

## LCB File No. R041-01

### PROPOSED REGULATION OF THE STATE ENVIRONMENTAL COMMISSION

(This proposed regulation was previously adopted as LCB File No. T011-01)

#### Petition 2001-06

Explanation - Matter in *italics* is new; matter in brackets ~~fomitted material~~ is material to be omitted.

AUTHORITY: §§2,3,8,11-26, NRS 459.3813, 459.3818 and 459.3829; §§27,29-34,36-79, NRS 459.3813 and 459.3818; §§4-7,9,10,80, NRS 459.3818 and 459.3829; §28, NRS 459.3818; §35, NRS 459.3816.

**Section 1.** Chapter 459 of NAC is hereby amended by adding thereto the provisions set forth as sections 2 to 27, inclusive, of this regulation.

**Sec. 2.** *“Explosive” means gunpowders, powders used for blasting, all forms of high explosives, blasting materials, fuses other than electric circuit breakers, detonators and other detonating agents, smokeless powders, other explosive or incendiary devices and any chemical compound, mechanical mixture or device that contains any oxidizing and combustible units, or other ingredients, in such proportions, quantities or packing that ignition by fire, friction, concussion, percussion, or detonation of the compound, mixture or device or any part thereof may cause an explosion. The term includes any mixture of ammonium nitrate and fuel oil. The term does not include any ammunition, powder, percussion caps, fuses, quills, matches, primers or explosive materials specified in 18 U.S.C. § 845(a)(4)-(6).*

**Sec. 3.** *“Explosives manufacturing operation” means a process, which involves the manufacture of explosives for sale, notwithstanding the presence of tier A or tier B substances. This term also includes explosive storage sites which are incidental to the manufacture of explosives for sale.*

**Sec. 4.** *“First responding fire station” means the local fire department station that typically responds to emergency calls from the facility, and is usually the station that is first on scene during an emergency.*

**Sec. 5.** *“Hazardous materials response station” means the local fire department station that is equipped and trained to provide hazardous materials response capability to the facility in accordance with 29CFR1910.120(q).*

**Sec. 6.** *“Local Building Official” means the authority that is charged with the administration and enforcement of local building codes.*

**Sec. 7.** *“Local Fire Department Authority” means the authority that is charged with the administration and enforcement of local fire codes.*

**Sec. 8.** *“New explosives manufacturing operation” means an explosives manufacturing operation that has been, or will be installed at the facility and will be operated for the first time at this location.*

**Sec. 9.** *“New process” means a process that has been, or will be installed at the facility and will be operated for the first time at this location.*

**Sec. 10.** *“Trade Secret” means information that satisfies the criteria established by subsection 4 of NRS 459.3846.*

**Sec. 11.** *Before the owner or operator of a facility commences the construction of a new process or new explosives manufacturing operation that will become subject to the provisions of tier A pursuant to NAC 459.95323, or tier B, program level 2 or 3, pursuant to NAC 459.95325 and 459.95327, the owner or operator shall obtain a permit to construct from the division, pursuant to sections 13 through 24, inclusive, of this regulation.*

**Sec. 12.** *Before the owner or operator of a facility:*

*1. Commences the operation of a new process or new explosives manufacturing facility that will become subject to the provisions of Tier A pursuant to NAC 459.95323, or tier B, program level 2 or 3, pursuant to NAC 459.95325 and 459.95327; or*

*2. Brings tier A or B substances or explosives on site,  
The owner or operator shall obtain a permit to commence operation from the division, pursuant to section 25 of this regulation.*

**Sec. 13.** *Prior to applying for a permit to construct, the owner or operator shall meet with the division to:*

*1. Discuss the project scope and the applicable design and construction codes and standards;*

*2. Discuss the document submission requirements; and*

*3. Discuss project schedule.*

**Sec. 14.** *1. The owner or operator of the new process or new explosives manufacturing operation that will become subject to the provisions of Tier A pursuant to NAC 459.95323, or tier B, program level 2 or 3, pursuant to NAC 459.95325 and 459.95327, shall provide three complete sets of the permit to construct application to the division. At the discretion of the division, select application elements may be reviewed at the owner or operator’s facility. The application shall be made on forms prescribed by the division and shall include:*

*(a) A registration containing:*

*(1) Information required pursuant to NAC 459.95454, 459.95456, 459.95464 and 459.95452;*

*(2) The name, address and telephone number of the company submitting the plans;*

*(3) A project overview, describing:*

*(I) The process;*

*(II) The hours of operation;*

- (III) The number of personnel anticipated per shift, including operations, maintenance, office staff, contract personnel and any other personnel;*
- (IV) The modes of transport for incoming and outgoing raw materials and products and transport routes;*
- (V) The frequency and hours of transport of incoming and outgoing raw materials and products;*
- (VI) The scope of the construction project; and*
- (VII) The project schedule;*
- (4) Construction inspector information required pursuant to section 21 of this regulation; and*
- (b) The coordinated emergency response plan document developed pursuant to NAC 459.9544 and 459.95442;*
- (c) Process safety information and process hazard analysis documents required pursuant to section 16 of this regulation;*
- (d) Drawings, specifications, and calculations required pursuant to sections 17, 18 and 19 of this regulation; and*
- (e) A copy of the conditional use permit issued pursuant to NRS 278.147.*
- 2. The documents, drawings and calculations submitted pursuant to sections 17, 18 and 19 of this regulation shall be stamped or sealed by the engineer that has responsible charge of the work pursuant to NAC 625.610 and NAC 625.611. A table of contents or cover sheet shall be submitted with specifications that complies with the requirements of subsection 3 of NAC 625.611.*
- 3. The owner or operator may request that select information submitted pursuant to this section be held as trade secret. Any information submitted pursuant to this section that the division determines to be trade secret must:*
  - (a) Not be disclosed by the division to the public;*
  - (b) Not be reproduced by the division;*
  - (c) Not be disclosed to a consultant to the division unless the consultant has executed proper agreements to protect such information; and*
  - (d) Be returned in its entirety to the submitting owner or operator upon completion of the permitting process.*

**Sec. 15.1.** *Upon receipt of a permit to construct application, the division must review the application to determine if all information required under section 14 of this regulation has been submitted. The division must provide an initial completeness determination pursuant to either subsection 2 or 3 of this section, within 30 days.*

*2. If the division determines that all information required pursuant to section 14 of this regulation has been submitted, they must notify the owner or operator accordingly.*

*3. If the division determines that information required pursuant to section 14 of this regulation is incomplete, they must notify the owner or operator of the deficiencies. The division may, at its discretion, return all submitted information.*

*4. The division may elect to delay the review of information submitted pursuant to section 14 of this regulation, until the application is determined to be complete.*

**Sec. 16.** *The process safety information and process hazard analysis required to be submitted pursuant to section 14 of this regulation shall indicate the current revision number and date and shall consist of:*

- 1. Information pertaining to the hazards of any tier A or B substance or explosive as required pursuant to paragraph (a) of subsection 2 of NAC 459.95412;*
- 2. A description of the process chemistry as required pursuant to subparagraph (2) of paragraph (b) of subsection 2 of NAC 459.95412. The process chemistry must note all potential side reactions, whether or not the reactions create hazardous consequences;*
- 3. A description of the safe upper and lower limits and the consequences of deviating from those limits as required pursuant to subparagraphs (4) and (5) of paragraph (b) of subsection 2 of NAC 459.95412;*
- 4. If not readily apparent from the piping and instrument diagrams, control logic documentation to enable understanding of process controllers, switches and interlocks. All such documentation shall be as concise as possible to enable efficient utilization by the division;*
- 5. A list of equipment and instruments, traceable to the piping and instrument diagram, and select design and code information as requested by the division;*
- 6. A material and energy balance as required pursuant to subparagraph (7) of paragraph (c) of subsection 2 of NAC 459.95412;*
- 7. The safety system description as required pursuant to subparagraph (8) of paragraph (c) of subsection 2 of NAC 459.95412; and*
- 8. The complete process hazard analysis, performed pursuant to NAC 459.95414.*

**Sec. 17.** *Drawings, as defined in this section, shall be submitted pursuant to section 14 of this regulation. All drawings shall indicate the current revision number and date and be of sufficient quality to be legible after reproduction. Where plans are drawn to scale, the scale shall be indicated and a bar scale shall be included. The drawings to be submitted shall consist of:*

*1. A site plan, drawn to scale, which locates the facility containing the new process or new explosives manufacturing operation on a map depicting city or county roads. The site plan shall show at a minimum:*

- (a) An area encompassing the endpoint of the worst case release scenario developed pursuant to NAC 459.95366, and the first responding fire station and hazardous materials response station that are identified pursuant to paragraph e of this subsection;*
- (b) A graphical delineation of the endpoints of each worst case and alternate case release scenario developed pursuant to NAC 459.95366 and 459.95368.*
- (c) Major roads and transportation corridors;*
- (d) Routes for incoming and outgoing raw materials and products;*
- (e) The location of the first responding fire station, and the hazardous materials response station; and*
- (f) The location of schools, hospitals, and other public receptors within the plan area defined in paragraph (a) of this subsection.*

*2. Plot plans of the project area, shown on separate drawings, drawn to scale, showing:*

- (a) Major equipment locations, tier A substance, tier B substance and explosives locations and maximum intended inventories at those locations;*
- (b) Safety systems, including without limitation:*

- (1) Firewater and other suppression system tankage locations;*
- (2) System pump locations and distribution piping routing;*
- (3) Hydrant, monitor and other fire suppression equipment locations;*
- (4) Toxic and combustible gas and flame detector locations;*
- (5) Personal protective equipment locations; and*
- (6) Manufacturer, model number and quantities for items identified under subparagraphs 1 through 5, inclusive, of this paragraph; and*

*(c) Electrical hazardous area locations required pursuant to subparagraph (3) of paragraph (c) of subsection 2 of NAC 459.95412. The plot plan and necessary elevation and detail drawings shall be provided to distinguish between electrically unclassified and electrically classified areas as defined in Article 500 of N.F.P.A. 70, the National Electric Code, which is adopted by reference pursuant to NAC 459.95528. Additionally, the drawing shall denote the nationally recognized code or standard utilized to determine the extent of the electrically classified area.*

*3. Process flow diagrams, shown on one or more drawings as necessary, developed pursuant to subparagraph (1) of paragraph (b) of subsection 2 of NAC 459.95412. The process flow diagram shall correspond to the material and energy balance submitted pursuant to section 16 of this regulation.*

*4. Piping and instrument diagrams, shown on one or more drawings as necessary, developed pursuant to subparagraph (2) of paragraph (c) of subsection 2 of NAC 459.95412. The piping and instrument diagrams shall:*

- (a) Be submitted on 11 inch by 17 inch sheets on an easily legible scale;*
- (b) Cover the new process as well as any associated utility systems, including without limitation, air, water, nitrogen and process drain systems;*
- (c) Include all piping, equipment, instruments and controls; and*
- (d) Correspond to:*
  - (1) The process flow diagrams developed pursuant to subsection 3 of this section;*
  - (2) The equipment lists, control logic documentation and the process hazard analysis submitted pursuant to section 16 of this regulation; and*
  - (3) The specifications submitted pursuant to section 18 of this regulation.*

*5. Concrete foundation drawings for equipment and structures related to the new process or explosives manufacturing operation that are not subject to review and approval by the local building official. The drawings shall include:*

- (a) Base and subbase preparation, including compaction requirements;*
- (b) Forms, reinforcing bar and appurtenance requirements;*
- (c) Concrete and grout specifications;*
- (d) Testing and inspection requirements; and*
- (e) Applicable codes, standards or industry recommended practices governing the design and construction.*

*6. Structural steel drawings for equipment and piping supports related to the new process that are not subject to review and approval by the local building official. The drawings shall include;*

- (a) Steel and bolting specifications;*
- (b) Welding, testing and inspection requirements; and*
- (c) Applicable codes, standards or industry recommended practices governing the design and construction.*

*7. Any other drawings as requested by the division.*

**Sec. 18.** *Specifications, as defined in this section, shall be submitted pursuant to section 14 of this regulation. All specifications shall indicate the current revision number and date.*

*1. The specifications shall define:*

*(a) The applicable codes, standards or industry recommended practices to be followed for the design, construction and inspection of the new process or a new explosives manufacturing operation;*

*(b) The design conditions, including maximum allowable working pressures, design temperatures and seismic criteria, where applicable;*

*(c) The required materials of construction;*

*(d) The qualification requirements for installation methods used and for the personnel performing the construction and inspection activities; and*

*(e) Inspection and testing requirements.*

*2. As applicable to the project, specifications shall be provided for:*

*(a) Piping, fittings and valves; and*

*(b) Other specifications, only as required by the division.*

**Sec. 19.** *1. Calculations, as defined in this section, shall be submitted pursuant to section 14 of this regulation. All calculations shall indicate the current revision number and date. Calculations shall be provided for:*

*(a) Concrete foundations for drawings submitted pursuant to section 17 of this regulation. A soils report shall also be submitted to support design calculations;*

*(b) Structural steel for drawings submitted pursuant to section 17 of this regulation; and*

*(c) Pressure relief devices submitted pursuant to section 16 of this regulation.*

*2. Applicable codes, standards or industry recommended practices governing the design and construction shall be noted on the calculations.*

*3. Computer generated calculations shall include:*

*(a) A complete description of the mathematical model used in the design;*

*(b) Design program identification, input data required, program application limitations and final results.*

*A program description or user's manual may be required to be submitted to the division.*

*4. Supporting information, including vendor data, shall be provided to the division as requested.*

**Sec. 20. RESERVED**

**Sec. 21.** *Construction inspector information provided to the division pursuant to section 14 of this regulation shall identify:*

*1. Each inspector to be employed by the owner or operator;*

*2. The scope of the inspection services to be provided by each inspector, including the types of observations and tests; and*

