



Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY

NORTH CAROLINA CHEMICAL ACCIDENT PREVENTION PROGRAM



Emergency Planning Community Right-to-Know
Act and Risk Management Program



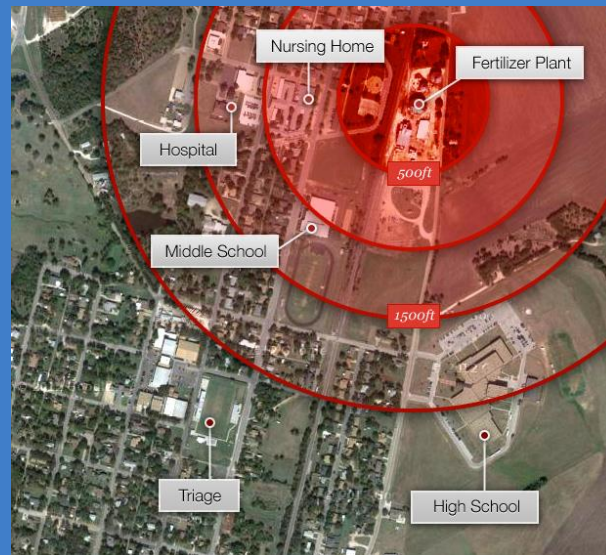
North Carolina Emergency Management Hazardous Materials





Objectives

- Chemical storage history – Where is North Carolina
- Identifying facilities for chemical reporting
- Risk Management Program – new requirements for emergency planning and coordination
- Resources





Where is NC - Growth

North Carolina's strong growth in the past year exceeded the average annual growth during the previous decade – driven almost exclusively by the number of new migrants to North Carolina

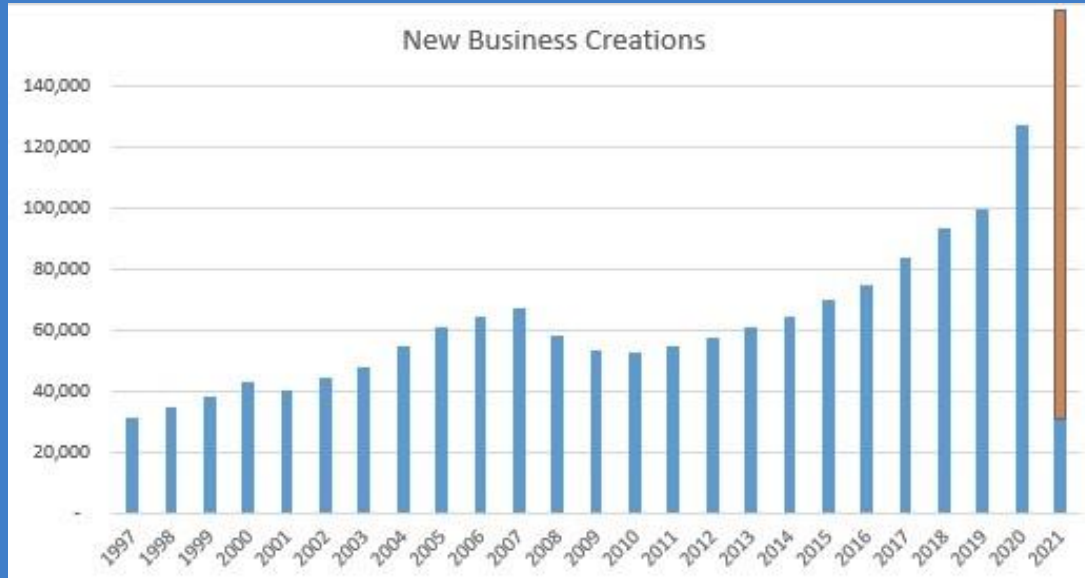
In the last year, North Carolina added more people than all other states but Texas and Florida.

Dec 2022, Office of State Budget and Management





NC Business Growth



NC Secretary of State Department graphic




















Why is Emergency Planning Important in NC

Description	<u>Estab- lish- ments</u>	<u>Value of shipments (\$1,000)</u>	<u>Value of shipments % of U.S.</u>	<u>Value of shipments per capita (\$)</u>	<u>Annual payroll (\$1,000)</u>	<u>Paid employees</u>
United States	13,789	716,152,473	100.00	2,375	50,234,763	800,350
1. Texas	1,205	150,456,494	21.01	6,312	4,897,934	70,426
2. Louisiana	226	59,135,615	8.26	13,513	1,735,716	22,250
3. North Carolina	444	43,640,288	6.09	4,815	1,954,135	35,233
4. California	1,617	42,650,670	5.96	1,177	4,942,382	77,288





