum that will contain, at least, the quantity of the largest container.
6. Have incompatible wastes stored in separate containers and segregated to prevent reactions.
May 27, 2009

An SAA packet contains all needed signs and labels needed for proper management and is available from the Technical Safety Office and your department SAA Coordinator, generally the materials manager or safety coordinator.

V. Management of SAA's

A. The Generator: Each person who conducts an experiment and/or generates chemical waste is called a Generator. This individual is personally responsible for carrying out the proper chemical waste handling method according to their training and the guidelines listed in the Chemical Waste Management Policy and Procedures Manual.

B. SAA Manager: Each SAA will have a specific person called the SAA Manager. Generally, this is the lab's principal researcher or laboratory supervisor.

The Manager is specifically responsible for:
- Obtaining SAA training of all generators (lab personnel)
- All material placed within the SAA
- The general safety of the SAA
- Proper labeling of waste containers
- Maintaining/filing Chain of Custody records
- Notifying the TSO of needed pickups
- Notify the TSO of spills or leakage

C. SAA Coordinator: Each department or college will have a designated SAA Coordinator, generally the materials manager or department safety coordinator.

The SAA Coordinator has the responsibility to:
- Provide materials needed for the SAA
- Assist researcher in characterizing waste
- Coordinate pickups where needed
- Provide training to stockroom personnel
- Act as liaison between the department and TSO

D. The **Technical Safety Office** has the sole responsibility for:

- Providing SAA packets to departments
- Final waste characterization
- Hazardous waste removal
- Hazardous waste transportation
- Hazardous waste disposal
- Placing the "Start Date" on waste containers
- Weekly SAA inspections

VI. Containers

Waste must be stored in compatible containers that prevent rupture or leakage of the material contained. Each waste container must be labeled with the following:

- Phrase **"HAZARDOUS WASTE"**
- **Generator’s name, building, & room number** where generated. The SAA packet contains proper labels.
- **Chemical constituents** contained: A generic title may only be given where specific waste profiles have been established with the Technical Safety Office (i.e., in teaching labs or continual research processes). Contact the TSO at ext. 2310 to establish a waste profile where applicable.

**DO NOT FILL OUT THE START DATE** as this is the legal date at which the material leaves the SAA and is written by the TSO at the time of pick-up.

**ALL WASTE CONTAINERS MUST BE KEPT CLOSED during storage, except when adding or removing waste.**
May 27, 2009

VII. Inventory

Each waste container's labeled information should be written in the SAA Chain of Custody (COC) form for inventory and transportation purposes at the time of placement in the SAA. A copy of the COC must be kept in a file at the SAA or in its vicinity with a note of its whereabouts located in the SAA folder. The COC is used as the laboratory's record of appropriate disposal.

VIII. Inspection

TSO personnel will inspect the SAAs throughout the campus on a weekly basis to ensure regulatory and safety compliance. If you feel you have not been inspected recently, contact the TSO at 2310.

IX. Waste Pickup and Record Keeping

Once the SAA is nearing or at capacity, the TSO is required to transport the waste to the campus Temporary Accumulation Area (TAA) for disposal processing. The COC must be current at the time of removal.

A COC "generator" copy, containing the removed inventory, is kept with the Generator. Once the waste is disposed, the "Original, Return to Generator" copy is returned to the Generator for the SAA records. These two records must be kept together in a file at the SAA or in its vicinity with a note of its whereabouts located in the SAA folder.

X. Emergency Spill Response

Though life safety is considered the highest priority of laboratory work, there may be occasions where chemicals and chemical wastes may be involved in accidents. Minimize the risk to yourself and others by preparing in advance for chemical emergencies.

A. Before an accident occurs:

1. Become familiar with hazardous chemicals and their storage location.
   b. Maintain a binder in the laboratory with Material Safety Data Sheets for each chemical stored there and read them.

a. Obtain information and training on each chemical used from your laboratory supervisor before using them.


B. During an accident involving hazardous chemicals:

1. Get yourself and others away and close the door.

2. Call Campus Safety at extension 2515 for assistance with the following information:
   - Your name and location of the incident.
   - What has happened.
   - Number of extent of personal injuries.
   - Chemicals, and their quantities involved, if known.
   - Chemical containers and any markings or labels.

3. Do not attempt to extricate anyone who has been overcome from chemical exposure.

4. Send someone to notify your Floor or Building Emergency Coordinator of the situation. (This information should be posted near the stairs/exit doors of each floor.)

