



August Mack

ENVIRONMENTAL

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HAVE NO FEAR! TIER II REPORTING MADE CLEAR

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QUICK POLL



Who here has heard of a
Tier II Report?



Who here has prepared, or
helped prepare a Tier II Report

OVERVIEW

- **Tier II Refresher**

- Background of EPCRA and Associated Regulations
- Who's Required to Submit?
- Thresholds
- SDSs
- What's Required?

- **Tips and Tricks for a Successful Reporting Season**

- Common Mistakes
- Proactive Reporting Strategies



TIER II REFRESHER

BACKGROUND OF EPCRA

- Emergency Planning and Community Right-to-Know Act
- Passed in 1986 in response to concerns regarding the environmental and safety hazards associated with the storage and handling of toxic chemicals.
- A 1984 disaster in Bhopal, India, caused by an accidental release of methylisocyanate, caused the US to form EPCRA.



BACKGROUND OF EPCRA

- To reduce the likelihood of a similar disaster in the US, Congress imposed requirements for federal, state, and local governments.
- These requirements cover the emergency planning and “Community Right-to Know” reporting on hazardous and toxic chemicals.
- The Goal:
 - Increase public knowledge and access to information on chemicals at a facility
 - Improve emergency response through increased transparency and preparation

ASSOCIATED REGULATIONS

- Title III – Superfund Amendments & Reauthorization Act
 - Emergency Planning and Community Right-to-Know Act (EPCRA)
 - Section 302 – Extremely Hazardous Substances
 - Section 304 – Accidental Release Notification
 - Section 311 – Routine SDS (MSDS) Reporting
 - Section 312 – Annual Hazardous Material Inventory
- 40 CFR Part 355 Appendix A – EHS List



ASSOCIATED REGULATIONS

- 29 CFR 1910.1200 (Hazard Communication)
 - EPA regulation references the OSHA Standard throughout the Tier II instructions
 - If you had a hazardous chemical for which OSHA requires an SDS present at your facility at any time during the previous calendar year at or above 10,000 pounds, the chemical must be reported on the Tier II Inventory Form
- There is no Tier II comprehensive reportable chemicals list



TIER II, BUT WHAT ABOUT TIER I?

- Tier I forms are similar to Tier II forms, but do not request important information such as specific storage locations of hazardous chemicals
- Majority of states require a Tier II form over a Tier I form
- Even if your state allows submission of a Tier I form, it is a best management practice to always complete the Tier II form

Information on state specific submission requirements can be found by going to:

www.epa.gov/epcra/state-tier-ii-reporting-requirements-and-procedures

WHO IS REQUIRED TO SUBMIT TIER II?