Industries with Dangerous Chemicals

 Colleges and Universities	 Cold Chain/ Refrigeration	 Fisheries and Hatcheries	 Energy Utilities	 Agricultural Production
 Laboratories	 Mining	 Industrial Manufacturing	 Paints and Coatings	 Plastics Manufacturing
 Pulp and Paper	 Semiconductor Manufacturing	 Motor Racing	 Warehouses/ Distribution	 Water Treatment

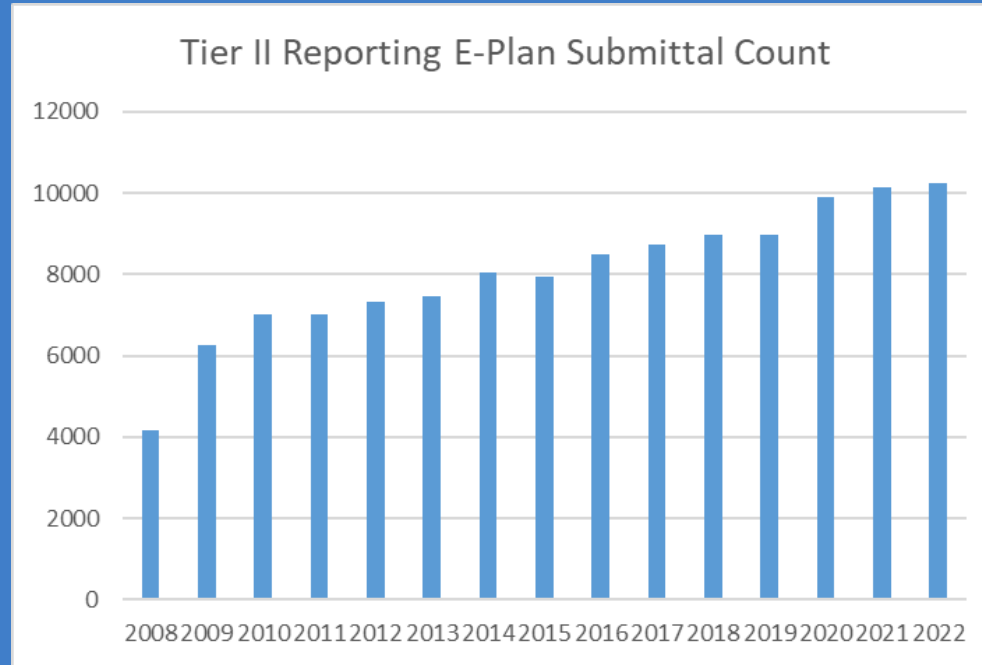


February 8, 2023





NC Tier II Submission Growth





Who Reports What Recently Asked Questions

How do we...

- *find out who is supposed to be reporting if they aren't reporting?*
- *identify facilities with hazardous materials that might need to file?*
- *keep track of who is and isn't supposed to report within our jurisdictions?*
- *know we are capturing everyone's data?*
- *find out the difference between EPCRA and OSHA facility reporting?*
- *Know if a product is hazardous if OSHA Hazcom isn't listed?*





Hazardous Chemicals Right to Know Act

North Carolina Department of Labor

- Public Safety and Emergency Response Right to Know requires employers who manufacture, process, use, store or produce at **least 55 gallons or 500 pounds**, whichever is greater, of hazardous chemicals to compile and annually update a list of the hazardous chemicals including the identity of each such chemical and their respective quantities. A copy of this list must be provided to the local fire chief.
- A.k.a. if the product has an Safety Data Sheet (SDS) and have over 55 gallons or 500 pounds, the “chemical list” provided to the fire chief is also EPCRA 311, filed in E-Plan
- Community Right to Know permits any person in North Carolina to request a list of chemicals used or stored at a given facility.





What Does 500 Pounds Look Like?



Solid 500
Pound Sack



Solid/Liquid
55 Gallon Drum




Gas - 500 Pound
Capacity Cylinder



Safety Data Sheet (SDS) Hazard Identification

- Occupational Safety and Health Administration 1910.1200 - Hazard Communication
- <https://www.labor.nc.gov/hazardous-chemicals-right-know-act>
- Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.
- If an SDS is missing the OSHA status, check the physical and health hazards

SECTION 2: HAZARD IDENTIFICATION	
OSHA HCS Status:	This product is considered hazardous by the OSHA Hazard Communication regulation (29 CFR 1910.1200).
Product Classification:	Skin Corrosion / Irritation – Category 1 Acute Toxicity (Inhalation) – Category 4 Aquatic Hazard (Acute) – Category 1
GHS Label Elements (Pictograms):	
Signal Word:	Danger
Hazard Statements:	Causes severe skin burns and eye damage. May cause respiratory irritation. May displace oxygen and cause rapid suffocation. Harmful if inhaled. Toxic to aquatic life.
Precautionary Statements	General: Read and follow all Safety Data Sheet warnings. Use only equipment of compatible materials of construction. Approach suspected leak area with caution. Prevention: Do not breathe gas, vapors or spray. Wear protective gloves, clothing, and eye & face protection. Wash hands thoroughly after handling. Use only outdoors or in well-ventilated areas. Store in a well-ventilated place. Keep container tightly closed. Avoid release to the environment.





