



Reply to the attention of:

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MEMORANDUM FOR REGIONAL ADMINISTRATORS

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THROUGH: JORDAN BARAB
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SUBJECT: Guidance: Addressing Pressure Relief System (PRS) Deficiencies
Observed During VPP Site Reapproval Evaluations

This memorandum provides guidance and procedures to be implemented where PRS deficiencies are observed during VPP onsite reapproval evaluations. The following instructions provide clarification and new interim policies and procedures for addressing such deficiencies. These instructions are effective immediately.

OSHA Instruction CSP 03-01-003, Voluntary Protection Program Policies and Procedures Manual (VPPPPM), which became effective on April 18, 2008, provides instruction on how compliance deficiencies are handled by a VPP onsite evaluation team. This memorandum provides interim policy modifications to address the complex performance based compliance deficiencies associated with a site's pressure relief system.

Enclosures

Field Guidance: Voluntary Protection Program (VPP) Reapprovals Where Pressure Relief System (PRS) Deficiencies Have Been Identified

Background

According to the VPP Policies and Procedures Manual, corrective actions for compliance issues are addressed by assigning 90-day items. The site is notified of the noncompliant items and they must be corrected within a 90-day period. The site is typically placed on a 1-Year Conditional Star status as a follow-up to ensure that the corrective action is effective.

Corrective actions for issues related to the PRS are complex and usually require more than 90 days to fully complete. As a result, the following guidance provides mandatory procedures for VPP Evaluation Teams that identify compliance issues related to PRS deficiencies. These procedures use the current VPP framework (90-day items, 1-year Conditional Status) and allow for the additional timeframes needed for the completion of PRS-related corrective actions only.

Summary of Procedures

1. **Onsite evaluation:** If deficiencies are noted at the conclusion of an onsite evaluation, issue a notice of 90-day action item(s) identifying the specific PRS deficiency(ies) and the expectations that the site will:
 - Correct the deficiency(ies), or
 - Initiate an engineering evaluation of their PRS and implement interim employee protective measures to address the PRS hazards

Note: If the site has completed an engineering evaluation and has a written abatement plan outlining the expected date of completion, verify that it meets the requirements of Step 3. If so, the site would remain a Star site and follow the requirements of Step 4. If not, place the site on a 1 year Conditional Star per Step 3.

2. **Hazard Correction** (via phone or onsite): At the conclusion of the 90-day period, the participant must provide:
 - Documentation of correction of the PRS deficiency, or
 - Written documentation of 1) the initiation of the engineering evaluation, 2) the implementation of interim protective measures, and 3) the expected completion date for the corrective actions, and
 - A written notice from the union, if represented, of agreement with the participant's interim protective measures

If the participant successfully meets the required actions in Step 2, change the site's status to 1-Year Conditional Star. If the participant does not meet the required actions in Step 2, encourage the participant to withdraw and reapply when all corrections have been made. Issue an Intent-to-Terminate letter as necessary.

3. **One-year Onsite Re-evaluation:** The participant must provide a copy of the following:

- A completed engineering evaluation, and
- A written abatement plan outlining the expected date of completion of all PRS deficiencies
 - The final correction date should be no later than two years from the date the deficiencies were noted by the VPP evaluation team
 - In some cases, the site may have up to four years to complete the abatement plan
 - Sites identifying the need for four years to complete corrective actions must document the reason(s) for the need of the additional time

See Appendix A for additional information on the 1-Year Conditional Star Period, including detail on the engineering evaluation and abatement plan. If the participant provides the information required in Step 3, and it is acceptable to OSHA, return the site to Star status. If the participant does not provide the information or the information provided is not acceptable, encourage the participant to withdraw and reapply when all corrections have been made. Issue an Intent-to-Terminate letter as necessary. Extensions for completion of the required documentation will be considered on a case-by-case basis.

- 4. Annual Self-Evaluation:** VPP policies require participants to provide an annual self-evaluation to OSHA by February 15th of each year. VPP sites with identified PRS deficiencies must also provide the following as part of their annual self-evaluation:
- A written progress report with updates on the abatement plan, and
 - A completed PSM Supplement

See Appendix A for additional information on the Annual Self-Evaluation. A participant will be expected to correct identified PRS deficiencies within two years. In rare cases, the site may have up to four years to complete the abatement plan. If an annual progress report is not received with the annual self-evaluation, the VPP Manager will follow up with the site to ensure it was not an oversight. If the participant does not intend to comply, encourage the participant to withdraw or terminate the participant from VPP.