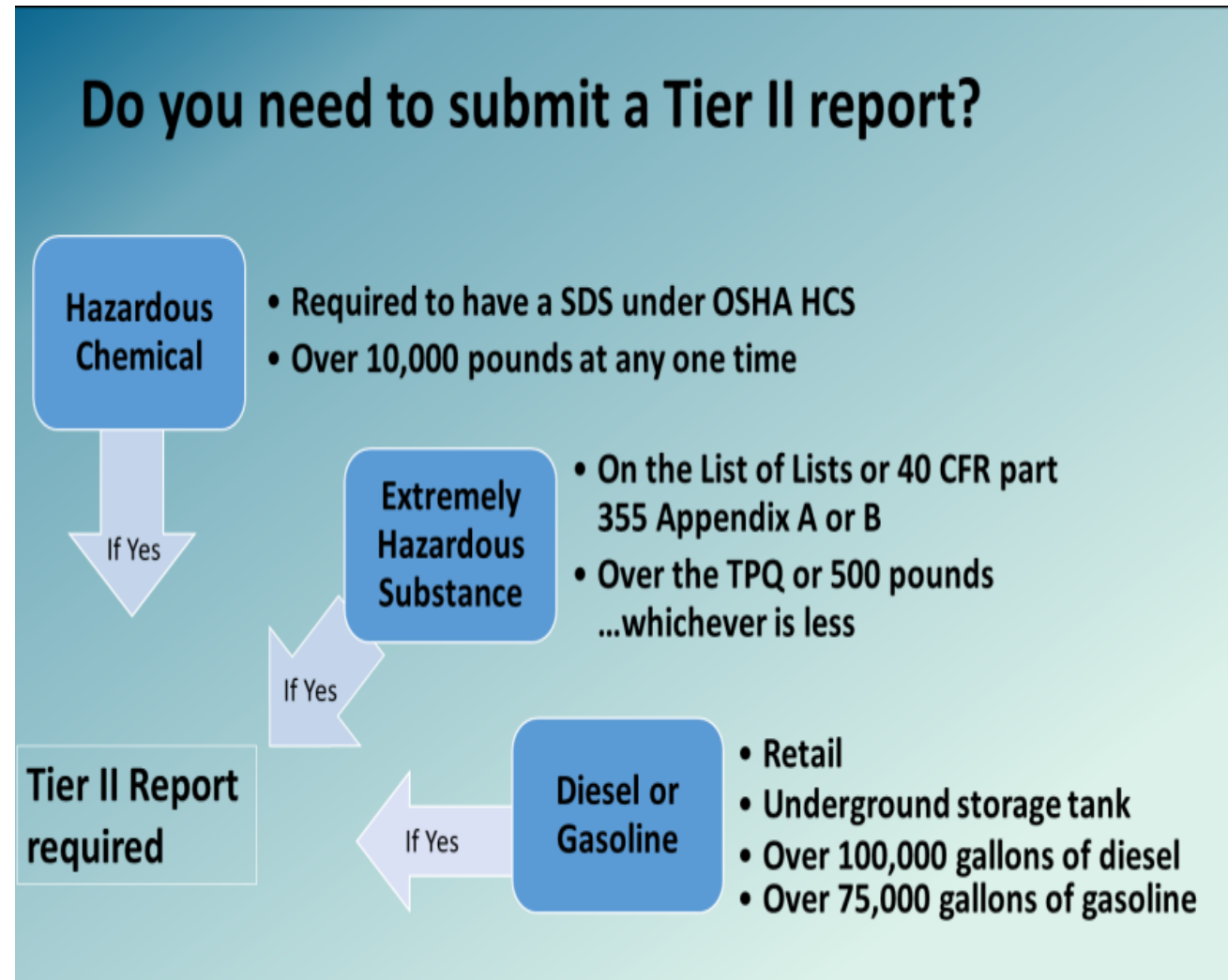
- Facilities that:
 - Are required to maintain SDSs under OSHA regulations for hazardous chemicals stored in the workplace; AND
- Store chemicals in quantities that equal or exceed the following thresholds:
 - Hazardous Substances at 10,000 pounds
 - Extremely Hazardous Substances at 500 pounds, or the Threshold Planning Quantity (TPQ), whichever is lower



WHAT IS A HAZARDOUS CHEMICAL?

- Hazardous – refers to any chemical, element, chemical compound, that has hazardous characteristics
 - Physical hazards
 - Health hazards
- This determination is made by the chemical manufacturer, as described in 29 CFR 1910.1200(d).
- It is a substance for which a facility must maintain an SDS under OSHA Hazard Communication Standard, which lists the criteria used to identify a hazardous chemical.

WHO IS REQUIRED TO SUBMIT TIER II?



WHAT IS AN EXTREMELY HAZARDOUS CHEMICAL?

- There is a published list of EPCRA EHS including more than 360 separate and unique chemicals
- List of EHS can be found in 40 CFR 355 Appendix A
- Includes the threshold planning quantity (TPQ) for each substance

CAS No.	Chemical name	Notes	Reportable quantity * (pounds)	Threshold planning quantity (pounds)
7782-50-5	Chlorine		10	100

REPORTING METHODS

- All locations and quantities must be considered
- Aggregate total is required
- Two options:
 - Report products as a whole (mixtures)
 - Report individual chemicals that make up the product (pure chemicals)