Safety Data Sheet Regulatory Information

- Same as OSHA, For any hazardous chemical used or stored in the workplace, facilities must maintain a safety data sheet
- In addition to OSHA's requirement to submit to SDS to the local fire department, facilities must submit the list to the State Emergency Response Commission (SERC)
 - 311s submission to the NC SERC is completed through E-Plan

SECTION 15: REGULATORY INFORMATION

Notice: This product IS subject to the reporting requirements of SARA (1986, Section 331 of Title III) and 40 CFR Part 370.

OSHA Hazard Communication Rule, 29 CFR 1910.1200: Aqua ammonia IS a hazardous chemical.

Toxic Substance Control Act: Ammonium Hydroxide (CAS# 1336-21-6) IS listed in the TSCA Inventory.

Emergency Planning and Community Right-To-Know Act (SARA, TITLE III):

Section 302, Extremely Hazardous Substances: NO

Section 311/312, Hazardous Categories: Immediate (Acute) Health Hazard

Section 313, Toxic Chemical: YES (Ammonia)

CERCLA/Superfund, 40 CFR 117.302: This product is 100% Ammonium Hydroxide which if released into the environment in quantities of 1,000 lbs. or more requires notification to the National Response Center in Washington, DC at 1-800-424-8802.

WHMIS: One percent (1%), as ammonia

California Proposition 65: Reproductive: NO Carcinogen: NO

OSHA Process Safety Management, 29 CFR 1910.119: This product is NOT subject to the Process Safety Management requirements of 29 CFR 1910.119.

EPA Chemical Accidental Release Prevention, 40 CFR PART 68: This product IS subject to the Risk Management Plan requirements of 40 CFR Part 68 if ammonia concentrations is 20% or greater and maintained on-site in quantities of 20,000 lbs. or greater of contained ammonia.

Drinking Water: Maximum use dosage in potable water is 10 mg/l.





What's the Difference Between EPCRA 311 and 312

- For facilities that store larger quantities or Extremely Hazardous Substances (EHS) above the EPA List of List Threshold Planning Quantity, the facility must file a 312 (Tier II Form)
- A facility filing a 312 simultaneously meets the requirement for the 311 chemical list
- Facilities filing 312 for EHSs have additional emergency planning requirements

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ
Carboxin	5234-68-4		
Catechol	120-80-9		
CFC-11	75-69-4		
CFC-12	75-71-8		
CFC-114	76-14-2		
CFC-115	76-15-3		
CFC-13	75-72-9		
Chinomethionat	2439-01-2		
Chloramben	133-90-4		
Chlorambucil	305-03-3		
Chlordane	57-74-9	1,000	1
Chlordane (Technical Mixture and Metabolites)	N.A.		
Chlorendic acid	115-28-6		
Chlorfenvinfos	470-90-6	500	500
Chlorimuron ethyl	90982-32-4		
Chlorinated Benzenes	N.A.		
Chlorinated Ethanes	N.A.		
Chlorinated Naphthalene	N.A.		
Chlorinated Phenols	N084		
Chlorine	7782-50-5	100	10
Chlorine dioxide	10049-04-4		





Identifying Facilities

- Fire Marshall Annual Inspections
 - Fire Marshall Hazmat Training
- Permits (city or county)
 - Building
 - Tank installation (DEQ also maintains)
 - Hazardous Material Storage
- Walkthroughs of new facilities
- Reviewing facility chemical list (OSHA/311)





North Carolina Chemical Accident Prevention Program – “Risk Management Program”

Prevent and minimize releases, protect the public

Partner Agencies:

- Department of Air Quality
- Occupational Safety and Health
- Division of Water Quality
- Department of Agriculture
- Division of Emergency Management





N.C. ANALYSIS OF PROCESS HAZARDS			
Count	CAS Number	Chemical Name	Number of Processes
1	7782-50-5	Chlorine	104
2	7664-41-7	Ammonia (anhydrous)	98
3	108-05-4	Vinyl acetate monomer [Acetic acid ethenyl ester]	24
4	50-00-0	Formaldehyde (solution)	23
5	7446-09-5	Sulfurdioxide (anhydrous)	16
6	75-28-5	Isobutane [Propane, 2-methyl]	12
7	74-98-6	Propane	12
8	7664-41-7	Ammonia (conc 20% or greater)	12
9	26471-62-5	Toluene diisocyanate (unspecified isomer)	8
10	75-21-8	Ethylene oxide [Oxirane]	5

- 43 of the 140 RMP Chemicals have been reported in NC
- Chlorine and Anhydrous Ammonia are the most common





What is a High-Risk Facility?



