
Ames Laboratory
Office Environmental Safety Health & Assurance
Title Waste Management Contingency Plan
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Plan 10200.017
Revision 10
Effective Date 04/21/08
Review Date 04/21/11

Waste Management Contingency Plan

This plan is intended to detail the actions that must be taken by the Emergency Coordinator and Spill Response Team in the event of an emergency that involves the hazardous waste storage room (B55 Spedding Hall) the low-level waste storage room (B56A Spedding Hall), and room 105 in the Mechanical Maintenance Building (Radioactive Waste Area/RWA) and events that may require the Spill Response Teams expertise.

Comments and questions regarding this plan should be directed to the contact person listed below:

Name: Dan Kayser
Environmental Specialist
Address: G40 TASF
Phone: 294-7923

Sign-off Record:

Approved by: _____ Date: _____
Manager, ESH&A

Reviewed by: _____ Date: _____
Facility Services Manager & Emergency Coordinator

Note: This document's Sign-off Record is maintained in the ESH&A Documents & Records Office, 151 TASF.

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1.0 Revision/Review Log

The Emergency Coordinator(s) and Spill Response Team will review this document once every three years as a minimum.

Revision Number	Effective Date	Contact Person	Pages Affected	Description of Revision
0	12/31/94	K. Lampe Hannasch	All	Initial Issue
1	11/01/97	K. Lampe Hannasch	All	Update organizational names, acronyms
2	04/01/99	D. Kayser	All	Update
3	04/21/00	D. Kayser	All	G:\DOCS&REC\DCP\RevisionDescriptions\Plan102_017
4	04/23/01	D. Kayser	11,12	G:\DOCS&REC\DCP\RevisionDescriptions\Plan102_017
5	11/01/01	D. Kayser	1,8,12	G:\DOCS&REC\DCPRevisionsDescriptions\Plan102_017
6	01/21/02	D. Kayser	7	G:\DOCS&REC\DCPRevisionsDescriptions\Plan102_017
7	02/21/03	D. Kayser	4,5,8,13,15	G:\DOCS&REC\DCPRevisionsDescriptions\Plan102_017
8	03/08/04	D. Kayser	2,3,4,11,12,14	G:\DOCS&REC\DCPRevisionsDescriptions\Plan102_017
9	08/15/05	D. Kayser	1,3,5,7	G:\DOCS&REC\DCPRevisionsDescriptions\Plan 02_017
10	04/21/08	D. Kayser	5,11,14	G:\DOCS&REC\DCPRevisionsDescriptions\Plan 02_017

2.0 Purpose and Scope

A contingency plan is required for hazardous waste storage areas in accordance with 40 CFR 265.52. This plan has been developed specifically for the waste storage areas in room B55 and B56A Spedding Hall and the Radioactive Waste Area (RWA) which is located in the Mechanical Maintenance Building, room 105. Individuals who are affected by this plan are ESH&A waste management personnel, Emergency Coordinator(s) and the Spill Response Team.

The Contingency Plan will be implemented if an incident threatens human health or the environment (fire, explosion or other release of hazardous waste or hazardous waste constituents to the air, soil or surface water). The following emergencies would call for the implementation of the Contingency Plan:

- Fire or explosion in an area where hazardous wastes are present,
- Spill resulting in a release outside (off-site) of the secured storage areas, and
- Formation and release of toxic fumes from the storage of incompatible waste.

2.1 Waste Management Contingency Plan Distribution List

As this plan is an appendix to the Ames Laboratory Emergency Plan, the distribution of the plan will be the same.

3.0 Responsibilities

3.1 Emergency Coordinators

Duties of the Emergency Coordinator are defined in Section 3 of the Ames Laboratory Emergency Plan and include:

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- a. Coordinate the emergency response, including integrating off-site responders with in-house service and support teams.
- b. Notification of State or Local agencies if assistance is needed (see Section 5.5).
- c. Assure that all necessary actions have been taken to contain the release. These measures include:
 - ensuring required equipment and trained operators have been secured to respond to the release or emergency, and
 - ensuring (with the assistance of ESH&A) that if necessary, appropriate environmental samples have been taken.
- d. Determine the character, source, amount and extent of any released materials.
- e. With assistance from the Spill Response Team, assess any possible hazards to human health or the environment that may result from the release (direct and indirect effects).