*3. The qualifications of the inspector that enables performance of their duties. Where certification or other credentials are required by code or standard, copies of the appropriate credentials shall be provided.*

**Sec. 22. 1. The division shall issue a permit to construct when:**

**(a) The division approves the offsite consequence analysis developed pursuant to NAC 459.95362 through 459.95372, inclusive;**

**(b) The division determines that the construction inspectors selected by the owner or operator:**

**(1) Will, at a minimum, provide inspection as required by applicable specifications, codes, or standards and ensure construction and installation pursuant to those specifications, codes or standards; and**

**(2) Are qualified by experience, and when required by specifications, codes or standards, have appropriate training and certification.**

**(c) RESERVED;**

**(d) The division determines:**

**(1) The emergency response plan developed pursuant to NAC 459.9544 and 459.95442 is complete;**

**(2) Full time emergency response capability is available; and**

**(3) Hazardous materials response capability:**

**(I) Is available pursuant to the requirements of 29 CFR 1910.120;**

**(II) Is available 24 hours per day; and**

**(III) Will be provided by an organization that is not a volunteer fire department;**

**(e) The division determines that the process hazard analysis complies with NAC 459.95414;**

**(f) The division approves the site plan developed pursuant to subsection 1 of section 17 of this regulation. For the division to approve the site plan:**

**(1) The worst case release scenario developed pursuant to NAC 459.95366, shall be mitigated in a manner acceptable to the division to minimize the impact on public receptors located outside the industrial zoning district. At a minimum, some level of passive or active mitigation must be employed;**

**(2) The alternate case release scenarios developed pursuant to NAC 459.95368, shall be mitigated in a manner acceptable to the division to prevent the endpoint as defined in subsection 1 of NAC 459.95364 from reaching a public receptor located outside the industrial zoning district. Active mitigation may be considered by the division to satisfy this requirement; and**

**(3) The locations of the emergency responders as shown on the site plan shall be consistent with the locations noted in the emergency response plan developed pursuant to NAC 459.9544 and 459.95442;**

**(g) The division approves:**

**(1) The plot plan developed pursuant to paragraph a of subsection 2 of section 17 of this regulation when the tier A and tier B substance locations and explosives locations reflect the offsite consequence analysis;**

**(2) Code compliance for the electrical hazardous area location plan developed pursuant to paragraph c of subsection 2 of section 17 or this regulation, except that the division will accept a local building official approval of this drawing;**

**(3) The piping and instrument diagrams developed pursuant to subsection 4 of section 17 of this regulation are consistent with equipment lists and specifications submitted pursuant to section 14 of this regulation;**

*(4) The concrete foundation drawings developed pursuant to subsection 5 of section 17 of this regulation reflect submitted calculations;*

*(5) The structural steel drawings developed pursuant to subsection 6 of section 17 of this regulation reflect submitted calculations;*

*(6) The specifications developed pursuant to section 18 of this regulation comply with applicable codes and standards; and*

*(7) The calculations developed pursuant to section 19 of this regulation comply with applicable codes and standards;*

*(h) The division approves other drawings, specifications, calculations, studies or other documents specifically requested by the division for compliance with applicable codes and standards;*

*(i) The portions of the new process or explosives manufacturing operation reviewed by the division pursuant to sections 14 through 21, inclusive, of this regulation have been found to be in conformance with the requirements of the conditional use permit issued pursuant to NRS 278.147; and*

*(j) The division has completed the public review and comment process and;*

*(1) Has elected to issue the permit to construct pursuant to paragraph a of subsection 2 of section 23 of this regulation; or*

*(2) Has required modifications pursuant to paragraph b of subsection 2 of section 23 of this regulation and the owner of operator has made the modifications to the satisfaction of the division.*

*2. Modifications that cause the alteration of any document, drawing or specification permitted under subsection 1 of this section shall be subject to the applicable provisions of management of change and pre-startup safety review pursuant to NAC 459.95423 and 459.95425.*

**Sec. 23. 1.** *Upon determining concurrence with paragraphs a through i, inclusive, of subsection 1 of section 22, the division must issue a notice of intent to approve the permit to construct. The notice must:*

*(a) Be sent to the applicant and the local governing body in the area in which the process is to be located, and published in a newspaper of general circulation for the area in which the site is located;*

*(b) Summarize the intended action by the division and note that the following information is available for review:*

*(1) The registration submitted pursuant to paragraph a of subsection 1 of section 14 of this regulation;*

*(2) The coordinated emergency response plan submitted pursuant to paragraph b of subsection 1 of section 14 of this regulation;*

*(3) The site plan submitted pursuant to subsection 1 of section 17 of this regulation; and*

*(4) A copy of the conditional use permit submitted pursuant to paragraph e of subsection 1 of section 14 of this regulation.*

*(c) State that the division will accept comments for 30 days after the date that the notice is issued; and*

*(d) Describe the procedure for obtaining copies of the available documents.*



2. *Within 15 days of the closure of the public comment period, the division must consider the comments and elect to either:*

- (a) Issue the permit to construct;*
- (b) Require further modifications; or*
- (c) Deny the permit.*

3. *If the permit is denied, the division must provide an explanation, citing the appropriate section of the regulation that supports such a denial.*

**Sec. 24.** *During the construction activity permitted pursuant to section 22 of this regulation:*

1. *The owner or operator:*

*(a) Shall maintain on site;*

*(1) All documents, drawings and specifications related to the new process or explosives manufacturing operation, including the set of documents, drawings and specifications approved by the division pursuant to subsection 1 of section 22 of this regulation;*

*(2) All inspection and testing records; and*

*(3) All construction procedure and construction personnel qualification records; and*

*(b) Shall make all information maintained on site pursuant to paragraph a of this subsection, available to the division or authorized representative upon request.*

2. *The owner or operator shall provide the division five days notice of dates on which:*

*(a) Concrete foundations will be poured;*

*(b) Structural steel erection will commence;*

*(c) Process piping fabrication will commence;*

*(d) Process piping hydrotesting will commence; and*

*(e) Any other activities identified by the division or authorized representative that will be performed.*

**Sec. 25.** 1. *Submission of the assessment report pursuant to paragraph c of subsection 2 of this section shall be considered the application for a permit to commence operation.*

2. *The division will issue a permit to commence operation to the owner or operator of the new process or new explosives manufacturing operation that will become subject to the provisions of tier A pursuant to NAC 459.95323 or tier B, program level 2 or 3 pursuant to NAC 459.95325 or 459.95327, after:*

*(a) The permit to construct for the new process or new explosives manufacturing operation has been issued pursuant to section 22 of this regulation;*

*(b) Concrete foundations and steel drawings and calculations related to the new process that are being permitted by the local building official have received the appropriate permits;*

*(c) An assessment report containing the information required pursuant to NAC 459.95452 through 459.95466, inclusive is submitted to the division and all P.T.A.H. measures have been resolved. The assessment report shall be submitted no less than 60 days prior to commencing the operation of the new process or explosives manufacturing operation and prior to bringing tier A substances, tier B substances or explosives on site;*

*(d) The division has determined the requirements of NAC 459.95412 through 459.95442, inclusive, have been satisfied; and*

*(e) Any balance due to the division for fees that are assessed pursuant to section 26 of this regulation has been paid.*

**Sec. 26. 1.** *As defined in this section, the owner or operator of a new process or new explosives manufacturing operation shall remit fees to the division for permitting activities conducted pursuant to sections 11 and 12 of this regulation.*

*2. After the division finds the application complete pursuant to section 15 of this regulation:*

*(a) The owner or operator shall remit \$5,000 to the division. The division will subsequently issue invoices for cost incurred in excess of \$5,000, up to a cumulative amount of:*

*(1) \$40,000 for a new process or explosives manufacturing operation with 5 or less piping and instrument diagrams, exclusive of drawing legend sheets, developed pursuant to subparagraph 2 of paragraph c of subsection 2 of NAC 459.95412;*

*(2) \$50,000 for a new process or explosives manufacturing operation with 20 or less piping and instrument diagrams, exclusive of drawing legend sheets, developed pursuant to subparagraph 2 of paragraph c of subsection 2 of NAC 459.95412; or*

*(3) \$50,000 plus \$500 for each piping and instrument diagram in excess of 20, for a new process or explosives manufacturing operation with more than 20 piping and instrument diagrams, exclusive of drawing legend sheets, developed pursuant to subparagraph 2 of paragraph c of subsection 2 of NAC 459.95412.*

*(b) The division shall accrue charges:*

*(1) For division activity related to permitting in the amount of \$55 per hour; and*

*(2) For contractor activity related to permitting at cost to the division plus 5 percent.*

*(c) The owner or operator shall not pay more than the amount remitted to the division pursuant to paragraph a of this subsection, except that:*

*(1) Fees related to review of concrete foundations or structural steel design; and*

*(2) Fees related to reviewing corrections,*

*shall not be considered in determining this maximum fee.*

*(d) Prior to issuing the permit to commence operation pursuant to section 25 of this regulation, the owner or operator shall remit any unpaid balance due to the division pursuant to this section.*

*(e) After issuing the permit to commence operation pursuant to section 25 of this regulation, the division must refund any unexpended fee paid pursuant to paragraph a of this subsection, to the owner or operator.*

*3. Notwithstanding the provisions of NAC 459.95334 and section 27 of this regulation, the owner or operator of a new process or new explosives manufacturing operation will be exempt from annual fees related to the new process or new explosives manufacturing operation for the state fiscal year in which the operation commences and for the following state fiscal year.*

**Sec. 27. 1.** *An owner or operator of a facility that has an explosives manufacturing operation subject to the tier A program pursuant to subsection 2 of section 34 of this regulation shall annually pay to the division, a base fee pursuant to subsection 2 of this section and an inspection fee pursuant to subsection 3 of this regulation, by July 31 of each year.*

*2. The annual base fee shall be \$4,100. If the explosives manufacturing operation also contains tier A or tier B substances, the total annual base fee assessed pursuant to this subsection and subsection 3 of NAC 459.95334 shall not exceed \$4,100.*

*3. The annual inspection fee shall be \$13,000 for the first explosives manufacturing operation, plus \$4,800 for each additional explosives manufacturing operation, up to a maximum of \$50,000 annually.*

**Sec. 28.** NAC 459.952 is hereby amended to read as follows:

As used in NAC 459.952 to 459.95528, inclusive, unless the context otherwise requires, the words and terms defined in NAC 459.95211 to 459.95314, inclusive, *and sections 2 through 10, inclusive, of this regulation* have the meanings ascribed to them in those sections.

**Sec. 29.** NAC 459.95211 is hereby amended to read as follows:

"Accidental release" means:

1. An unintentional discharge from a ~~[facility]~~ *process* of any amount of a tier A or tier B substance into the air, water or land, *including unintentional discharges within a building that encloses a process*; or
2. A fire or an explosion at a facility involving a tier A *substance*, ~~[or]~~ tier B substance *or explosive*.

**Sec. 29a.** NAC 459.95235 is hereby amended to read as follows:

"Catastrophic release" means a major uncontrolled emission, *or a* fire or explosion, involving one or more ~~[regulated]~~ substances *or explosives*, that presents imminent and substantial endangerment to *employee health*, public health ~~[and]~~ *or* the environment. *This term includes events that occur within a building structure containing the substance or explosive.*

**Sec. 30.** NAC 459.95242 is hereby amended to read as follows:

"Emergency response program" is a plan that is developed pursuant to NAC 459.9544 and 459.95442 to respond to emergencies, including, without limitation, an accidental release ~~[of a tier A or tier B substance]~~.

**Sec. 31.** NAC 459.95261 is hereby amended to read as follows:

"Major change" means the introduction of:

1. A new process, *a new explosives manufacturing operation*, new ~~[process]~~ equipment *related to a process or explosives manufacturing operation, a new explosive*, or a new tier A or tier B substance; or
2. An alteration of process chemistry that results in a change to safe operating limits or introduces a new hazard.

**Sec. 32.** NAC 459.95279 is hereby amended to read as follows:

"Prevention program" means procedures and practices that are developed and implemented pursuant to NAC 459.95386 to 459.95398, inclusive, or NAC 459.95412 to 459.95435, inclusive, to:

1. Prevent ~~[the]~~ *an* accidental release ~~[of a tier A or tier B substance]~~;
2. Minimize the likelihood of an accidental release; or
3. Mitigate the impacts of an accidental release.

**Sec. 32a.** NAC 459.95299 is hereby amended to read as follows:

"Tier A substance" means a substance ~~[for which an accident prevention program is required pursuant to subparagraph (1) of paragraph (b) of subsection 1 of NRS 459.3813]~~ *which is present in quantities greater than or equal to the threshold quantity established pursuant to NAC 459.9533 under the column labeled 'Tier A Threshold Quantity'.*

**Sec. 32b.** NAC 459.9531 is hereby amended to read as follows:

"Tier B substance" means a substance ~~[for which an accident prevention program is required pursuant to NRS 459.3833]~~ *which is present in quantities greater than or equal to the threshold quantity established pursuant to NAC 459.9533 under the column labeled 'Tier B Threshold Quantity'.*

**Sec. 33.** NAC 459.95314 is hereby amended to read as follows:

"Worst-case release" means:

1. ~~[t]~~The release of the largest quantity of a tier A or tier B substance from a failure of a vessel or process line that results in the greatest distance to an endpoint defined in NAC 459.95364; *or*
2. *The involvement of the largest quantity of an explosive in a detonation that results in the greatest distance to an endpoint defined in NAC 459.95364.*

**Sec. 34.** NAC 459.95323 is hereby amended to read as follows:

1. Except as otherwise provided in NAC 459.95486, a process is subject to the tier A program if the process is not exempted pursuant to NRS 459.3814 and a substance is present within the contiguous boundary of the facility in a quantity:

(a) Equal to or greater than the amount listed in the table in NAC 459.9533 under the column labeled "Tier A Threshold Quantity"; or

(b) Less than the amount listed in the table in NAC 459.9533 under the column labeled "Tier A Threshold Quantity" if there are two or more releases of one or more tier A substances from the facility during a 12-month period and the quantity for each release is in excess of the amount listed in the table in NAC 459.9533 for the substance under the column labeled "Two Release Quantity."