1) Facilities with large population

2) Facilities with accidents in last 5 years



3) Facilities with large number & quantity of chemicals





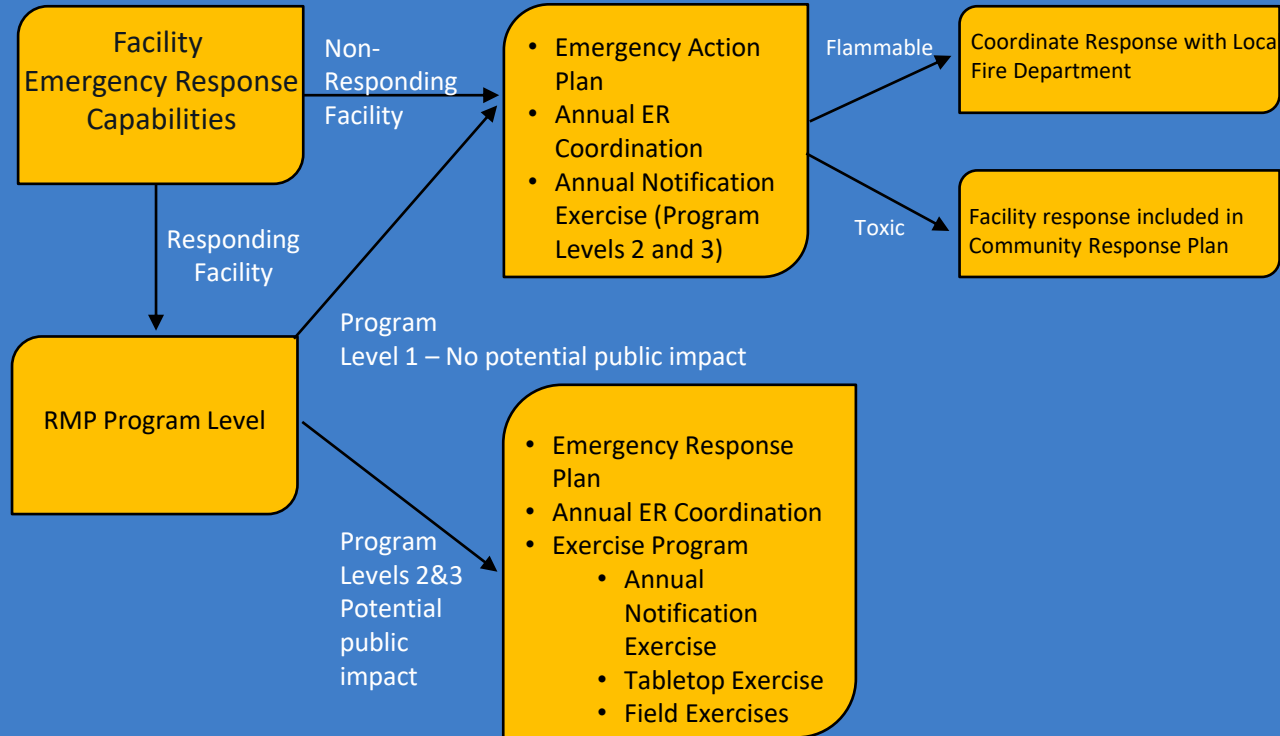
December 19, 2019 RMP Final Rule

Activity to Complete	Due Date
Develop Emergency Response Program - Chemical, Quantity, Resource and Capabilities	Within three years of owner or operator determining that facility is subject to the provisions
Annual Coordination Requirements -Updates to Community ERP	Facilities shall coordinate response needs with local emergency planning and response organizations annually and more frequently if necessary.
Develop exercise plans and schedules – facility ER staff, contractors	December 19, 2023 Frequency determined by coordination with facility and local emergency response officials
Conduct first annual notification exercise	December 19, 2024 Notification exercises. At least once each calendar year, the owner or operator of a facility with any Program 2 or Program 3 process shall conduct an exercise of the facility's emergency response notification mechanisms
Conduct first field exercise -simulated accidental release	According to the exercise schedule established by the owner or operator in coordination with local response agencies
Conduct first tabletop exercise -simulated accidental release	December 21, 2026 Frequency at minimum every 3 years





RMP Facility Category Flowchart





E-Plan - EPA RMP Reports

- Available in E-Plan
- Under Facility Search select RMP (by EPA). This is a separate report from Tier II.
- It is not recommended for facilities to upload RMP reports in the annual Tier II submission. Tier II reports are public information.

Search Functions

Facility Search

Filing Type

- Submission TAB
- 302
- 304
- 311
- Tier2
- TRI
- Emergency Plan
- RMP (by Tier2 User)
- RMP (by EPA)



E-Plan EPA RMP Reports

- Report under additional information, Select the PDF to download

Facility Information	Contact Information	Chemical Inventory EPCRA 304 Report	Additional Information**	StateFields
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Facility Documents

I have submitted a site plan.

