|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **STANDARD OPERATING PROCEDURE (SOP)** | | | | | | | | | | | | | |
| **Procedure No.:** [SOP\_Document\_Number] | | | | | | **Revision:** [Rev] | | | **Effective Date:** [Effective\_Date] | | | | |
| **Title:** [SOP\_Title] | | | | | | | | | | | **Page Count:** XX pages | | |
| **Work Location:** [Work\_Location] | | | | | | | | | | | | | |
| **Procedure Review Cycle:** [Review\_Cycle] | | | | | **Procedure Use Category(select one):**  **☐ Mandatory ☐ Reference** | | | | | | | | |
| **Summary:** This Standard Operating Procedure (SOP) describes the Standard operation of the [system or equipment name] installed in the [facility name] facility.  [Include a statement that explains the meaning of the Procedure Use Category identified above. See instructions.] | | | | | | | | | | | | | |
| **Identified Hazards** (X = applies)**:** | | | | | | | | | | | | | |
| ☐ | Hazardous Environment | | ☐ | Physical Hazards | | | | | | ☐ | Radiological | | |
| ☐ | Hazardous Materials | | ☐ | Other [state hazard]: | | | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |  |
|  | Maximum Relative Hazard Index | |  |  | | | |  | | | | |  |
| **Role** | | **Name** | | | | | **Signature** | | | | | **Date** | |
| ***Procedure Preparation and Reviewer Concurrence*** | | | | | | | | | | | | | |
| Author | | [typed name] | | | | |  | | | | |  | |
| Peer Reviewer | | [typed name] | | | | |  | | | | |  | |
| Principal Investigator | | [typed name or “N/A”] | | | | |  | | | | |  | |
| ***Affected Functions/Organizations and Subject Matter Expert Concurrence*** | | | | | | | | | | | | | |
| ☐ | Laboratory Manager | [typed name or “N/A”] | | | | |  | | | | |  | |
| ☐ | Unit Safety Committee Chair | [typed name or “N/A”] | | | | |  | | | | |  | |
| ☐ | Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | [typed name or “N/A”] | | | | |  | | | | |  | |
| ***Procedure Approval note: approval must be documented from one of the following sources which may be campus specific, contact your department administration and/or EH&S for additional information.*** | | | | | | | | | | | | | |
| Department Chair | | [typed name or “N/A”] | | | | |  | | | | |  | |
| Environmental Health & Safety | | [typed name or “N/A”] | | | | |  | | | | |  | |

**CHANGE HISTORY**

|  |  |  |
| --- | --- | --- |
| **Revision** | **Effective Date** | **Description of Change** |
| [Rev] | [Effective\_Date] | [Brief description of what changed from the previous revision.] |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# PURPOSE AND APPLICABILITY

This SOP describes the Standard operation of the [process, system or equipment name] installed in the [location] in the [facility name] facility. [Include here the appropriate verbiage from the SOP instructions (Section 10), identifying the Procedure Use Category and explaining what it means. As appropriate and applicable, include a statement regarding restrictions for use of the SOP, e.g., “Only the personnel identified in the Distillation Column Qualified Operator List (see Exhibit B) as trained and qualified distillation column operators are allowed to operate the distillation column system.”]

This SOP has been developed to supplement the requirements of the (insert unit) processes. The equipment-specific requirements described in this SOP apply *in addition to* all relevant (insert entity) HDI requirements.

# RESPONSIBILITIES

Staff with responsibilities for implementing this procedure:

* [Principal Investigator]
* [Project Manager]
* [Operator (of the equipment/system)]
* Laboratory Coordinator/Manager

# DEFINITIONS

*Operator*: The staff member who has been trained to operate the [name of equipment or system].

*Principal Investigator*: The faculty member responsible for the research project and possibly also the laboratory facility where the research is being performed.

*Project Manager*: The student, research assistant, staff, or faculty member conducting the research work identified in Section 1.0.

*Laboratory Coordinator/Manager* : Individual other than the PI who is responsible for overseeing the laboratory facility where the research is being performed (where applicable).