5. Wait in a safe area until you are contacted by an Emergency Coordinator or Campus Safety Officer.

Contact the Technical Safety Office at 282-2310 or visit our web page at:

http://www.physics.isu.edu/health-physics/tso/o/home1.html
Hazardous waste generated at ISU should be managed and removed in accordance with the Resource, Conservation and Recovery Act (RCRA) found in 40 CFR 262.34, Department of Environmental Quality guidelines, and the ISU Hazardous Waste Policy Manual. All facilities that generate waste streams that can be characterized as a hazardous waste should maintain a Satellite Accumulation Area (SAA) (40 CFR 262.34(c)(1)).

**WASTE REMOVAL**

Ideally, waste streams from teaching and research laboratories should be identified before wastes are produced. Identification, or waste characterization, of waste is a cooperative effort between the principle researcher, materials manager, and the Technical Safety Office (ext. 2310). Once proper characterization is completed, disposal of waste can become a fluid process that is non-disruptive to regular research. This process includes:

- Characterization of Waste
- Placement of the SAA
- Management of the SAA containment, labeling, closed containers, waste inventory, weekly inspections
- Waste removal & Record Keeping

**WASTE CHARACTERIZATION**

Beyond the Technical Safety Office and the department's materials manager as a resource for waste characterization, the researcher may initially identify hazardous wastes in his/her laboratory according to the material's specific characteristics or RCRA listing (see reverse). Waste chemicals can also be identified using the Hazardous Material Inventory Tracking System on the ISU computer HP1000 network.

**PLACEMENT OF THE SAA**

(40 CFR 264.170-177)

Contact your department's materials manager or the TSO (ext. 2310) to obtain a form for creating an SAA. The SAA should be located in an area protected from natural degradation, such as rain, sunlight, and be located at the point of generation (i.e., within the same room as the generation takes place). A sign must designate the area as a Hazardous Waste Satellite Accumulation Area. The SAA should only be used for hazardous waste storage. The SAA must have secondary containment such as a tub or drum that will contain, at least, the quantity of the largest container. Incompatible wastes must be stored in separate containers and segregated to prevent reactions.

An SAA packet contains all needed signs and labels needed for proper management and is available from the Technical Safety Office and the department SAA Manager, generally the materials manager or safety coordinator.

**MANAGEMENT OF SAA**

A person who is directly responsible for creating a hazardous waste is referred to as the Generator. Generators, usually laboratory workers, be they students or professors, are specifically responsible for initiating proper handling of hazardous waste. Each SAA will have a specific person called the SAA Manager. Generally, this is the lab's principle researcher or whoever generates hazardous waste. The SAA Manager is specifically responsible:

- for obtaining SAA training of lab personnel
- for all material placed within the SAA
- for the general safety of the SAA
- proper labeling of waste containers
- maintaining the SAA Chain of Custody records
- notifying the TSO of needed pickups
- notify the TSO of spills or leakage

Each department will have a designated SAA Coordinator, generally the materials manager or department safety coordinator. This person has the responsibility:

- to provide materials needed for the SAA
- assist researcher in characterizing waste
- coordinate pickups where needed
- provide training to stocking personnel
- act as liaison between the department and TSO

The Technical Safety Office has the sole responsibility for:

- providing SAA packets to departments
- final waste characterization
- hazardous waste removal
- hazardous waste transportation
- hazardous waste disposal
- placing the "Start Date" on waste containers
- weekly SAA inspections

**CONTAINERS**

Waste must be stored in compatible containers that prevent rupture or leakage of the material contained. Each waste container must be labeled with the following:

- the words, "HAZARDOUS WASTE"
- generator's name, building, & room number where generated. The SAA packet contains proper labels
- chemical constituents contained: A generic title may only be given where specific waste profiles have been established with the Technical Safety Office (i.e., in teaching labs or continual research processes). Contact the TSO at ext. 2310 to establish a waste profile where applicable.

All waste containers must always be closed during storage, except when adding or removing waste.

**INVENTORY**

Each waste container's labeled information should be written in the SAA Chain of Custody (COC) form for inventory and transportation purposes at the time of placement in the SAA. A copy of the COC must be kept in a file at the SAA or in its vicinity with a note of its whereabouts located in the SAA folder. The COC is used as the laboratory's record of appropriate disposal.

**INSPECTIONS**

TSO personnel will inspect the SAA's throughout the campus on a weekly basis to ensure regulatory and safety compliance. If you feel you have not been inspected recently, contact the TSO at ext. 2310.

**WASTE PICK UP & RECORD KEEPING**

Once the SAA is nearing or at capacity, the TSO is required to transport the waste to the campus Temporary Accumulation Area (TAA) for disposal processing. The COC must be current at the time of removal.

A COC "generator" copy, containing the removed inventory, is kept with the Generator. Once the waste is disposed, the "Original, Return to Generator" copy is returned to the Generator for the SAA records. These two records must be kept together in a file at the SAA or in its vicinity.
SAA LABELS

SAA labels are required to be posted to show that a room or area contains a Satellite Accumulation Area. This also alerts non-university emergency responders that the area contains known hazardous wastes. The labels provided by the TSO are typically bright orange with black lettering.