I have attached a description of dikes and other safeguard measures.

I have attached a list of site coordinate abbreviations.

File Name	File Category	Description	Upload Date or Index	Download
100000228336.pdf	RMPDoc	RMP Report for epa_facilityid= 100000228336	1415065	





RMP Report ER Information

- RMP Reports nine sections, ER information in:
- **Section 1:** LEPC, Process Chemical description, type of facility
- **Section 2-5:** Worst and Alternative Case for Toxics and Flammables includes modeling information and description of public impacts
- **Section 6:** Accident history description
- **Section 9:** Emergency Response capabilities
- **Executive Summary:** May include description of the chemical process, emergency response capabilities, etc.





RMP and Public Information

- Offsite Consequence Analysis data, Sections 2-8, is not readily available to the public
- The public may obtain copies of RMPs (without the OCA information) by requesting them from EPA
- RMPs can be viewed at Federal Reading Rooms in Asheville, Greensboro and Raleigh
- <https://www.epa.gov/rmp/general-rmp-guidance-chapter-11-communication-public>
- <https://www.epa.gov/rmp/forms/vulnerable-zone-indicator-system>





RMP Definitions

- *Annual Coordination* the purpose of the annual coordination is:
 - To allow facilities to update and discuss the information being provided to local authorities
 - To allow local authorities to provide facilities with updated information on how the source is addressed in the community emergency response plan.
 - The forum for coordination meetings is left up to the discretion of the owner or operator and local response authorities.
- *Public receptor* means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time.





RMP Definitions - Program Levels

- Program levels under 40 Code of Federal Regulation Part 68, Chemical Accident Prevention Provisions are listed on the facility's Environmental Protection Agency Risk Management Plan by process chemical. The program levels are:
- Program Level 1: No significant off-site release within the past 5 years, no off-site consequences.
- Program Level 2: Worst case release has off-site consequences with public receptors.
- Program Level 3: Worst case release has off-site consequences with public receptors and the facility is subject to OSHA Process Safety Management





RMP Prevention Programs

Prevention Program Reference			
Requirements	Level 1	Level 2	Level 3
Safety Information/Process Safety Information	N/A	\$68.48	\$68.65
Hazard Review/Process Hazard Analysis	N/A	\$68.5	\$68.67
Operating Procedures	N/A	\$68.52	\$68.69
Training	N/A	\$68.54	\$68.71
Maintenance/Mechanical Integrity	N/A	\$68.56	\$68.73
Compliance Audit	N/A	\$68.58	\$68.79
Incident Investigation	N/A	\$68.6	\$68.81
Management of Change	N/A	N/A	\$68.75
Pre-Startup Review	N/A	N/A	\$68.77
Employee Participation	N/A	N/A	\$68.83
Hot Work Permits	N/A	N/A	\$68.85
Contractors	N/A	N/A	\$68.87



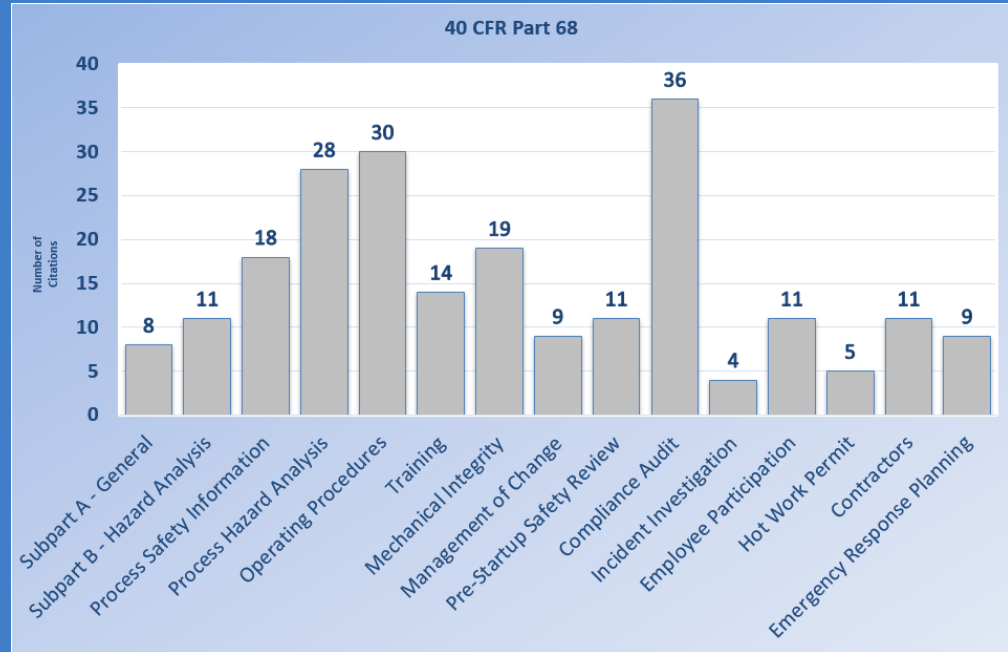


RMP Compliance

Division of Air Quality data
for the last Seven Years:
2015-2021

- 248 Total Inspections
- Emergency Planning
- 9 citations:

