

**Simple Process Hazard Analysis Revalidation
for
Water and Wastewater Treatment Plants**

PHA Quality and Completeness

	Yes/No	Comments
1. Was the PHA performed by a team with expertise in the process operations?		
2. Did the team include at least one employee with experience and knowledge specific to the process being evaluated?		
3. Are all pertinent hazards associated with releases of all covered chemicals in the process addressed?		
4. Is all equipment containing covered chemicals addressed?		
5. Were MSDSs reviewed by the PHA team?		
6. Is there evidence that the PHA team reviewed previous incidents associated with the process?		
7. Is there evidence that near-misses were included in the discussion of previous incidents?		
8. Is there evidence that the PHA team addressed release detection and control systems?		
9. Is there evidence that the PHA team considered or addressed PPE (SCBA, protective clothing, showers, respirators, etc.)?		
10. Is there evidence that the PHA team considered or addressed emergency response plans?		
11. Is there evidence that the PHA team considered or addressed the maintenance/testing program for equipment, instrumentation, alarms, etc.?		
12. Is there evidence that the PHA team considered facility siting issues?		
13. Is there evidence that the PHA team considered facility siting issues by performing a walkthrough of the process?		

	Yes/No	Comments
14. Is there evidence that the PHA team considered human factor issues?		
15. Is there evidence that the PHA team considered human factors issues by performing a walkthrough of the process?		
16. Is there evidence that the PHA considered human factors issues by preparing recommendations addressing ways to reduce human errors?		
17. Is there evidence that the PHA considered human errors (operations, maintenance, design, etc.) as causes or initiating events of accidents?		
18. Is there evidence that the PHA considered equipment failures as causes or initiating events of accidents?		
19. Is there evidence that the process safety information (PSI) was complete and available (including P&IDs, operating parameters, procedures, etc.) to the PHA team?		

Simple Revalidation

	Yes/No	Comments
1. Does the PHA meet all RMP requirements?		
2. Is documentation from the previous PHA available?		
3. Have all recommendations from the previous PHA been resolved?		
4. Have there been any modifications to the process? <i>If no, skip to question 10.</i>		
5. Was a management of change procedure implemented for the modification?		
6. Was the PSI updated?		
7. Were operating procedures updated?		
8. Was training conducted for the modification?		
9. Have all PHA issues been addressed for the modification?		

	Yes/No	Comments
10. Have buildings, trailers, etc., been constructed or relocated since the previous PHA such that they could be affected by a release?		
11. Has the operator training program remained substantially the same or been enhanced since the previous PHA?		
12. Have maintenance practices remained substantially the same or been enhanced since the previous PHA?		
13. Have inspection and test practices remained the same or been enhanced since the previous PHA?		
14. Are new hazards present due to new chemicals being used?		
15. Are new industry standards or guidelines that apply to the equipment being implemented?		
16. Have detectors been relocated, removed, abandoned, or disabled?		
17. Have normal inventories of hazardous chemicals changed such that the consequences of a release been significantly altered?		
18. Are equipment and piping system labels being maintained?		
19. Are color coding systems for piping and components being maintained?		
20. Have facility modifications introduced a need to install or relocate existing safety shower/eyewash stations?		
21. Have there been any incidents or near misses? <i>If no, then the checklist is complete.</i>		
22. Have incident findings and recommendations been communicated to affected operating, maintenance, and contractor personnel?		
23. Have corrective actions taken in response to incident investigation findings been resolved or implemented?		