3.2 Facility Manager

The Facility Manager is responsible for off-site notifications in accordance with the provisions of DOE Order 232.1A Occurrence Reporting.

3.3 Spill Response Team (SRT)

In the event of a spill within the confines of the waste accumulation and storage room the SRT will use appropriate methods and materials to minimize the risk to human health and the environment. The SRT will be able to provide pertinent information to off-site emergency response personnel in the event of a fire or other emergency for which the SRT is not equipped to respond.

4.0 Waste Storage Areas

4.1 Waste Storage Room

USEPA Identification number: IA6890008950, Ames Laboratory buildings.

Locations: B55 & B56A Spedding Hall, SW corner of basement in Spedding Hall and room 105 in the Mechanical Maintenance Building (aka: Radioactive Waste Area (RWA))

Operators: Environmental Specialist and Health Physics Technician

Hours of operation: 8:00 am to 5:00 pm, each Laboratory workday

The Waste Storage Room (B55) is used for the temporary storage of waste and special regulated waste materials generated in Ames Laboratory buildings.

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Typical waste materials include:

- lecture size cylinders,
- solvents,
- spent acid and spent alkali solutions,
- aqueous solutions of toxic metals,
- small quantities of various chemical mixtures and unused commercial products, and
- paper and absorbents contaminated with the above listed materials.
- used oil.

Hazardous waste materials are stored in assorted containers ranging from, 4 Liter bottles or smaller. The lab has one flammable liquid waste stream in a 55 gallon drum, which is stored in a bulk storage flammable cabinet. The cabinet's maximum capacity is 110 gallons (2 x 55 gallon drums). Three other flammable cabinets store flammable liquids in 4 liter bottles or smaller. Acids and oxidizers are stored in the corrosive cabinet.

All incompatible wastes are stored in segregated areas. Materials are managed in a manner to prevent the ignition or reaction of flammable or reactive waste. The Waste Storage Room is inspected weekly for signs of leaks or deterioration of secondary containment. Inspections are documented on the Hazardous Waste Inspection Log (form #:10200.109 rev 4). Repairs are immediately implemented to secure the storage area.

Low-Level Waste (LLW) is stored in B56A Spedding Hall and room 105 in the Mechanical Maintenance Building (RWA). LLW consist of building materials; equipment and discarded materials contaminated with radioactive isotope(s). In the event that a mixed waste is generated (RCRA & Radioactive components) it will be stored in B56A until disposal arrangement can be made.

5.0 Waste Management Contingency Procedure (10200.044)

5.1 Emergency Operations Center (EOC)

The Plant Protection Section (G34 TASF) is the normal EOC for emergencies since this is the central communications point for Ames Laboratory. The Plant Protection Section is staffed 24 hours/day, 7 days a week. In the event of an incident after normal working hours Plant Protection will implement the Emergency Call List (see page 12).

5.2 Containment and Control

Whenever there is a release, fire or explosion for which the Contingency Plan is implemented, the Emergency Coordinator with assistance from Spill Response Team will identify the source, amount, extent of the release, and hazardous conditions.

In any emergency event, the Emergency Coordinator will use one or more of the following measures to ensure maximum protection of the safety and health of employees and the public:

- a. Dismiss all non-essential personnel and tend to any injured personnel immediately,

- b. Use appropriate safety equipment, and
- c. Advise local authorities on the desirability of evacuating potentially affected areas of surrounding property.

5.2.1 Fire and Explosions

- 1) If building fire alarm has not sounded, seek and activate closest manual pull station to start evacuation of building.
- 2) If trained in use, and a clear exit can be maintained, use approved fire extinguisher to fight fire.
- 3) Using two way radio switch to channel 1, and state your name (“ name to base 2”) and notify plant protection of your location and situation.
- 4) If it is not safe to fight fire evacuate and report to Emergency Operations Center/Plant Protection Section (G34).

5.2.2 Spills

- 1) Contain spill if safe to do so.
- 2) Using two way radio switch to channel 1, and state your name (“ name to base 2”) and notify Plant Protection of your location and situation.
- 3) Barricade entries to spill area.
- 4) Wait for SRT members to arrive before cleaning-up the spill.