# ACRONYMS AND ABBREVIATIONS

DOSH Department of Occupational Safety and Health

EHS Environmental Health and Safety

OSHA Occupational Safety and Health Administration

PPE personal protective equipment

PI Principal Investigator

R&D research and development

RHI Relative Hazard Index

SOP Standard Operating Procedure

# PROCESS/EQUIPMENT OVERVIEW

* 1. Process Overview

[Describe the chemistry involved and provide an overview of the operating conditions/parameters:

* Describe the chemistry involved.
* Provide a summary table that shows:
  + Operating conditions per the SOP (e.g., equipment’s maximum/operating temperature/pressure, procedure’s maximum/operating temperature/pressure, etc.)
  + Typical operating parameters
  + Feed flow rate:
    - A description of the feed stream(s)
  + Product flow rates and compositions:
    - Liquid
    - Gas
    - Solids
  + Materials and Supplies

This information allows SOP users to see a concise summary of the process and key operating conditions/parameters near the beginning of the SOP.]

* 1. [Facility Name] Facility Description

The [facility name] facility is…[Describe the facility/laboratory, engineering controls in place where the procedure will be performed, facility storage e.g. flammable storage cabinets, gas cylinder storage, fire suppression equipment, gas detection equipment, emergency washing facilities, this may be augmented with a drawing identifying locations. If the description is derived from some other source document(s), those sources must be specifically identified (e.g. laboratory safety manual, chemical hygiene plan, safety data sheets.

* 1. Description of the [Equipment or System]

[Describe the equipment, systems, and processes in sufficient detail to be meaningful in the context of the SOP and the intended use of the procedure; use subsections, as appropriate (pictures are helpful).]

* + 1. [Component or Subsystem Name]

[Describe the component or subsystem (if any). Delete this section (or add more sections), as needed.]

* + 1. [Component or Subsystem Name]

[Describe the component or subsystem (if any). Delete this section (or add more sections), as needed.]

* + 1. [Component or Subsystem Name]

[Describe the component or subsystem (if any). Delete this section (or add more sections), as needed.]

# HAZARD IDENTIFICATION

[Identify and describe the hazards associated with the equipment, its operations, the location, the facility, etc. Describe precautions and limitations to mitigate risk to staff, the equipment, the facility, the public, and the environment. Several types of common hazards are identified below.

* 1. Chemical Hazards

List all chemicals used for this process, including concentration and quantity. Also list any microorganisms, bodily tissues/fluids, and/or radionuclides

|  |  |  |
| --- | --- | --- |
| Chemical | Concentration | Quantity |
| e.g. chemical A |  |  |
| e.g. chemical B |  |  |
| e.g. chemical C |  |  |
| e.g. chemical D |  |  |
| e.g. chemical E |  |  |
| e.g. chemical F |  |  |
| e.g. chemical G |  |  |
| Add additional rows as necessary to include all chemicals |  |  |

Indicate the hazard(s) associated with the chemicals identified above

|  |  |  |  |
| --- | --- | --- | --- |
| Irritant | Carcinogen | Corrosive | Pyrophoric |
| Sensitizer | Reproductive Hazard | Explosive | Water Reactive |
| Toxic | Respiratory Hazard | Flammable | Self-Reactive |
| Poison |  | Oxidizer | Peroxide Former |
| Target Organ Hazard  (specify organ): |  | Other Hazard  (specify): |  |

* + 1. Irritant

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. use of irritants will be confined to a fume hood, personnel will be wearing nitrile gloves (select gloves based upon appropriate manufacturer data) and safety glasses. Reference additional documents as needed.

* + 1. Carcinogen

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. use of carcinogens will be confined to a fume hood, personnel will be wearing nitrile gloves (select gloves based upon appropriate manufacturer data) and safety glasses. Reference additional documents as needed.

* + 1. Corrosive

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. personnel using corrosives will be wearing splash resistant goggles, neoprene outer gloves and nitrile inner gloves (select gloves based upon appropriate manufacturer data. Reference additional documents as needed.

* + 1. Pyrophoric

Pyrophorics will only be manipulated in the designated glove box under argon gas. Please see the pyrophoric material SOP attached to this document for additional information. Reference additional documents as needed.

* + 1. Flammable

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. use of flammables will be confined to a fume hood, personnel will be wearing nitrile gloves (select gloves based upon appropriate manufacturer data) and safety glasses. All flammable gas plumbing will be leak tested upon initial connection after opening the gas cylinder and valves, and again, prior to running the experiment. Reference additional documents as needed.

* + 1. 6.1.6 Add additional hazards as needed
  1. Physical Hazards

[Describe the hazards and precautions associated with use of the chemicals, equipment, systems, or processes covered by the SOP. If no hazards exist, include a statement to this effect (don’t delete this section from the SOP; retaining it shows that the hazard type was considered, not overlooked).]