2. *An explosives manufacturing operation is subject to the tier A program if the explosives manufacturing operation is not exempted pursuant to NRS 459.3814.*

3. If the table in NAC 459.9533 under the column labeled "Tier A Threshold Quantity" is blank, the tier A program does not apply to that substance.

**Sec. 35.** NAC 459.9533 is hereby amended to read as follows:

1. Substances that are designated ~~[in the table in this section]~~ as having a tier A threshold quantity include, without limitation, the substances *and quantities* that are listed in NRS 459.3816 *and the substances listed in the table in this section.*

2. Substances that are designated in the table in this section as having a tier B threshold quantity include, without limitation, the substances that are listed in 40 C.F.R. § 68.130.

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Acetaldehyde	<i>Ethanal</i>		75-07-0	2,500	10,000	1,000	1	F	
Acetylene	Ethyne		74-86-2		10,000			F	
Acrolein	2-Propenol		107-02-8	150	5,000	1	1&2	T	0.0011
Acrylonitrile	2-Propenenitrile		107-13-1		20,000			T	0.076
Acrylyl chloride	2-Propenoyl chloride		814-68-6	250	5,000	100	2	T	0.00090
Alkylaluminums				5,000		50*	3		
Allyl alcohol	2-Propen-1-ol		107-18-6		15,000			T	0.036
Allyl chloride	<i>3-chloropropene</i>		107-05-1	1,000		100	3		
Allylamine	2-Propen-1-amine		107-11-9	<del>1,500</del> <i>1,000</i>	10,000	500	2	T	0.0032
Ammonia	Anhydrous Ammonia	Anhydrous	7664-41-7	5,000	10,000	100	1&2	T	0.14
Ammonia	Ammonia solution <i>Ammonium Hydroxide</i>	20wt% or greater	7664-41-7		20,000			T	0.14

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Ammonia	Ammonia solution <i>Ammonium hydroxide</i>	<i>concentration greater than 44% ammonia by weight [wt% or greater]</i>	7664-41-7	10,000		100	3		
Ammonium perchlorate			7790-98-9	7,500		75*	3		
Ammonium permanganate			7787-36-2	7,500		75*	3		
Arsenous trichloride			7784-34-1		15,000			T	0.010
Arsine	Arsenic Hydride		7784-42-1	100	1,000	10	3	T	0.0019
bis(Chloromethyl) Ether	Chloromethyl Ether		542-88-1	100	1,000	10	1&2	T	0.00025
Boron trichloride			10294-34-5	2,500	5,000	100	3	T	0.010
Boron trifluoride			7637-07-2	250	5,000	25	3	T	0.028
Boron trifluoride w/Methyl		1:1 ratio	353-42-4		15,000			T	0.023

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Ether									
Bromine			7726-95-6	1,500	10,000	500	2	T	0.0065
Bromine chloride			13863-41-7	1,500		10	3		
Bromine pentafluoride			7789-30-2	2,500		100	3		
Bromine trifluoride			7787-71-5	15,000		1000	3		
Bromotrifluoroethylene			598-73-2		10,000			F	
1,3-Butadiene			106-99-0		10,000			F	
Butane			106-97-8		10,000			F	
1-Butene			106-98-9		10,000			F	
2-Butene			107-01-7		10,000			F	
Butene			25167-67-3		10,000			F	
2-Butene-cis			590-18-1		10,000			F	
2-Butene-trans	<del>[2-Butene, (E)]</del>		624-64-6		10,000			F	

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Butyl hydroperoxide (Tertiary)			75-91-2	5,000		50*	3		
Butyl perbenzoate (Tertiary)			614-45-9	7,500		75*	3		
Carbon disulfide			75-15-0		20,000			T	0.16
Carbon oxysulfide	Carbon Oxide Sulfide		463-58-1		10,000			F	
Carbonyl fluoride			353-50-4	2,500		10	3		
Cellulose nitrate		<i>concentration greater than</i> 12.6% nitrogen <del>{or greater}</del>	9004-70-0	2,500		25*	3		
Chlorine			7782-50-5	1,500	2,500	10	1&2	T	0.0087
Chlorine dioxide			10049-04-4	1,000	1,000	100	3	T	0.0028
Chlorine monoxide			7791-21-1		10,000			F	



Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Chlorine pentafluoride			13637-63-3	1,000		10	3		
Chlorine trifluoride			7790-91-2	1,000		100	3		
Chlorodiethylaluminum	Diethylaluminum Chloride		96-10-6	5,000		50*	3		
1-Chloro-2,4-Dinitrobenzene			97-00-7	5,000		50*	3		
Chloroform			67-66-3		20,000			T	0.49
Chloromethyl methyl ether			107-30-2	500	5,000	10	1&2	T	0.0018
Chloropicrin			76-06-2	500		50	3		
Chloropicrin/Methylbromide mix				1,500		500	3		
Chloropicrin/Methylchloride mix				1,500		500	3		
1-Chloropropylene			590-21-6		10,000			F	
2-Chloropropylene			557-98-2		10,000			F	

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Crotonaldehyde	2-Butenal		4170-30-3		20,000			T	0.029
Crotonaldehyde, (E)-	2-Butenal, (E)-		123-73-9		20,000			T	0.029
Cumene Hydroperoxide			80-15-9	5,000		10	1		
Cyanogen	Ethanedinitrile		460-19-5	2,500	10,000	100	1	F	
Cyanogen chloride			506-77-4	500	10,000	10	1	T	0.030
Cyanuric fluoride			675-14-9	100		10	3		
Cyclohexylamine	Cyclohexanimine		108-91-8		15,000			T	0.16
Cyclopropane			75-19-4		10,000			F	
Diacetyl peroxide		<i>concentration greater than 70% <del>for greater</del></i>	110-22-5	5,000		50*	3		
Diazomethane			334-88-3	500		10	3		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Dibenzoyl peroxide			94-36-0	7,500		75*	3		
Diborane			19287-45-7	100	2,500	10	3	T	0.0011
Dibutyl peroxide (tertiary)			110-05-4	5,000		50*	3		
Dichloro acetylene			7572-29-4	250		10	3		
Dichlorosilane			4109-96-0	2,500	10,000	100	3	F	
Diethylzinc			557-20-0	10,000		100*	3		
Difluoroethane			75-37-6		10,000			F	
Diisopropyl peroxydicarbonate			105-64-6	7,500		75*	3		
Dilauroyl peroxide			105-74-8	7,500		75*	3		
Dimethyl sulfide			75-18-3	100		10	3		
Dimethylamine (anhydrous)			124-40-3	2,500	10,000	1,000	1	F	
Dimethyldichlorosilane			75-78-5	1,000	5,000	500	2	T	0.026

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
1,1-Dimethylhydrazine			57-14-7	1,000	15,000	10	1&2	T	0.012
2,2-Dimethylpropane			463-82-1		10,000			F	
<i>2,4 -Dinitroaniline</i>			<i>97-02-9</i>	<i>5,000</i>		<i>50*</i>	<i>3</i>		
Epichlorohydrin			106-89-8		20,000			T	0.076
Ethane			74-84-0		10,000			F	
Ethyl acetylene	1-Butyne		107-00-6		10,000			F	
Ethyl chloride			75-00-3		10,000			F	
Ethyl ether			60-29-7		10,000			F	
Ethyl mercaptan	Ethanethiol		75-08-1		10,000			F	
Ethyl nitrite			109-95-5	5,000	10,000	50*	3	F	
Ethylamine	Ethanamine		75-04-7	7,500	10,000	100	1	F	
Ethylene	Ethene		74-85-1		10,000			F	
Ethylene fluorohydrin			371-62-0	100		10	2		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Ethylene oxide	Oxirane		75-21-8	5,000	10,000	10	1&2	T	0.090
Ethylenediamine			107-15-3		20,000			T	0.49
Ethyleneimine	Aziridine		151-56-4	1,000	10,000	1	1&2	T	0.018
Fluorine			7782-41-4	<del>1,000</del> <i>100</i>	1,000	10	1&2	T	0.0039
Formaldehyde		<del>[90% or greater]</del> <i>concentration 37% or greater by weight</i>	50-00-0	1,000	15,000	100	1&2	T	0.012
Furan			110-00-9	500	5,000	100	1&2	T	0.0012
Hexafluoroacetone			684-16-2	5,000		10	3		
Hydrazine			302-01-2		15,000			T	0.011

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Hydrochloric acid		37% or greater	7647-01-0		15,000	1,000	3	T	0.030
Hydrofluoric acid		50% or greater	7664-39-3		1,000	100	1	T	0.016
Hydrogen			1333-74-0		10,000			F	
Hydrogen bromide			10035-10-6	5,000		10	3		
Hydrogen chloride		Anhydrous	7647-01-0	5,000	5,000	100	3	T	0.030
Hydrogen cyanide	Hydrocyanic acid	Anhydrous	74-90-8	1,000	2,500	10	1&2	T	0.011
Hydrogen fluoride		Anhydrous	7664-39-3	1,000		100	1&2		
Hydrogen peroxide		<i>concentration 52% or greater by weight</i> <del>[wt% or greater]</del>	7722-84-1	7,500		1,000	2		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Hydrogen selenide			7783-07-5	150	500	10	2	T	0.00066
Hydrogen sulfide			7783-06-4	1,500	10,000	100	1&2	T	0.042
Hydroxylamine			7803-49-8	2,500		25*	3		
Iron, pentacarbonyl			13463-40-6	250	2,500	100	2	T	0.00044
Isobutane	<i>1,1-dimethyl ethane</i>		75-28-5		10,000			F	
Isobutyronitrile			78-82-0		20,000			T	0.14
Isopentane			78-78-4		10,000			F	
Isoprene			78-79-5		10,000			F	
Isopropyl chloride	<i>2-chloropropane</i>		75-29-6		10,000			F	
Isopropyl chloroformate			108-23-6		15,000			T	0.10
Isopropyl formate			625-55-8	500		100	3		
Isopropylamine			75-31-0	5,000	10,000	1,000	3	F	
Ketene			463-51-4	100		10	3		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Methacrylaldehyde			78-85-3	1,000		500	3		
Methacryloyl chloride			920-46-7	150		100	2		
Methacryloyloxyethyl isocyanate			30674-80-7	100		10	3		
Methane			74-82-8		10,000			F	
Methyl acrylonitrile	Methacrylonitrile		126-98-7	250	10,000	25	3	T	0.0027
Methyl bromide			74-83-9	2,500		500	3		
3-Methyl-1-butene	<i>Isopentene</i>		563-45-1		10,000			F	
2-Methyl-1-butene			563-46-2		10,000			F	
Methyl chloride			74-87-3	15,000	10,000	100	1	T	0.82
Methyl chloroformate			79-22-1	500	5,000	100	3	T	0.0019
Methyl disulfide			624-92-0	100		10	3		
Methyl ether			115-10-6		10,000			F	



Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Methyl ethyl ketone peroxide	<i>Ethyl methyl ketone peroxide</i>	<i>concentration greater than 60% <del>for greater</del></i>	1338-23-4	5,000		10	1		
Methyl fluoroacetate			453-18-9	100		10	3		
Methyl fluorosulfate			421-20-5	100		10	3		
Methyl formate			107-31-3		10,000			F	
Methyl hydrazine			60-34-4	100	15,000	10	1&2	T	0.0094
Methyl iodide			74-88-4	7,500		100	1		
Methyl isocyanate			624-83-9	250	10,000	10	1&2	T	0.0012
Methyl mercaptan			74-93-1	5,000	10,000	100	1&2	T	0.049
Methyl thiocyanate			556-64-9		20,000			T	0.085
Methyl vinyl ketone			78-94-4	100		10	2		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Methylamine	Methanamine	Anhydrous	74-89-5	1,000	10,000	100	1	F	
2-Methylpropene			115-11-7		10,000			F	
Methyltrichlorosilane			75-79-6	500	5,000	50	3	T	0.018
Nickel carbonyl			13463-39-3	150	1,000	10	1&2	T	0.00067
Nitric acid		80% or greater	7697-37-2		15,000			T	0.026
Nitric acid		<i>concentration 94.5% or greater by weight [wt% or greater]</i>	7697-37-2	500		50	3		
Nitric oxide	Nitrogen oxide		10102-43-9	250	10,000	10	1&2	T	0.031
Nitroaniline	para Nitroaniline		100-01-6	5,000		50*	3		
Nitrogen dioxide			10102-44-0	250		10	1&2		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Nitrogen oxides		NO; NO <sub>2</sub> ; N <sub>2</sub> O <sub>4</sub> ; N <sub>2</sub> O <sub>3</sub>	10102-44-0	250		10	3		
Nitrogen tetroxide			10544-72-6	250		10	1		
Nitrogen trifluoride			7783-54-2	5,000		1,000	3		
Nitrogen trioxide			10544-73-7	250		10	3		
Nitromethane			75-52-5	2,500		25*	3		
Oleum	Fuming sulfuric acid	65 wt% or greater of SO <sub>3</sub>	8014-95-7	1,000	10,000	500	3	T	0.010
Osmium tetroxide			20816-12-0	100		10	3		
Oxygen difluoride	Fluorine monoxide		7783-41-7	100		10	3		
Ozone			10028-15-6	100		10	3		
Pentaborane			19624-22-7	100		10	3		
1,3-Pentadinene			504-60-9		10,000			F	

