



On-Site Risk Management Audit Checklist for Program Level 3 Process

Auditor name:	Date:
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I. Facility Information:

Facility name:	
Facility location:	
County:	RMP Facility I.D.
Contact name:	Phone Number:

II. Management for Program 3 processes (OAC 3745-104-07)

Has the owner or operator:	Yes / No / Comments
(A.) Developed a management system to oversee the implementation of the risk management program elements?	
(B.) Assigned a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements?	
(C.) Documented other persons responsible for implementing individual requirements of the risk management program and defined the lines of authority through an organization chart or similar document?	

III. Hazard Assessment: Documentation (OAC 3745-104-15)

Has the owner or operator maintained the following records:	Yes / No / Comments
(A.) For worst-case scenarios, a description of the vessel or pipeline and substances selected as worst case, assumptions and parameters used, and the rationale for selection, and anticipated effect of the administrative controls and passive mitigation on the release quantity and rate?	
(B.) For alternative release scenarios, a description of the scenarios identified, assumptions and parameters used, the rationale for the selection of specific scenarios, and anticipated effective of the administrative controls and mitigation on the release quantity and rate?	
(C.) Documentation of estimated quantity released, release rate, and duration of release?	
(D.) Methodology used to determine distance to endpoints?	
(E.) Data used to estimate population and environmental receptors potentially affected?	

IV. Program 3 Prevention Program

OAC 3745-104-24: Process Safety Information	Yes / No / Comments
<p>(A.) Has the owner or operator compiled written process safety information, which includes information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process, before conducting any process hazard analysis required by the rule?</p>	
<p>(B.) Does the process safety information contain the following for hazards of the substances: (MSDS may be used to the extent that they contain the information required): (1.) toxicity information; (2.) permissible exposure limits; (3.) physical data; (4.) reactivity data; (5.) corrosivity data; (6.) thermal and chemical stability data; (7.) hazardous effect of inadvertent mixing of materials that could foreseeably occur?</p>	
<p>(C.)(1.) Does the process safety information contain the following for technology of the process: (a.) a block flow diagram or simplified process flow diagram; (b.) process chemistry; (c.) maximum intended inventory; (d.) safe upper and lower limits for such items as temperatures, pressures, flows, or compositions; (e.) an evaluation of the consequences of deviations?</p>	
<p>(D.)(1.) Does the process safety information contain the following for the equipment in the process: (a.) materials and construction; (b.) piping and instrument diagrams; (c.) electrical classification; (d.) relief system design and design basis; (e.) ventilation system design; (f.) design codes and standards employed; (g.) material and energy balances for processes built after June 21, 1999; (h.) safety systems (e.g., interlocks, detection or suppression systems)?</p>	
<p>(D.)(2.) Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices?</p>	
<p>(D.)(3.) Has the owner or operator determined and documented that existing equipment, designed and constructed in accordance with codes, standards, or practices that are no longer in general use, is designed, maintained, inspected, tested, and operating in a safe manner? <i>NOTE: Documentation may be through methods such as: documenting successful prior operation procedures; documenting that the equipment is consistent with the appropriate editions of codes and standards; or performing an engineering analysis to determine that the equipment is appropriate for its intended use.</i></p>	
OBSERVATIONS FOR PROCESS SAFETY INFORMATION	
<p>(1.) Do observations of a representative sample of process chemicals and equipment indicate that the process information is complete? <i>NOTE: Information that does not correspond to the actual conditions demonstrates incomplete information. Check critical equipment and components to see if they have been properly identified.</i></p>	
<p>(2.) Do observations of a representative sample of process components indicate that the process complies with recognized and generally accepted good engineering practice? <i>NOTE: Review a representative number of safety devices such as pressure relief devices for proper sizing according to the maximum anticipated pressure.</i></p>	
<p>(3.) Do observations of a representative sample of the existing equipment designed and constructed according to codes, standards, or practices no longer in general use indicate that this equipment is inspected and is operated in a safe manner (as documented by the employer)?</p>	