5.2.3 IDLH Releases

- 1) Pull fire alarm to evacuate the building.
- 2) Using two way radio switch to channel 1, and state your name (“ name to base 2”) and notify Plant Protection of your location and situation.
- 3) Report to Emergency Operation Center
- 4) Work with EC to determine if HAZMAT needs to be contacted.

5.3 Emergency Equipment

- 1) Alarm Systems: Non-fire occupant notification of conditions (weather, evacuation) is done by public address system in Plant Protection (G34 TASF) and by remote pager. Fire-related occupant notification in waste management locations is by building fire alarm system. Notification is a strobe/horn.
- 2) Fire extinguishers are placed throughout Ames Laboratory in accordance to NFPA10.
- 3) Waste Storage Areas are equipped with a sprinkler system.
- 4) Waste Storage Areas are equipped with fire detection systems.
- 5) Communication equipment: Telephones are in close approximation of the Waste Storage Areas for obtaining emergency assistance. Personnel also carry two-way radios.

- 6) Bulk fire extinguishers for metal fires are located where needed.
- 7) Spill Response Materials are located throughout the Laboratory's First Aid Closets. Closets are checked quarterly by Plant Protection Personnel.
- 8) Chemical Spill Response Materials in Room B55 Spedding Hall (Waste Storage Room).

Inventory	Usage
BC Fire Extinguisher	Electrical & Organic Liquid Fires
Neoprene Gloves	Personal Protective Equipment (PPE)
Boot Covers	PPE
Yellow Tyvek	PPE
Lime	Metal Fires
Vermiculite	Spill Containment & Clean-Up
Drum Patch	Spill Control
Absorbent Pillows	Spill Containment & Clean-Up
Mercury Vacuum	Mercury Spills
Absorbent Socks	Spill Containment

- 9) Chemical Spill Response Materials located in G34 TASF.

Inventory	Usage
Poly Bags (55 gal)	Spill Clean-up
Poly Bags (5 gal)	Spill Clean-up
Drain Covers	Spill Containment
Solusorb	Solvent Absorbent
Lime	Metal Fires
Sodium Bicarbonate	Acid Spills
Absorbent Pads	Spill Containment & Clean-Up
Absorbent Pillows	Spill Containment & Clean-Up
Absorbent Socks	Spill Containment
Hand Tools	Non-Sparking
NIOSH Chem Guide	Hazard Guide Book
Nitrile Gloves	Personal Protection Equipment (PPE)
Goggles	PPE
Latex/Neoprene Gloves	PPE
Neoprene Gloves	PPE
Butyl Rubber Gloves	PPE
Chem Resistant Boots	PPE
Yellow Tyvek Suits	PPE
Jump Bag	BBP & Bacterial Clean-Up
Bleach (under sink)	BBP & Bacterial Clean-Up
Chem Resistant Broom	Spill Clean-Up
Chem Resistant Shovel	Spill Clean-Up
Spill Response Cart	Spill Containment & Clean-Up

- 10) Oil Spill Response Materials located in the Maintenance Garage.

Inventory	Usage
Spill Response Cart	Spill Containment & Clean-Up
Drain Covers	Spill Containment

- 11) Full face or half-face respirators. Each member of the Spill Response Team is responsible for his or her own respirator.

5.4 Follow-Up Actions

Following the containment and control of the emergency, the SRT will provide the following actions before facility operations are resumed:

- a. Collection, on-site storage and off-site treatment/disposal of wastes, contaminated soils or other materials by outside contract as appropriate,
- b. Air, water and soil samples are to be taken as appropriate to evaluate the extent of environmental contamination resulting from the emergency,
- c. Ensure that all emergency and safety equipment is cleaned and restored to fully operational status. All personal protective and safety equipment will be cleaned and fitted for reuse or disposed of and replaced. Any equipment that is cleaned and refitted will be tested to insure proper working order,
- d. Perform an investigation into the cause of the emergency and take steps to prevent a recurrence of the incident, and
- e. Ensure that the cause of the emergency has been eliminated and that clean-up and restoration has progressed to the point of not jeopardizing the health and safety of employees or the public.

