



South Carolina Department of Health
and Environmental Control

Risk Management Program (112(r)) Inspection Checklist

Facility Name _____

Street Address _____

City, State, Zip _____

Mailing Address _____

City, State, Zip _____

Inspection Date/Time _____

Inspector Name(s) _____

Facility Contact _____

Contact E-mail _____

Facility Phone _____

Air Permit or RMPID # _____

NOTE: YES indicates that the facility had documentation for the corresponding item at the time of inspection.
NO indicates that the facility did not have documentation for the corresponding item at the time of inspection.
N/A may be used to indicate that a certain item is not applicable to the facility.

I. Management System (Program Level 2&3) 68.15

1	A management system to oversee the implementation of the risk management program elements has been developed and implemented.	Yes	No
2	A qualified person or position is assigned the overall responsibility for the development, implementation, and integration of the risk management program elements.	Yes	No
3	When more than one person is involved: a-Names or positions of persons are documented. b-Lines of authority are defined through an organizational chart or similar document.	Yes	No

12	When the end point distance has changed by a factor of two or more due to process change, quantities stored change or any other change. The facility has completed and submitted the following: a-A revised hazard assessment analysis. b-A revised risk management plan within six months from the date of the change.	Yes	No
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III. Five Year Accident History 68.42

(Five years prior to the post mark date of the RMP)

1	All accidental releases from covered processes that resulted in onsite: Death, injury, significant property damage, are reported.	Yes	No
2	All accidental releases from covered processes that resulted in offsite: Death, injury, evacuation, sheltering in place, property damage, environmental damage, are reported.	Yes	No
3	Data for each accidental release is reported (see section 68.42(b)).	Yes	No

II. Hazard Assessment 68.20

1	Program Level 1: One worst-case release scenario analysis is conducted and documented.	Yes	No
2	One worst-case release scenario analysis for regulated toxic is conducted and documented	Yes	No
3	One worst-case release scenario analysis for regulated flammable substances is conducted and documented.	Yes	No
4	Additional worst-case release scenario analysis is conducted and documented if another covered process affects public receptors different from the effects of points 2 & 3 above.	Yes	No
5	One alternative-case release scenario analysis for each covered toxic substance is conducted and documented.	Yes	No
6	One alternative-case release scenario analysis to represent all covered flammable substances is conducted and documented.	Yes	No
7	Worst-case release scenario analysis is correct and complete.	Yes	No
8	Alternative-case release scenario analysis is correct and complete.	Yes	No
9	Offsite impacts (population) are defined.	Yes	No
10	Offsite impacts (environmental) are defined.	Yes	No
11	Offsite impacts are reviewed and updated at least once every five years.	Yes	No

IV. Program Level Two Prevention Program

Safety Information 68.48

1	An up to date compilation of process safety information has been completed and maintained.	Yes	No
2	The compilation included the following: a-MSDS that meet the requirements of 29 CFR 1910.1200 (g). b-Maximum intended inventory of equipment in which the regulated substance is stored or processed. c-Safe upper and lower temperatures, flows, pressures, and compositions. d-Equipment specifications. e-Codes and standards used to design, build, and operate the process.	Yes	No
3	Equipment compliance with recognized and good engineering practices is documented. (Compliance with Federal or State regulations that address industry-specific safe design or design codes and standards may be used to demonstrate compliance with this requirement)	Yes	No
4	The process safety information is updated when a major change occurred that made the information inaccurate.	Yes	No

Hazard Review 68.50

1	A review of the hazards associated with the regulated substances, process, and procedures has been conducted and documented.	Yes No
2	The hazard review has identified the following: a-The hazards associated with the process and regulated substances. b-Opportunities of equipment malfunction that could cause an accidental release. c-The safeguards needed to control the hazards or prevent equipment malfunction or human error. d-Any steps needed to detect or monitor releases.	Yes No
3	The hazard review is updated at least once every five years.	Yes No
4	A hazard review is conducted whenever a major change in the process occurs.	Yes No
5	All issues identified in the hazard review are resolved before the startup of the changed process.	Yes No