Check all that apply. Provide details regarding each physical hazard in the narrative section below.

|  |  |  |
| --- | --- | --- |
| Hazard | Check if present | Relative Hazard Index |
| Fire Hazards |  | See Section 6.4, consider controls present in section 6.3 |
| Elevated Temperatures |  |  |
| Cryogenic/Low Temp |  |  |
| Compressed Gases |  |  |
| Pressure or Vacuum |  |  |
| Biological |  |  |
| Radiation |  |  |
| Laser |  |  |
| UV light |  |  |
| Electrical |  |  |
| Moving Parts |  |  |
| Tools (hand/power) |  |  |
| Noise/Vibration |  |  |
| Sharps |  |  |
| Other (Describe:) |  |  |

* + 1. Fire Hazards

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. only intrinsically safe instruments will be used to minimize fire hazards. Reference additional documents as needed.

* + 1. Elevated Temperatures

Describe the controls (engineering, administrative and PPE) used to protect personnel from the hazards identified above, e.g. temperature will be monitored and experimental equipment will be allowed to cool to below 25 C before personnel will manipulate equipment.

* + 1. Add additional hazards as needed.
  1. Hazard Control Summary

| Chemical Hazards  (**Note: controls may be chemical specific or grouped per chemical hazard class as appropriate)** | | | |
| --- | --- | --- | --- |
| **Chemical/Hazard** | **Engineering Controls** | **Administrative Controls** | **PPE** |
| Chemical A, Hazard A |  |  |  |
| Hazard B |  |  |  |
| Hazard C |  |  |  |
| Add additional chemicals/hazards as needed |  |  |  |

| Physical Hazards | | | |
| --- | --- | --- | --- |
| **Hazard** | **Engineering Controls** | **Administrative Controls** | **PPE** |
| Chemical A, Hazard A |  |  |  |
| Hazard A |  |  |  |
| Hazard B |  |  |  |
| Hazard C |  |  |  |
| Add additional chemicals/hazards as needed |  |  |  |

Indicate what control measures will be implemented to mitigate hazards identified in Sections 6.1 and 6.2 above.

|  |  |  |  |
| --- | --- | --- | --- |
| **Hazard Control Summary Table** | | | |
| **Engineering Controls** | | | |
| Chemical Fume Hood | | Biological Safety Cabinet | Barrier (machine guards, blast shield, etc.) |
| Other: |  | | |
| **Administrative Controls** | | | |
| Describe policies, procedures, training, etc. which will administratively mitigate identified hazard(s): | | | |
| **PPE:** | | | |
| Safety Glasses | | Splash Goggles | Face Shield |
| Lab Coat | | Other skin protection (apron, gauntlets, etc. – specify): |  |
| Dust mask | | Air-Purifying Respirator | Supplied Air |
| Gloves (specify type): | |  | |

**Describe additional control measures here:**

* 1. Hazard Assessment

For each hazard, indicate the potential severity as determined with only intrinsic controls (e.g. engineering), the probability as determined with all controls (e.g. a user applies a strap to a compressed gas cylinder), and the resulting relative hazard index as looked up from the following matrix.] Use the risk matrix in this section to assign a Relative Hazard Index, and enter this value on the SOP cover sheet

Probability

☐ *Frequent*: Likely to occur repeatedly

☐ *Probable*: Likely to occur multiple but infrequent times

☐ *Occasional*: likely to occur at some time

☐ *Remote*: Possible, but not likely to occur

☐ *Improbable*: Very unlikely; can reasonably assume it will not occur

Severity

☐ *Catastrophic*: Death, permanent disability; system or facility loss; lasting public health or environmental impact

☐ *Severe*: Serious injury; temporary disability; subsystem loss or facility damage; temporary public health or environmental impact

☐ *Moderate*: Medical treatment; lost work days; minor facility damage; external reporting cleanup requirements

☐ *Minor*: First aid only; negligible or slight facility damage; routine cleanup

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk Matrix for Determining Relative Hazard Index (RHI)** | | **Potential Severity of Hazard** | | | |
| **Catastrophic** | **Severe** | **Moderate** | **Minor** |
| **Likelihood of Occurrence or Exposure** | **Frequent** | Critical  RHI = 4 | Critical  RHI = 4 | Serious  RHI = 3 | Medium  RHI = 2 |
| **Probable** | Critical  RHI = 4 | Critical  RHI = 4 | Serious  RHI = 3 | Medium  RHI = 2 |
| **Occasional** | Critical  RHI = 4 | Serious  RHI = 3 | Medium  RHI = 2 | Low  RHI = 1 |
| **Remote** | Serious  RHI = 3 | Medium  RHI = 2 | Medium  RHI = 2 | Low  RHI = 1 |
| **Improbable** | Medium  RHI = 2 | Low  RHI = 1 | Low  RHI = 1 | Minimal  RHI = 0 |

# EMERGENCY RESPONSE

[Clearly describe the appropriate responses to emergency events and situations. Ensure that the Single Point of Contact phone number is prominently stated in the SOP (in several places).]