THRESHOLD DETERMINATION

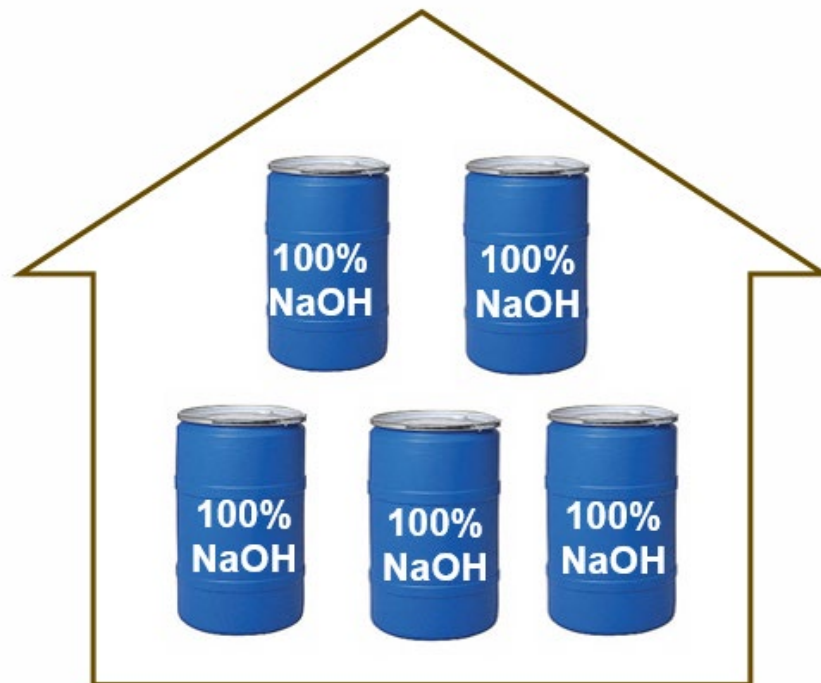
- To determine onsite storage quantities for Tier II reporting, multiple materials and likely multiple concentrations must be considered
- For mixtures, you do not have to calculate any hazardous component or constituent less than 1%
- For carcinogenic chemicals, you do not have to calculate the constituent if it is less than 0.1%