Maintenance 68.56

1	Procedures to maintain the on-going mechanical integrity of the process equipment are prepared and implemented.	Yes No
2	Each maintenance employee is trained in equipment maintenance, work procedures, safe work practices, and process hazards.	Yes No
3	Each contract maintenance employees is trained to perform the maintenance procedures.	Yes No
4	Process equipment are inspected and tested.	Yes No
5	Frequency of inspection and testing of process equipment is consistent with manufacturer's recommendations, industry standards or codes, good engineering practices, and prior operating experience.	Yes No
6	Inspection and testing procedures followed recognized and accepted good engineering practices.	Yes No

Operating Procedures 68.52

1	The operating procedures addressed steps for initial startup.	Yes No
2	The operating procedures addressed steps for normal operations.	Yes No
3	The operating procedures addressed steps for temporary operations.	Yes No
4	The operating procedures addressed steps for emergency shutdown.	Yes No
5	The operating procedures addressed steps for emergency operations.	Yes No
6	The operating procedures addressed steps for normal shutdown.	Yes No
7	The operating procedures addressed steps for startup following a normal or emergency shutdown or a major change that requires a hazard review.	Yes No
8	The operating procedures defined steps required to correct or avoid deviations from operating limits (temp, pressure, flow, level compositions ...etc.).	Yes No
9	The operating procedures defined consequences of deviations from operating limits.	Yes No
10	The operating procedures addressed equipment inspections.	Yes No
11	The operating procedures are updated, if necessary, whenever a major change occurs and prior to startup of the changed process.	Yes No

Compliance Audits 68.58 (Applicable after June 21, 2002)

1	A compliance audit is conducted at least once every three years.	Yes No
2	The compliance audit is conducted by at least one person knowledgeable in the process.	Yes No
3	A report of the audit findings is developed.	Yes No
4	Appropriate response to each of the audit findings is determined and documented.	Yes No
5	Deficiencies have been corrected and correction documented.	Yes No
6	Written certification that compliance with the RMP rule has been evaluated and that the developed procedures and practices for the risk management program are adequate and are being followed.	Yes No
7	The two most recent compliance audit reports are retained (Not applicable to compliance audit reports more than five years old).	Yes No

Training 68.54

1	Each process operation employee is provided with initial training in the operating procedures as specified in section 68.52.	Yes No
2	For each employee involved in process operation before or on June 21, 1999, the owner or operator has certified in writing that the employee has the required knowledge, skills, and abilities to safely perform the duties and responsibilities as specified in the operating procedures.	Yes No
3	Refresher training is provided to each operation employee at least once every three years, and more often if necessary.	Yes No
4	The owner or operator, in consultation with the employees involved in operating the process, has determined the appropriate frequency of the refresher training. (Training conducted under Federal or State regulations, standards, or codes and training conducted by equipment vendors may be used to demonstrate compliance with this requirement.)	Yes No
5	Operation employees are trained in any updated or new procedures prior to the startup of a process after a major change.	Yes No

Incident Investigation 68.60

1	Each incident which resulted, or could reasonably have resulted in a catastrophic release is investigated.	Yes No
2	Each incident investigation is initiated not later than 48 hours following the incident.	Yes No
3	An incident investigation summary is prepared at the end of the investigation.	Yes No
4	The investigation summary included at minimum the following: a-Date of incident. b-Date investigation began. c-Description of incident. d-Factors that contributed to the incident. e-Recommendations.	Yes No
5	Investigation findings and recommendations are promptly addressed and resolved.	Yes No
6	Resolution and corrective actions are documented.	Yes No
7	Investigation summary findings are reviewed with all affected personnel whose jobs or tasks are affected by the findings.	Yes No
8	Incident investigation summaries are maintained for five years.	Yes No

V. Program Level Three Prevention Program

Process Safety Information 68.65

1	A compilation of written process safety information has been completed before conducting any process hazard analysis.	Yes No
2	The information pertaining to the hazards of the regulated substances in the process consisted at least of the following: a-Toxicity information. b-Permissible exposure limits. c-Physical data. d-Reactivity data. e-Corrosivity data. f-Thermal and chemical stability data. g-Hazardous effects of inadvertent mixing of different materials. (MSDS may be used to comply with this requirement to the extent they contain the required information.)	Yes No
3	The information pertaining to the technology of the process included at least the following: a-Block flow diagram or simplified process flow diagram. b-Process chemistry. c-Maximum intended inventory of regulated chemicals. d-Safe upper and lower limits for temperature, pressure, composition, flow, level, ...etc. e-Evaluation of the consequences of deviations from safe upper and lower limits.	Yes No
4	The information pertaining to the equipment in the process included the following: a-Materials of 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-Safety systems. h-Material and energy balances for processes built after June 21, 1999.	Yes No
5	Equipment compliance with recognized and generally accepted good engineering practices is documented.	Yes No NA
6	For existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the owner or operator has determined and documented that the equipment is consistent with the latest codes, standards, and operating in a safe manner.	Yes No NA

