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| Process Safety Management Program |
| **Title:** Compliance Guidelines for Management System to Address  Action Items  **Document #:** PSM-SY-UN-017 **Issued:** 09/24/2014 |
| **Responsible Dept.:** EHS **Version:** New  **Approved By:** PSM Focus Group **Page:** 1 of 3 |

**1.0 Purpose:** This document summarizes the method The Pennsylvania State University uses to comply with the requirements relating to the Management System to Address Action Items Element of the Process Safety Management (PSM) Program.

**2.0 Scope:** The intent of this element is to outline the requirements associated with managing the findings or recommendations generated through various elements of the PSM Program. Proper management of action items identified within the PSM Program is critical to address issues impacting a covered process area, pursue opportunities to reduce risk factors and facilitate continuous process improvement. The management system will outline a prioritization process, tracking responses and closure of action items. The system will include metric reporting to track element effectiveness.

**3.0 Guidelines:** For the PSM Program to be effective and continually drive risk factors down within the University, several mechanisms have been created to identify weaknesses within the program management system. Although it is critical to identify these weaknesses, it is recognized that unless they are effectively managed the objective of continuous program improvement cannot fully be achieved.

Action items associated with the PSM Program can be generated through various activities including but not limited to the following:

1. Process Hazard Analysis (PHA) and PHA Reviews (#03 & 13)
2. Incident Investigations (#15)
3. Management of Change (#14)
4. Compliance Audits (#16)
5. Consultation with program stakeholders
6. Program element assessments

Note: Depending on the specific program element, the term action item may be referred to as Recommendation, Findings, Corrective Action, Preventive Action, Opportunity for Improvement, etc.

Independent of how an action item is identified, it will be managed within a single management system. The system shall be transparent and readily available to University employees that are assigned actions or have program responsibility to ensure they are addressed. All action items are required to have certain information determined prior to being entered into the management system. This information includes:

1. A detailed and clear description of the action required
2. The source generating the action item (e.g. audit, incident investigation, etc.)
3. The priority assigned to the action item
4. Individual responsible to address action (although it may require several individuals to address the action, the single most senior individual must be identified and is accountable)
5. Due date when the action item will be addressed or closed

Action items should not be entered into the management system without first ensuring the individual assigned responsibility understands the deficiency, accepts primary responsibility and agrees to or justifies an alternate due date.

Action item prioritization will be based on a three-tiered ranking system consisting of “High”,

“Medium” and “Low”. The prioritization process will factor in the severity and frequency assessed based on the potential outcome of the deficiency.

The Process Safety Program Manager (PSPM) will oversee the action item management system and generate metrics for senior leadership. In addition, the PSPM will periodically evaluate select action items and conduct an assessment on the effectiveness of the action item in addressing the deficiency identified within the PSM program.

**4.0 Definitions:** The following definitions provide guidance regarding common issues surrounding the Management System to Address Action Items Element.

*Action Item* - a documented event, task, activity, or action that needs to take place. Action items are discrete units that can be handled by a single person, team or department. Also can be referred to as Recommendation, Corrective Action, Preventive Action, Opportunity for Improvement or Finding

*Audit –* systematic, independent and documented process for objectively assessing and evaluating performance in relation to established criteria

*Change* – any planned temporary or permanent change to an existing procedure, process or facility (whether hardware or software) which is not considered an “In-Kind Replacement”

*Continual Improvement* – recurring process of enhancing a program/area in order to achieve improvements in overall performance consistent with the organization’s objectives

*Covered Process* - any process where a highly hazardous chemical / biological agent or extremely hazardous substance deemed by Penn State is used, handled or stored. This also includes critical process operations identified by the University that would benefit from PSM program implementation.

*Immediate Cause* - the unsafe acts and conditions that directly resulted in or could have resulted in an incident (typically explains why the incident occurred).

*Pre-Startup Safety Review (PSSR)* – a technical review and inspection of equipment modification prior to startup to ensure that the modification has been installed in accordance with the approved design standards, that procedures are in place and adequate, and that training of affected personnel has been completed.