5.5 Notification

Ames Laboratory does not typically store hazardous chemicals above reportable threshold limits. However, in the event of a reportable spill or release the following agencies will be contacted:

(**NOTE:** All spills/releases, to the outside environment, must be reported to the IDNR regardless of size or amount)

State: Iowa Department of Natural Resources (IDNR) Response Hotline
515-281-8694 and report the following information:

1. Your name and telephone number,
2. Ames Laboratory, and building in which incident occurred,
3. Time of incident,
Type of incident (release, fire, explosion, etc.),

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4. Name and quantity of materials involved. To the extent that it is known,
5. Injuries if there are any, and
6. Extent of hazards to human health or the environment off-site.

County: Local Emergency Planning Committee
Story County Disaster Services at 515-382-7315

Provide the same information as reported to the State.

Federal: National Response Center at 1-800-424-8802 (24-hour)

Provide the same information as reported to the State.

6.0 Post Performance Activity

6.1 Required Reports

6.1.1 Occurrence Reports

Occurrence Reports to DOE will be prepared according to the Ames Lab Occurrence Reporting Plan.

6.1.2 Other Agency Reports

Follow up reports to the Iowa Department of Natural Resources is required within 30 days.

If a report is made to EPA Region VII, a follow up report is required as soon as practicable. The report should update previously supplied information and actions taken to respond to and contain the release.

6.2 Assessment of Contingency Plan Effectiveness

The Emergency Coordinator and Spill Response Team will review the Contingency Plan, for effectiveness, after an incident occurs resulting in the implementation of this Plan.

7.0 Training

7.1 OSHA

All SRT members will **require** the following training:

- Each member of the SRT, who may be engaging in the containment and/or clean up of a spill, will have at a minimum 24 hour HAZMAT training (AL-026 or AL-027) with an annual 8 hour refresher course.
- Each member will be under a medical examination performed by Occupational Medicine (G11 TASF). A medical will be performed at a minimum once every two years.
- A respirator fit test (AL-011) will be performed annually for SRT members that are respirator trained and may be called upon to wear a respirator.

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- Fire Extinguisher Training (AL-146) will be performed every three years.
- Blood Borne Pathogen Training (AL-035) will be performed annually.

SRT members involved in the clean up of a spill situation of which they may come into contact with a spilled hazardous material/hazardous waste will also be required to be respirator trained and fit tested (AL-011). A fit test will be performed annually for the following SRT members: Dan Kayser, Drew Fullerton, Shawn Nelson and Ken Ewing and Mike McGuigan.

7.2 Equipment

- The SRT will retrain as needed on various types of monitoring and spill response equipment. In most cases this will be covered in the annual 8 hour refresher course.

7.3 Communication/Information

- Initial two-way radio training.
- Where and how to access MSDS', chemical inventory and activity status sheets.