§68.93: Failure to document
annual coordination with local
ER Planners





Facility ER Requirements Coordination Documentation

- The coordination meeting format is decided between the facility and local responders (phone call, virtual, walkthrough, exercise). Facilities must document coordination efforts.

Annual Coordination Facility Documentation

Name and contact information for coordination participants
(phone number, email address, and organizational affiliations)

Date of Coordination Activities

Nature of Activities
(plans reviewed, updates made, exercises completed, etc.)





RMP Facility Category “Respond” Facility Means

- Consistent with the definition of response specified under OSHA’s HAZWOPER standard.
-
- “a response effort by employees from outside the immediate release area or by other designated responders... to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance.”
- Implement an emergency response program (OSHA’s HAZOPER standard)





Emergency Response Program

RMP responding facilities must provide an emergency response program that consists of:

- An emergency response plan,
- Emergency response equipment procedures,
- Employee training, and
- Procedures to ensure the program is up-to-date.





RMP Facility Category *“Non-Respond” Facility Means*

- Emergency Action Plans
- Must do the following:
 - Establish means of reporting emergencies
 - Establish procedures for sounding alarms to inform all employees that an evacuation has been initiated
 - Include emergency telephone numbers
 - Must coordinate with local planning and response agencies
- Must include procedures for the following:
 - Reporting a fire or other emergency;
 - Evacuation (type, exit routes, place of assembly);
 - Who will remain to operate critical functions;
 - Account for employees after evacuation; and
 - Employees performing rescue or medical duties.





RMP Facility Response Status

Is it Correct?

- Many facilities indicate yes to having emergency response plans
- When reviewing plans is the facility equipped to respond to the chemical release?
- Non-equipped facilities are non-responding and have emergency action plans

—Written Emergency Response (ER) Plan—

Community Plan (Is facility included in written community emergency response plan?):

Facility Plan (Does facility have its own written emergency response plan?):

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Healthcare (Does facility's ER plan include information on emergency health care?):

—Emergency Response Review—

Review Date (Date of most recent review or update of facility's ER plan):

—Emergency Response Training—

Training Date (Date of the most recent ER training for facility's employees):





Non-Responding Facility Ensuring Effective Response

- A non-responding facility is responsible for ensuring effective emergency response to any releases at the facility
- If local public responders are not capable of providing such response, facilities must take steps to ensure that effective response is available
- Effective approaches for facilities encouraged by EPA include:
 - Using response contractors, or mutual aid agreements with other facilities.
 - Identifying gaps in local response capabilities with local response officials.
 - Assist local responders in supplementing capabilities such as providing the equipment or training needed to allow local public responders to prepare for and carry out response to accidental releases at the source.
 - Implementing, purely “defensive” response measures, such as evacuating facility employees and members of the public to a safe distance, and using automatic fire suppression systems, or allowing a fire to burn itself out.

Reference: General RMP Guidance - Chapter 8: Emergency Response Program





Emergency Action vs Response Plans

Requirement	Emergency Action Plan	Emergency Response Plan
Procedures for reporting a fire or other emergency	X	
Procedures for emergency evacuation, including type of evacuation and exit route assignments	X	
Procedures to be followed by employees who remain to operate critical plant operations before they evacuate	X	
Procedures to account for all employees after evacuation	X	
Procedures to be followed by employees performing rescue or medical duties	X	
The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan	X	
Inform the public and the appropriate Federal, state, and local emergency response agencies about accidental releases		X
Document first-aid and emergency medical treatment needed if exposed		X
Procedures for emergency response after an accidental release		X
Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance		X
Training for all employees in relevant procedures		X
Procedures to review and update the emergency response plan as appropriate		X





Facility ER Requirements

Annual RMP ER Coordination

- All RMP Facilities must coordinate with local emergency responders annually or more frequently if requested by local responders
- Address changes to source, emergency plans, contact information
- Provide information necessary for developing and implementing the local emergency response plan
- Facilities with toxic chemicals – provide updates to add in community emergency response plan (chemical quantity, process risks, facility resources and response capabilities)
- Facilities with flammable chemicals – coordinate response actions with local fire department