*Process Safety Incident –* an unplanned event or series of events and circumstances which did result or could reasonably have resulted in a catastrophic release of a highly hazardous chemical / biological agent from its primary containment structure, failure of a piece of equipment as originally designed, or deviation from an established procedure.

*Root Cause* – an initiating event or failing from which all other causes or failings originate; typically a management system failure such as facility design, inadequate training, etc., that contributed to the unsafe acts or conditions that resulted in an incident.

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| Process Safety Management Program |
| **Title:** Management System to Address Action Items Procedure  **Document #:** PSM-SOP-UN-014 **Issued:** 12/09/2014 |
| **Responsible Dept.:** EHS **Version:** New  **Approved By:** PSM Focus Group **Page:** 1 of 7 |

**1.0 Purpose:** This document provides guidance to employees of The Pennsylvania State University (Penn State) in the requirements of managing action items generated within the Process Safety Management (PSM) Program. Proper oversight and management of action items generated within the PSM Program is an important component of the continuous improvement activities and drive operational risk factors within covered process areas lower.

**2.0 Scope:** This element covers any aspect of the PSM program that has a systematic method to identify weaknesses within the PSM management system. After a weakness is identified, it must be effectively managed to achieve program continuous improvement. This document outlines the prioritization process, tracking, and closure of action items identified through various mechanisms within the PSM program.

**3.0 Responsibility:** The following employees have specific responsibilities assigned to them in accordance with the requirements of Management System to Address Action Items within the PSM Program. Specific Budget Executives and Budget Administrators may assign these responsibilities to a Department or individual other than the one identified in this procedure as appropriate.

Budget Executives and Budget Administrators:

1. Assume primary responsibility to maintain a safe work environment within their jurisdiction, by monitoring and exercising control over their assigned areas.
2. Assign a representative from their respective academic or administrative unit to ensure compliance with this procedure.
3. Ensure appropriate mechanisms and resources exist to address action items and/or recommendations generated through the PSM program.

EHS Department:

1. Maintain appropriate processes within department for managing action items generated through the PSM program.

Director Design & Construction:

1. Ensure employees within their area(s) of responsibility are aware and understand the requirements outlined in this procedure.
2. Provide appropriate resources to address any assigned action items and/or recommendations generated through the PSM program.

Manager Engineering Services:

1. Ensure employees within their area(s) of responsibility are aware and understand the requirements outlined in this procedure.
2. Provide appropriate resources to address any assigned action items and/or recommendations generated through the PSM program.

Building Operations / Utility Engineers:

1. Participate in Root Cause determination analysis teams as appropriate.
2. Identify and submit action items through the established management system.
3. Address any assigned action items and/or recommendations generated from the PSM program.

Physical Plant Supervisors:

1. Ensure employees within their area(s) of responsibility are aware and understand the requirements outlined in this procedure.
2. Provide appropriate resources to address any assigned action items and/or recommendations generated through the PSM program.
3. Participate in Root Cause determination analysis teams as appropriate.
4. Identify and submit action items through the established management system.
5. Take prompt corrective action when unsafe process safety conditions or practices are observed or reported.

Operations/Facility Manager:

1. Ensure employees within their area(s) of responsibility are aware and understand the requirements outlined in this procedure.
2. Provide appropriate resources to address any assigned action items and/or recommendations generated through the PSM program.
3. Participate in Root Cause determination analysis teams as appropriate.
4. Identify and submit action items through the established management system.
5. Take prompt corrective action when unsafe process safety conditions or practices are observed or reported.

Safety Officer:

1. Coordinate implementation of the Management System to Address Action Items element within the work unit.
2. Participate in Root Cause determination analysis teams as appropriate.
3. Identify and submit action items through the established management system.
4. Take prompt corrective action when unsafe process safety conditions or practices are observed or reported.

Process Safety Program Manager – EHS Department:

1. Oversee all aspects of the University’s Process Safety Management System to Address Action Items program.
2. Maintain data within the established management system.
3. Periodically review department records associated with completion of assigned action items.
4. Participate in Root Cause determination analysis teams.
5. Identify and submit action items through the established management system.
6. Track and report metrics established for this element to affected groups and senior leadership as appropriate.