OAC 3745-104-25: Process Hazard Analysis	Yes / No Comments
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<p>(A.) Has the owner or operator determined and documented the priority order for conducting PHAs, and was it based on appropriate rationales (i.e., extent of the process hazards, number of potentially affected employees, age of the process, and operating history of the process)? Was initial PHA performed by June 21, 1999?</p>	
<p>(B.) Which methodology was used to determine and evaluate the hazards of the process? (1.) What-If; (2.) Checklist; (3.) What-If/Checklist; (4.) Hazard and Operability Study; (5.) Failure Mode and Effects Analysis (FMEA); (6.) Fault Tree Analysis; (7.) An appropriate equivalent methodology _____</p>	
<p>(C.) Did the PHA address: (1.) The hazards of the process; (2.) Identification of any incident which had a likely potential for catastrophic consequences; (3.) Engineering and administrative controls applicable to hazards and interrelationships (i.e., potential injury, maximum release of hazardous materials, property damage, etc.) (4.) Consequences of failure of engineering and administrative controls (such controls may include appropriate application of detection methodologies to provide early warning of releases; inventory reduction; substitution of less hazardous materials; protective systems such as deluges, monitors, foams; increased separate distances; modification of the process temperature or pressure; redundancy in instrumentation; etc.) (5.) Facility siting (review calculations, charts, and other documents that verify facility siting has been considered. For example, safe distance for locating control rooms may be based on studies of the individual characteristics of equipment involved such as: type of construction of the room, types and quantities of materials, types of reactions and processes, operating pressures and temperatures, presence of ignition sources, fire protection facilities, capabilities to respond to explosions, drainage facilities, location of fresh air intakes, etc.) (6.) Human factors (such factors may include a review of operator/process and operator/equipment interface, the number of tasks operators must perform and the frequency, the evaluation of extended or unusual work schedules, the clarity and simplicity of control displays, automatic instrumentation versus manual procedures, operator feedback, clarity of signs and codes, etc.) (7.) An evaluation of a range of the possible safety and health effects of failure of controls?</p>	
<p>(D.) Was the PHA performed by a team with expertise in engineering and process operations and did the team include appropriate personnel (including at least one employee with experience and knowledge specific to the process being evaluated and one member knowledgeable in the specific PHA methodology being used)?</p>	
<p>(E.) Has the owner or operator established a system to promptly address the team's findings and recommendations; assured that the recommendations are resolved in a timely manner and documented; documented what actions are to be taken; completed actions as soon as possible; developed a written schedule of when these actions are to be completed; and communicated the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations?</p>	
<p>(F.) Has the PHA been updated and revalidated by a team every five years after the completion of the initial PHA to assure that the PHA is consistent with the current process?</p>	
<p>(G.) Has the owner or operator retained PHAs and updates or revalidations for each process covered, as well as the resolution of recommendations for the life of the process?</p>	
<p>OBSERVATIONS FOR PROCESS HAZARD ANALYSIS</p>	