EXAMPLE – TAKING AN INVENTORY

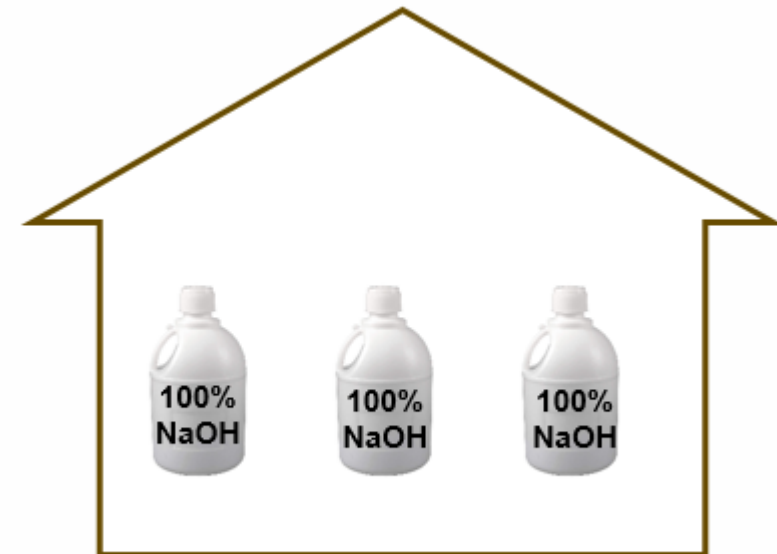
Storage Shed

Stores 55 gallons Drums of Sodium Hydroxide



QC Laboratory

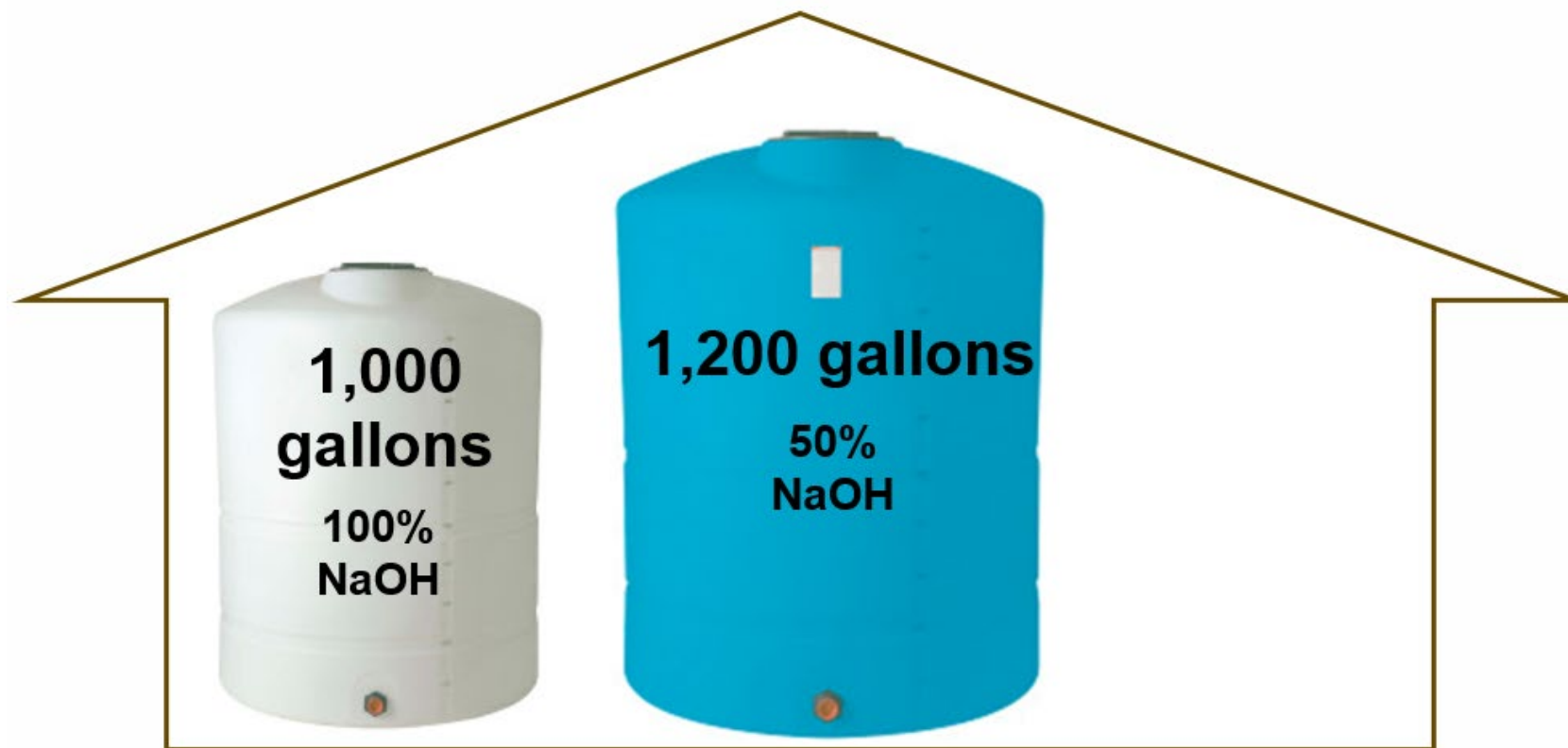
Stores 5 gallons Jugs of Sodium Hydroxide