Employees:

1. Participate in Root Cause determination analysis teams as appropriate.
2. Identify and submit action items through the established management system.
3. Report Process Safety issues or concerns to appropriate line management and/or the Process Safety Program Manager.

**4.0 Definitions:**

*Action Item* - a documented event, task, activity, or action that needs to take place. Action items are discrete units that can be handled by a single person, team or department. Also can be referred to as Recommendation, Corrective Action, Preventive Action, Opportunity for Improvement or Finding

*Audit* – systematic, independent and documented process for objectively assessing and evaluating performance in relation to established criteria

*Change* – any planned temporary or permanent change to an existing procedure, process or facility (whether hardware or software) which is not considered an “In-Kind Replacement”

*Continual Improvement* – recurring process of enhancing a program/area in order to achieve improvements in overall performance consistent with the organization’s objectives

*Covered Process* - any process where a highly hazardous chemical / biological agent or extremely hazardous substance deemed by Penn State is used, handled or stored. This also includes critical process operations identified by the University that would benefit from PSM program implementation.

*Immediate Cause* - the unsafe acts and conditions that directly resulted in or could have resulted in an incident (typically explains why the incident occurred).

*Operations/Facility Manager* – a person who has control / oversight of building use, stewardship, operation, repair, and general administration of campus facilities. Also includes the operational responsibility of a specific unit operation within a facility.

*Physical Plant Supervisors* – group of individuals in first-line management who monitors and regulates employees in their performance of assigned or delegated tasks (e.g. trains, evaluates, hires, and discipline employees; approves time & attendance; administers the University / Teamster contract, manages absences; plans & rotates overtime work, etc.).

*Pre-Startup Safety Review (PSSR)* – a technical review and inspection of equipment modification prior to startup to ensure that the modification has been installed in accordance with the approved design standards, that procedures are in place and adequate, and that training of affected personnel has been completed.

*Process Safety Incident* – an unplanned event or series of events and circumstances which did result or could reasonably have resulted in a catastrophic release of a highly hazardous chemical / biological agent from its primary containment structure, failure of a piece of equipment as originally designed, or deviation from an established procedure.

*Responsible Person* – the individual accountable to ensure an action item is appropriately addressed within the defined time period.

*Root Cause* – an initiating event or failing from which all other causes or failings originate; typically a management system failure such as facility design, inadequate training, etc., that contributed to the unsafe acts or conditions that resulted in an incident.

**5.0 Procedure:** Penn State has developed various mechanisms to identify weaknesses or opportunities to improve the PSM program. The following steps outline the requirements for managing PSM action items after they are generated.

1. Action items associated with the PSM Program can be generated through various activities including but not limited to the following:
   1. Process Hazard Analysis (PHA) and PHA Reviews (#03 & 13)
   2. Incident Investigations (#15)
   3. Management of Change (#14)
   4. Compliance Audits (#16)
   5. Consultation with program stakeholders
   6. Program element assessments

Note: Depending on the specific program element, the term action item may be referred to as Recommendation, Finding, Corrective Action, Preventive Action, Opportunity for Improvement, etc.

1. An action item management system has been established and maintained by the EHS Department. The system shall remain transparent and readily available to all individuals that are assigned actions, their supervisors and other affected departments. Independent on how the item was generated, it will be maintained within this single system. The Process Safety Program Manager (PSPM) is responsible to ensure the management system remains updated based on input from system users.
2. Although action items can be generated through various mechanisms, the appropriate individual responsible for generating an action item is required to ensure it is documented and recorded accordingly. These individuals can include but not limited to, PHA Team Leader, PSSR Leader, Investigation Team Leader, Auditor, etc. If the item is generated outside a formal team assessment the individual identifying the action should submit the appropriate information to the PSPM.
3. To ensure the appropriate information is recorded and maintained within the management system, all action items are required to maintain at a minimum the following information:
   1. Unique identifier – Action Item Number
   2. A detailed and clear description of the action required
   3. The source generating the action item (e.g. audit, incident investigation, etc.)
   4. Individual responsible to address action (although it may require several individuals to address the action, the single most senior individual must be identified and is accountable)
   5. Due date when the action item will be addressed or closed

Each action item will be assigned a unique identifier that enables appropriate tracking and closure within this procedure. Where possible, the action item number should include the source generating the item such Incident Report Number or MOC Number. If required, the unique identifier will be assigned by the Process Safety Program Manager (PSPM).