<p>(1.) Do observations of a representative sample of process-related equipment indicate that obvious hazards have been identified, evaluated, and controlled? For example, hydrocarbon or toxic gas monitors and alarms are present; electrical classifications are consistent with flammability hazards; destruct systems such as flares are in place and operating; control room siting is adequate or pressurization, alarms, etc.; pressure relief valves and rupture disks are properly designed and discharged to a safe area; pipework is protected from impact; etc.</p>	
<p>(2.) Do observations of a representative sample of process-related equipment indicate that PHA recommendations have been promptly resolved?</p>	
<p>OAC 3745-104-26: Operating Procedures</p>	<p>Yes / No / Comments</p>
<p>(A.) Has the owner or operator developed and implemented written operating procedures that provide instructions or steps for conducting activities associated with each covered process consistent with the safety information? Do the procedures address the following: (1.) Steps for each operating phase including initial startup, normal operations, temporary operations, emergency shutdowns (including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner), emergency operations, normal shutdown, startup following a turnaround or after emergency shutdown? (2.) Operating limits including consequences of deviations and steps required to correct or avoid deviation? (3.) Safety and health considerations including properties of, and hazards presented by, the chemicals used in the process; precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment; control measures to be taken if physical contact or airborne exposure occurs; quality control for raw materials and control of hazardous chemical inventory levels; and any special or unique hazards? (4.) Safety systems and their functions?</p>	
<p>(B.) Are operating procedures readily accessible to employees who are involved in a process?</p>	
<p>(C.) Has the owner or operator certified annually that the operating procedures are current and accurate and that procedures have been reviewed as often as necessary?</p>	
<p>(D.) Has the owner or operator developed and implemented safe work practices to provide for the control of hazards during specific operations, such as lockout/tagout? Confined space entry? Opening process equipment or piping? Control over entrance into a facility by maintenance, contractor, laboratory or other support personnel?</p>	
<p>OBSERVATIONS FOR OPERATING PROCEDURES</p>	
<p>(1.) Does observation of a representative sample of processes indicate that the written operating procedures are being implemented?</p>	
<p>(2.) Does observation of a representative sample of processes indicate that the written operating procedures are readily accessible to employees who work or maintain a process?</p>	
<p>(3.) Does observation of a representative sample of processes indicate that the operating procedures reflect current practice, including changes that result from process chemicals, technology, equipment, and facilities? (Observe to see if actual procedures match the written operating procedures.)</p>	
<p>(4.) Does observation of representative operations indicate that safe work practices have been implemented for company and contractor employees? Do such work practices include, where appropriate: lockout/tagout; confined space entry; opening process equipment or piping; control over entrance into a facility by maintenance, contractor, laboratory, and other support personnel?</p>	

OAC 3745-104-27: Training	Yes / No / Comments
<p>(A.) Has each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process, been initially trained in an overview of the process and in the operating procedures?</p> <p>Did initial training include emphasis on safety and health hazards, emergency operations including shutdown and safe work practices applicable to the employee's job tasks? (Review the documents to make sure the certification has not been invalidated by a change in duties.)</p> <p>Has each employee and contractor employee involved in operating a process been trained in an overview of the process (as specified in OAC 3745-104-26) and the operating procedures including:</p> <p>(a.) Steps for each operating phase? Initial startup, normal operations, temporary operations, emergency shutdown, emergency operations, normal shutdown, and startup following a turnaround or emergency shutdown?</p> <p>(b.) Operating limits? Consequences of deviations and steps required to avoid deviations?</p> <p>(c.) Safety and health considerations? Properties and hazards of chemicals used and precautions for preventing exposure?</p> <p>(d.) Safety systems and their functions?</p>	
<p>(B.) Has refresher training been provided at least every three years, or more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process?</p>	
<p>(C.) Has owner or operator ascertained and documented in a record that each employee involved in operating a process has received and understood the training required? Does the prepared record contain the identity of the employee, the date of training, and the means used to verify that the employee understood the training?</p>	
OAC 3745-104-28: Mechanical Integrity	Yes / No / Comments
<p>(A.) Does the written mechanical integrity program include:</p> <p>(1.) Pressure vessels and storage tanks;</p> <p>(2.) Piping systems and components such as valves;</p> <p>(3.) Relief and vent systems and devices;</p> <p>(4.) Emergency shutdown systems;</p> <p>(5.) Controls (including monitoring devices and sensors, alarms and interlocks);</p> <p>(6.) Pumps?</p>	
<p>(B.) Has the owner or operator established and implemented written procedures to maintain the on-going integrity of the process equipment listed in (A.)(1.) - (A.)(6.) above?</p>	
<p>(C.) Has the owner or operator trained each employee involved in maintaining the on-going integrity of process equipment?</p>	
<p>(D.) Has the owner or operator:</p> <p>(1.) Performed inspections and tests on process equipment?</p> <p>(2.) Followed recognized and generally accepted good engineering practices for inspection and testing procedures?</p> <p>(3.) Ensured the frequency of inspections and tests of process equipment is consistent with applicable manufacturers' recommendations, good engineering practices, and prior operating experience?</p> <p>(4.) Ensured that documentation of each inspection and test performed included all of the following:</p> <p>(a.) Date of the inspection or test?</p> <p>(b.) Name of person performing the procedure?</p> <p>(c.) Serial number or other identifier of equipment on which procedure was performed?</p> <p>(d.) Description of inspection or test performed?</p> <p>(e.) Results of inspection or test?</p>	