5. **Star Reapproval:** The participant must provide documentation that is acceptable to OSHA and verifies that the participant has completed the abatement plan. See Appendix A for additional information on the Reapproval. If the participant has not completed the abatement plan, ask the participant to voluntarily withdraw or terminate the participant from VPP.

Appendix A

1-Year Modified Conditional Star Period:

During the one-year modified conditional period, the site must submit an acceptable engineering evaluation of and an abatement plan for the identified PRS deficiencies to OSHA. Interim protective measures must be outlined in the evaluation and implemented as discovered during the engineering evaluation. Listed below are the actions necessary for the site to implement as part of its 1-Year Conditional Status:

1. Engineering Evaluation

- Perform an engineering evaluation of pressure vessels and pressure relief systems (e.g., relief piping and equipment, including effluent handling and PRVs) in PSM-covered processes to document compliance with recognized and generally accepted good engineering practices (“RAGAGEP”). Prior to performing the evaluation, the site will:
 - Develop a complete inventory of its pressure retaining equipment, including pressure vessels, heat exchangers, etc., in the covered processes
 - Identify any such equipment requiring overpressure protection that may not be provided with adequate pressure relief. Compile and review existing process safety information (“PSI”) on the relief systems in the covered processes and verify the completeness and accuracy of the PSI, including field verification by the site
 - Identify gaps in the information required to document the design and design bases of the relief systems
- Compile the additional information needed to document relief system design and design bases adequately. Create an engineering evaluation document that includes all of the following:
 - The design and design bases of all pressure vessels and associated relief equipment, including all information required to assess compliance with RAGAGEP
 - Documentation of the total number of pressure vessels without required overpressure protection and pressure relieving systems that do not comply with RAGAGEP
 - Organization and identification of any RAGAGEP deficiencies by category, including, at a minimum:
 - (i) pressure vessels lacking overpressure protection
 - (ii) valves inappropriate for their service
 - (iii) rupture disc/non-reclosing valve deficiencies
 - (iv) excessive built up back pressure
 - (v) inadequate sizing
 - (vi) inlet pressure drop exceeding applicable RAGAGEP
 - (vii) unsafe or inappropriate effluent handling and discharge equipment and systems, and

- (viii) any other deficiencies, including installations that may be subject to excessive vibration
- All data and assumptions used in performing the analyses. Where necessary, the site will identify additional field data or additional analyses to evaluate and to refine the preliminary findings
- Documentation of the calculations performed. Use of software that self-documents the calculations sufficiently to allow them to be checked and reproduced is acceptable

2. Abatement Plan

The abatement plan shall include interim goals, interim safeguard implementation, corrective action timeframe, and scheduled status updates to OSHA. The site must base the action plan's schedule on a risk-based assessment of the deficiencies, with priority given to correcting the deficiencies presenting the greatest risk to employees. OSHA intends the site's risk assessment to consider and document potential process hazards, consequences, human factors, facility siting, and any other information that assists in determining a prioritized course of abatement.

During the one-year conditional onsite evaluation, OSHA will verify the site has successfully completed its engineering evaluation and corrected all higher risk deficiencies or has scheduled timely correction and implemented effective interim controls to abate the risk prior to the scheduled correction date.

Annual Evaluation

Each year, in addition to the site's annual self-evaluation, it must include a copy of their abatement plan that outlines, in detail, progress made in addressing deficiencies stated within the abatement plan.

If at any time during the 2 -year period the site is unable to document progress toward completion as required, the site will be recommended to withdraw or issued an Intent-to-Terminate letter. The site will be provided an opportunity to present evidence that it has taken actions to correct the identified deficiencies or to abate the risks associated with deficiencies by alternative, at least equally effective means.

Reapproval

Per VPP policy all VPP sites will undergo a reapproval evaluation no later than 5 years from their previous reapproval.

During that evaluation, the VPP Evaluation Team will select a process stream from the site's submitted engineering plan and verify that the site completed the agreed-upon corrective actions.

After successful completion and implementation of the site's engineering evaluation, including all required corrections as determined by the VPP Evaluation Team, OSHA will recommend continued Star participation.