EXAMPLE – TAKING AN INVENTORY

Wastewater Treatment Building

Stores 2 Tanks of Sodium Hydroxide



EXAMPLE – TAKING AN INVENTORY

Density of NaOH = 17.5 lbs/gal



EXAMPLE – CALCULATING THRESHOLDS

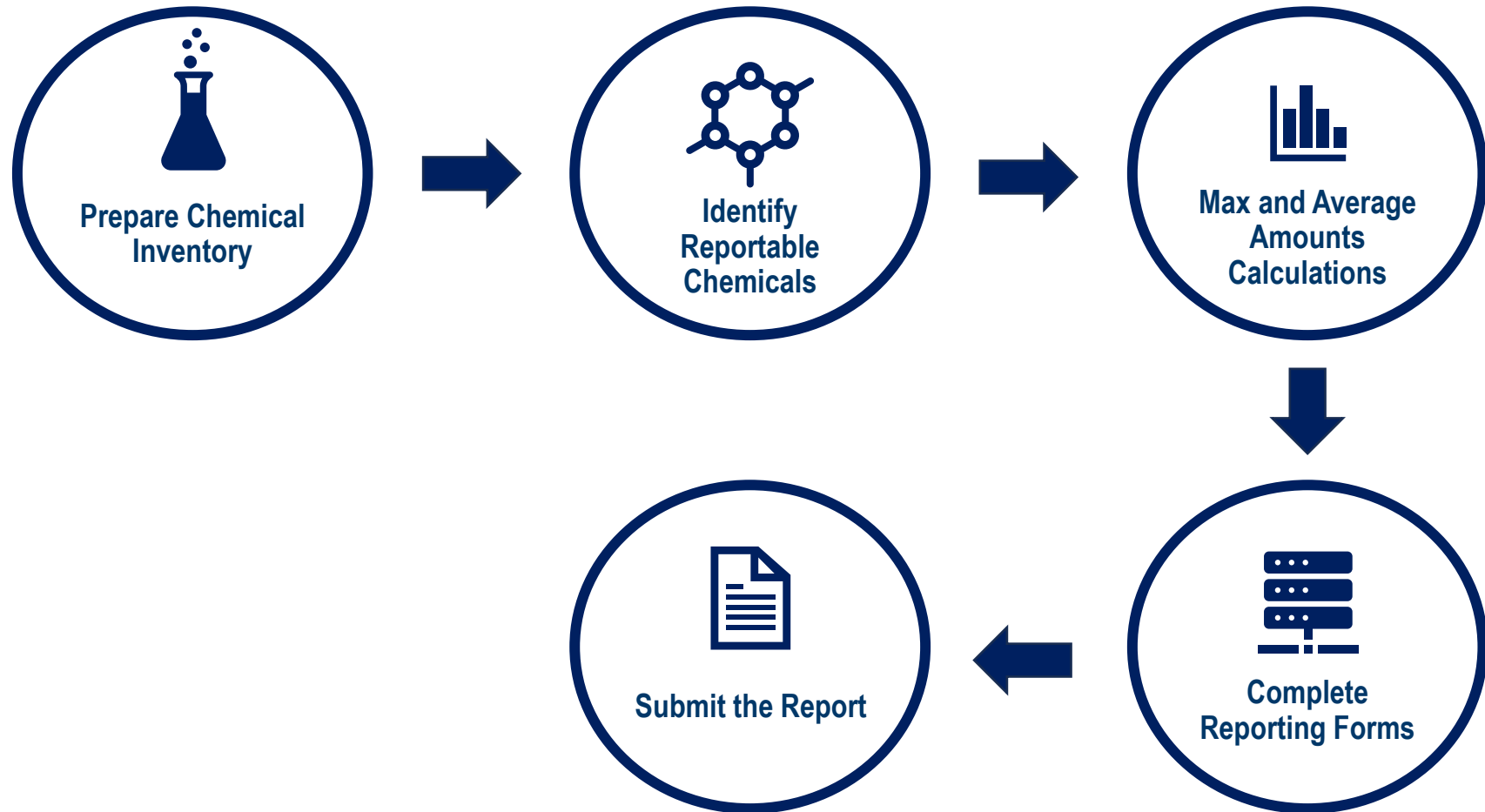
- Drum storage of NaOH
 - 5 drums * 55 gal = 275 gal
 - 275 gal * 17.5 lbs/gal (density) = 4,812.5 lbs
- Jug storage of NaOH
 - 3 jugs * 5 gal = 15 gal
 - 15 gal * 17.5 lbs/gal = 262.5 lbs
- Tank storage of NaOH
 - 1,000 gal tank * 17.5 lbs/gal = 17,500 lbs
 - 1,200 gal tank * 50% * 17.5 lbs/gal = 10,500 lbs
- Total NaOH = 4,812.5 lbs + 262.5 lbs + 17,500 lbs + 10,500 lbs =
33,075 lbs

SAFETY DATA SHEETS FOR TIER II

- SDSs are necessary for completing a Tier II for a couple of reasons, mainly:
 - It contains the composition and information on ingredients.
 - It also includes physical and health hazards.
 - This section of Tier II has recently been updated in RY2017.