<p>(E.) Has the owner or operator corrected deficiencies in equipment that were outside acceptable limits defined by the process safety information before further use or in a safe and timely manner when necessary means were taken to assure safe operation?</p>	
<p>(F.) Has the owner or operator:</p> <p>(1.) assured that equipment as it was fabricated is suitable for the process application for which it will be used in the construction of new plants and equipment?</p> <p>(2.) performed appropriate checks and inspections to assure that equipment was installed properly and consistent with design specifications and the manufacturer's instructions? (Include contractor supplied equipment.)</p> <p>(3.) assured that maintenance materials, spare parts and equipment were suitable for the process application for which they would be used? (Include contractor supplied equipment.)</p>	
<p>OBSERVATIONS FOR MECHANICAL INTEGRITY</p>	
<p>(1.) Do onsite observations of a representative sample of process equipment indicate deficiencies outside acceptable limits? (Compare process safety information criteria with the conditions of the equipment found in the process.)</p>	
<p>(2.) If new plants or equipment are being constructed, do observations indicate that the equipment as it is fabricated is suitable for the process application?</p>	
<p>(3.) Do onsite observations of a representative sample of maintenance materials, spare parts, and equipment indicate that they are suitable for the process application for which they will be used?</p>	
<p>OAC 3745-104-29: Management of Change</p>	<p>Yes / No / Comments</p>
<p>(A.) Has the owner or operator established and implemented written procedures to manage changes to process chemicals, technology, equipment, and procedures, and changes to stationary sources that affect a covered process?</p> <p><i>NOTE: Review procedures that address responsibilities, steps for assessing risks and approving changes, requirements for reviewing designs for temporary and permanent changes, steps needed to verify that modifications have been made as designed, variance procedures, time limit authorizations for temporary changes, and steps required to return the process to status quo after temporary changes.</i></p>	
<p>(B.) Do procedures assure that the following considerations are addressed prior to any change:</p> <p>(1.) The technical basis for the proposed change?</p> <p>(2.) Impact of change on safety and health?</p> <p>(3.) Modifications to operating procedures?</p> <p>(4.) Necessary time period for the change?</p> <p>(5.) Authorization requirements for the proposed changes?</p>	
<p>(C.) Were employees, involved in operating a process and maintenance, and contract employees, whose job tasks would be affected by a change in the process, informed of, and trained in, the change prior to start-up of the process or affected part of the process?</p>	
<p>(D.) If a change resulted in a change in the process safety information, was such information updated accordingly?</p>	
<p>(E.) If a change resulted in a change in the operating procedures or practices, had such procedures or practices been updated accordingly?</p>	
<p>OBSERVATIONS FOR MANAGEMENT OF CHANGE</p>	
<p>Do observations of new or recently modified process chemicals, technology, equipment, or procedures (except "replacement in kind") indicate that Management of Change procedures have been implemented?</p> <p>NOTE: Determine if records are available to support the procedures for new or revised processes found in the facility.</p>	

