

WAC 296-67-017 Process hazard analysis. (1) The employer shall perform an initial process hazard analysis (hazard evaluation) on processes covered by this standard. The process hazard analysis shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process. Employers shall determine and document the priority order for conducting process hazard analyses based on a rationale which includes such considerations as extent of the process hazards, number of potentially affected employees, age of the process, and operating history of the process. The process hazard analysis shall be conducted as soon as possible, but not later than the following schedule:

(a) No less than twenty-five percent of the initial process hazards analyses shall be completed by May 26, 1994;

(b) No less than fifty percent of the initial process hazards analyses shall be completed by May 26, 1995;

(c) No less than seventy-five percent of the initial process hazards analyses shall be completed by May 26, 1996;

(d) All initial process hazards analyses shall be completed by May 26, 1997;

(e) Process hazards analyses completed after May 26, 1987, which meet the requirements of this section are acceptable as initial process hazards analyses. These process hazard analyses shall be updated and revalidated, based on their completion date, in accordance with this section.

(2) The employer shall use one or more of the following methodologies that are appropriate to determine and evaluate the hazards of the process being analyzed.

(a) What-If;

(b) Checklist;

(c) What-If/Checklist;

(d) Hazard and Operability Study (HAZOP);

(e) Failure Mode and Effects Analysis (FMEA);

(f) Fault Tree Analysis; or

(g) An appropriate equivalent methodology.

(3) The process hazard analysis shall address:

(a) The hazards of the process;

(b) The identification of any previous incident which had a likely potential for catastrophic consequences in the workplace;

(c) Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors);

(d) Consequences of failure of engineering and administrative controls;

(e) Facility siting;

(f) Human factors; and

(g) A qualitative evaluation of a range of the possible safety and health effects of failure of controls on employees in the workplace.

(4) The process hazard analysis shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.

(5) The employer shall establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance, and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

(6) At least every five years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated and revalidated by a team meeting the requirements of this section, to assure that the process hazard analysis is consistent with the current process.

(7) Employers shall retain process hazards analyses and updates or revalidations for each process covered by this part, as well as the documented resolution of recommendations described in this section for the life of the process.

[Statutory Authority: Chapter 49.17 RCW. WSR 92-17-022 (Order 92-06), § 296-67-017, filed 8/10/92, effective 9/10/92.]