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Pentane			109-66-0		10,000			F	
1-Pentene			109-67-1		10,000			F	
2-Pentene, (E)-			646-04-8		10,000			F	
2-Pentene, (Z)-			627-20-3		10,000			F	
Peracetic acid	Peroxyacetic acid	<i>concentration greater than 60% acetic acid</i>	79-21-0	<del>5,000</del> <i>1,000</i>	10,000	500	2	T	0.0045
Perchloric acid		<i>concentration greater than 60% by weight</i> <del>{or greater}</del>	7601-90-3	5,000		50*	3		
Perchloromethyl mercaptan			594-42-3	150	10,000	100	1&2	T	0.0076

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Perchloryl fluoride			7616-94-6	5,000		100	3		
Phosgene	Carbonyl chloride		75-44-5	100	500	10	1&2	T	0.00081
Phosphine	Hydrogen phosphide		7803-51-2	100	5,000	10	3	T	0.0035
Phosphorus oxychloride	Phosphoryl chloride		10025-87-3	1,000	5,000	500	3	T	0.0030
Phosphorus trichloride			7719-12-2	1,000	15,000	500	3	T	0.028
Piperidine			110-89-4		15,000			T	0.022
Propadiene	1,2 Propadiene		463-49-0		10,000			F	
Propane			74-98-6		10,000			F	
Propargyl bromide	<i>3-Bromopropyne</i>		106-96-7	<del>7,500</del> <i>100</i>		10	2		
Propionitrile			107-12-0		10,000			T	0.0037
Propyl chloroformate			109-61-5		15,000			T	0.010
Propyl nitrate			627-13-4	<del>2,500</del>		25*	3		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
				100					
Propylene	1 Propene		115-07-1		10,000			F	
Propylene oxide			75-56-9		10,000			T	0.59
Propyleneimine			75-55-8		10,000			T	0.12
Propyne	1-Propyne		74-99-7		10,000			F	
Sarin			107-44-8	100		10	2		
Selenium hexafluoride			7783-79-1	1,000		1	1		
Silane			7803-62-5		10,000			F	
Stibine	Antimony hydride		7803-52-3	500		10	3		
Sulfur dioxide		Anhydrous	7446-09-5	1,000	5,000	100	3	T	0.0078
Sulfur pentafluoride			5714-22-7	250		10	3		
Sulfur tetrafluoride			7783-60-0	250	2,500	10	3	T	0.0092
Sulfur trioxide	Sulfuric Anhydride		7446-11-9	1,000	10,000	100	2	T	0.010

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Tellurium hexafluoride			7783-80-4	250		10	3		
Tetrafluoroethylene			116-14-3	5,000	10,000	1,000	3	F	
Tetrafluorohydrazine			10036-47-2	5,000		500	3		
Tetramethyl Lead			75-74-1	<del>7,500</del> 1,000	10,000	100	<del>1</del> 2	T	0.0040
Tetramethylsilane			75-76-3		10,000			F	
Tetranitromethane			509-14-8		10,000			T	0.0040
Thionyl chloride			7719-09-7	250		100	3		
Titanium tetrachloride			7550-45-0	2,500	2,500	1,000	1&2	T	0.020
Toluene 2,4-diisocyanate			584-84-9		10,000			T	0.0070
Toluene 2,6-diisocyanate			91-08-7		10,000			T	0.0070
Toluene diisocyanate			26471-62-5		10,000			T	0.0070
Trichloro(chloromethyl)			1558-25-4	100		10	3		

Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
silane									
Trichloro(dichlorophenyl) silane			27137-85-5	2,500		500	2		
Trichlorosilane			10025-78-2	5,000	10,000	500	3	F	
Trifluorochloroethylene			79-38-9	10,000	10,000	500	3	F	
Trimethoxysilane			2487-90-3	1,500		500	3		
Trimethylamine			75-50-3		10,000			F	
Trimethylchlorosilane			75-77-4		10,000			T	0.050
Vinyl acetate monomer			108-05-4		15,000			T	0.26
Vinyl acetylene			689-97-4		10,000			F	
Vinyl chloride			75-01-4		10,000			F	
Vinyl ethyl ether			109-92-2		10,000			F	
Vinyl fluoride			75-02-5		10,000			F	



Chemical Name	Alternate Chemical Name	Mixture Description	CAS Number	Tier A Threshold Quantity (lbs)	Tier B Threshold Quantity (lbs)	Two Release Quantity (lbs)	Two Release Source note 1	Tox(T), Flam(F) or Expl(E)	Toxic Endpoint (mg/L)
Vinyl methyl ether			107-25-5		10,000			F	
Vinylidene chloride			75-35-4		10,000			F	
Vinylidene fluoride			75-38-7		10,000			F	

Table Notes:

1. For Two Release Source Column: 1 = RQ as listed in 40 C.F.R. Part 302; 2 = RQ as listed in 40 C.F.R. Part 355; 3 = Two Release Quantity as determined in “Technical Basis Document for C.A.P.P. Two Release Quantities and Toxic Endpoints.”

\* These substances must be involved in a fire or explosion to qualify as a release pursuant to paragraph (b) of subsection 1 of section 42 of this regulation.

**Sec. 36.** NAC 459.95332 is hereby amended to read as follows:

The owner or operator of a facility that has a process, *or explosives manufacturing operation* which is subject to the tier A program or tier B program shall:

1. Register annually with the division pursuant to NAC 459.95348 to 459.95358, inclusive;
2. Pay fees pursuant to NAC 459.95334 *if the facility contains one or more processes*; ~~and~~
3. *Pay fees pursuant to section 27 of this regulation if the facility contains one or more explosives manufacturing operations; and*
4. ~~3.~~ Develop a management system pursuant to NAC 459.95516.

**Sec. 37.** NAC 459.95336 is hereby amended to read as follows:

In addition to the requirements set forth in NAC 459.95332, the owner or operator of a facility with a process *or explosives manufacturing operation* that is subject to the tier A program shall:

1. Submit assessment plans ~~and prioritization schedules~~ and information about the assessment team pursuant to NAC 459.95476;
2. Conduct a hazard assessment pursuant to NAC 459.95362 to 459.95378, inclusive;
3. Implement a prevention program pursuant to NAC 459.95382 and 459.95412 to 459.95435, inclusive;
4. Implement an emergency response program pursuant NAC 459.9544 and 459.95442;
5. Submit assessment reports pursuant to NAC 459.95448 to 459.95468, inclusive; and
6. Submit an annual compliance report pursuant to NAC 459.9548 and 459.95482.

**Sec. 38.** NAC 459.95342 is hereby amended to read as follows:

NAC 459.95342 The owner or operator of a facility with a process *or explosives manufacturing operation* that is subject to both the tier A program and tier B program shall comply with the general requirements set forth in NAC 459.95332 and comply with the requirements for a tier A process set forth in NAC 459.95336. ~~except that:~~

- ~~1. The timing for initial registration must be in accordance with paragraph (b) of subsection 3 of NAC 459.95348; and~~
- ~~2. The timing for submission of the assessment report must be in accordance with NAC 459.9545.~~

**Sec. 39.** NAC 459.95348 is hereby amended to read as follows:

NAC 459.95348 1. The owner or operator shall:

- (a) Complete annually a single registration form covering all processes *and explosives manufacturing operations* ~~and both~~ *subject to either the tier A or tier B program*; and
  - (b) Submit the registration to the division on or before June 21 of each year.
2. The registration must show the maximum quantity of all tier A and tier B substances *and explosives* on-site between June 1 of the previous year and May 31 ~~of~~ of the current year.
  3. ~~Upon~~ **Prior to** starting a new process *or new explosives manufacturing operation*, the owner or operator shall:
    - (a) *Submit the registration at least 90 days before introducing a tier B substance into the facility, if the new tier B process will become subject to the requirements of tier B, program level 1 upon process startup; or*

- (b) *Submit the permit to construct application pursuant to section 11 of this regulation in lieu of the initial registration if:*

(1) *The new process will be subject to tier A or tier B, program levels 2 or 3 upon startup; or*

(2) *The new operation will be an explosives manufacturing operation.*

~~[submit an initial registration:~~

~~—(a) If the process is subject to tier A and not tier B, pursuant to NAC 459.95348 to 459.95358, inclusive, within 10 days after bringing the tier A substance on-site.~~

~~—(b) If the process is subject to tier B, regardless of whether the process is subject to tier A:~~

~~—(1) Pursuant to NAC 459.95348 to 459.95358, inclusive, within 10 days after bringing the substance on-site or before June 21, 1999; or~~

~~—(2) Pursuant to NAC 459.95448 to 459.95466, inclusive, at the start of the process if the process is started after June 21, 1999.]~~

4. If a facility is subject to the provisions of paragraph (b) of subsection 1 of NAC 459.95323, the owner or operator shall submit the registration pursuant to NAC 459.95348 to 459.95358, inclusive, not later than 90 days after the provisions of paragraph (b) of subsection 1 of NAC 459.95323 take effect.

5. If the state environmental commission adds a new substance to the table of substances set forth in NAC 459.9533 and a facility has a process that uses the new substance, the owner or operator shall, not later than 90 days after the effective date of the regulation which contains the addition, submit to the division registration for the process pursuant to NAC 459.95348 to 459.95358, inclusive.

6. Registration consists of:

(a) Information about the facility as set forth in NAC 459.9535;

(b) A summary of the off-site consequence analysis as set forth in NAC 459.95352;

(c) A summary of the 5-year accident history of the facility as set forth in NAC 459.95354;

(d) A description of the emergency response plan for the facility as set forth in NAC 459.95356; and

(e) Certification as set forth in NAC 459.95358.

7. Annual submission of registration pursuant to NAC 459.95348 to 459.95358, inclusive, satisfies the requirements of subsection 1 of NRS 459.3828 and NRS 459.383.

**Sec. 40.** NAC 459.9535 is hereby amended to read as follows:

Information about the facility on the annual registration form must include:

1. The name, street, city, county, state, zip code, latitude and longitude of the facility, the method for obtaining the latitude and longitude, and a description of the location that the latitude and longitude represent;

2. The Dun & Bradstreet number for the facility;

3. The name and Dun & Bradstreet number of any parent corporation;

4. The name, telephone number and mailing address of the owner or operator;

5. The name and title of the person with overall responsibility for the implementation of C.A.P.P.;

6. The name, title, telephone number during normal business hours and telephone number that is available 24 hours per day of an emergency contact;

7. For each process *or explosives manufacturing operation*:

(a) The name and C.A.S. number of each substance;

(b) The maximum quantity of each substance on-site between June 1 of the previous year and May 31~~{0}~~ of the current year. *For a new process or new explosives manufacturing operation, the owner or operator shall register the maximum inventory they expect to have on site through the following May 31;*

(c) The N.A.I.~~{S.}~~C.S. code that is applicable to the process *or explosives manufacturing operation;*

(d) The program tier to which the process is subject *or if the operation is an explosives manufacturing operation;* and

(e) The tier B program level, if applicable, of the process;

8. The identifier ~~{that}~~ *assigned by* the United States Environmental Protection Agency, ~~{has}~~ *if one has been* assigned to the facility;

9. The number of full-time employees at the facility;

10. Whether the facility is subject to 29 C.F.R. § 1910.119;

11. Whether the facility is subject to 40 C.F.R. Part 355;

12. Whether the facility has an operating permit pursuant to 40 C.F.R. Part 70 and, if applicable, the permit number; and

13. The date of the last safety inspection of the facility by a federal, state or local governmental agency and the identity of the inspecting entity.

**Sec. 41.** NAC 459.95352 is hereby amended to read as follows:

The summary of the off-site consequence analysis on the annual registration form must include:

1. A summary of:

(a) One worst-case release scenario for each tier B program level 1 process; and

(b) For each process that is subject to either the tier A program, ~~{or}~~ tier B program level 2 or 3, *or for an explosives manufacturing operation*, one worst-case release scenario for all toxic substances held above the threshold quantity and one worst-case release scenario for all flammable and explosive substances held above the threshold quantity. If an additional worst-case scenario for a toxic *substance*, ~~{or}~~ flammable substance *or explosive* is required pursuant to NAC 459.95366, the owner or operator shall submit the same information for the additional scenario that he sends to satisfy the requirements of this paragraph.

2. The following data for each release scenario:

(a) The chemical name of the substances;

(b) A description of the scenario, including, without limitation, whether the scenario involves an explosion, fire, toxic gas release, or liquid spill and vaporization;

(c) The quantity in pounds of the substance that is released *or involved in the explosion;*

(d) The rate at which the substance is released;

(e) The duration of the release;

(f) The distance to the endpoint;

(g) Public and environmental receptors that are located within the distance to the endpoint;

(h) Any passive mitigation that is considered;

(i) If the substance is toxic:

(1) The percentage weight of the substance in a mixture;

(2) The physical state of the substance;

(3) The wind speed and atmospheric stability class used in the scenario; and

(4) The topography of the geographical area used in the scenario; and

(j) The basis of the results of the scenario, including, without limitation, the name of any model that is used.

**Sec. 42.** NAC 459.95354 is hereby amended to read as follows:

The summary of the 5-year accident history of the facility on the annual registration form must include:

1. The data for the 5-year accident history that is developed pursuant to NAC 459.95378; and
2. A description of:
  - (a) Any unanticipated or unusual event at the facility that resulted in ~~the~~ *an accidental* release ~~of any quantity of a tier A or tier B~~ *or the release of any* substance; and
  - (b) The efforts undertaken by the facility to assess the reasons and develop a remedy for ~~the~~ *an accidental* release ~~of the~~ *or the release of any* substance.