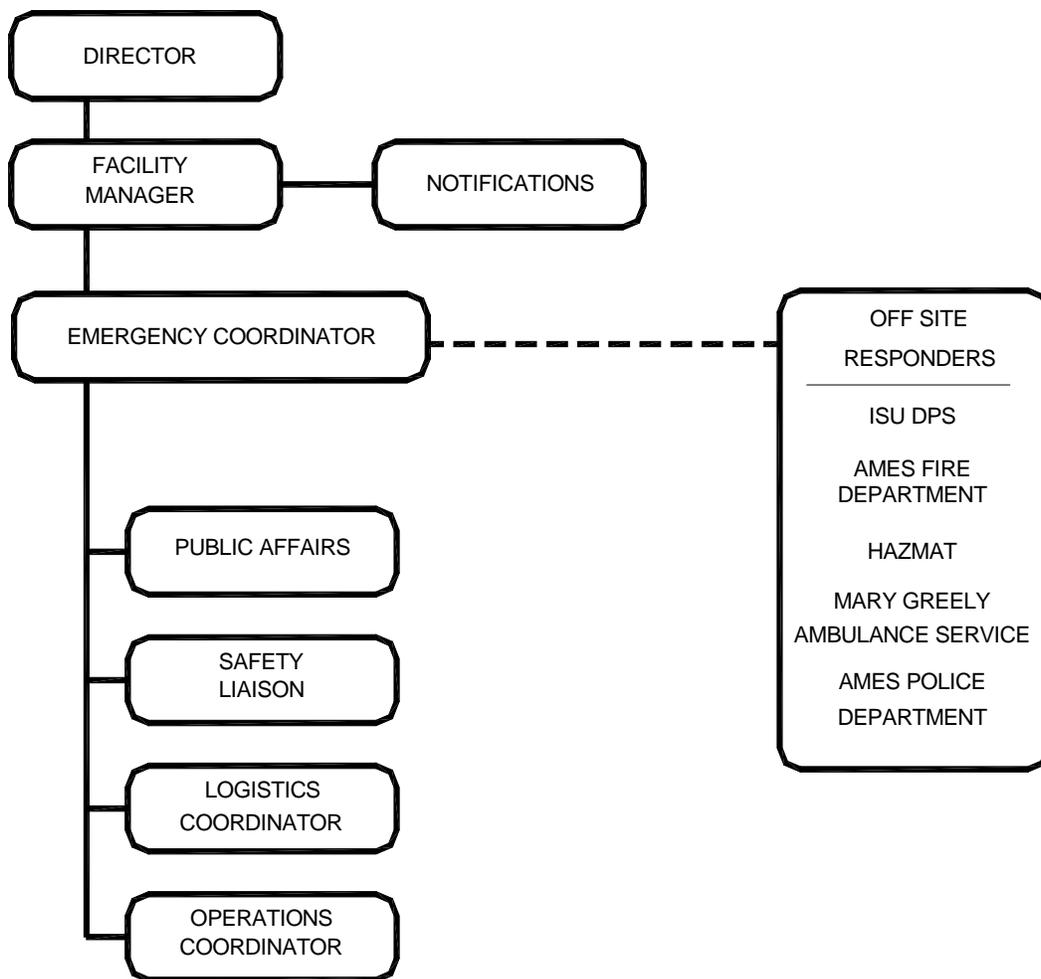
7.4 Spill Response

- The SRT and Emergency Coordinator will review this document annually at a minimum.
- Mock spill response drills and/or tabletop exercises as prescribed in the Laboratory's Emergency Plan section 13.2.b..