Facility ER Requirement - Notification Exercise

- For Program Level 2 and 3 Facilities (facilities that have the potential to chemical release to the public)
- Annual requirement, initial conducted before December 19, 2024, annually after
- Exercise emergency notifications
- May complete as part of tabletop or field exercise
- Facilities must keep record of notifications for a 5-year period





Responding Facility Emergency Response Coordination

- Facilities collaborate with local responders to create a schedule and type of exercises
- Tabletop exercises will be required every 3 years starting December 2026
- Scheduling and frequency for other type of exercises (walkthrough, functional, full scale, etc.) will be agreed on between the facility and local responder
- Review and discuss emergency response and exercise plans



Responding Facilities Emergency Response Programs

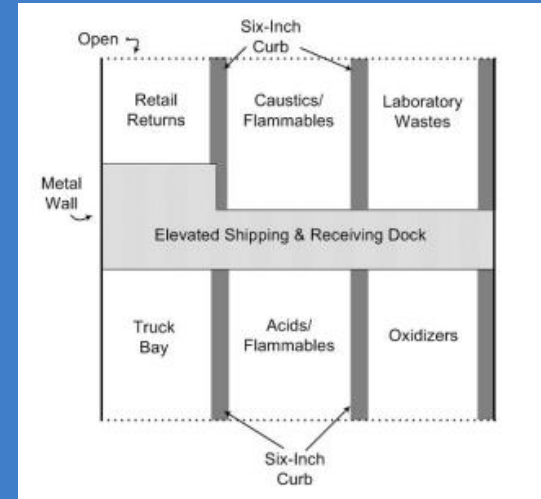
- Facilities with hazmat trained response teams must have programs that include:
 - Emergency response plan 40 CFR 68.95(a)(1)
 - Procedures for the use, inspection, testing, and maintenance of emergency response equipment
 - Training for all employees on emergency procedures for accidental chemical releases
 - Procedures to review and update the emergency response plan to reflect RMP process changes and informing employees of changes
 - Changes should include information learned from ER coordination, exercises, incidents, etc.





Emergency Response Exercises

- **Engage** team members and collaboration
 - **Enhance knowledge** of response plans
 - **Improve performance**
 - **Test** changed procedures or plans
 - **Coordination** between internal and external teams
 - **Validate** trainings
 - **Capabilities** of resources
- Types of Exercises:
 - Walkthroughs
 - Tabletop exercises
 - Functional exercises
 - Full-scale exercises





Responding Facilities Emergency Response Exercises

- Exercises shall involve facility emergency response personnel and emergency response contractors (if facilities rely on response contractors)
- Local public responders must be invited to assist with planning and participate in the exercise
- Facilities and local responders determine the frequency and type of field exercises
- Tabletop exercises must be completed before December 21, 2026, and then minimally once every 3 years.





Facility ER Exercise Documentation

- The facility must prepare an evaluation report within 90 days of the field or tabletop exercise.

Emergency Response Exercise Facility Documentation

Name and contact information for coordination participants
(phone number, email address, and organizational affiliations)

Date of Exercise

Description of Exercise Scenario

Evaluation of Exercise Results (lessons learned, recommendations, improvements, emergency response or exercise plan revisions, schedule to address recommendations)





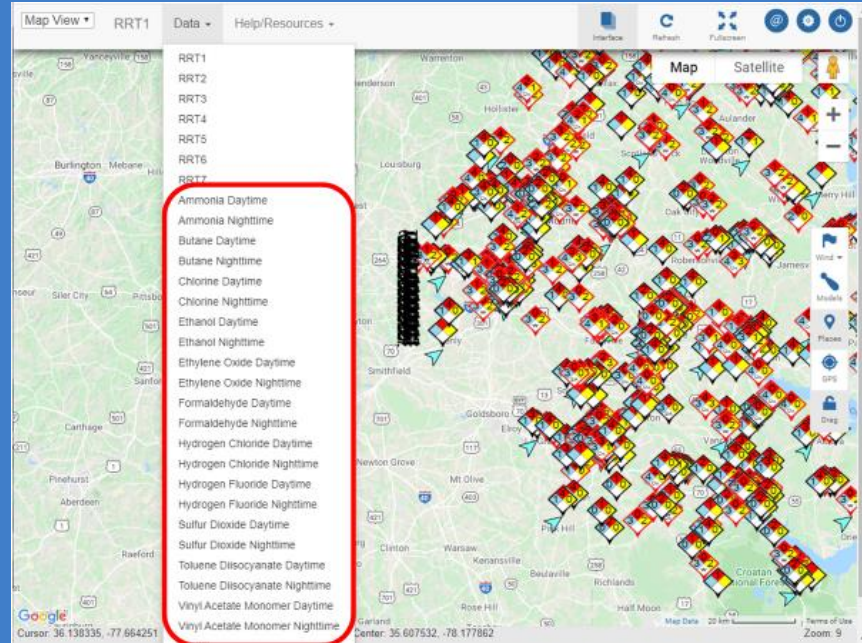
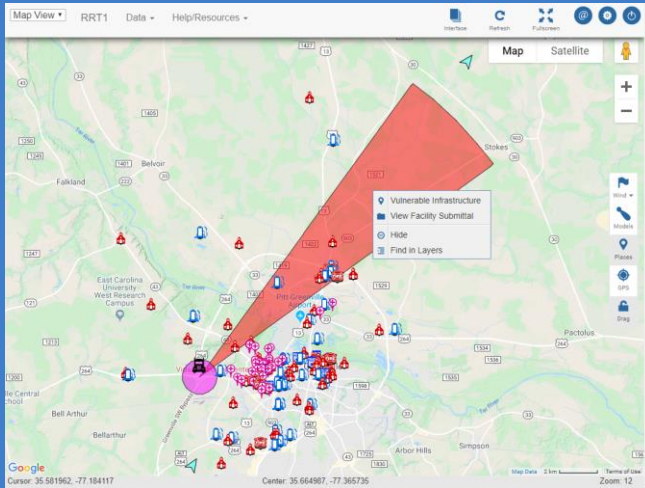
Safer Communities by Chemical Accident Prevention – 112r Proposed Changes 2022