Process Hazard Analysis 68.67

1	An initial process hazard analysis (PHA) is conducted for each covered process, not later than June 21, 1999. (Process hazards analyses completed to comply with 29CFR 1910.119 (e) are acceptable as initial process hazards analyses.)	Yes No
2	The process hazard analyses are updated and revalidated every five years, based on their completion dates, by a team experienced in the specific processes and the process hazard analyses methodologies applied. (Updated and revalidated process hazard analyses completed to comply with 29 CFR 1910.119 (e) are acceptable.)	Yes No
3	The process hazard analysis has identified and evaluated the hazards of the process.	Yes No
4	The process hazard analysis has identified any previous incidents which had a likely potential for catastrophic consequences.	Yes No

5	The process hazard analysis has addressed engineering and administrative controls applicable to the hazards, and their interrelationships.	Yes No
6	The process hazard analysis has addressed consequences of failure of engineering and administrative controls.	Yes No
7	The process hazard analysis has addressed stationary source siting.	Yes No
8	The process hazard analysis has addressed human factors.	Yes No
9	The process hazard analysis has evaluated (quantitatively) a range of possible safety and health effects due to failure of controls.	Yes No
10	The process hazard analysis is conducted by a team with expertise in engineering and process operations.	Yes No
11	The team included at least one employee who has experience and knowledge specific to the process being evaluated.	Yes No
12	The team included at least one member knowledgeable in the specific process hazard analysis methodology being used.	Yes No
13	The team's findings and recommendations have been promptly resolved and resolution documented.	Yes No
14	Written schedule of actions required to be taken due to the PHA is developed and implemented.	Yes No
15	Actions are communicated to operating, maintenance, and other employees affected by the actions.	Yes No
16	The PHA and update or revalidation for each process as well as the documented resolution are retained for the life of the process.	Yes No

Operating Procedures 68.69

1	Written operating procedures that provide clear instructions for safely conducting activities involved in each covered process and consistent with the process safety information have been developed and implemented.	Yes No
2	The operating procedures are readily accessible to operation and maintenance employees.	Yes No
3	The operating procedures have been reviewed as often as necessary to assure that they reflect current operating practice.	Yes No
4	The owner or operator has certified annually that the operating procedures are current and accurate.	Yes No
5	Safe work practices have been developed and implemented (lockout/tagout, confined space entry, opening process equipment or piping, control over entrance into stationary space, etc.)	Yes No
6	The safe work practices have been applied to facility employees and contractor employees.	Yes No
7	Operating procedures addressed steps for initial startup.	Yes No
8	Operating procedures addressed steps for normal operations.	Yes No
9	Operating procedures addressed steps for temporary operations.	Yes No
10	Operating procedures addressed steps for emergency shutdown.	Yes No
11	Operating procedures defined conditions for emergency shutdown.	Yes No
12	Operating procedures assigned responsibility of emergency shutdown to qualified operators.	Yes No
13	Operating procedures addressed steps for emergency operations.	Yes No
14	Operating procedures addressed steps for normal shutdown.	Yes No
15	Operating procedures addressed steps for startup after emergency shutdown or turnaround.	Yes No
16	Operating procedures defined operating limits (temp, pressure, flow, level, etc.)	Yes No

17	Operating procedures defined consequences of deviations from operating limits.	Yes No
18	Operating procedures defined steps required to correct or avoid deviations from operating limits.	Yes No
19	Operating procedures addressed properties of, and hazards presented by, the chemicals in the process.	Yes No
20	Operating procedures addressed precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment.	Yes No
21	Operating procedures defined control measures to be taken if a physical contact or airborne exposure occurs.	Yes No
22	Operating procedures defined quality control of raw materials.	Yes No
23	Operating procedures defined control of hazardous chemical inventory levels.	Yes No
24	Operating procedures addressed any special or unique hazards.	Yes No
25	Operating procedures addressed safety systems and their functions.	Yes No