EXECUTING A TIER II REPORT



EXECUTING A TIER II REPORT

- EPCRA is a federal regulation, but the administration of the law is delegated to the states
- States have the right to:
 - Develop their own unique state form
 - Require additional information and set lower thresholds
 - Charge fees for administering the program
 - Develop state-specific chemical lists that facilities must report on
- Preparing and submitting a Tier II report is dependent on your state
 - www.epa.gov/epcra/state-tier-ii-reporting-requirements-and-procedures

WHO RECEIVES MY TIER II REPORT?



**State Emergency Response
Commission**



**Local Emergency Planning
Committee**



Local Fire Department

REPORTING DEADLINE

- Tier II Emergency and Hazardous Chemical Inventory Form is due on or before **March 1st** of every year



TIER II REPORTING EXEMPTIONS

1. Any food, food additive, color additive, or drug/cosmetic regulated by the Food and Drug Administration.
2. Any substance to the extent it is used for personal, family, or household purposes OR is present in the same form and concentration as a product packaged for distribution and used by the general public.
3. Any substance present as a solid in any manufactured item to the extent that exposure to the substance does not occur under normal conditions of use.
4. Any substance to the extent it is used in a research laboratory, hospital, or other medical facility under the direct supervision of a technically qualified individual.
5. Any substance to the extent it is used in routine agricultural operations OR is a fertilizer for sale by a retailer to the ultimate consumer.



TIER II TIPS AND TRICKS

COMMON MISTAKES

- Safety Data Sheets out of date
- Site Map is out of date
- Using only purchase records to calculate quantities onsite
- Failure to track regulatory changes
- Chemical inventory inaccurate



PROACTIVE REPORTING STRATEGIES

- **Begin the reporting process as early as possible**
 - The Tier II reporting process can take longer than expected (especially if there have been changes at the facility). Be sure to give yourself enough time to thoroughly review your inventory onsite!
- **Utilize any ERP software you may have available to you**
 - Take advantage of the tools you have available to you at your workplace. If you don't have a good system for tracking inventory of raw materials and products, it may be time to invest in one!
- **SDSs**
 - Be sure you are collecting and saving safety data sheets for any new chemicals or mixtures brought onsite over the course of the year. This will save you from scrambling to search the internet, or reach out to the suppliers
- **Track inventory in pounds**
 - Set yourself up for success by making sure your inventory system is set up to track in pounds. Will save you a lot of time come reporting season

PROACTIVE REPORTING STRATEGIES

- The best inventory calculations take into account the following:
 - **Standing/Monthly Inventory**
 - Taking a note of the inventory in your facility on a monthly basis will make it easier to show when you had the hazardous chemical onsite and for how long
 - **Monthly Purchase Records**
 - Great way of tracking what products are onsite each month and can be compared with inventory records
 - **Usage Patterns**
 - Track how much of a hazardous material you are using on a regular basis to complement inventory and purchase records