**Sec. 43.** NAC 459.95356 is hereby amended to read as follows:

The description of the emergency response plan for the facility on the annual registration form must indicate:

1. Whether there is a written emergency response plan;
  2. Whether the plan includes specific actions to be taken in response to an accidental release ~~of a tier A or tier B substance~~;
  3. Whether the plan includes procedures for informing the public and local agencies responsible for responding to accidental releases;
  4. Whether the plan includes information on emergency health care;
  5. The date of the most recent review or update of the emergency response plan;
  6. The date of the most recent emergency response training for employees;
  7. The name and telephone number of the local agency with which the plan is coordinated;
- and
8. Other federal or state requirements for the emergency plan to which the facility is subject.

**Sec. 44.** NAC 459.95362 is hereby amended to read as follows:

1. If ~~all~~ *the* facility *has* processes *or explosives manufacturing operations on site that* are subject to the tier A program or tier B program level 2 or 3, the owner or operator shall conduct a hazard assessment pursuant to NAC 459.95362 to 459.95378, inclusive.
2. If a process is subject to tier B program level 1, the owner or operator shall conduct a hazard assessment pursuant to NAC 459.95364, 459.95366 and 459.9537 to 459.95378, inclusive.

**Sec. 45.** NAC 459.95366 is hereby amended to read as follows:

1. The owner or operator shall include the data gathered from the worst-case release scenario analysis on the registration form required pursuant to NAC 459.95348 and in the assessment report.
2. The facility may use the guidelines set forth in the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528, to calculate any of the values required in this section.
3. The owner or operator shall prepare one worst-case release scenario for each tier B program level 1 process.

4. For each process *or explosives manufacturing operation* that is subject to the tier A program or tier B program level 2 or 3, the owner or operator shall prepare:

(a) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint resulting from an accidental release of a tier A or tier B toxic substance under worst-case conditions as described in NAC 459.95364;

(b) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint resulting from an accidental ignition or detonation of a flammable or explosive substance under worst-case release conditions as described in NAC 459.95364; and

(c) Additional worst-case release scenarios for a facility if:

(1) A worst-case release from another process *or explosives manufacturing operation* at the facility potentially affects different public receptors than those affected by the worst-case release scenario prepared pursuant to paragraphs (a) and (b); or

(2) A tier B toxic or flammable substance is present in excess of the threshold quantity and was not considered as part of the worst-case release scenarios prepared pursuant to paragraphs (a) and (b).

5. (a) When preparing a worst-case release scenario *for tier A or B substances*, the owner or operator shall assume that the release quantity is the greater of:

(1) ~~(a)~~ For substances in a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity.

(2) ~~(b)~~ For substances in pipes, the greatest amount in a pipe, taking into account administrative controls that limit the maximum quantity.

*(b) When preparing a worst case release scenario for an explosive, the owner or operator shall select the inventory that produces the greatest distance to an endpoint.*

6. The owner or operator shall model each tier A or tier B substance as a toxic, flammable or explosive as described in the table in NAC 459.9533. If a substance is not described as toxic, flammable or explosive in the table in NAC 459.9533, the owner or operator shall select the scenario providing the most significant impact on employees and the public.

7. For toxic substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall:

(a) Assume that the quantity in the vessel or pipe, as determined pursuant to subsection 5, is released as a gas over a period of 10 minutes;

(b) Assume that the release rate, in pounds per minute, is the total quantity divided by 10, unless passive mitigation systems are in place; and

(c) Calculate the impact of passive mitigation measures on the release rate using the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528.

8. For gases handled as refrigerated liquids at ambient pressure, the owner or operator:

(a) Shall assume that the substance is released as a gas in 10 minutes, if the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 cm (0.39 inch) or less; and

(b) May assume that the quantity of the substance in the vessel or pipe, as determined pursuant to subsection 5, is spilled instantaneously to form a liquid pool, if the released substance is contained by passive mitigation systems in a pool with a depth greater than 1 cm (0.39 inch). The owner or operator shall calculate the volatilization rate at the boiling point of the substance and at the conditions set forth in subsections 9, 10 and 11.

9. For toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe, as determined pursuant to subsection 5, is spilled instantaneously to form a liquid pool. The owner or operator shall determine the surface area of the pool by assuming that the liquid spreads to 1 cm (0.39 inch) deep, unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. If passive mitigation is in place, the owner or operator shall use the surface area of the contained liquid to calculate the volatilization rate. If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics.

10. When determining the volatilization rate for purposes of subsection 9, the owner or operator shall account for:

- (a) The highest daily maximum temperature occurring during the past 3 years;
- (b) The temperature of the substance in the vessel; and
- (c) If the liquid spilled is a mixture or solution, the concentration of the substance.

11. For purposes of subsection 9, the owner or operator shall determine the rate of release to air from the volatilization rate of the liquid pool determined pursuant to subsection 10. The owner or operator may use the methodology set forth in the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528, or another publicly available technique that accounts for the modeling conditions and is recognized in the industry as a current practice. The owner or operator may use a proprietary model that accounts for the modeling conditions if the owner or operator allows the division access to the model and describes to local emergency planners, upon request, the features of the model and any differences from publicly available models.

12. The owner or operator shall assume that the quantity of the flammable substance determined pursuant to subsection 5 vaporizes resulting in a vapor cloud explosion. The owner or operator shall use a yield factor of 10 percent of the available energy released in the explosion to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods.

13. For explosive substances, the owner or operator shall employ methods for calculating overpressure based upon generally accepted practices.

14. The owner or operator shall use the parameters defined in NAC 459.95364 to determine the distance to the endpoints. The owner or operator may use the methodology provided in the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528, or any commercially or publicly available technique for air dispersion modeling if the technique accounts for the modeling conditions and is recognized in the industry as a current practice. The owner or operator may use a proprietary model that accounts for the modeling conditions if the owner or operator allows the division access to the model and describes to local emergency planners upon request the features of the model and any differences in the model from publicly available models.

15. The owner or operator may consider passive mitigation systems for the worst-case release scenario analysis if the mitigation system is capable of withstanding the event that triggered the release and still function as intended.

16. Notwithstanding the provisions of subsection 5, the owner or operator shall select as the worst-case scenario for a flammable substance, ~~or~~ the worst-case scenario for a tier A or tier B toxic substance *or the worst-case scenario for an explosive*, a scenario based on proximity to the boundary of the facility and smaller quantities of the substance handled at a higher process temperature or pressure if such a scenario would result in a greater distance to

an endpoint beyond the facility boundary than the scenario provided pursuant to subsection 5.

**Sec. 46.** NAC 459.95368 is hereby amended to read as follows:

1. The owner or operator shall identify and analyze at least one alternative release scenario for each toxic substance that is used in a process and at least one alternative release scenario to represent all flammable or explosive substances that are used in processes *or explosives manufacturing operations*.

2. The facility may use the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528, to calculate any of the values required in this section.

3. For each scenario required pursuant to subsection 1, the owner or operator shall select a scenario that:

(a) Is more likely to occur than the worst-case release scenario developed pursuant to NAC 459.95366; and

(b) Will reach an endpoint off-site. If no alternate release scenario will reach an endpoint off-site, then the owner or operator shall select the alternate release scenario with the most significant on-site impact.

4. The owner or operator shall consider, without limitation and where applicable, scenarios in which:

(a) A transfer hose releases because of splits or sudden uncoupling of the hose;

(b) Process piping releases because of a failure at a flange, joint, weld, valve and valve seal, drain or bleed;

(c) A process vessel or pump releases because of a crack or a failure of a seal, drain, bleed or plug;

(d) A vessel overfills and spills, or overpressurizes and vents through a relief valve or rupture disk; and

(e) A shipping container is mishandled and thereby breaks or is punctured leading to a spill.

5. The owner or operator:

(a) Shall use the appropriate parameters set forth in NAC 459.95364 to determine the distance to the endpoints;

(b) May use:

(1) The methodology provided in the R.M.P. Off-Site Consequence Analysis Guidance, which is adopted by reference pursuant to NAC 459.95528; or

(2) A commercially or publicly available technique for air dispersion modeling, if the technique accounts for the specified modeling conditions and is recognized in the industry as a current practice; and

(c) May use a proprietary model that accounts for the modeling conditions if the owner or operator allows the division access to the model and describes to local emergency planners, upon request, the features of the model and any differences from publicly available models.

6. The owner or operator may consider active and passive mitigation systems for an alternative release scenario if the mitigation systems are capable of withstanding the event that triggered the release and still function as intended.

7. When selecting the alternative release scenarios, the owner or operator shall consider, without limitation:

(a) The 5-year accident history provided pursuant to NAC 459.95378; and

(b) The analyses performed pursuant to NAC 459.95388 or 459.95414.



**Sec. 47.** NAC 459.95374 is hereby amended to read as follows:

1. The owner or operator shall review and update the off-site consequence analyses developed pursuant to NAC 459.95364 to 459.95372, inclusive, at least once every 5 years.

2. If there is a change at a facility in a process *or an explosives manufacturing operation* that involves a substance or the quantity of a substance that is stored or handled at the facility, or if any other change at the facility might reasonably be expected to increase or decrease the distance to the endpoint by a factor of two or more, the owner or operator shall prepare a revised analysis not later than 6 months after the change and prepare and submit a revised assessment report pursuant to NAC 459.95468.

**Sec. 48.** NAC 459.95378 is hereby amended to read as follows:

1. The owner or operator shall include in the 5-year accident history all accidental releases ~~from processes~~ that resulted in:

(a) A death, injury or significant property damage on-site; or

(b) A known death, injury, evacuation, sheltering, property damage or environmental damage off-site.

2. For each accidental release that the owner or operator includes in the 5-year accident history pursuant to subsection 1, the owner or operator shall report:

(a) The date, time and approximate duration of the release;

(b) The name of each chemical that was released;

(c) The estimated quantity of each chemical that was released in pounds;

(d) For a mixture of toxic substances, the percentage concentration by weight of the released substance in the mixture;

(e) The applicable N.A.I.C.S. code for the process *or explosives manufacturing operation*;

(f) The type of release event and its source;

(g) The weather conditions, if known;

(h) Any on-site impacts;

(i) Any known off-site impacts;

(j) The initiating event and other contributing factors, if known;

(k) Whether off-site responders were notified, if known; and

(l) The changes in the operations or processes at the facility that resulted from investigation of the release.

3. The owner or operator shall provide any numerical estimates to at least two significant digits.

**Sec. 49.** NAC 459.95382 is hereby amended to read as follows:

1. The owner or operator of a facility with a process that is subject to tier B program level 1 but not subject to the tier A program is not required to implement a prevention program for that process.

2. The owner or operator of a facility *with an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 3 is required to implement a prevention program pursuant to NAC 459.95412 to 459.95435, inclusive, for that process.

3. The owner or operator of a facility with a process that is subject to tier B program level 2 but not subject to the tier A program shall implement a prevention program for that process pursuant to:

- (a) NAC 459.95386 to 459.95398, inclusive; or
- (b) NAC 459.95412 to 459.95435, inclusive.

4. The owner or operator shall be in compliance with all applicable requirements for the prevention program at the time he submits the assessment report pursuant to NAC 459.9545.

**Sec. 50.** NAC 459.95412 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, pursuant to the schedule set forth in NAC 459.95414, the owner or operator of a facility with *an explosives manufacturing operation* or a process that is subject to the tier A program or tier B program level 2 or 3 shall compile written information concerning process safety before conducting a process hazard analysis required pursuant to NAC 459.95414.

2. The information concerning process safety must include, without limitation, information pertaining to:

- (a) The hazards of the tier A or tier B substances *or explosives*, including, without limitation:
  - (1) Toxicity information;
  - (2) Permissible exposure limits;
  - (3) Physical data;
  - (4) Reactivity data;
  - (5) Corrosivity data;
  - (6) Thermal and chemical stability data; and
  - (7) The foreseeable hazardous effects of inadvertent mixing of different materials.

Material safety data sheets that satisfy the requirements of 29 C.F.R. § 1910.1200(g) may be used to comply with this requirement to the extent they contain the information required by this paragraph.

(b) The technology of the process *or explosives manufacturing operation*, including, without limitation:

- (1) A block flow diagram or simplified process flow diagram;
- (2) The process chemistry;
- (3) The maximum intended inventory;
- (4) The safe upper and lower limits for any applicable process *or explosives manufacturing operation* variable, including, without limitation, temperature, pressure, flow and composition; and
- (5) An evaluation of the consequences of deviations.

If the original technical information no longer exists, such information may be developed in conjunction with the process hazard analysis in sufficient detail to support the analysis.

(c) The equipment in the process *or explosives manufacturing operation*, including, without limitation:

- (1) The materials of construction;
- (2) Piping and instrument diagrams;
- (3) Electrical classification;
- (4) The design of the relief system and the basis for the design;
- (5) The design of the ventilation system;
- (6) Design codes and standards that were employed;
- (7) The material and energy balances for processes that were built after May 26, 1992; and
- (8) The safety systems, such as interlocks, detection or suppression systems.

3. The owner or operator shall evaluate processes, *explosives manufacturing operations* and equipment for conformance to applicable codes, standards and good engineering practices and document that the processes and equipment comply with recognized and generally accepted good engineering practices.

4. For existing processes, *explosives manufacturing operations* and equipment designed and constructed in accordance with codes, standards or practices that are no longer in general use, the owner or operator shall determine and document that the equipment is designed, maintained, inspected, tested and operating in a safe manner.

**Sec. 51.** NAC 459.95414 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator shall perform an initial process hazard analysis on *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3.

2. The owner or operator shall conduct the initial process hazard analysis ~~[by June 21, 1999, or]~~ before submission of the assessment report pursuant to NAC 459.9545~~[, whichever is later]~~.

3. An owner or operator may use a process hazard analysis that was previously completed to comply with NRS 459.380 to 459.3874, inclusive, or 29 C.F.R. § 1910.119(e) to satisfy the requirement to perform an initial process hazard analysis ~~[,]~~, *provided the analysis reflects the current process or explosives manufacturing operation.*

4. The owner or operator shall obtain the approval of the division concerning the methodology of the process hazard analysis before conducting the analysis.