Training 68.71

1	Each process operation employee is provided with initial training in an overview of the process and the specific safety and health hazards.	Yes No
2	Each process operation employee is provided with initial training in the operating procedures as specified in section 68.69.	Yes No
3	For each employee involved in process operation before or on June, 21 1999, the owner or operator has certified in writing that the employee has the required knowledge, skills, and abilities to safely perform the duties and responsibilities as specified in the operating procedures.	Yes No
4	Refresher training is provided to each operation employee at least once every three years, and more often if necessary.	Yes No
5	The owner or operator, in consultation with the employees involved in operating the process, has determined the appropriate frequency of the refresher training.	Yes No
6	A record has been prepared to ascertain that each employee involved in operating a process has received and understood the training.	Yes No
7	The record has contained the following: a-Employee identity. b-Date of training. c-Means used to verify that the employee understood the training.	Yes No

Mechanical Integrity 68.73

1	Written procedures to maintain the on-going mechanical integrity of process equipment are established and implemented.	Yes No
2	Each maintenance employees is trained in an overview of the process, its hazards, and job task procedures.	Yes No
3	Process equipment are inspected and tested.	Yes No
4	Inspections and testing followed recognized and generally acceptable good engineering practices.	Yes No
5	Frequency of inspections and tests is consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if necessary.	Yes No
6	Each inspection and test performed is documented.	Yes No

7	Inspection and test documentation identified: a-Date of inspection or test. b-Name of person who performed inspection or test. c-Serial # or other identifier of equipment. d-Description of the inspection and test performed. e-Results of inspection and test.	Yes No
8	Equipment deficiencies are corrected in a safe and timely manner.	Yes No
9	For new plants and equipment it is assured that equipment as fabricated is suitable for the process application.	Yes No
10	For new plants and equipment, appropriate checks and inspections are performed to assure that the equipment is installed properly and consistent with design specs. and manufacturer's instructions.	Yes No
11	It is assured that maintenance materials, spare parts, and equipment are suitable for the process application.	Yes No

Management of Change 68.75

1	Written procedures to manage changes to process chemicals, technology, equipment, procedures, and changes to stationary source that affect a covered process, are established and implemented.	Yes No
2	The procedures assured that the following conditions are addressed prior to any change: a-Technical basis for the proposed change. b-Impact of change on health and safety. c-Modifications to operating procedures. d-Necessary time period for the change. e-Authorization requirements for the proposed change.	Yes No
3	Maintenance and operation employees are informed and trained in the change before the start of process.	Yes No
4	The change will result in a change of process safety information and operating procedures.	Yes No
5	Process safety information and operating procedures are updated (if point 4 is answered yes).	Yes No

Pre-Startup Review 68.77

(For new stationary sources and for modified stationary sources when the modification requires a change in process safety information)

1	A pre-Startup safety review is performed.	Yes No
2	The review confirmed – prior to the introduction of regulated substance to a process – the following: a-Construction and equipment is in accordance with design specs. b-Safety, operating, maintenance, and emergency procedures are in place and are adequate. c-For new stationary sources, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup. d-For modified stationary sources, all the requirements contained in management of change (section 68.75) are met. e-Training of operation employees has been completed.	Yes No

Compliance Audits 68.79 (Applicable from June 21, 2002)

1	A compliance audit is conducted at least once every three years.	Yes	No
2	The compliance audit is conducted by at least one person knowledgeable in the process.	Yes	No
3	A report of the audit findings is developed.	Yes	No
4	Appropriate response to each of the audit findings is determined and documented.	Yes	No
5	Deficiencies have been corrected and correction documented.	Yes	No
6	Written certification that compliance with the RMP rule has been evaluated and that the developed procedures and practices for the risk management program are adequate and are being followed.	Yes	No
7	The two most recent compliance audit reports are retained.	Yes	No

Incident Investigation 68.81

1	Each incident which resulted, or could reasonably have resulted in a catastrophic release is investigated.	Yes	No
2	Each incident investigation is initiated not later than 48 hours following the incident.	Yes	No
3	An incident investigation team is established.	Yes	No
4	The team consists of at least one person knowledgeable in the process involved.	Yes	No
5	The team consists of other persons with appropriate knowledge and experience of incident analysis and investigation.	Yes	No
6	An incident investigation report is prepared at the end of the investigation.	Yes	No
7	The investigation report included at a minimum the following: a-Date of incident. b-Date investigation began. c-Description of incident. d-Factors that contributed to the incident. e-Recommendations.	Yes	No
8	Investigation findings and recommendations are promptly addressed and resolved.	Yes	No
9	Resolution and corrective actions are documented.	Yes	No
10	Investigation report findings are reviewed with all affected personnel including contract employees.	Yes	No
11	Incident investigation reports are maintained for five years.	Yes	No

