FAQ SHEET
- REGULATORY REQUIREMENTS AND EXPECTATIONS FOR PHA REVALIDATION

Acronyms and Abbreviations Used

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>MOC</td>
<td>Management of Change</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Health and Safety Administration</td>
</tr>
<tr>
<td>PHA</td>
<td>Process Hazard Analysis</td>
</tr>
<tr>
<td>PSI</td>
<td>Process Safety Information</td>
</tr>
<tr>
<td>P&amp;ID</td>
<td>Piping and Instrumentation Drawing</td>
</tr>
<tr>
<td>PSM</td>
<td>Process Safety Management</td>
</tr>
</tbody>
</table>

What is meant by PHA revalidation?

PHA revalidation is the process of examining a PHA to ensure that it adequately addresses process hazards as they currently exist and that it is consistent with the current process. Revalidation accounts for changes to the process, facilities that may affect it, and off-site receptors since the previous PHA and checks to ensure the PHA meets current good engineering practices.

What are the regulatory requirements for revalidation?

Paragraph 29 CFR 1910.119(e)(6) of the OSHA standard states, “At least every five (5) years after the completion of the initial PHA, the PHA shall be updated and revalidated by a team meeting the requirements in paragraph (e)(4) of this section, to assure that the PHA is consistent with the current process.” (emphasis added). This means addressing changes that have been made to the process.

What are the requirements in paragraph (e)(4) for a PHA team?

There are three requirements:

- At least one member with knowledge in the analysis technique.
- At least one member with experience and knowledge specific to the process.
- Team members with expertise in engineering and process operations.

**Must the PHA be updated every time a change is made to a process?**

No. OSHA believes that adequate safeguards exist to address potential concerns that might arise between revalidations. OSHA believes that compliance with the requirements of the PSM standard governing changes will provide protection until completion of the next regularly scheduled PHA revalidation (Preamble to 29 CFR 1910.119).

**Does revalidation mean that a new PHA must be performed?**

No. (June 22, 1998 OSHA letter to Mr. B. A. Fellner, Gibson, Dunn & Crutcher, LLP). It is permissible to update the PHA by making revisions to the previous PHA, although if there are many edits to be made it may be easier and preferable to redo the PHA.

**Must the PHA revalidation be documented?**

Yes. (June 22, 1998 OSHA letter to Mr. B. A. Fellner, Gibson, Dunn & Crutcher, LLP)

**Are PHA revalidations needed more frequently than every 5 years?**

Maybe. “At least every five years after the completion of the initial PHA” means that a periodic PHA may be required more frequently. (OSHA letter to Ms. S. Tolley, Chevron, January 11, 1996). This might arise in such cases as:

- A large cumulative number of changes
- Major changes
- Significant incidents or an unfavorable trend
- Knowledge of significant omissions and deficiencies
- Concern about the quality of the previous PHA
- High risk processes
- Reconciliation of PHA approaches after mergers / acquisitions

Note that when employers revalidate a PHA before the 5-year deadline, the subsequent revalidation must be completed within the next 5-year period (OSHA letter to Ms. A. M. Schieli, Ebasco Services, October 28, 1992).

**Are there other regulatory expectations?**

Yes. Several additional requirements were documented in a June 22, 1998 OSHA letter
to Mr. B. A. Fellner, Gibson, Dunn & Crutcher, LLP. OSHA expects:

- Existing PHAs to be evaluated using the requirements defined in 29 CFR 1910.119(e)(3) of the PSM standard and any necessary revisions made.

- Checks to ensure that modifications to processes since the last PHA have gone through MOC procedures, or PHAs when required, and those changes are reflected in the PHAs.

- An evaluation of process safety information (PSI) to ensure that it is complete, current and accurate.

- Verifications to ensure PHA-specified procedures are adequate, up-to-date and are being implemented.

- Determinations that existing PHA recommendations have been documented and have been implemented.

- A review of all incident investigation reports required by 1910.119(m) to assure that:

  - All affected PSI, procedures, training, etc., have been updated to reflect recommendations set forth in the subject reports

  - Appropriate information from those reports has been incorporated into the PHAs

- All PSI to be reviewed to ensure that it is complete, current and accurate, not just P&IDs.

- A field check is encouraged to assure the accuracy of the existing PHA.

What are the requirements of 29 CFR 1910.119(e)(3) mentioned above?

The PHA shall address:

- Hazards of the process
- Identification of any previous incidents
- Engineering and administrative controls
- Consequences of failure of engineering and administrative controls
- Facility siting (EPA - stationary source siting)
- Human factors
- A qualitative evaluation of the failure of controls
Can you summarize what a PHA revalidation must address?

These items should be covered:

- Changes subsequent to the previous PHA.
- Identification and correction of PHA omissions and deficiencies.
- Ensure that other parts of the PSM program that support PHAs are functioning appropriately and take corrective action. Confirm:
  - PSI is complete, current and accurate.
  - Procedures, training, etc. are up-to-date.
- New process technology or information since the previous PHA
- New requirements since the previous PHA
- New or modified regulations

How can I get more information?

Contact Primatech at:

50 Northwoods Blvd.
Columbus, OH 43235

Tel 614-841-9800
Fax 614-841-9805

info@primatech.com
www.primatech.com
Primatech specializes in Process Safety, Security and Risk Management. We offer consulting, training and software to assist our clients in identifying and reducing the risks posed by toxic, flammable, and explosive materials.

Companies in a variety of industries choose Primatech to help them manage the risks posed by such hazardous materials. We help companies reduce the likelihood and consequences of releases, which helps protect employees and the public and prevent damage to equipment and the environment. Reducing these risks also improves productivity and quality. We help companies comply with OSHA’s Process Safety Management (PSM) standard, EPA’s Risk Management Program (RMP) regulation, and industry guidelines.

Our capabilities include:

- Process Hazard Analysis (PHA)
- Layers of Protection Analysis (LOPA)
- Safety Instrumented Systems (SIS) - IEC 61511 / ISA 84
- SIL Verification
- Compliance Audits and Program Assessments
- National Emphasis Program (NEP) Audit Preparation and Assessment
- PSM and RMP Program Development and Implementation
- Mechanical Integrity Program Development and Implementation
- Mechanical Integrity Program Audits and Assessments
- Management of Change (MOC) for Process Safety
- Operating and Maintenance Procedures Development
- Human Factors and Human Error Analysis
- Facility Siting Analysis
- Dispersion and Consequence Modeling
- Probability Modeling
- Quantitative Risk Assessment

Primatech’s clients are often Fortune 500 companies but also include medium and smaller sized companies. We specialize in serving the process industries, and have served hundreds of industrial facilities throughout the world.

- Aerospace
- Agricultural chemicals
- Bulk/commodity chemicals
- Cold storage warehousing
- Electronics manufacturing
- Food processing
- Hazardous waste treatment
- Inorganic chemicals
- Mining
- Municipal water treatment
- Oil and gas production and distribution
- Oil and gas pipelines and terminals
- Organic chemicals
- Paints, coatings, resins and adhesives
- Petrochemicals
- Petroleum refining
- Pharmaceuticals
- Polymers and resins
- Propane storage and distribution
- Pulp and paper
- Rubber and plastics
- Semiconductors
- Specialty metals
- Steel
- Wastewater treatment

Our services and products enable our clients to achieve their risk, safety and security objectives faster and easier. Primatech is an independent company with no vested interests and is seen, therefore, to deliver work recognized as objective and unbiased.