CAUTION

Hazardous Waste
Satellite Accumulation Area

Containers must be listed on chain of custody form.

In addition, the below "For Spill Assistance" sticker must be posted prominently in the area where hazardous waste is used. For example, it could be placed on a fume hood, or on the secondary container.

For Spill Assistance:
1. Get yourself and others away & close the door
2. Call Campus Safety (ext. 2515) for assistance
   — your name and location of the incident.
   — what has happened.
   — number and extent of personal injuries.
   — chemicals, and their quantities involved
   — chemical containers and any markings or labels.
3. Do not attempt to extricate anyone who has been overcome from chemical exposure.
4. Send someone to notify your Floor or Building Emergency Coordinator of the situation.
   (This information should be posted near the stair/walk doors of each floor.)
5. Wait in a safe area until you are contacted by an Emergency Coordinator or Campus Safety Officer.
A. INTRODUCTION

Every SAA must conform to 40 CFR 262.34. In order to ensure compliance, TSO personnel must check each SAA every month.

B. PURPOSE

The purpose of this procedure is to explain the procedures that ensure each SAA complies with 40 CFR 262.34. This process includes the proper marking of hazardous waste containers for transport to the TAA.

C. REQUIRED MATERIALS

SAA Checklist
Appropriate PPE (gloves)

D. PROCEDURE

Every month, each SAA should be inspected by a member of the TSO Staff in order to ensure the following:

1. That no containers are cracked or leaking.
2. That all waste containers are placed in a secondary container sufficiently large to hold the contents of the largest primary container (40 CFR 264.175).
3. That full waste containers are noted on the checklist so that transportation to the TAA occurs in a timely manner.
4. That all SAA doors not in use are locked.
5. That the proper signage is posted and in good condition (see the New SAA procedure).
6. That non-compatible wastes are not stored near each other (see the Waste Characterization procedure).

E. ATTACHMENTS

Sample SAA Inspection Form (for the Biology Building)
May 27, 2009

Monthly Check Sheet for SAAs - Biological Sciences Building 65

Month and Year ___________________

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Signature________________________
A. INTRODUCTION

There are many types of hazardous waste that are generated on the ISU campus, not only in the SAAs labs, but also at various other places around campus. Regardless of whether hazardous waste is found at a SAA or some other location around campus, it is the responsibility of the TSO to pick up that waste and transport it to the TAA for proper storage.

B. PURPOSE

The purpose of this procedure is to illustrate the proper procedure for picking up hazardous waste.

C. REQUIRED MATERIAL(S)

PPE
Secondary Containers (Tubs)

D. PROCEDURE

When the TSO receives a call to pick up waste, the call will come either from an established SAA or some other location. When the call comes from an SAA lab, it is referred to as a routine pick up, since these locations are generating a constant stream of waste. If the call comes from some other location, it is referred to as a one-time pick up because the waste generated by these places is not constantly generated.

Routine Waste Pick Up Procedure:

1. Check the waste tag on the full container against the Chain of Custody (CoC) form to ensure that the waste being picked up has been recorded. If the waste is not properly labeled, it must be labeled before the waste can be removed (see sections on Labeling and CoC’s).
2. After the waste has been properly listed, it needs to be start-dated. This space on the hazardous waste label is exclusively
for the TSO and signifies the date the waste was picked up by TSO staff.

3. Once the waste has been start dated and properly recorded, it should be placed in a secondary container and moved to the TAA in an official university vehicle for storage until the time it is picked up by a waste disposal company. For proper storage in the TAA, see the section on Waste Segregation.

One-time Waste Pick Up Procedure:
All procedures for a one-time pick up are the same as those for a routine pick-up with the exception that the labeling and CoC forms are filled out by TSO staff.

E. CHAIN OF CUSTODY FORMS

When a CoC has been completely filled up with waste entries and all items have been picked up at the SAA, or in the case of one time pick-ups, the CoC should be signed by the member of the TSO staff who is transporting the waste. There are different formats of CoC forms so TSO staff must check the bottom of the CoC to determine the recipient of each of the three carbon copies. Generally, the TSO receives the white and yellow forms, while the pink copy is given to the generator. At an SAA, the pink form will stay in the binder. In the case of a one-time pick up, the pink copy may be given to the generator if they require it for their records.
Procedure #: TSO-07-04
Procedure Title: Satellite Accumulation Areas
Approval Date: August 20, 2007
Effective Date: September 1, 2007

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REVISION TRACKER

Revision 0 September 1, 2007 Original Procedure