To facilitate collection and submission of the appropriate data, an Action Item Submission & Tracking Form (see Attachment A) shall be used for all new action items.

1. The individual identifying the action item is responsible to cause or take responsibility to submit the required information through the Action Item Submission & Tracking Form to the PSPM. If the action item is not assigned to the individual completing the Form, they must work with the appropriate department and/or individual they believe appropriate to be accountable for completing the action. The individual accountable for the action item is considered the Responsible Person within this procedure.

The Responsible Person must confirm or select the appropriate Due Date for Completion associated with the assigned action item. In establishing this date, the Responsible Person shall consider priority of the action item, their work schedule and other key factors (e.g. equipment delivery, requires input and/or assistance from other individuals, etc.). This date must be reasonable and achievable since it will be a standard metric (On-Time Completion of Action Items) reported through the PSM program.

1. Once Section I and II of the Action Item Submission & Tracking Form has been completed and the Due Date agreed upon, the Form should be submitted to the PSPM. The EHS Department is responsible for managing the action item within the management system through closure.
2. The PSPM screens the documentation associated with a new action item to verify and complete the following actions:
   1. Appropriate Action Item Number has been assigned or assigns one accordingly
   2. Due Date and Responsible Person assigned
   3. Verify Priority assignment as required
   4. Enter data into the management system

A Priority assignment is required with all action items generated through the PHA and PHA Review process. This mechanism is used to manage resources and clearly outline what actions are required to be addressed prior to starting up the covered process equipment. The priority ranking system is based on the hazard and severity of the item not being appropriately managed. An outline of the priority ranking process is provided in Attachment B.

If the identified Responsible Person was not the submitter, after the action item has been entered into the system, the PSPM will forward an electronic copy of the Action Item Submission & Tracking Form to the Responsible Person for their records.

1. It is the responsibility of the Responsible Person identified for the action item to manage completion of the action and to notify the PSPM when the item has been appropriately closed. If the Responsible Person is unable to close the item by the agreed upon Due Date, a revised date shall be provided and the item will be tracked as “Late”. The Responsible Person’s supervisor will be notified of all “Late” action items.

The Responsible Person identified does not necessarily need to be the individual completing the activities to address the action. Certain items may require a team approach or requires action from several individuals within a department. The Responsible Person shall be the most senior individual in those situations. In addition, the action may ultimately be contracted to a 3rd party organization, however, the Responsible Person is still accountable to ensure the action item is appropriately addressed in the agreed upon time schedule.

1. Once the Responsible Person addresses the activities associated with the Action Item, they should sign and date the Action Item Submission & Tracking Form in Section IV. If there is any supporting documentation associated with the action item (e.g. training records, revised procedure, etc.) it can be attached to the Form. In addition, if there were comments regarding closure of a specific action item it should be noted in Section IV. The completed Form should be forwarded to the PSPM to update the management system.
2. The PSPM is required to periodically evaluate performance in managing closure of all action items. Metrics will be established for achieving on-time completion of action items by the agreed upon due date. In addition, a separate and more robust metric will be established for achieving on-time completion of High Priority action items. Metric goals will be established and communicated by senior leadership responsible for the covered process areas.

In addition, the PSPM will periodically assess the effectiveness of a particular closed action item in addressing the root cause identified within the PSM program. This assessment will be documented and factor in appropriate stakeholder input, modification(s) still relevant and reoccurrence of similar events.

1. The PSPM will periodically evaluate adherence to the requirements outlined within this element including stakeholder feedback to overall element effectiveness.

**6.0 Attachments**

* 1. Attachment A - PSM Action Item Submission & Tracking Form
  2. Attachment B – Priority Ranking Matrix