OAC 3745-104-30: Pre-Startup Review	Yes / No / Comments
(A.) Has the owner or operator performed a pre-startup safety review for new stationary sources and for modified stationary sources when the modification was significant enough to require a change in the process safety information?	
(B.) Did the pre-startup safety review confirm that prior to the introduction of regulated substances to a process: (1.) Construction and equipment was in accordance with design specifications? (2.) Safety, operating, maintenance, and emergency procedures were in place and were adequate? (3.) For new stationary sources, a process hazard analysis had been performed and recommendations had been resolved or implemented before startup? (4.) Modified stationary sources meet the requirements contained in management of change? (5.) Training of each employee involved in operating a process had been completed?	
OBSERVATIONS FOR PRE-STARTUP REVIEW	
(1.) Do observations of new or modified facilities indicate that prior to the introduction of highly hazardous chemicals: (a.) Construction and equipment is in accordance with design specifications? (b.) Safety, operating, maintenance, and emergency procedures are in place and adequate?	
OAC 3745-104-31: Compliance Audits	Yes / No / Comments
(A.) Has the owner or operator certified that compliance audits are conducted at least every three years to verify that the procedures and practices are adequate and are being followed? (OAC 3745-104-24 through -35)	
(B.) Has a compliance audit been conducted by at least one person knowledgeable in the process?	
(C.) Has the owner or operator developed a report of the audits findings?	
(D.) Has the owner or operator promptly determined and documented an appropriate response to each of the findings of the audit and documented that deficiencies had been corrected?	
(E.) Has the owner or operator retained the two most recent compliance audit reports?	
OAC 3745-104-32: Incident Investigation	Yes / No / Comments
(A.) Has the owner or operator investigated each incident which resulted in, or could reasonably have resulted in a catastrophic release of a regulated substance?	
(B.) Were all incident investigations initiated no later than 48 hours following the incident?	
(C.) Was an incident investigation team established and did it consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident?	
(D.) Was a report prepared at the conclusion of every investigation? Did the report include: (1.) Date of incident? (2.) Date investigation began? (3.) A description of the incident? (4.) The factors that contributed to the incident? (5.) Any recommendations resulting from the investigation?	

(E.) Has the owner or operator established a system to address and resolve the report findings and recommendations, and are the resolutions and corrective actions documented (including system for addressing recommendations and resolution of the recommendation documented)?	
(F.) Was the report reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable?	
(G.) Are incident investigation reports retained for five years?	
OBSERVATIONS FOR INCIDENT INVESTIGATION	
Do observations of a single representative sample of process components involved in incident investigations indicate that recommendations have been resolved? <i>NOTE: Compare the corrective actions outlined in the investigation documentation with the actual equipment, procedures, material use, etc.)</i>	
OAC 3745-104-33: Employee Participation	Yes / No / Comments
(A.) Has the owner or operator developed a written plan of action regarding the implementation of the employee participation required by this rule?	
(B.) Has the owner or operator consulted with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in chemical accident prevention provisions?	
(C.) Has the owner or operator provided to employees and their representatives access to process hazard analyses and to all other information required to be developed under this rule?	
OAC 3745-104-34: Hot Work Permit	Yes / No / Comments
(A.) Has the owner or operator issued a hot work permit for each hot work operation conducted on or near a covered process?	
(B.) Does the permit: (1.) document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations? (2.) indicate the date(s) authorized for hot work and the object on which hot works to be performed? (3.) Are the permits being kept on file until completion of the hot work operations?	
OBSERVATION FOR HOT WORK PERMITS	
Observe any welding or cutting operations that are in progress at the time of the inspection.	
OAC 3745-104-35: Contractors	Yes / No / Comments
(A.) Has the owner or operator obtained and evaluated information regarding the contractor owner or operator's safety performance and programs when selecting a contractor? <i>NOTE: Contractors performing incidental services which do not influence process safety such as janitorial work, food and drink services, laundry, delivery, and other supply services need not be included. However, contractors performing construction, demolition, equipment installation, and other work that may affect the safety of a covered process should be included.</i>	

<p>(B.) Owner or operator responsibilities:</p> <p>(1.) Has the owner or operator, prior to selecting a contractor, obtained and evaluated information regarding the contractor's safety performance and programs?</p> <p>(2.) Has the owner or operator informed contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process?</p> <p>(3.) Has the owner or operator explained to the contract owner or operator the applicable provisions of the emergency response program (3745-104-36 and -37)?</p> <p>(4.) Has the owner or operator developed and implemented safe work practices consistent with OAC 3745-104-26(D) to control the entrance, presence, and exit of the contract owner or operator and contract employees in covered process areas ?</p> <p>(5.) Are contract employers periodically evaluated for their performance in fulfilling their obligations to:</p> <p>(a.) Assure their employees are trained in safe work practices needed to perform the job?</p> <p>(b.) Assure their employees are instructed in the known potential fire, explosion, or toxic release hazards related to the job and the applicable provisions of the emergency action plan?</p> <p>(c.) Document the required training and the means to verify their employees have understood the training?</p> <p>(d.) Assure their employees follow the facility safety rules and work practices?</p> <p>(e.) Advise the employer of unique hazards presented by the contractor's work?</p>	
<p>(C.) Has the contractor:</p> <p>(1.) Assured that all contractor employees are trained in the work practices necessary to perform their jobs safely?</p> <p>(2.) Assured that each contract employee is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the processes and applicable provisions of the emergency action plan?</p> <p>(3.) Provided documentation that each contract employee has received and understood the required training? NOTE: The contractor should have a record that contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.</p> <p>(4.) Are there means to assure that contract employees follow the safety rules of the facility, including safe work practices?</p> <p>(5.) Advised the employer of any unique hazards presented by the contract employer's work or any hazards found by the contract employer's work?</p>	
<p><i>OBSERVATIONS / ADDITIONAL QUESTIONS FOR CONTRACTORS</i></p>	
<p>(1.) Has the host employer ensured, through periodic evaluations, that the training provided to the contractor employees by the contractor employee is equivalent to the training required for direct hire employees?</p>	
<p>(2.) If the employer has identified deficiencies in the performance of contract employers, what action has the employer taken to correct the deficiencies?</p>	
<p>(3.) Does the employer maintain a contract employee injury and illness log related to the contractor's work in process areas?</p>	
<p>(4.) Are there means to assure that contract employees follow the safety rules of the facility, including safe work practices?</p>	
<p>(5.) Based on a representative sample of observations of contractor employees, has the employer's program to control their entrance, presence, and exit been implemented?</p>	
<p>(6.) Based on a representative sample of observations of contractor employees, do they follow the safety rules of the facility? <i>NOTE: These rules include the employer's safe work practices such as lockout/tagout, confined space entry, and opening process equipment or piping; they may also include other rules such as evacuation procedures or use of PPE.</i></p>	

V. Emergency Planning and Response

Emergency Response	Yes / No / Comments
3745-104-36: Applicability	
<p>(A.) Does the owner or operator of the facility intend for its employees to respond to accidental releases of the regulated substance? (If no, ask 3745-104-36(A)(1) through -36(A)(3), if "yes", ask 3745-104-37)</p> <p>(1.) Has the emergency response plan been coordinated with the community emergency response plan developed under 42 U.S.C. 11003?</p> <p>(2.) Has the emergency response plan been coordinated with the local fire department?</p> <p>(3.) Are there appropriate mechanisms in place to notify emergency responders in case of a release?</p>	
3745-104-37: Emergency Response Program	
<p>(A.) Does the owner or operator have a written emergency response plan?</p> <p>(1.) Does the written emergency response plan include:</p> <p>(a.) Procedures for informing the public and local emergency response agencies about releases?</p> <p>(b.) Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposure?</p> <p>(c.) Procedures and measures for emergency response after an accidental release of a regulated substance?</p>	
<p>(2.) Are there procedures for the use of emergency response equipment and for its inspection, testing, and maintenance?</p>	
<p>(3.) Is there training for all employees in relevant procedures?</p>	
<p>(4.) Procedures to review and update the emergency response plan to reflect changes?</p>	
<p>(B.) NOTE: Integrated Contingency Plan is acceptable for above.</p>	
<p>(C.) Has the emergency response plan been coordinated with the community emergency response plan developed under section 3750.05 of the Ohio Revised Code?</p>	