Employee Participation 68.83

1	Written plan of action regarding implementation of employee participation is developed.	Yes	No
2	Employees and their representatives are consulted on the conduct and development of Process hazard analyses.	Yes	No
3	Employees and their representatives are consulted on the development of the RMP prevention program elements.	Yes	No
4	Employees and their representatives are provided access to process hazard analyses and all other information required by the RMP.	Yes	No

Hot Work Permit 68.85

(Applicable for hot works on or near a covered process)

1	Hot work permits are issued for hot work operations on or near a covered process.	Yes	No
2	Hot work permits identified the dates authorized for hot work operations.	Yes	No
3	Hot work permits identified the object on which hot work will be performed.	Yes	No
4	Hot work permits documented that the fire protection and prevention requirements in 29 CFR 1910.252 (a) have been implemented prior to the beginning of the hot work operation.	Yes	No

5	Hot work permits are kept on file until completion of the hot work operation.	Yes	No
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Contractors 68.87

(Applicable to contractors performing work, that influence process safety, on or adjacent to a covered process.)

Owner/Operator Responsibilities:

1	Information regarding contractor safety performance and programs is obtained and evaluated.	Yes	No
2	The contractor is informed of known potential fire, explosion, or toxic release hazards related to the contractor's work and the process.	Yes	No
3	The contractor is informed of the applicable provisions of the emergency response (subpart E of the rule).	Yes	No
4	Safe work practices to control the entrance, presence, and exit, of contractor and contract employees in covered process areas are developed and implemented.	Yes	No
5	The contractor fulfillment of obligations specified in (Contractor Responsibilities) are periodically evaluated.	Yes	No
6	The Contractor assured that contract employees are trained in work practices and safe job performance.	Yes	No

Contractor Responsibilities:

1	Contractor employees are trained in the work practices necessary to safely perform their contract tasks.	Yes	No
2	Each contractor employee is instructed in the known potential fire, explosion, or toxic release hazards related to his or her job and the process.	Yes	No
3	Each contractor employee is instructed in the applicable provisions of the emergency action plan.	Yes	No
4	Documentation that each contractor employee has received and understood the training required by this section.	Yes	No
5	A training record is prepared which contains the following: a-Identity of contractor employee. b-Date of training. c-Means used to verify that the employee understood the training.	Yes	No
6	The contractor assured that each contract employee follows the safety rules of the stationary source including the safe work practices required by section 68.69 (d).	Yes	No
7	The Contractor advised the facility of any unique hazards found or presented by contractor's work.	Yes	No

VI. Emergency Response

Non Responding Facilities 68.90

1	For facilities with any regulated toxic substance, the facility is included in the LEPCs community emergency response plan developed under 42 U.S.C. 11003.	Yes No
2	For facilities with only regulated flammable substances, the facility has coordinated response actions with the local fire department.	Yes No
3	Appropriate mechanisms are in place to notify emergency responders.	Yes No

3	The emergency response plan has been coordinated with the community emergency response plan developed under 42 U.S.C. 11003.	Yes No
4	The emergency response plan has addressed procedures for informing local emergency response agencies and the public about accidental releases.	Yes No
5	The emergency response plan has addressed proper first-aid and emergency medical treatment necessary to treat human exposure.	Yes No
6	The emergency response plan has addressed procedures and measures for emergency response after an accidental release.	Yes No

Responding Facilities 68.95

1	An emergency response program has been developed and implemented.	Yes No
2	The emergency response program has included the following elements: a-An emergency response plan that is maintained at the facility. b-Procedures to review and update the emergency response plan to reflect changes at the facility and ensure that employees are informed of changes. c-Procedures for use of emergency response equipment. d-Procedures for inspection, testing, and maintenance of emergency response equipment. e-Training of all employees in relevant procedures.	Yes No

Additional Inspection Notes:

The document is for use by SC DHEC personnel. The contents herein do not exhaust all requirements imposed on a regulated facility by the Clean Air Act Section 112(r) or other State or Federal laws.