Summary of TCEQ & EPA Environmental & Hazardous Materials Regulations That Impact Texas Manufacturers

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Agenda

- Land
- Air
- Water
- Others

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Land

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Hazardous Waste-RCRA

- Everything in Texas is regulated
- Waste determination
- Generation
- Generator status
- Universal Waste-Paint and Paint related materials
- Solvent Wipe Rule

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Common violations

- Failure to classify all waste
- Failure to prove generator status
- Storing and disposing improperly
  - Universal waste
  - Solvent rags
  - Oil/oily rags
  - Empty drums
  - Aerosol cans
- Failure to provide annual training

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DOT Hazmat

- Don’t forget DOT requirements
- All hazardous materials whether product or waste must be classified, handled, packaged and shipped according to the US Department of Transportations hazardous materials if they are transported on public roads.
- All persons handling those hazardous materials must be trained every 3 years in order to be allowed to do that job function.
- Required for shipping hazardous waste
- SQG/LQG applicable

Pollution Prevention Plan (P2)

- AKA Texas Waste Reduction Policy Act
- Long range planning efforts to prevent pollution
- Applies to
  - Facilities that submit Toxic Release Inventory Form R to the EPA
  - LQG/SQGs of hazardous waste that submit an Annual Waste Summary to TCEQ.

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P2PLAN.ORG
The State of Texas Pollution Prevention Program

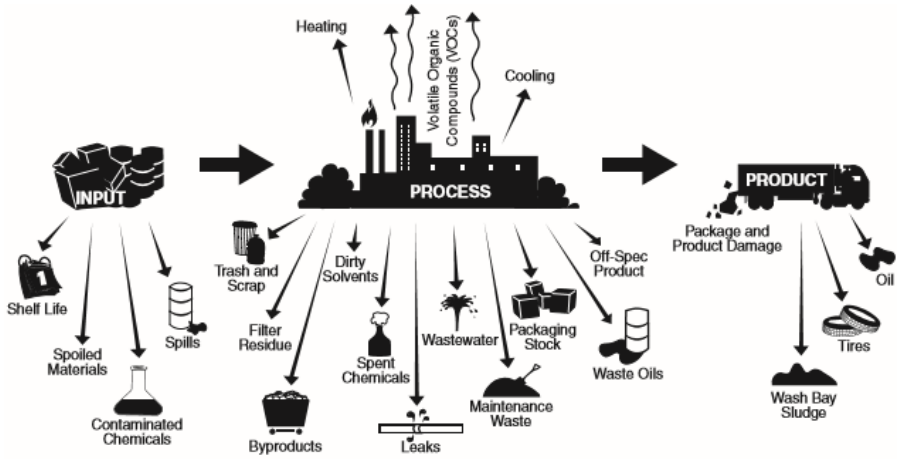
P2 Requirements:

- Prepare a 5-year plan
- Submit an Executive summary of the Plan to TCEQ
  - Submit a signed Certificate of Completeness and Correctness to TCEQ
  - Signed by the owner, corporate officer or someone who has the financial means to implement the plan.
- Submit an Annual Progress Report
- Renew the plan every 5 years
- Not required for SQG that do not report TRI form R

P2 Plan

Seven Step Approach

1. Identify your processes and wastes
2. Prioritize your wastes
3. Identify options
4. Prioritize projects and set goals
5. Train employees on P2 Awareness
6. Document the P2 Plan
7. Report annually



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P2 Time Frames

- 5 year plan required within 90 days after submitting your first TRI Form R or annual waste summary
- Annual summary due July 1 of each year
- 5-year renewal plan due by Jan 1 of the year the plan expires.
- Example of Due Dates for Reporting on a Pollution Prevention Plan
  - July 1, 2019: You reported on the TRI Form R for the first time.
  - Sept. 30, 2019: Your five-year P2 Plan must be implemented and 5 year P2 Plan submitted.
  - July 1, 2020: Your first Annual Progress Report is due to the TCEQ.
  - July 1, 2021, 2022, 2023, 2024: Annual Progress Reports are due each year on July 1.
  - Jan. 1, 2024: The five-year P2 Plan ends in 2024, so the renewal of the five-year P2 Plan is due Jan. 1, 2024.

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Air

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Air Emissions

- All sources that produce air emissions must be authorized
- Type of Air Authorizations
  - De Minimis
  - Permit-By-Rule
  - Standard Permits
  - New Source Review-Minor
  - Title V Operating Permit

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30 TAC 116.119 De Minimis Facilities and Sources

- Materials Limitations
  - Cleaning and Stripping solvents-50 gallons per year
  - Coatings (excluding plating materials) – 100 gallons per year
  - Water-based surfactants/detergents – 2,500 gallons/year
- Common De Minimis items
  - Modular Bead/Sand Blast Cabinets
  - Aerosol can recycling puncturing or crushing - 40 cans per day
  - Lubricants for equipment/facility maintenance - no propellants other than air and nitrogen
  - Manual application of cleaning or stripping solutions or coatings.
    - Manual application includes application using brushes, cloth, pads, sponges, droppers, tube dispensing equipment, or spray bottles and pump-up sprayers without aerosol propellants.
  - Application of aerosol-propelled organic liquids using hand-held devices for maintaining equipment and other facilities
    - Usage is no more than four aerosol cans or 64 ounces per day on a 12-month rolling average basis
  - Equipment used for compression molding and injection molding of thermo-plastics
    - Excluding chemical reaction processes
  - Bench scale laboratory equipment and laboratory equipment
    - Used exclusively for chemical and physical analyses (excluding pilot plants)

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Permit-By-Rule Requirements

- Air Emissions from all sources
  - Sulfur Dioxide (SO_2) – 25tpy
  - Volatile Organic Compounds (VOC) – 25tpy
  - Particulate Matter 10 micrometers (PM_{10}) – 25tpy
  - Nitrogen Dioxide (NO_2) – 250tpy
  - Carbon Monoxide (CO) – 250typ
  - Meet applicable EPA standards for
    - New Performance Standards 40CFR Part 60
    - Hazardous Air Pollutant Maximum Achievable Control Technology 40 CFR Part 61
    - National Emission Standards for Hazardous Air Pollutants 40 CFR Part 61
  - Distance limits
  - Visible emissions

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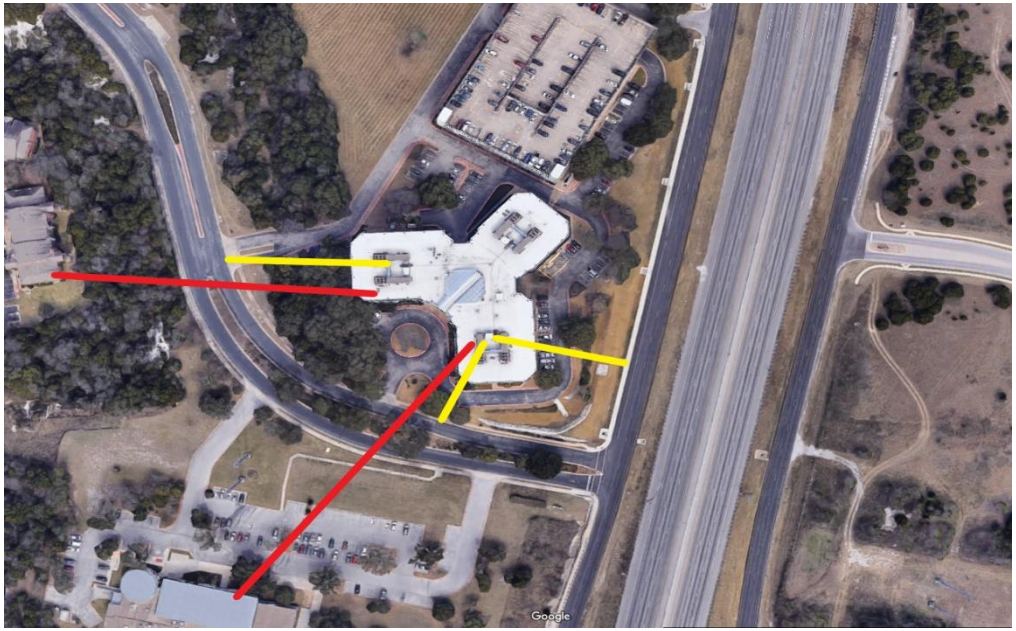
Common Permit-By-Rule
No Registrations

- Comfort Heating
- Industrial Gases
- Bench Scale Lab Equipment
- Soldering, Welding, Brazing
- Dipping tanks and containers
- Water and Wastewater Treatment
- Storage or holding of Dry Natural Gas
- Handheld and manually operating machines
- Portable and emergency engine and turbines
- Boilers, Heaters and other Combustion Devices
- Aqueous solutions for Electrolytic and Electroless Processes

Unique PBR

- Facility emission limitations
- Facility emission and distance limitations
- Routine maintenance, startup and shutdown, temporary maintenance



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Common Permits-by-Rule Require Authorizations

- Surface Coating Facility
  - Emissions limits calculated with no control equipment
  - All Coating and Stripping Operations including clean up solvent use
    - 25 tpy VOC
    - 10 tpy Exempt solvents
    - 30 lb/hr of VOC and 5lb/hr exempt solvents
    - 6lb/hr VOC averaged over any 5 hours period
    - 500lb per week per booth/enclosed area, or facility

  - Visual opacity 5% or less using EPA method 9 6-min average – requires certification
  - EPA has limits on Hazardous Air Pollutants – specific coating components
- Dry Abrasive Blasting
  - Indoor
    - Filter Requirements and no visible fugitive emissions
  - Outdoor
    - Usage Limits 1 ton/day, 15 ton/month and 150 tons/year
    - 500ft distance limitation
- Certain Degreasing Units
  - AKA Parts Cleaners
  - Specific rules depending on the type

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Can you prove your authorizations?

- Specify your authorizations
  - Create emission inventory
  - All chemicals used in production
  - Combustion units
    - Forklifts
    - Heaters
    - Ovens

- Records showing you are below emission limits
  - Maintain records – 24 months of emission
- Failure to obtain air authorizations
  - Make sure you know your authorizations
  - Have a copy and the applicable records

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Subpart XXXXXX Metal Fabricating and Finishing

- Not managed by TCEQ
- Applicable
  - Electrical and Electronics Equipment Finishing Operations
  - Fabricated Metal Products
  - Fabricated Plate Work (Boiler shops)
  - Fabricated Structural Metal Manufacturing
  - Heating Equipment, except Electric
  - Industrial Machinery and Equipment Finishing Operations
  - Iron and Steel Forging
  - Primary Metal Product Manufacturing; and
  - Valves and Pipe fitting
- SIC/NAICS Code Specific
- Addresses: Welding, Coating, Dry abrasive blasting, and Grinding and polishing

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Water

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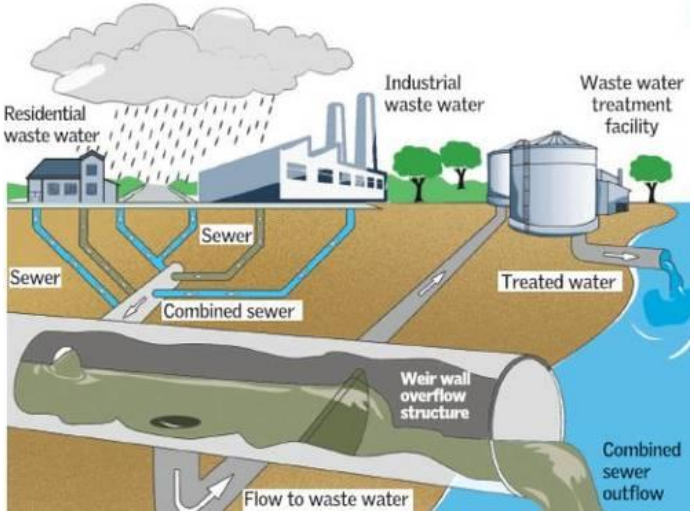
Stormwater

- Only rain down the drain
- Is your SIC correct?
  - This drives the Stormwater permit requirements
- Failure to have a SWPPP
- Failure to submit NOI or No Exposure
- Consider what sits outside



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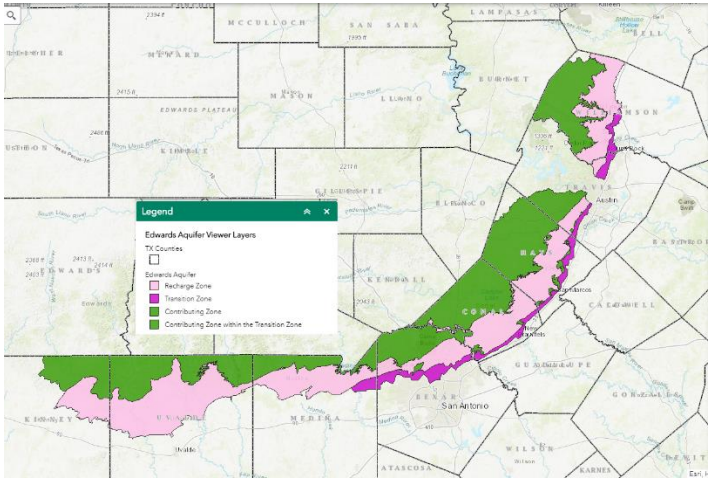
Edwards Aquifer

- Area of concern with special requirements
- Austin area falls within the Edwards Aquifer Recharge Zone
- Detail program requirements
- Wells, AST, hazardous waste, wastewater



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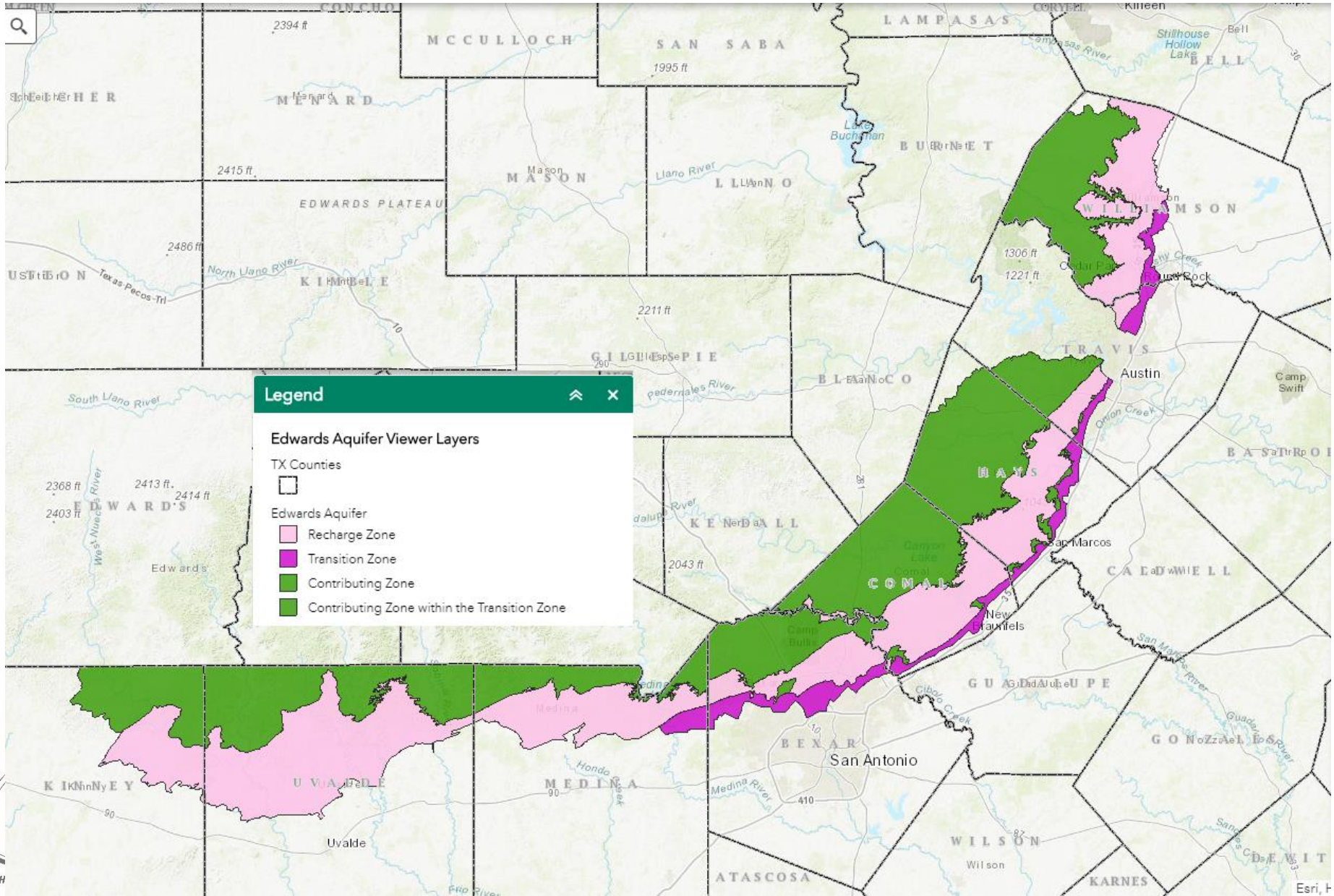
Edwards Aquifer



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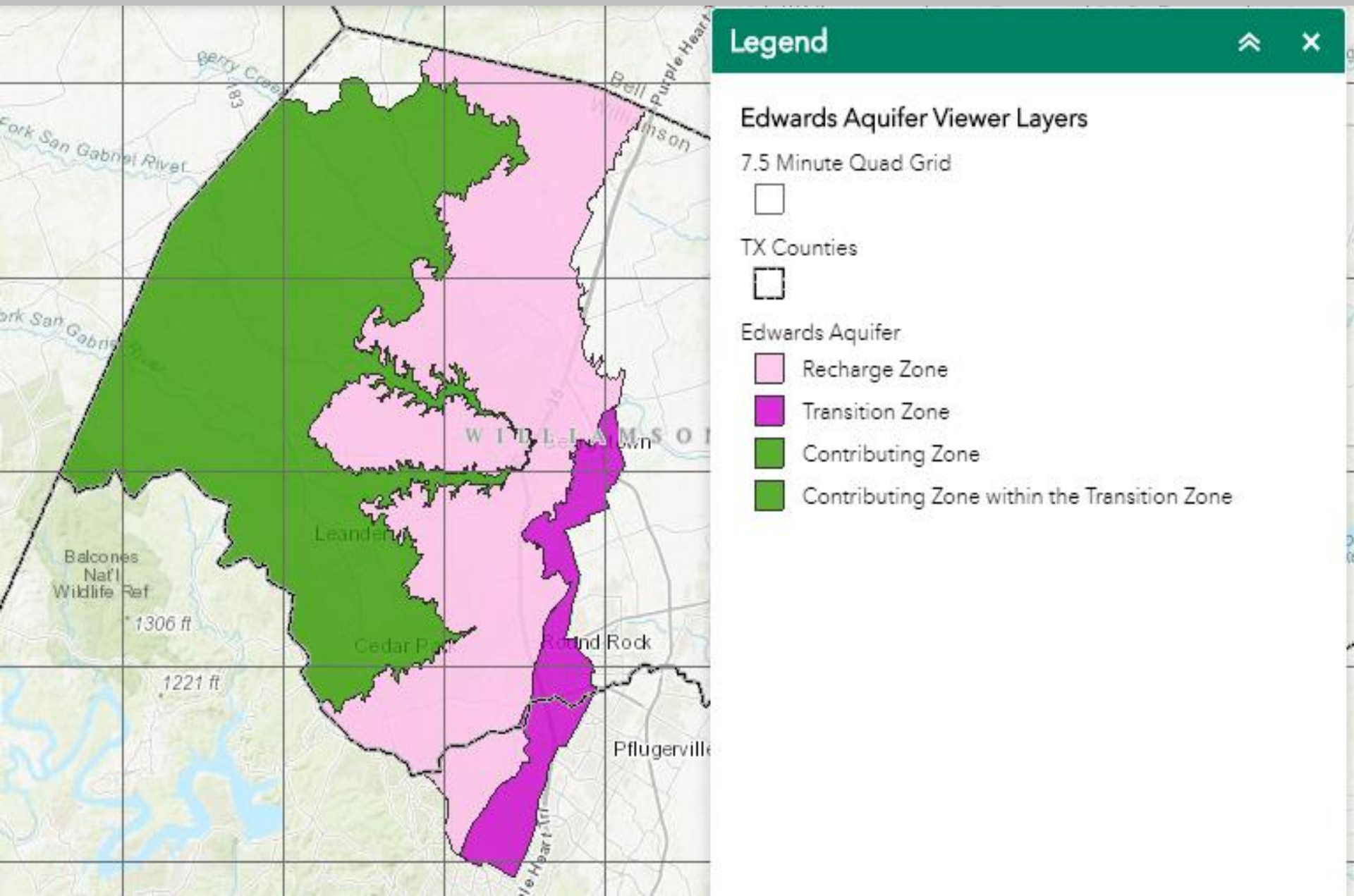

SPCCC

- Spill Prevention Control and Counter-Measures
- Stores, transfers, uses or consumes oil or oil products
  - Diesel, gas, lube, hydraulic, adjuvant, crop, vegetable oils
- >1,320 gallons of Aboveground *storage capacity*
  - Count container with in 55 gallon drums or larger storage
- >42,000 gallons in Underground Storage
- Could reasonably be expected to discharge to lakes, rivers or streams

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Above Ground / Underground Storage Tanks

- UST with hazardous or petroleum products
- AST with petroleum products
- Includes piping systems
- Common Exemptions/Exceptions
  - Wastewater/Stormwater tanks
  - Sumps
  - Secondary Containment
  - Hazardous Waste (covered under waste regulations)

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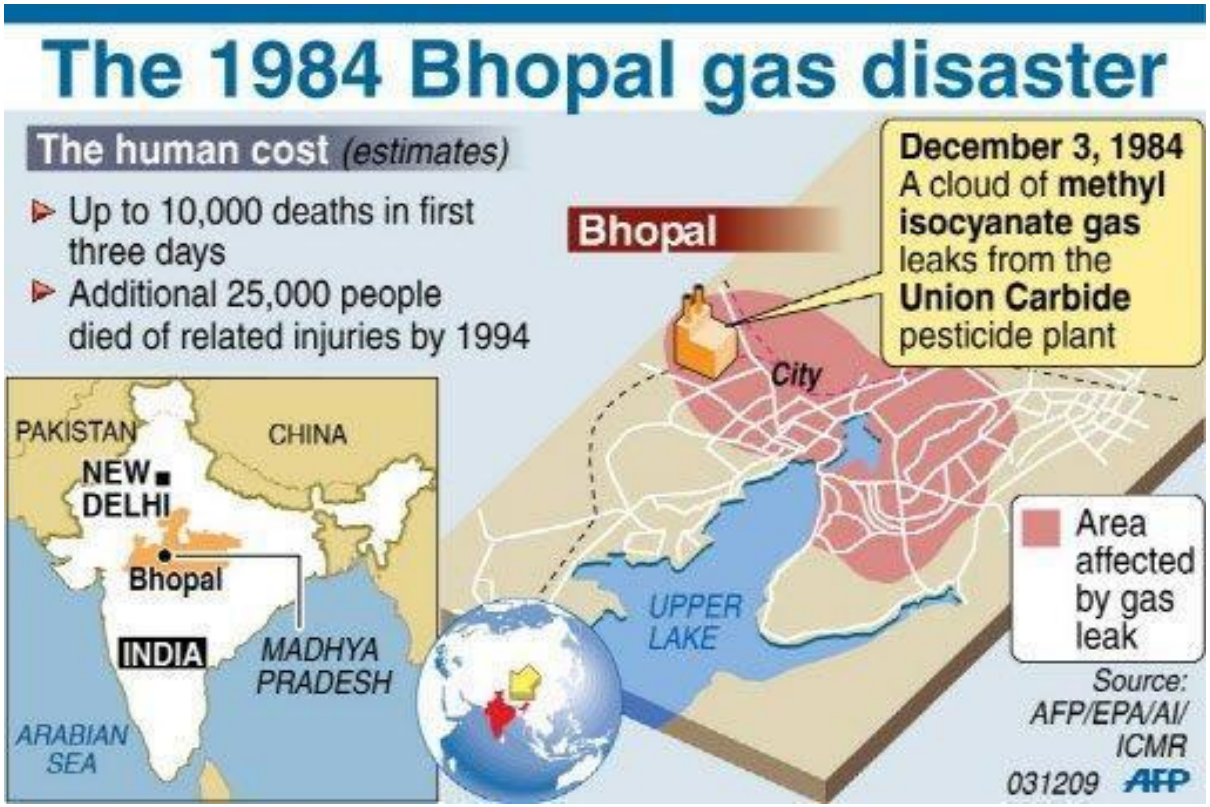
Other Requirements



Gas leak at Union Carbide raises new public concerns

INSTITUTE, W.Va. (AP) — The leak of toxic gas from Union Carbide's plant here that sickened 135 people has raised new questions about the safety of an industry whose image was shattered by a deadly leak in India, and has undermined claims that "it can't happen here."

The leak a week ago also has polarized public opinion in an area dubbed "Chemical Valley," a 25-mile stretch along the Kanawha River around Charleston that is dotted by at least 13 major chemical plants.

But by week's end, local officials out of the valley's 10,000 chemical jobs, far outweigh threats posed by the industry.

The leak released a cloud of the pesticide ingredient aldicarb oxime, an irritant, and methylene chloride, a suspected carcinogen. Six workers and 129 residents were hospitalized for eye, nose, throat and lung problems. A smaller leak at Carbide's South Charleston plant two days later caused a brief scare but no serious injuries.

An estimated 2,800 people died in December's methyl isocyanate leak at Union Carbide's plant at Bhopal, India.

made us more aware," said Freda Harkett, who lives about 75 yards from the Institute plant's eastern border.

In addition to providing jobs, chemicals used at Union Carbide's Institute and South Charleston plants are intermediates later turned into such household and farm goods as Glad plastic bags, Prestone antifreeze, Simonize wax, Eveready batteries and the insecticide Sevin.

Organizers of Saturday's parade said the Kanawha Valley would wither without its chemical industry.

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Tier II

- Component of the Emergency Planning and Community Right to Know Act
- Tracks the management of certain toxic chemicals that may pose a threat to human health and the environment.
  - Cancer or other chronic human health effects
  - Significant adverse acute human health effects
  - Significant adverse environmental effects
- Report annually how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment.
  - A "release" of a chemical means that it is emitted to the air or water, or placed in some type of land disposal.
- Applies to 650 chemicals

Tier II Applicability

- The hazardous chemical met or exceeded:
  - a) 10,000 pounds at any one time during the calendar year or
  - b) The Threshold Planning Quantity (TPQ) in pounds or 500 pounds, whichever amount is less
    - For any of the chemicals listed on the Extremely Hazardous Substances (EHS) List.
- Have one or more hazardous chemicals which has a physical or health hazard present
  - At any one time during calendar year
  - Reports due March 1 through STEERS

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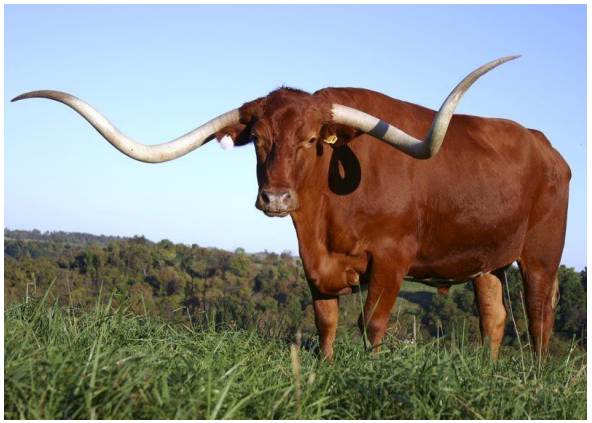
TRI-Toxic Release Inventory

- Component of the Emergency Planning and Community Right to Know Act.
  - Inform public and government of on-site releases, off-site transfers and other waste management activities.
  - Reports due July 1 through Tri-Me
- Applicability – Meet all three
  - 10 or more full time employees at any point in the year
  - Has a NAICS code on the EPCRA list
  - Manufacturer, processes or otherwise uses any EPCRA Section 313 chemical in quantities greater than established thresholds during the calendar year.
  - