

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF RELEASE PREVENTION

Guidance for Toxic Catastrophe Prevention Act (TCPA) New Covered Processes

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Introduction

Pursuant to N.J.A.C. 7:31-4.11, facilities that are subject to the applicability requirements of the Toxic Catastrophe Prevention Act (TCPA) Program rules must comply with specific requirements prior to constructing and operating a new covered process. The rules provide different requirements for three categories of facilities:

1. N.J.A.C. 7:31-4.11(a) applies to owners or operators who plan to construct a new Program 3 covered process at a facility which does not have a previously approved risk management program.
2. N.J.A.C. 7:31-4.11(b) applies to owners or operators who plan to utilize existing equipment for a new Program 3 covered process at a facility which does not have a previously approved risk management program.
3. N.J.A.C. 7:31-4.11(c) applies to owners or operators who plan to construct a new Program 3 covered process or to utilize existing equipment for a new Program 3 covered process at a facility which has a previously approved risk management program.

The purpose of this guidance document is to assist the owners or operators of existing or planned TCPA facilities in understanding the requirements for a new covered process and to explain the Department's review and approval process of the owner or operator's required submittals. It is highly recommended that the owner or operator work closely with the Bureau in developing and submitting the required documentation to avoid any delays in the anticipated construction and startup of the new covered process.

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I. Construction of a New Covered Process at a Facility without an Approved Risk Management Program

Pursuant to N.J.A.C. 7:31-4.11(a), owners or operators who plan to construct a new Program 3 covered process at a facility which does not have a previously approved risk management program must perform the following:

1. At least 90 days prior to construction of the covered process submit the following to the Department
 - A report of safety review of design in accordance with N.J.A.C. 7:31-4.7(b) and (c)
 - The Risk Management Plan (RMP) as required at N.J.A.C. 7:31-7.1 et.seq. Refer to RMP guidance at <https://www.nj.gov/dep/enforcement/tcpa/rmp.htm>
 - An inherently safer technology (IST) review report pursuant to N.J.A.C. 7:31-4.12(c) through (f). Refer to Inherently Safer Technology Review at <https://www.nj.gov/dep/enforcement/tcpa/tcpadown.htm>

Note: Proceed with construction of the new covered process only upon receiving written approval from the Department;

2. Submit to the Department at least 90 days prior to the date the equipment is scheduled to be placed into Extraordinarily Hazardous Substance (EHS) service any updates of the documentation as required by N.J.A.C. 7:31-4.11(a)1;
3. Conduct a pre-startup safety review in accordance with N.J.A.C. 7:31-4.7(d) and (e);
4. Upon receiving a bill from the Department submit the fees required by N.J.A.C. 7:31-1.11.

The Department is required to perform the administrative and the technical reviews of the new covered process application for construction and startup. The following outline provides in a chronological order a summary of the risk management program documents that the owner or operator must submit to the Department, and the Department's administrative and technical reviews.

A. Approval for Construction

The Department will first perform an administrative review of the documents to determine whether they contain the required information to start a technical review. The Department will notify the owner or operator by letter whether the submittal is administratively complete or incomplete. If the submittal is administratively incomplete, the Department will outline the missing information that must be included in the documentation. When the owner or operator resubmits the required documents there will be another 90-day review period.

Following the determination that the submittal is administratively complete, the Department will begin its technical review. This review may be completed in the Department's offices or at the facility. In addition to the documents previously submitted to the Department

the owner or operator must have the following risk management program documents ready for technical review:

A. Process hazard analysis with risk assessment (PHA/RA) completed pursuant to 40 CFR 68.67(b) through (e) and N.J.A.C. 7:31-4.2(d) through (g). See the “Guidance on Process Hazard Analysis with Risk Assessment (PHA/RA)” at <https://www.nj.gov/dep/enforcement/tpa/tpadown.htm>.

B. Draft process safety information completed pursuant to 40 CFR 68.65 and N.J.A.C. 7:31-4.1(c)1 through 4 and 24 through 26.

C. Draft standard operating procedures completed pursuant to 40 CFR 68.69 incorporated with changes at N.J.A.C. 7:31-4.1(c)8 and N.J.A.C. 7:31-4.3.

N.J.A.C. 7:31-7.3(c) specifies that the Department will review the RMPs of owners or operators that do not have an approved risk management program at their facility to determine whether the facility has an established risk management program. The submitted RMP must show that the owner or operator has completed a process hazard analysis (PHA). The requirements to conduct and document the PHA are provided at 40 CFR 68.67 incorporated by reference with changes specified at N.J.A.C. 7:31-4.1(c)5 through 7. In addition to the PHA, the owner or operator should complete a risk assessment pursuant to N.J.A.C. 7:31-4.2. Owners or operators that have completed the PHA will be determined to have an established risk management program. If it is determined that the owner or operator does not have an established risk management program, the Department will notify the owner or operator by letter to complete the PHA covering the new process for the Department to review prior to granting approval to construct.

In the technical review, the Department will review each of these documents to determine that they address their corresponding rule requirements and that they are complete and accurate. The Department will evaluate the design safety review report to determine that the new covered process is designed in accordance with the applicable codes and standards and represents compliance with 40 CFR 68.65(d)(1)(vi), (2), and (3) incorporated with changes at N.J.A.C. 7:31-4.1(c). The Department will review the IST review report and the process hazard analysis with risk assessment (PHA/RA) to determine whether the facility will implement feasible layers of protection to eliminate or reduce the risk of an EHS release. The preferred hierarchy to eliminate or reduce the risk of an EHS release is IST followed by risk reduction measures. Both IST and risk reduction measures can include passive, active, and procedural layers of protection. For example, a particular layer of protection may already be present in the process, but there may be another protective measure that is inherently safer than the current one. In general, passive layers of protection are more reliable than active, followed by procedural.

Owners or operators should conduct the initial PHA/RA and IST review together since both studies relate to identifying risk reduction for the process. Also, similar study methodologies are often used for both studies. Upon completion of these studies concurrently, the PHA/RA report documentation required at N.J.A.C. 7:31-4.2(d) and (e) and the IST review report information required at N.J.A.C. 7:31-4.12(f) should be compiled in a way to make clear that the rule requirements of each are addressed.

After completing its technical review for construction, the Department will determine whether the new process application would comply with 40 CFR 68.65 (c) 2. or 3. If determined

to be technically complete, the Department will issue a letter granting approval for construction. If the submittal has technical deficiencies, the Department will issue a letter denying construction. In its letter of denial the Department will outline the deficiencies. The owner or operator has the right to appeal the decision pursuant to N.J.A.C. 7:31-11.1(a) and 11.3(b), (c), and (f). The owner or operator may make a subsequent submittal addressing the identified deficiencies. If the deficiencies are minor, the Department may send an information request letter. The time period between the date the information request letter is sent to the facility and the date a response is received by the Department will not count towards the 90-day review period.

Note: If the construction is denied and the owner or operator resubmits the new covered process application this will reset the 90-day review period.

B. Approval for Startup

No later than 90 days prior to the startup, the owner or operator must submit the updated documents required by N.J.A.C. 7:31-4.11(a)1 (design safety review report and RMP) as required at N.J.A.C. 7:31-4.11(a)3. If there are no updates of this documentation, the owner or operator should send a letter to the Department stating that the documents are current and do not need to be updated and notify the Department of the intended startup date of the process.

The Department will review any updated documentation and perform a detailed audit at the facility of all risk management program documents and procedures. This will include the management system, prevention program, and emergency response program. For a new covered process, especially in the case of new construction, many risk management program elements may not yet have implementation records. For example, preventive maintenance inspections/tests will not have commenced yet; however, there should be records for the commissioning and pre-startup testing of equipment. Also, there will not be records for elements such as EHS accident investigation, management of change, and compliance audit. However, the procedures for all program elements should be complete. It is important that the facility implements the following elements prior to startup: the pre-startup safety review; completion of all final process safety information; EHS operator training; and emergency response (ER) training of the ER team, site personnel, and completion of the ER exercise and assessment.

Following the audit, any risk management program material deficiencies found by the Department will be issued to the owner or operator in a preliminary determination letter, which is the initial draft of the consent agreement. Prior to starting up the new covered process, the owner or operator must enter into a consent agreement as required by N.J.A.C. 7:31-4.11(d). The complete process to execute the consent agreement between the Department and the owner or operator is stated at 40 CFR 68.220(e) through (g) incorporated with changes at N.J.A.C. 7:31-8.1(c)6 through 9. The consent agreement will specify the actions that must be taken by the owner or operator to comply with the requirements of N.J.A.C. 7:31-1 et seq, with associated schedules. Some of the actions may be required to be completed prior to start-up, other actions may be completed shortly following start-up. The Department will conduct on-site inspections to verify completion of the corrective actions as scheduled.

II. Utilizing Existing Equipment for a New Covered Process at a Facility without an Approved Risk Management Program

Pursuant to N.J.A.C. 7:31-4.11(b), the owners or operators who plan to utilize existing equipment for a new Program 3 covered process at a facility which does not have a previously approved risk management program must perform the following:

1. At least 90 days prior to placing the equipment into EHS service submit the following
 - A report of safety review of design in accordance with N.J.A.C. 7:31-4.7(b) and (c).
 - The Risk Management Plan (RMP) as required at N.J.A.C. 7:31-7.1 et.seq. Refer to RMP guidance at <https://www.nj.gov/dep/enforcement/tcpa/rmp.htm>
 - An inherently safer technology (IST) review report pursuant to N.J.A.C. 7:31-4.12(c) through (f). Refer to Inherently Safer Technology Guidance at <https://www.nj.gov/dep/enforcement/tcpa/tcpadown.htm>
 2. Conduct a pre-startup safety review in accordance with N.J.A.C. 7:31-4.7(d) and (e);
- and
3. Submit to the Department the fees required by N.J.A.C. 7:31-1.11.

These requirements apply to an owner or operator who plans to use a new EHS that previously was not used in existing process equipment as well as to an owner or operator who is using an EHS at an amount below the threshold quantity at the facility but plans to begin handling or storing the EHS at an amount that meets or exceeds the threshold quantity at the facility.

The Department is required to perform administrative and technical reviews of the owner or operator's new covered process application. The following outline provides in a chronological order a summary of the risk management program documents that the owner or operator must submit to the Department, and the Department's administrative and technical reviews.

The Department will first perform an administrative review of the documents to determine whether they contain the required information to start a technical review. The Department will notify the owner or operator by letter whether the submittal is administratively complete or incomplete. If the submittal is administratively incomplete, the Department will outline the missing information that must be included in the documentation. When the owner or operator resubmits the required documents there will be another 90-day review period.

Following the determination that the submittal is administratively complete, the Department will conduct its technical review along with an audit of the all risk management program documents and procedures at the owner or operator's facility. The Department will review the safety review of design report, the RMP, the process hazard analysis with risk assessment (PHA/RA) (see the "Guidance on Process Hazard Analysis with Risk Assessment (PHA/RA)" at <https://www.nj.gov/dep/enforcement/tcpa/tcpadown.htm>), process safety information (PSI), standard operating procedures (SOPs), and the inherently safer technology (IST) review report to evaluate the design of the new covered process. The Department will review each of these documents to determine that they address their corresponding rule

requirements and that they are complete and accurate. The Department will evaluate the design safety review report to determine that the new covered process is designed in accordance with the applicable codes and standards and represents compliance with 40 CFR 68.65(d)(1)(vi), 2, and 3. The Department will review the IST review report and the process hazard analysis with risk assessment (PHA/RA) to determine whether the facility will implement feasible layers of protection to eliminate or reduce the risk of an EHS release. The preferred hierarchy to eliminate or reduce the risk of an EHS release is IST followed by risk reduction measures. Both IST and risk reduction measures can include passive, active, and procedural layers of protection. For example, a particular layer of protection may already be present in the process, but there may be another protective measure that is inherently safer than the current one. In general, passive layers of protection are more reliable than active, followed by procedural.

Owners or operators should conduct the initial PHA/RA and IST review together since both studies relate to identifying risk reduction for the process. Also, similar study methodologies are often used for both studies. Upon completion of these studies concurrently, the PHA/RA report documentation required at N.J.A.C. 7:31-4.2(d) and (e) and the IST report information required at N.J.A.C. 7:31-4.12(f) should be compiled in a way to make clear that the rule requirements of each are addressed.

The Department will perform a detailed audit at the facility and review all risk management program elements including the management system, the prevention program, and the emergency response program. For a new covered process consisting of existing equipment being placed into new EHS service, some risk management program elements such as EHS accident investigation, management of change, and compliance audit may not yet have implementation records. However, the procedures for all program elements should be complete. For existing equipment being placed into new EHS service, the Department will evaluate the condition of the existing equipment. In particular, it is important for the owner or operator to complete all appropriate inspection, testing, and commissioning activities prior to startup of the new covered process. It is important that the facility implements some elements prior to startup: the pre-startup safety review; completion of all final process safety information; EHS operator training; and emergency response (ER) training of the ER team, site personnel, and completion of the ER exercise and assessment.

Following the audit, any risk management program material deficiencies found by the Department will be issued to the owner or operator in a preliminary determination letter, which is the initial draft of the consent agreement. Prior to startup of the new covered process, the owner or operator must enter into a consent agreement as required by N.J.A.C. 7:31-4.11(d). The complete process to execute the consent agreement between the Department and the owner or operator is stated at 40 CFR 68.220(e) through (g) incorporated with changes at N.J.A.C. 7:31-8.1(c)6 through 9. The consent agreement will specify the actions that must be taken by the owner or operator to comply with the requirements of N.J.A.C. 7:31-1 et seq, with associated schedules. Some of the actions may be required to be completed prior to start-up, other actions may be completed shortly following start-up. The Department will conduct on-site inspections to verify completion of the corrective actions as scheduled.

III. Construction of a New Covered Process or Utilizing Existing Equipment for a New Covered Process at a Facility with an Approved Risk Management Program

Pursuant to N.J.A.C. 7:31-4.11(c), the owners or operators who plan to construct a new covered process or to utilize existing equipment for a new Program 3 covered process at a facility which has an approved risk management program must perform the following:

1. At least 90 days prior to placing the equipment into EHS service submit the following to the Department:

- A report of safety review of design in accordance with N.J.A.C. 7:31-4.7(b) and (c),
- An update to the Risk management Plan (RMP) as required at N.J.A.C. 7:31-7.1 et.seq. Refer to RMP guidance at <https://www.nj.gov/dep/enforcement/tcpa/rmp.htm>
- An inherently safer technology (IST) review report pursuant to N.J.A.C. 7:31-4.12(c) through (f). Refer to Inherently Safer Technology Guidance at <https://www.nj.gov/dep/enforcement/tcpa/tcpadown.htm>;

2. Conduct a pre-startup safety review in accordance with N.J.A.C. 7:31-4.7(d) and (e);
and

3. Submit to the Department the fees required by N.J.A.C. 7:31-1.11.

In the case of a new covered process being constructed at a facility that already has an approved risk management program, the owner or operator is not required to obtain approval from the Department prior to construction. The review and approval of the new covered process will be the same as that for utilizing existing equipment for a new covered process at a facility without an approved risk management program as outlined in section II above. However, instead of executing a consent agreement prior to the startup of the process, a consent agreement addendum is executed for a facility that already has an approved risk management program.