**In the event of an emergency, call 911 and notify the Single Point of Contact ().**

The Single Point of Contact emergency number () is a monitored telephone line managed for the Safety needs of staff, non-staff, and the general community in order to coordinate appropriate responses and actions for events. The Single Point of Contact will notify other required personnel.

* 1. General [Facility Name] Emergency Procedures

Emergency information for the [facility name] facility is found in the for [facility name]. It identifies:

* locations of fire alarm pull boxes and fire extinguishers
* locations of eyewash stations and Safety showers
* other items related to emergency responses and Safety.

The current version of the Emergency Information Posting for [facility name] can be found at: [Provide a link to the EIP for the facility.

Response to [Specific Alarm or Condition]

[Alarms or conditions specific to the equipment, systems, or processes covered by the SOP likely won’t be addressed in the facility’s EIP. Describe these alarms, conditions, and appropriate responses; use subsections, as needed.]

* 1. Response to [Specific Alarm or Condition]

[Alarms or conditions specific to the equipment, systems, or processes covered by the SOP likely won’t be addressed in the facility’s EIP. Describe these alarms, conditions, and appropriate responses; use subsections, as needed.]

* 1. Decontamination Procedures

[Describe decontamination procedures for the chemicals listed above, these procedures may be discussed in chemical specific SOPs attached to this document and referenced in this section]

* + 1. [Specific Chemical]
    2. [Specific Chemical]
  1. Accidental Release response
     1. Minor Spill (as defined by Lab Safety Manual, Section II.I) Identify minor spills that will not be cleaned up per associated hazards if present.
     2. Major Spill (any mercury spill, any release not defined as “minor”, any release which impacts a floor/sink drain)
  2. Accidental Exposure / First Aid Response
     1. Eye Contact
     2. Skin Contact
     3. Inhalation
     4. Ingestion/Injection

# GENERAL WORK PRACTICES

* 1. Training and Qualification

Training and qualification requirements for [equipment or system name] operators are based on a combination of system knowledge, procedure performance, and demonstrated practical skills.

Describe any ***specific*** requirements that an operator must meet before performing the procedure:

# CONFIGURATION MANAGEMENT

During operation and maintenance of the [equipment or system name] system, changes to the equipment configuration may be required (e.g., to replace a faulty component) or desired (e.g., to improve usability or performance). Likewise, changes to the documentation – corrections and refinements to the drawings, instructions, and other information in the SOP – may also be needed. As described in the following sections, certain types of hardware modifications and pen-and-ink changes to the SOP are allowed during operation and maintenance. In order to maintain configuration control of the hardware and SOP, only authorized staff are allowed to make physical changes to the equipment or pen-and-ink changes to the SOP. All changes must be approved by the appropriate parties (identified below) before implementation, and all changes must be documented.

* 1. Changes to the Equipment Configuration

[Identify the individual(s), by role, e.g., “A trained and qualified operator”] may propose changes to the physical configuration of the [equipment or system name]. All changes – both major and minor, as defined below – to the physical configuration must be documented and approved (in writing) by the PI. Changes that result in a discrepancy between the actual physical configuration of the equipment or system and the latest documented, approved configuration must be incorporated into updated documentation of the approved configuration (e.g., P&IDs, system description).

* + 1. Minor Equipment Configuration Change

A minor equipment configuration change is a change that does not impact the operation of the equipment or degrade its Safety status. For example, replacing a faulty component with an identical one during maintenance could also be considered minor equipment configuration change. As a rule, minor equipment configuration changes should not result in a physical discrepancy between the proposed equipment configuration and the latest documented, approved configuration.

**Note:** Replacement of an as-built equipment component with a similar – but not identical – component will constitute a major equipment configuration change unless use of the replacement component has previously been approved and documented.

A minor equipment configuration change can be implemented after review and written approval by the PI]. Approved changes must be adequately documented. Additional required information includes the date and time when the changes were made and the initials of the individuals approving the change. Incorporate approved changes into an updated version of the SOP and associated documents.

* + 1. Major Equipment Configuration Change

A major equipment configuration change is any equipment configuration change that directly impacts the operation of the equipment or degrades its Safety status. Any equipment configuration change that does not meet the above definition of “minor equipment configuration change” is considered a major equipment configuration change. Changes of this type include those that will result in an actual physical discrepancy between the unit and the latest documented, approved configuration, as well as non-identical component changes (e.g., ball valves of different capacity or material of construction) that were not previously approved.

A major equipment configuration change must be considered a new process, and must be accompanied by completion of a new SOP, to be reviewed and approved by the Principal Investigator, Unit-level Safety Committee, EH&S, and may require approval from the Authority Having Jurisdiction (e.g. Fire Marshal and Facilities Services before the change can be implemented.

* 1. Changes to the SOP

During operation and maintenance of the [equipment or system name], staff may identify errors, additions, improvements, and other proposed SOP changes. As described in the following subsections, the nature and scope of the proposed change will determine the reviews and approvals required before the change can be implemented. All SOP changes approved for implementation – including red-line markups of drawings, additions or deletions of process steps, modifications to the checklists, etc. – must be documented. At the end of the operation or maintenance campaign, incorporate SOP changes into a revision of the SOP.

**Note:** Changes made to the SOP must not result in a violation the Standard operating envelope of the system, or a weakening or elimination of any hazard controls.

* + 1. Minor SOP Changes

A minor change is a change with limited scope and effect. The change is straightforward, readily understood, and does not materially affect the technical content of the document. Minor changes are often editorial in nature. The following items are considered minor changes:

* correction of grammar or spelling;
* renumbering sections or attachments that does not affect the chronological sequence of work or usability of the document;
* adding explanatory text to improve document clarity or usability (e.g., detailed instructions for a form, clarifying documentation requirements);
* updating organizational titles (if organization responsibilities are unchanged).

**Note**: A change in an organizational title accompanied by a change in responsibilities is not considered a minor change.

Minor changes require review and approval of the change by [identify the individuals, by role, who must approve the change].

* + 1. Major SOP Changes

A major SOP change is any document change that doesn’t meet the definition of a minor change.

Major changes require review and approval of the change by the Principal Investigator, Unit-level Safety Committee, EH&S, and may require approval from the Authority Having Jurisdiction (e.g. Fire Marshal), and Facilities Services.. Management may specify additional required reviews by SMEs.

# OPERATIONAL INSTRUCTIONS

[Describe, using the amount of detail necessary to ensure Standard operation, the steps required to operate the equipment or system covered by the SOP. Refer to attachments, exhibits, diagrams, pictures, checklists, etc. as needed. For stepwise activities that should be acknowledged as performed or that will be performed multiple times, it’s a good practice to describe those actions in one or more checklists. Divide actions and activities into logical groupings and address in separate sections and/or checklists. This improves SOP usability and makes it easier to maintain the SOP as changes are identified.]

* 1. Prerequisite Conditions (required as elements of all SOPs)

The following prerequisite conditions must be verified:

* Before starting work, ensure that at least one working phone is available that can call the Single Point of Contact phone number () in case of emergency.
* Identify any conditions or restrictions regarding staffing requirements for Standard operation of the equipment or system e.g. equipment is calibrated per manufacturers recommendations, equipment change-out schedule is current and up to date, etc..]
* [Identify tests and activities that must be performed before operating the equipment or system, e.g., “Prior to the initiation of each run, the system must be leak-checked with nitrogen to verify that any re-assembly or cycling activities did not create a leak.” or “Execute the pre-operation checklist in Exhibit X.”’
* Verify that the SOP being used is current. The procedure and revision numbers in the SOP title page should be the same as the current version on the [identify the location of the controlled electronic version of the current approved SOP, e.g., a SharePoint site].
  1. Pre-Start Materials and Supplies

# Identify specific materials and supplies which must be available before commencement of the process (such as compressed gases, sample containers, leak check meter, etc)

* 1. Pre-start Safety Checks

Identify specific operational conditions which must be satisfied before commencement of the process (such as leak testing, power supply deactivation, etc.)

* + 1. [Pressure vessel bolts are torqued to XX foot pounds.]
    2. [Fume hood is operational and sash is closed.]
    3. [Gas delivery system valves X to Y are closed, etc..]
    4. [Gas leaks not detected…etc]
  1. Operation of [system or equipment name] installed in the [facility name] facility.

[provide detailed instructions for operating the equipment or system covered by the SOP. [Describe, using the amount of detail necessary to ensure Standard operation, the steps required to operate the equipment or system covered by the SOP. Refer to attachments, exhibits, checklists, etc. as needed. Use multiple subsections, numbered and bulleted lists, etc. For stepwise activities that should be acknowledged as performed or that will be performed multiple times, it’s a good practice to describe those actions in one or more checklists. Divide actions and activities into logical groupings and address in separate sections and/or checklists. The operation steps should be detailed enough so an untrained user could figure out the proper operation on their own. This improves SOP usability and makes it easier to maintain the SOP as changes are identified.]

Use additional pages as necessary to completely describe the process]

# OFF-NORMAL CONDITIONS

Identify operational parameters to be evaluated to ensure process safety. This may include verification of conditions such as temperature or pressure range, stability of materials, proper motion, sound/vibration, etc.)

Off-normal events that may occur during the execution of this SOP include:

* [First off-normal condition]
* [Second off-normal condition]
* Power interruption
* Emergency shutdown due to an alarm
* Start-up after an emergency shutdown
  1. [First off-normal condition]
     1. [State what to do in response to the off-normal condition.]
     2. [State what to do in response to the off-normal condition.]
     3. [State what to do in response to the off-normal condition.]
  2. [Second off-normal condition]
     1. [State what to do in response to the off-normal condition.]
     2. [State what to do in response to the off-normal condition.]
     3. [State what to do in response to the off-normal condition.]
  3. Power Interruption
     1. [State what to do in response to the off-normal condition.]
     2. [State what to do in response to the off-normal condition.]
     3. [State what to do in response to the off-normal condition.]
  4. Emergency Shutdown Due to an Alarm
     1. [State what to do in response to the off-normal condition.]
     2. [State what to do in response to the off-normal condition.]
     3. [State what to do in response to the off-normal condition.]
  5. Start-up After an Emergency Shutdown
     1. [State what to do in response to the off-normal condition.]
     2. [State what to do in response to the off-normal condition.]
     3. [State what to do in response to the off-normal condition.]

# WASTE DISPOSAL

This procedure will generate the following chemical wastes:

(Populate list from those chemicals identified in the “Chemical Hazards Section.”)

Waste shall be collected in a sealable, airtight (identify container). The container shall be located (identify where) inside a polyethylene secondary containment bin. The container shall be stored away from (identify incompatible materials e.g. oxidizing agents, reducing agents, acids and alkalis). When the container is full or no longer being used, complete a chemical collection request and…

# MAINTENANCE

Maintenance checks include the following:

* [e.g. blast/rupture disk change out: schedule]
* [e.g. pressure vessel third party integrity testing]
* [Third maintenance item]

# RECORDS

Records that are generated and maintained as a result of this procedure include:

* [Master Hardcopy SOP containing pen-and-ink markups]
* [Completed checklists for the operational activities performed]
* [Operations Log]

[Identify where the records will be stored or maintained.]

# REFERENCES

The following documents are referenced in this SOP or were used in its development:

1. Emergency Information Posting for the [facility name] facility ([provide a hyperlink to the facility’s EIP]).
2. [Other relevant reference, such as an interfacing SOP, planning document, manufacturer’s user manual, etc.]
3. [Other relevant reference, such as an interfacing SOP, planning document, manufacturer’s user manual, etc.]

# TRAINING ACKNOWLEDGEMENT

The following table identifies individuals who have been trained to this SOP. Printed names and dated signatures of both the Trainer and the Trainee are required for each row used.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Trainer** | | **Trainee** | |
| **Printed Name** | **Signature** | **Printed Name** | **Signature** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |

# EXHIBITS

Exhibit A – [Exhibit Title]

Exhibit B – [Exhibit Title]

Exhibit C – [Exhibit Title]

**Exhibit A – [Exhibit Title]**

[Heading]

[Introductory text:]

[List element.]

[List element.]

[List element.]

[List element.]

[List element.]

[Explanatory text.]

[Heading]

[Introductory text:]

[List element.]

[List element.]

[List element.]

[Explanatory text.]

[Heading]

[Explanatory text.]

**Exhibit B – [Exhibit Title]**

[Explanatory text and remaining content.]

**Exhibit C – [Exhibit Title]**

[Explanatory text and remaining content.]