- January 20, 2021 Executive Order 13990
- August 31, 2022 – Published in the Federal Register
- October 14, 2022 – SERC approved Hazmat Committee Comments to EPA
- October 31, 2022 – Public comment period ended
- Final anticipate fall 2023





Hazardous Materials Tools and Resources





NCEM Hazmat Resources

<https://www.ncdps.gov/our-organization/emergency-management/hazardous-materials>

- LEPC contacts and resources such as National LEPC-TEPC Handbook and Chemical Exposure and Medical Treatment
- EPCRA/Tier II common questions and answers
- Emergency planning and response resources

[Chemical Release Notifications for Facilities](#)

[Chemical Safety & Reporting](#)

[Local Emergency Planning Committees](#)

[North Carolina Rules and Regulations](#)

[EPCRA/Tier 2](#)

[Risk Management Program \(CAA 112r\)](#)

[America's Water Infrastructure Act](#)

[Regional Response Teams](#)

[Hazardous Materials Storage](#)

[Emergency Response Resources](#)





North Carolina Regulations

ncdps.gov/our-organization/emergency-management/hazardous-materials/north-carolina-rules-and-regulations

Region 7 RMP Webi... NCGS 166A-20 HM... Hazmat Training, Exercise &... Chapter 166A_NCEM Region 7 Risk Mana... DriveNC.gov | Nort...

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North Carolina Emergency Management Act [NCGS Chapter 166A](#)

- Regional Response Team** § 166A-22-28 covers the hazardous materials emergency response program including contracts, equipment loans, regional response team advisory committee, and recovery cost from a hazardous materials response.
- Emergency Planning and Fee Schedule** § 166A-29 covers emergency planning fees for fixed facilities including annual Tier II and fee exemptions.

Department of Labor and Labor Regulations [NCGS Chapter 95 Article 18](#) Identification of Toxic or Hazardous Substances defines hazardous chemicals adopted by the Occupational Safety and Health Division of the North Carolina Department

Oil Pollution and Hazardous Substances Control [NCGS Chapter 143 Article 21](#) to support applicable provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251 and the National Contingency Plan.

Risk Management Program [15A NCAC 2D .2100](#) to support applicable provisions to 40 CFR Part 68 - Chemical Accident Prevention Provisions.

State Emergency Response Commission [Executive Order 242](#) North Carolina complies with the Emergency Planning, and Community Right-to-Know Act (EPCRA) appointment of the State Emergency Response Commission and receiving public information request, including Tier II information to support applicable provision of 42 U.S.C. §§ 11001-11050.

[Local Emergency Planning Committees](#)

[North Carolina Rules and Regulations](#)

[EPCRA/Tier 2](#)

[Risk Management Program \(CAA 112r\)](#)

[America's Water Infrastructure Act](#)

[Regional Response Teams](#)

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CISSA Chemlock

<https://www.cisa.gov/resources-tools/programs/chemlock>



- Chemlock On-Site Assessments and Assistance
- Resources
- Facility security plan exercises
- Live training to assist owners, operators, facility personnel, and retailers



Questions ?

- EPCRA Hotline:
- 919-436-2746
- epcra@ncdps.gov



- Visit our website at:
- <http://ncdps.gov/Emergency-Management/Hazardous-Materials/Chemical-Safety-Reporting>



POCs for HAZMAT, Tier II or RMP Questions

NCEM Hazardous Material Coordinators:

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Risk Management Program

Stefan Coutoulakis – Tier II, CAMEO

Cole Owen – Hazardous Materials Emergency Planning Grant

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