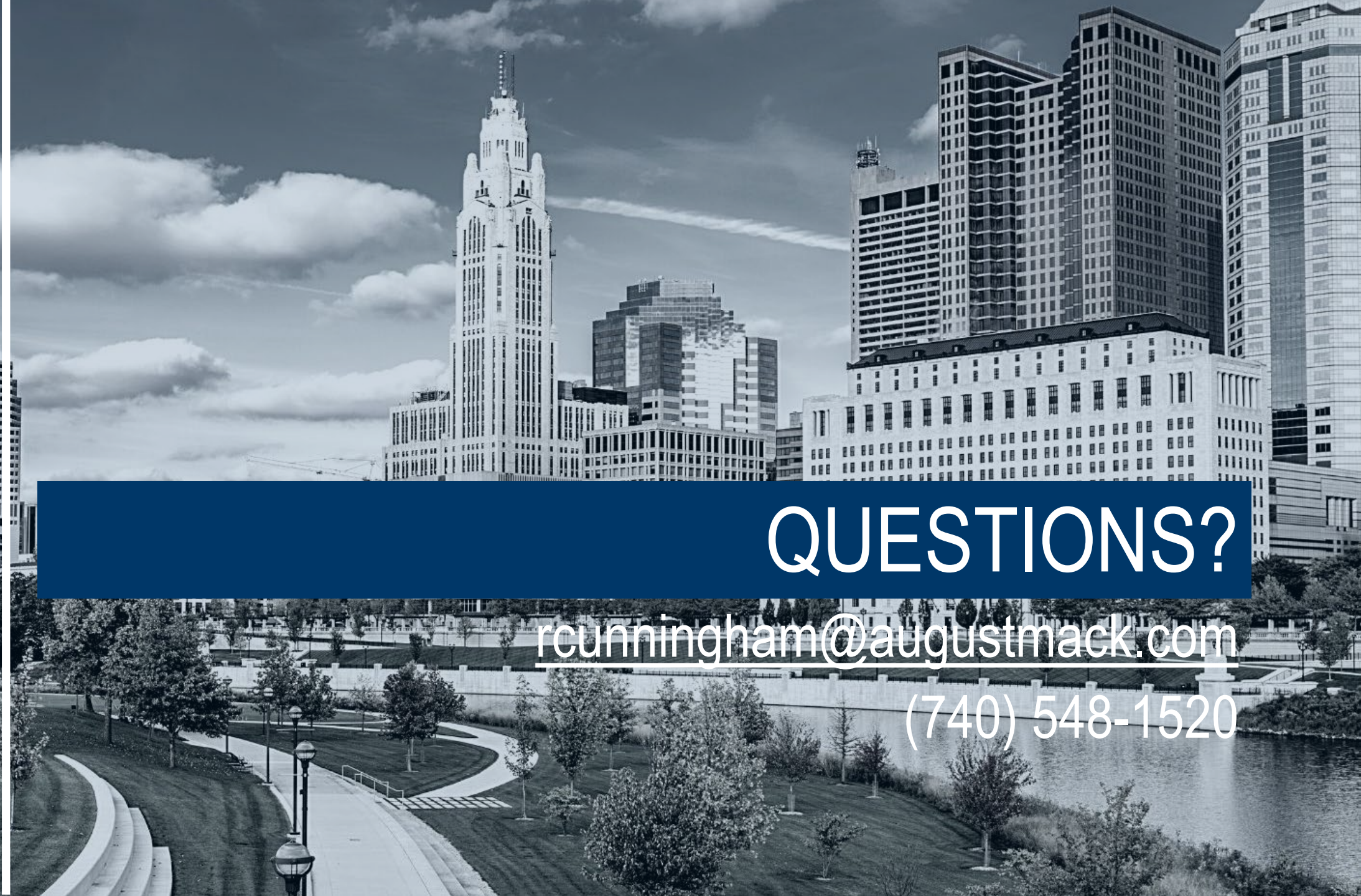
RY2024 TIER II CHANGES

Significant Changes in Tier2 Submit 2024

- Enhanced the Contact record interface so that the initial data fields display dynamically based on the chosen Contact Type(s).
- Updated state-specific fields for reporting year 2024.
- Added flexibility to the Maximum Number of Occupants field when the facility is marked as Unmanned to allow states, tribes, and territories to collect additional data if preferred in their areas.
- Updated the county boundary checks to use the latest files from the U.S. Census Bureau.
- Modified behavior to allow Tier2 Submit 2024 to be run side-by-side with an older Tier2 Submit 2023 (or 2022) version. However, the 2023 and 2022 versions should still NOT be run at the same time.
- Made many smaller user interface refinements and enhancements.
- Fixed several small bugs.
- Revised the help topics.



HOW CAN WE HELP YOU?



QUESTIONS?

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