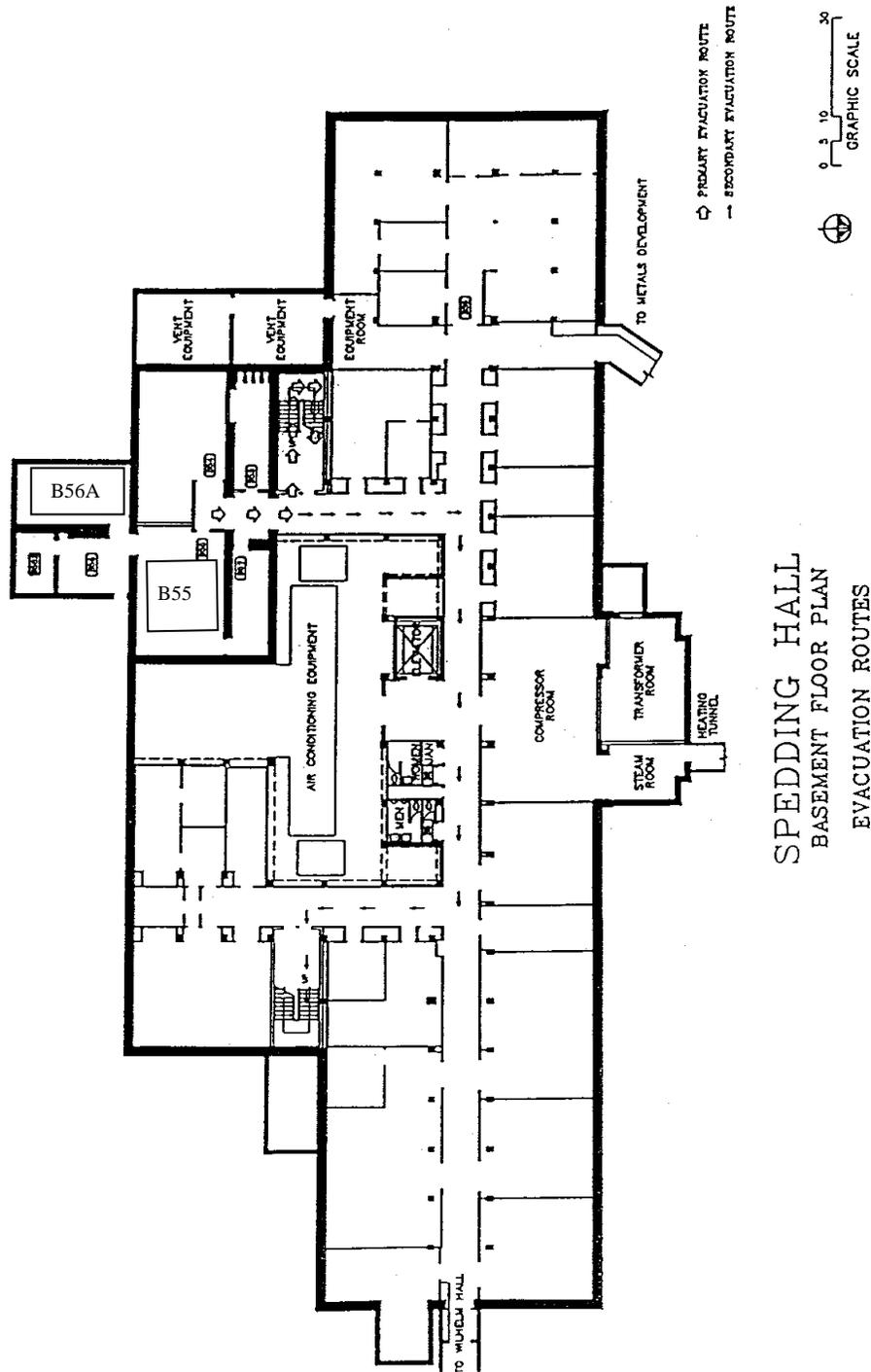
8.0 Attachments

- Emergency Response Organizational Chart
- Evacuation Routes for B55 & B56A Spedding Hall
- Emergency Call List

Ames Laboratory Emergency Response Organization



Evacuation Routes for Waste Storage Rooms (B55 & B56A Spedding Hall)



SPEEDING HALL
 BASEMENT FLOOR PLAN
 EVACUATION ROUTES

MARCH 1999

8x2 D.W.C

**Waste Management Contingency Plan
Contact List**

Emergency Coordinator/Incident Commander:

<u>Name:</u>	<u>Work Phone:</u>	<u>Home Phone:</u>	<u>Address:</u>
1) Mark Grootveld	294-7895	(515) 233-1631	5770 Felber St. Ames, IA
2) Mike Vaclav First Alternate	294-7891	(515) 232-8343	2414 Tullamore Lane Ames, IA
3) G.P. Jones Second Alternate	294-4161	(515) 432-6642	1941 B 240 th St. Boone, IA
4) Shawn Nelson Third Alternate	294-9769	(515) 964-5056	501 N.E. 16 th Street Ankeny, IA

Spill Response Team:

<u>Name:</u>	<u>Work Phone:</u>	<u>Home Phone:</u>	<u>Address:</u>
1) *Dan Kayser	294-7923	(515) 321-1842	300 Walnut St. Des Moines, IA
2) Jim Withers First Alternate	294-4743	(515) 233-2054	2304 Northwestern Ames, IA
3)*Shawn Nelson Second Alternate	294-9769	(515) 964-5056	501 N.E. 16 th Street Ankeny, IA
4)*Drew Fullerton Third Alternate	294-9277	(515) 432-9170	1721 Marshall St. Boone, IA
5) G.P. Jones	294-4161	(515) 432-6642	1941 240th Boone, IA
6)*Ken Ewing	294-7926	(515) 827-5528	2842 Saratoga Jewel, IA
7)*Mike McGuigan	294-7922	(515) 292-4103	215 Wellons Dr. Ames, IA

* These people have been trained and respirator fit tested.