5. The owner or operator shall select one or more of the following methodologies as required by the complexity of the process *or explosives manufacturing operation*:

- (a) A "what if" analysis;
- (b) A checklist;
- (c) A "what if" analysis combined with a checklist;
- (d) A hazard and operability study;
- (e) A failure mode and effects analysis;
- (f) A fault tree analysis; or
- (g) An appropriate equivalent methodology.

6. When preparing a process hazard analysis, an owner or operator shall consider:

(a) The hazards of the process *or explosives manufacturing operation*;

(b) Any previous incident that had a likely potential for catastrophic consequences, including, without limitation, near misses or accidental releases as described in NAC 459.95378;

(c) The engineering and administrative controls that are applicable to the hazards and their interrelationships, including, without limitation, the appropriate application of detection methodologies such as process monitoring, control instrumentation with alarms or detection hardware;

(d) The consequences of a failure of engineering and administrative controls;

(e) The siting of the facility;

(f) The human factors; and

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

7. If not evaluated as part of the process hazard analysis pursuant to subsections 1 to 6, inclusive, a separate, dedicated hazard analysis, utilizing a checklist or other appropriate method, must be conducted to evaluate:

- (a) Human factors;
- (b) Facility siting; and
- (c) External forces.

8. The owner or operator of a facility with a process *or explosives manufacturing operation* that is subject to:

(a) The tier A program shall conduct the process hazard analysis with a team:

- (1) With expertise in engineering and process operations; and
- (2) That satisfies for the process *or explosives manufacturing operation* in question the requirements of NAC 459.95472, 459.95474 and 459.95476.

(b) Tier B program level 2 or 3, but not the tier A program, shall conduct the process hazard analysis with a team:

- (1) With expertise in engineering and process operations; and
- (2) That includes at least:
  - (I) One member who has experience and knowledge specific to the process being evaluated; and
  - (II) One member who is knowledgeable in the methodology for the specific process hazard analysis being used.

9. The owner or operator shall:

- (a) Promptly evaluate the findings and recommendations of the assessment team;
- (b) Determine and document a course of action based on the evaluation;
- (c) Develop a written schedule of when the actions are to be completed;
- (d) Complete the actions as soon as possible;
- (e) 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; and
- (f) Schedule the resolution of all recommendations in the P.T.A.H. pursuant to NAC 459.95452.

10. At least once every 5 years after the completion of the initial process hazard analysis, a team that satisfies the requirements of subsection 8 shall update and revalidate the process hazard analysis to ensure that the process hazard analysis is consistent with the current process *or explosives manufacturing operation*.

11. A process hazard analysis must be updated and revalidated pursuant to the procedures set forth in NAC 459.9549 to 459.955, inclusive.

12. An owner or operator shall retain a process hazard analysis and an update or revalidation for each process subject to this section, as well as any documented resolution of recommendations described in subsection 9, for the life of the process *or explosives manufacturing operation*.

**Sec. 52.** NAC 459.95416 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with a *an explosives manufacturing operation or* process that is subject to the tier A program or tier B program level 2 or 3 shall develop and implement written operating procedures for that process which:

(a) Are consistent with the process safety information developed pursuant to NAC 459.95412; and

(b) Provide clear instructions for safely conducting such a process *or explosives manufacturing operation*.

2. The operating procedures must include:

(a) Steps for each operating phase, including, without limitation, steps for:

(1) The initial startup;

(2) Normal operations;

(3) Temporary operations;

(4) An emergency shutdown, including, without limitation, a description of the conditions under which an emergency shutdown is required and the assignment of responsibility for a shutdown to a qualified operator;

(5) Emergency operations;

(6) A normal shutdown; and

(7) Startup following a turnaround or an emergency shutdown.

(b) Operating limits, including, without limitation:

(1) The consequences of a deviation; and

(2) The steps required to correct or avoid a deviation.

(c) Safety and health considerations, including, without limitation:

(1) The properties of, and hazards presented by, the chemicals used in the process *or explosives manufacturing operation*;

(2) The precautions that are necessary to prevent exposure, including, without limitation, engineering controls, administrative controls and personal protective equipment;

(3) Control measures to be taken if physical contact or airborne exposure occurs;

(4) Quality control for raw materials;

(5) Control of hazardous chemical inventory levels; and

(6) Any special or unique hazards.

(d) A description of the safety systems and their functions.

3. The owner or operator shall:

(a) Ensure that the operating procedures are readily accessible to employees who work in or maintain an applicable process *or explosives manufacturing operation*;

(b) Review the operating procedures as often as necessary to ensure that they reflect current operating practice, including, without limitation, any change to a process *or explosives manufacturing operation* that may result from a change in process chemicals, technology or equipment;

(c) Certify annually that the operating procedures are current and accurate; and

(d) Develop and implement safe work practices for employees and contractors to provide for the control of:

(1) Hazards during a lockout or tagout;

(2) Hazards during a confined space entry;

(3) Hazards while opening the equipment or piping associated with a process *or explosives manufacturing operation*;

(4) Entrance into the facility by maintenance, contractor, laboratory or other support personnel; and

(5) Any other hazards that may be encountered.

**Sec. 53.** NAC 459.95418 is hereby amended to read as follows:

Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3:

1. Shall, except as otherwise provided in subsection 2, ensure that each employee who is operating, ~~[a process]~~ or will operate *an explosives manufacturing operation or* a process is trained in an overview of the process *or operation* and in the operating procedures created pursuant to NAC 459.95416. Such training must include, without limitation, training in:

- (a) The layout of the plant;
- (b) The location of equipment and instruments;
- (c) The specific safety and health hazards;
- (d) Emergency operations, including, without limitation, procedures for an emergency shutdown; and
- (e) Safe work practices that are applicable to the job tasks of the employee.

2. May, in lieu of providing the training required pursuant to subsection 1, certify in writing that an employee who was operating *an explosives manufacturing operation or* a process on May 26, 1992, possesses the required knowledge, skills and abilities to safely carry out the duties and responsibilities as specified in the operating procedures.

3. Shall provide an employee with refresher training at least once every 3 years, and more often if it is determined after consultation with the employees who operate the process to be necessary, to ensure that the employee understands and adheres to the current operating procedures of the *explosives manufacturing operation or* process.

4. May provide employees with any combination of classroom and field training, including, without limitation, on-the-job training. Training must, at a minimum, follow a predefined syllabus or checklist to ensure that each employee receives training which is essential to his job performance. On-the-job training, if it is the only method employed, does not satisfy the requirements of this subsection unless it follows a predefined syllabus or checklist.

5. Shall ascertain that each employee who operates *an explosives manufacturing operation or* a process has received and understood the training required pursuant to this section.

6. Shall prepare records that include, without limitation:

- (a) The identity of the employee;
- (b) The date of training;
- (c) The substance of the training provided on that date; and
- (d) The means used to verify that the employee understood the training *as well as any test records from such verification.*

**Sec. 54.** NAC 459.95421 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process subject to the tier A program or tier B program level 2 or 3 shall:

(a) Establish and implement written procedures to ensure the ongoing integrity of the equipment listed in subsection 2;

(b) Provide each employee who is involved in maintaining the ongoing integrity of the equipment listed in subsection 2 with:

(1) An overview of the *explosives manufacturing operation or* process that uses the equipment and the potential hazards of the *operation or* process; and

(2) Training in the procedures that are applicable to the job tasks of the employee to ensure that the employee can perform the job tasks in a safe manner;

(c) Perform inspections and tests on ~~[process]~~ equipment listed in subsection 2;

(d) Ensure that the procedures for inspection and testing follow recognized and generally accepted good engineering practices;

(e) Ensure that the inspections and tests of the equipment are performed:

(1) In the frequency required by good engineering practices and consistent with any applicable recommendations from the manufacturer of the equipment; or

(2) More frequently if determined to be necessary by previous experience in operating the equipment;

(f) Document each inspection and test that has been performed on the equipment, including, without limitation, documentation of:

(1) The date of the inspection or test;

(2) The name of the person who performed the inspection or test;

(3) The serial number or other identifier of the equipment on which the inspection or test was performed;

(4) A description of the inspection or test performed; and

(5) The results of the inspection or test;

(g) Correct any deficiencies in the equipment that are outside the acceptable limits which are described by the process safety information developed pursuant to NAC 459.95412 before using the equipment again;

(h) In the construction of new *explosives manufacturing operations or* processes and equipment, ensure that the equipment, as fabricated, is suitable for the *operation or* process for which it will be used;

(i) Perform appropriate checks and inspections to ensure that equipment is installed properly and consistent with design specifications and instructions from the manufacturer; and

(j) Ensure that maintenance materials, spare parts and equipment are suitable for the *explosives manufacturing operation or* process for which they will be used.

2. This section applies to:

(a) Pressure vessels and storage tanks;

(b) Piping systems, including, without limitation, piping components such as valves;

(c) Relief and vent systems and devices;

(d) Emergency shutdown systems;

(e) Controls, including, without limitation, monitoring devices and sensors, alarms and interlocks; and

(f) Rotating equipment.

**Sec. 55.** NAC 459.95423 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

(a) Establish and implement written procedures to manage changes, other than a replacement in kind, to:

(1) Chemicals, technology, equipment and procedures that are used in *an explosives manufacturing operation or* a process; and

(2) ~~[A]~~ *An explosives manufacturing operation or a* process that is subject to the tier A program or tier B program level 2 or 3;

(b) Ensure that the procedures established pursuant to paragraph (a) require that the following considerations are addressed before one of the changes listed in paragraph (a) occurs:

- (1) The technical basis for the proposed change;
- (2) The impact of change on safety and health;
- (3) Whether any modifications to operating procedures will be necessary;
- (4) The time necessary to make the proposed change; and
- (5) The requirements for authorization for the elements of the proposed change;

(c) Inform and train for the change any employee who is involved in the operation of the *explosives manufacturing operation or* process that is affected by the change and any maintenance or contract employee whose job tasks will be affected by the change before the startup of the *operation or* process or of the affected part *thereof* ~~[of the process]~~; and

(d) Update:

- (1) The process safety information required pursuant to NAC 459.95412; and
- (2) The operating procedures or practices required pursuant to NAC 459.95416.

2. As used in this section, "replacement in kind" means a replacement of equipment, instruments, procedures, raw material and processing conditions that satisfy the design specifications.

**Sec. 56.** NAC 459.95425 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall perform a pre-startup safety review for new facilities and for modified facilities when the modification is significant enough to require a change in the process safety information.

2. A pre-startup safety review must confirm that before a substance is introduced into *an explosives manufacturing operation or* a process:

- (a) Construction and equipment is in accordance with design specifications;
- (b) Safety, operating, maintenance and emergency procedures are in place and are adequate;
- (c) For new or modified facilities, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup;
- (d) Modified facilities meet the requirements concerning the management of changes set forth in NAC 459.95423; and
- (e) Training of each employee involved in operating the *explosives manufacturing operation or* process has been completed.

**Sec. 57.** NAC 459.95427 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

(a) Certify at least once every 3 years that an evaluation has been performed of whether adequate procedures and practices as required pursuant to NAC 459.95412 to 459.95435, inclusive, have been developed and implemented;

(b) Create a report of the findings of the evaluation made pursuant to paragraph (a);

(c) Promptly determine and document an appropriate response to any deficiency that is discovered during the evaluation;

(d) Document that any deficiency discovered during the evaluation has been corrected; and



(e) Retain the two most recent reports.

2. The evaluation must be conducted by at least one person who is knowledgeable in the *explosives manufacturing operation or* process.

**Sec. 58.** NAC 459.95429 is hereby amended to read as follows:

Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

1. Investigate any incident that resulted in, or could reasonably have resulted in, a catastrophic release of a substance;

2. Initiate the investigation of the incident as promptly as possible, but not later than 48 hours after the incident;

3. Establish a team to investigate the incident that consists of:

(a) At least one person who is knowledgeable in the *explosives manufacturing operation or* process involved, including, without limitation, a contract employee if his work was involved in the incident; and

(b) Any other person who possesses appropriate knowledge and experience to investigate and analyze the incident thoroughly;

4. Prepare an incident report at the conclusion of the investigation which must include, at a minimum:

(a) The date of the incident;

(b) The date the investigation of the incident began;

(c) A description of the incident;

(d) The factors that contributed to the incident; and

(e) Recommendations resulting from the investigation;

5. Establish a system to address and resolve the findings and recommendations of the incident report promptly;

6. Document any solutions and corrective actions taken;

7. Ensure that the incident report is reviewed with all affected personnel whose job tasks are relevant to the findings of the incident report, including, without limitation, contract employees where applicable; and

8. Retain the incident report for 5 years.

**Sec. 59.** NAC 459.95431 is hereby amended to read as follows:

Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

1. Develop a written plan of action regarding the implementation of the employee participation required by this section;

2. Consult with employees and their representatives about:

(a) Conducting and developing process hazard analyses; and

(b) Developing and implementing the other requirements of NAC 459.95412 to 459.95435, inclusive; and

3. Provide to employees and their representatives access to process hazard analyses and other information which is developed pursuant to NAC 459.95412 to 459.95435, inclusive.

**Sec. 60.** NAC 459.95433 is hereby amended to read as follows:

Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

1. Issue a hot work permit for hot work conducted on or near *an explosives manufacturing operation or* a process;
2. Document in the permit:
  - (a) That the fire prevention and protection requirements in 29 C.F.R. § 1910.252(a) are implemented before beginning hot work;
  - (b) The dates which are authorized for hot work; and
  - (c) The object on which hot work is to be performed; and
3. Keep the permit on file until completion of the hot work.

**Sec. 61.** NAC 459.95435 is hereby amended to read as follows:

1. Except as otherwise provided in paragraph (a) of subsection 3 of NAC 459.95382, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall:

- (a) When selecting a contractor, obtain and evaluate information regarding the safety performance and programs of the contractor;
  - (b) Inform the contractor of known potential fire, explosion or toxic release hazards related to the work of the contractor and to the *explosives manufacturing operation or* process on which he working;
  - (c) Explain to the contractor the applicable provisions of NAC 459.9544 and 459.95442;
  - (d) Develop and implement safe work practices consistent with NAC 459.95416; and
  - (e) Periodically evaluate the performance of the contractor in satisfying the requirements of subsection 2.
2. The contractor shall:
- (a) Ensure that each of his employees who will work on the *explosives manufacturing operation or* process is trained in the work practices necessary to perform his job safely;
  - (b) Ensure that each of his employees who will work on the *explosives manufacturing operation or* process is instructed in:
    - (1) The known potential fire, explosion or toxic release hazards related to his job and the *explosives manufacturing operation or* process on which he is working; and
    - (2) The applicable provisions of the emergency action plan;
  - (c) Document that each of his employees who will work on the *explosives manufacturing operation or* process has received and understood the training required pursuant to this subsection;
  - (d) Prepare a record that contains:
    - (1) The identity of the employee;
    - (2) The date of training; and
    - (3) The means used to verify that the employee understood the training;
  - (e) Ensure that each of his employees who works on the *explosives manufacturing operation or* process follows the safety rules of the facility, including, without limitation, the safe work practices required pursuant to NAC 459.95416; and
  - (f) Advise the owner or operator of any unique hazards presented by or found during the work of an employee.

3. This section:

(a) Applies to contractors who perform maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to *an explosives manufacturing operation or* a process.

(b) Does not apply to contractors who provide incidental services that do not influence process safety, including, without limitation, janitorial work, food and drink services, laundry, delivery or other supply services.

**Sec. 62.** NAC 459.9544 is hereby amended to read as follows:

1. Except as otherwise provided in subsection 2, the owner or operator of a facility with *an explosives manufacturing operation or* a process that is subject to the tier A program or tier B program level 2 or 3 shall comply with the requirements of NAC 459.95442.

2. The owner or operator of a facility in which the employees will not respond to an accidental release of a tier A or tier B substance is not required to comply with the provisions of NAC 459.95442 if:

(a) For facilities subject to 29 C.F.R. § 1910, the facility has implemented an emergency action plan that contains the elements set forth in 29 C.F.R. § 1910.38(a);

(b) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response;

(c) For facilities with a substance that is subject to 40 C.F.R. Part 355 and has quantities in excess of the threshold planning quantity, the facility is included in the comprehensive emergency response plan developed pursuant to 42 U.S.C. § 11003; and

(d) ~~For facilities to which paragraph (c) does not apply, t~~ The facility has coordinated response actions with the local fire department.

3. The owner or operator shall ensure that his facility is in compliance with the applicable provisions of this section or NAC 459.95442 at the time he submits the assessment report pursuant to NAC 459.9545.

4. As used in this section, "threshold planning quantity" has the meaning ascribed to it in 40 C.F.R. Part 355.

**Sec. 63.** NAC 459.95442 is hereby amended to read as follows:

1. An owner or operator shall:

(a) Establish and implement an emergency response program to protect employees, public health and the environment, which program must include:

(1) For facilities subject to 29 C.F.R. § 1910, an emergency action plan that contains the elements set forth in 29 C.F.R. § 1910.38(a);

(2) For facilities subject to 29 C.F.R. § 1910, a hazardous materials response program that contains the elements outlined in 29 C.F.R. § 1910.120(q);

(3) Procedures for informing the public and local emergency response agencies about an accidental release;

(4) Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures;

(5) Procedures and measures for emergency response after an accidental release ~~[of a tier A or tier B substance]~~;

(6) Procedures for the use, inspection, testing and maintenance of emergency response equipment;

(7) Training for all employees in relevant procedures for emergency response; and

(8) Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the facility and ensure that employees are informed of changes.

(b) Coordinate the emergency response plan with the community emergency response plan developed pursuant to 42 U.S.C. § 11003. Upon request of the local emergency planning committee or emergency response officials, the owner or operator shall promptly provide to the local emergency response officials any information that is necessary for developing and implementing the community emergency response plan.

(c) Review and coordinate the emergency response plan developed pursuant to paragraphs (a) or (b) with local emergency responders.

2. A written plan satisfies the requirements of this section if it:

(a) Complies with other federal contingency plan regulations and the requirements set forth in subsection 1; or

(b) Complies with the requirements set forth in subsection 1 and is consistent with the approach of the National Response Team's Integrated Contingency Plan Guidance set forth in 61 Fed. Reg. 28,642-28,664 and 31,103-31,104 (1996).

**Sec. 64.** NAC 459.95446 is hereby amended to read as follows:

For a process *or explosives manufacturing operation* that is subject to the tier A program, the assessment team may submit to the division a draft of the assessment report. Such a draft must be submitted at least 120 days before the final deadline for submittal of the assessment report. The division will provide the leader of the assessment team with written comments on the draft within 60 days after the division receives the draft.

**Sec. 65.** NAC 459.9545 is hereby amended to read as follows:

~~1. The owner or operator of a facility in which all processes are subject to the tier A program and no process is subject to the tier B program shall submit for each process to a location that the division specifies an assessment report which contains the elements set forth in NAC 459.95452 to 459.95466, inclusive, pursuant to a schedule that is determined by the division considering the summary of the off-site consequence analysis provided with the registration.~~

~~—2. The owner or operator of a facility in which all processes are subject to both the tier A program and tier B program shall submit for each process an assessment report that contains the elements set forth in NAC 459.95452 to 459.95466, inclusive. The assessment report must be submitted in a method and format to a location that the division specifies before the latest of:~~

~~—(a) June 21, 1999;~~

~~—(b) The date on which a substance is first present above a threshold quantity in a process; or~~

~~—(c) For a substance that is newly added to NAC 459.9533, a date which the division specifies, not to exceed 3 years after the date on which the substance is added.~~

~~—3. The owner or operator of a facility in which the processes are subject to a combination of the tier A program and tier B program shall submit the assessment reports as follows:~~

~~—(a) For a process that is subject to the tier A program but not the tier B program, the owner or operator shall submit the assessment report pursuant to subsection 1.~~

~~—(b) For a process that is subject to the tier B program, or both the tier A program and tier B program, the owner or operator shall submit the assessment report pursuant to subsection 2.]~~

*1. The owner or operator of a facility in which the new process or new explosives manufacturing operation is subject to:*

- (a) The tier A program;*
- (b) The tier B program level 3; or*
- (c) The tier B program level 2,*

*shall submit the assessment report for that new process or new explosives manufacturing operation in a method and format to a location the division specifies pursuant to section 25 of this regulation.*

*2. The owner or operator of a facility in which the process is subject to tier B, program level 1 shall submit the assessment report for that process in a method and format to a location the division specifies prior to bringing the tier B substance on site and prior to commencing the operation of the process.*

*3. The owner or operator of a facility with a process or explosives manufacturing operation that is obligated to submit an assessment report for which the timing is not addressed in subsections 1 or 2 of this section shall submit the report in a method and format to a location the division specifies, on a schedule defined by the division. The scheduled submission date shall:*

- (a) Not exceed 3 years if assessment report submission is required due to the addition of a substance to the table in NAC 459.9533; or*
- (b) Require submission prior to bringing tier A substance, tier B substance and explosive on site and commencing operation.*

4. An owner or operator shall make subsequent submissions of an assessment report pursuant to NAC 459.95468.

5. Notwithstanding the provisions of NAC 459.95452 to 459.95468, inclusive, an owner or operator may exclude information concerning a trade secret or confidential business information from the assessment report if that information meets the conditions set forth in:

- (a) NRS 459.3846, if the process *or explosives manufacturing operation* is subject to the tier A program; or
- (b) 40 C.F.R. § 2.301, if the process is subject to the tier B program.

6. An owner or operator shall transmit information concerning a trade secret or confidential business information to a location that the division specifies as follows:

(a) An unredacted paper copy of the assessment report must clearly identify each data element that is being claimed as information concerning a trade secret or confidential business information.

(b) A redacted copy of the assessment report must be identical to the unredacted copy of the assessment report except that the owner or operator shall replace each data element, other than the chemical identity, which the owner or operator claims is information concerning a trade secret or confidential business information with the notation "CBI" or a blank field. For chemical identities claimed as CBI, the owner or operator shall substitute a generic category or class name.

(c) The owner or operator shall submit both a redacted and unredacted version of the same document at the time of submission of the assessment report substantiating each claim of information concerning a trade secret or confidential business information.

7. An owner or operator shall not claim the following data as information concerning a trade secret or confidential business information:

- (a) The registration data that is described in subsection 2 of NAC 459.95454, except the information in paragraph (h) or (j) of subsection 2 of NAC 459.95454;
- (b) The off-site consequence analysis data that is described in subparagraphs (2) and (6) to (10), inclusive, of paragraph (c) of subsection 1 of NAC 459.95456;
- (c) The accident history data that is described in NAC 459.95458;
- (d) The prevention program data that is described in:
  - (1) Subsections 1 and 3, paragraph (a) of subsection 4 and subsections 5 to 13, inclusive, of NAC 459.9546; and
  - (2) Subsections 1 and 3, paragraph (a) of subsection 4 and subsections 5 to 18, inclusive, of NAC 459.95462; and
- (e) The emergency response program data that is described in NAC 459.95464.

**Sec. 66.** NAC 459.95452 is hereby amended to read as follows:

1. An owner or operator shall provide, in the assessment report, an executive summary that includes, without limitation, a brief description of:

- (a) The policies for accidental release prevention and the policies for emergency response at the facility;
- (b) The substances that are handled at the facility;
- (c) Each worst-case release scenario and alternative release scenario, including, without limitation, administrative controls and mitigation measures taken to limit the distances to the endpoint for each scenario;
- (d) The accidental release prevention program and chemical-specific steps for prevention;
- (e) The 5-year accident history;
- (f) The emergency response program;
- (g) Any planned changes to improve safety; and
- (h) A P.T.A.H., if the facility has a process *or explosives manufacturing operation* that is subject to the tier A program or tier B program level 2 or 3.

2. Recommendations that are made pursuant to a hazard review or process hazard analysis to minimize the likelihood of a release, fire or explosion involving *an explosive or a* tier A or tier B substance, or to mitigate the effects of a release, fire or explosion involving *an explosive or a* tier A or tier B substance, which has the potential for acute health impacts on employees or the public must be described in the P.T.A.H. as set forth in subsection 4.

3. Each prevention program element and emergency response element must be evaluated for compliance with NAC 459.95382 to 459.95442, inclusive. Recommendations made to enhance these elements, or to correct deficiencies, must be described in the P.T.A.H. as set forth in subsection 4.

4. For each recommendation made pursuant to subsections 2 and 3, the owner or operator shall provide:

- (a) A description of the hazard;
- (b) The cause of the hazard;
- (c) Consequences of the hazard;
- (d) A description of the recommendation; and
- (e) The implementation date for the recommendation.

5. A P.T.A.H. submitted pursuant to this section shall be deemed to satisfy the requirements of subsection 3 of NRS 459.3852 for a process that is subject to the tier A program.

**Sec. 67.** NAC 459.95454 is hereby amended to read as follows:

1. An owner or operator shall complete a registration form that addresses all substances *and explosives* handled in any process and *explosives manufacturing operation* at his facility and submit it with the assessment report.

2. The registration must include, without limitation:

(a) The name, street, city, county, state, zip code, latitude and longitude of the facility, and the method for obtaining the latitude and longitude;

(b) A description of the location on which the facility sits;

(c) The Dun & Bradstreet number of the facility;

(d) The name and Dun & Bradstreet number of any parent corporation;

(e) The name, telephone number and mailing address of the facility;

(f) The name and title of the person with overall responsibility for the implementation of C.A.P.P.;

(g) The name, title, telephone number during normal business hours and telephone number that is available 24 hours per day of an emergency contact;

(h) For each process *or explosives manufacturing operation*:

(1) The name and C.A.S. number of each substance used in the process *or explosive used in the explosives manufacturing operation*;

(2) The maximum quantity in pounds of each substance or mixture used in the process *or explosive used in the explosives manufacturing operation* to two significant digits;

(3) The applicable N.A.I.C.S. code number; and

(4) The program tiers and program level to which the process is subject;

(i) The identifier ~~{that}~~ *assigned by* the United States Environmental Protection Agency, ~~[has]~~ *if one has been* assigned to the facility;

(j) The number of full-time employees at the facility;

(k) Whether the facility is subject to 29 C.F.R. § 1910.119;

(l) Whether the facility is subject to 40 C.F.R. Part 355;

(m) Whether the facility has an operating permit as required pursuant to 40 C.F.R. Part 70 and, if applicable, the permit number; and

(n) The date of the last safety inspection of the facility by a federal, state or local governmental agency and the identity of the inspecting entity.

**Sec. 68.** NAC 459.95456 is hereby amended to read as follows:

1. An owner or operator shall evaluate off-site consequences pursuant to NAC 459.95362 to 459.95376, inclusive, and submit in the assessment report:

(a) One worst-case release scenario for each process that is subject to the tier B program level 1;

(b) For each process *or explosives manufacturing operation* that is subject to either the tier A program or tier B program level 2 or 3:

(1) One worst-case release scenario to represent all substances designated as toxic in NAC 459.9533, or determined to be toxic by the owner or operator, that are held above the threshold quantity;

(2) One worst-case release scenario to represent all substances designated as either flammable or explosive in NAC 459.9533, or determined to be flammable or explosive by the owner or operator, that are held above the threshold quantity; and

(3) One alternative release scenario:

(I) For each substance designated as toxic in NAC 459.9533 that is held above the threshold quantity; and

(II) To represent all substances designated as flammable or explosive that are held above the threshold quantity; and

(c) The following data for each release scenario:

(1) The chemical name of the substances;

(2) A description of the scenario, including, without limitation, whether the scenario involves an explosion, fire, toxic gas release, or liquid spill and vaporization;

(3) The quantity in pounds of the substance that is released *or involved in the fire or explosion*;

(4) The rate at which the substance is released;

(5) The duration of the release;

(6) The distance to the endpoint;

(7) Public and environmental receptors that are located within the distance to the endpoint;

(8) Any passive mitigation that is considered;

(9) Any active mitigation that has been considered for an alternative release scenario;

(10) If the substance is toxic:

(I) The percentage weight of the substance in a mixture;

(II) The physical state of the substance;

(III) The wind speed and atmospheric stability class used in the scenario; and

(IV) The topography of the geographical area used in the scenario; and

(11) The basis of the results of the scenario, including, without limitation, the name of any model that is used.

2. If the owner or operator is required to submit additional worst-case release scenarios for toxics, flammables or explosives pursuant to NAC 459.95366, he shall provide the information required pursuant to this section.

**Sec. 69.** NAC 459.95462 is hereby amended to read as follows:

For each *explosives manufacturing operation or* process that is subject to the tier A program or tier B program level 3 for which a separate process hazard analysis was conducted, the owner or operator shall provide:

1. The applicable N.A.I.C.S. code for the *explosives manufacturing operation or* process;

2. The name of any chemical that was addressed in the analysis;

3. The date on which the safety information was last reviewed or revised;

4. The date of completion of the most recent process hazard analysis or update and the technique used, including, without limitation:

(a) The expected date of completion of changes resulting from the process hazard analysis;

(b) A summary of major hazards that were identified;

(c) A summary of process controls that are in use;

(d) A summary of mitigation systems that are in use;

(e) A summary of monitoring and detection systems that are in use; and

(f) A summary of changes that have been made since the last process hazard analysis;



5. The date of the most recent review or revision of the operating procedures;
6. The date of the most recent review or revision of the training programs;
7. Whether the training occurred in a classroom, in a classroom and while on the job, or only while on the job;
8. The type of competency testing that was used;
9. The date of the most recent review or revision of the maintenance procedures;
10. The date of the most recent inspection or test of the equipment and a list of the equipment that was inspected or tested;
11. The date of the most recent change that resulted in management of change procedures and the date of the most recent review or revision of management of change procedures;
12. The date of the most recent pre-startup review;
13. The date of the most recent compliance audit, required pursuant to NAC 459.95427, and the expected date of completion of changes resulting from the compliance audit;
14. The date of the most recent incident investigation and the expected date of completion of changes resulting from the investigation;
15. The date of the most recent review or revision of the employee participation plans;
16. The date of the most recent review or revision of the hot work permit procedures;
17. The date of the most recent review or revision of the contractor safety procedures; and
18. The date of the most recent evaluation of contractor safety performance.

**Sec. 70.** NAC 459.95464 is hereby amended to read as follows:

An owner or operator shall:

1. Provide in the assessment report:
  - (a) Whether he has created a written emergency response plan;
  - (b) Whether the emergency response plan includes specific actions to be taken in response to an accidental release ~~[of a tier A or tier B substance]~~;
  - (c) Whether the plan includes procedures for informing the public and local agencies responsible for responding to accidental releases;
  - (d) Whether the plan includes information concerning emergency health care;
  - (e) The date of the most recent review or update of the emergency response plan; and
  - (f) The date of the most recent emergency response training for employees;
2. Provide the name and telephone number of the local agency with which emergency response activities or the emergency response plan is coordinated; and
3. List any other federal or state emergency plan requirements to which the facility is subject.

**Sec. 71.** NAC 459.95468 is hereby amended to read as follows:

1. The owner or operator shall review and update the assessment report as specified in subsection 2 and submit it in a method and format to a location that the division specifies.
2. The owner or operator shall review and update the assessment report:
  - (a) Within 5 years after the initial submission or most recent update of the report, whichever is later;
  - ~~(b) After a substance is first listed pursuant to NAC 459.9533, not later than 3 years after the substance is listed or as required by the division, whichever occurs first;~~
  - ~~(c) Not later than the date on which a substance that is listed in NAC 459.9533 is first present above the threshold quantity in a process that is not yet subject to the tier A program or tier B program;~~

~~—(d) Not later than the date on which a substance that is listed in NAC 459.9533 is first present above the threshold quantity in a process that is already subject to the tier A program or tier B program;~~

(b) ~~(e)~~ Within 6 months after a change that requires a revised process hazard analysis or hazard review;

(c) ~~(f)~~ Within 6 months after a change that requires a revised off-site consequence analysis as set forth in NAC 459.95374; and

(d) ~~(g)~~ Within 6 months after a change that changes the tier or program level to which a process is subject.

3. If a facility or single process changes so that it is no longer subject to C.A.P.P., the owner or operator shall submit a revised registration to the division within 6 months after the change indicating that the facility or process is no longer subject to C.A.P.P.

**Sec. 72.** NAC 459.95476 is hereby amended to read as follows:

1. Pursuant to the schedule set forth in subsection 2, the owner or operator shall submit to the division:

(a) The qualifications of each member of the assessment team in any of the following areas:

- (1) Engineering related to chemical processes;
- (2) Engineering related to safety;
- (3) The preparation of operating procedures;
- (4) The preparation or review of procedures for maintenance;
- (5) The preparation or review of procedures for safety;
- (6) The preparation or review of programs to train operators;
- (7) The performance or review of investigations of accidents;
- (8) The performance of analyses of hazards;
- (9) The performance of risk assessments;
- (10) The preparation or review of plans for response to emergencies;
- (11) The performance of audits of programs to manage risks; or
- (12) The state of the art as it relates to the technology of the processes used;

(b) The résumé for each member of the assessment team;

(c) The qualifications and experience of any additional person who may work with the assessment team;

(d) The expected date of when the assessment will begin and the schedule for performing the assessment;

(e) The estimated number of hours each assessment team member is expected to work on the assessment;

(f) The extent to which the team will use collateral items such as computers, software and outside consultants;

(g) The name, area of expertise and registration number of at least one member of the team who is a professional engineer and is licensed as such in this state;

(h) The name of at least one member of the team who has experience and knowledge specific to the operations or process being evaluated and documentation of such experience;

(i) The name of the member of the team who has been designated as the team leader and documentation that the person has experience as a project or operations manager;

(j) The name of the member of the team who has been designated as the technical leader and documentation that the person has:

- (1) Completed training specific to the assessment of chemical hazards; and
- (2) Participated in at least three assessments of chemical hazards;
- (k) The scope and boundaries of the process *or explosives manufacturing operation* and proposed methodology for the process hazard analysis; and
  - (l) A clear and concise description of how the assessment team will evaluate:
    - (1) The emergency response program;
    - (2) Process safety information;
    - (3) The process hazard analysis;
    - (4) Standard operating procedures;
    - (5) Training; and
    - (6) The maintenance program and procedures.

2. ~~For a process that is subject to:~~

~~—(a) The tier A program but not the tier B program, the owner or operator shall submit the information required pursuant to this section within 60 days after being notified by the division that the assessment report is due.~~

~~—(b) The tier A program and tier B program, t} The owner or operator shall submit the information required pursuant to this section before conducting the assessment.~~

*3. The owner or operator shall not conduct the process hazard analysis without division approval of the information submitted pursuant to this section.*

**Sec. 73.** NAC 459.9548 is hereby amended to read as follows:

Within 30 days after each anniversary of the date on which the P.T.A.H. was adopted, the owner or operator shall submit a report of compliance for any process *or explosives manufacturing operation* that is subject to the tier A program.

**Sec. 74.** NAC 459.95482 is hereby amended to read as follows:

The annual report of compliance required pursuant to NAC 459.9548 must include, without limitation:

1. Each P.T.A.H. recommendation listed in the assessment report that is made for a process *or explosives manufacturing operation* which is subject to the tier A program;
2. The date on which implementation of the P.T.A.H. recommendations are due;
3. The status of implementation of the P.T.A.H. recommendations;
4. Comments by the owner or operator on the status of implementation of each P.T.A.H. recommendation;
5. Any efforts that were undertaken by the owner or operator during the previous calendar year to assess and reduce risks related to tier A substances *or explosives*;
6. Any changes in maintenance schedules and activities and any unanticipated maintenance on critical equipment or safety controls related to tier A substances *or explosives* that was conducted at the facility during the previous calendar year;
7. Any efforts undertaken by the facility to assess and remedy the *accidental* release of any quantity of a tier A substance *or explosive*;
8. Any other information requested by the division; and
9. A certification as set forth in subsection 2 of NAC 459.95466.

**Sec. 75.** NAC 459.9549 is hereby amended to read as follows:

1. The revalidation of a process hazard analysis that is required pursuant to NAC 459.95414 must:
  - (a) Confirm pursuant to NAC 459.95494 to 459.955, inclusive, that the analysis or review is valid for the current process *or explosives manufacturing operation*; and
  - (b) Satisfy the requirements of NAC 459.95414.
2. The owner or operator may perform a new process hazard analysis in lieu of revalidating a previous analysis, if:
  - (a) The process hazard analysis satisfies the requirements of NAC 459.95414; and
  - (b) All the supporting information, including, without limitation, the process safety information, operating procedures, training program, mechanical integrity program and emergency response program reflect current operations.

**Sec. 76.** NAC 459.95512 is hereby amended to read as follows:

If a facility with a process or *explosives manufacturing operation* that is subject to the tier A program or tier B program changes ownership, the new owner or operator shall comply fully with the requirements of NRS 459.380 to 459.3874, inclusive, and any regulations adopted pursuant thereto and:

1. If the annual registration required pursuant to NAC 459.95348 is not due, satisfy the requirements for registration set forth in NAC 459.9535 and 459.95358 not later than 14 days after the transfer of ownership; or
2. If the annual registration required pursuant to NAC 459.95348 is due, submit the annual registration.

**Sec. 77.** NAC 459.95516 is hereby amended to read as follows:

The owner or operator of a facility with a process *or explosives manufacturing operation* that is subject to the tier A program or tier B program level 2 or 3 shall develop a management system to oversee the implementation of all requirements of C.A.P.P. and:

1. Assign a qualified person to have overall responsibility for the development, implementation and integration of the requirements of C.A.P.P.; or
2. Create a team with overall responsibility for the development, implementation and integration of the requirements of C.A.P.P. The owner or operator shall document:
  - (a) The names of the persons who are members of the team; and
  - (b) The relevant lines of authority for the team by means of an organization chart or similar document.

**Sec. 78.** NAC 459.9552 is hereby amended to read as follows:

1. The division:
  - (a) Shall conduct an annual inspection to determine compliance at each facility with a process *or explosives manufacturing operation* that is subject to the tier A program pursuant to subsection 4 of NRS 459.387;
  - (b) May, in addition to the annual inspection to determine compliance, inspect a facility with a process *or explosives manufacturing operation* that is subject to the tier A program for program compliance pursuant to subsection 1 of NRS 459.387;
  - (c) May inspect a facility with a process that is subject to the tier B program to determine whether the facility complies with program requirements, including, without limitation, compliance with:

(1) The prevention program developed pursuant to NAC 459.95382 to 459.95435, inclusive;

(2) The emergency response program developed pursuant to NAC 459.9544 and 459.95442; and

(3) The requirements of the hazard assessment developed pursuant to NAC 459.95362 to 459.95378, inclusive; and

(d) May audit the components of the facility's assessment report submitted pursuant to NAC 459.95448 to 459.95468, inclusive, that contain processes subject to the tier B program to verify the accuracy of the report.

2. The division shall make the records of all inspections and audits made pursuant to this section available for public review.

**Sec. 79.** NAC 459.95524 is hereby amended to read as follows:

The division may take enforcement action at a facility with a process *or explosives manufacturing operation* that is subject to:

1. The tier A program pursuant to NRS 459.3872 and 459.3874; and

2. The tier B program pursuant to paragraph (c) of subsection 2 of NRS 459.3833 and 459.3834.

**Sec. 80.** NAC 459.95528 is hereby amended to read as follows:

The following provisions are hereby adopted by reference:

1. Codes 211112, 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311 and 32532 of the 1997 version of the N.A.I.C.S. A copy may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, at a cost of \$28.50.

2. N.F.P.A. 704, the Standard System for the Identification of the Hazards of Materials for Emergency Response. A copy may be obtained from the National Fire Protection Association, 11 Tracy Drive, Avon, Massachusetts 02322-9908, at a cost of \$18.50.

3. N.F.P.A. 30, the 1996 version of the Flammable and Combustible Liquids Code. A copy may be obtained from the National Fire Protection Association, 11 Tracy Drive, Avon, Massachusetts 02322-9908, at a cost of \$24.75.

4. ERPG-2 of the Emergency Response Planning Guidelines Series. A copy may be obtained from the American Industrial Hygiene Association, 2700 Prosperity Avenue, Suite 250, Fairfax, Virginia 22031, at a cost of \$310.

5. The R.M.P. Off-Site Consequence Analysis Guidance. A copy may be obtained free of charge from the United States Environmental Protection Agency, P.O. Box 42419, Cincinnati, Ohio 45242-2419.

*6. N.F.P.A. 70, the 1996 version of the National Electric Code. A copy may be obtained from the National Fire Protection Association, 11 Tracy Drive, Avon, Massachusetts 02322-9908, at a cost of \$51.50.*

**Sec. 81.**

1. This section and sections 1 through 10 and 27 through 80 of this regulation become effective upon filing with the secretary of state.

2. Sections 11 through 26 of this regulation become effective on June 1, 2001.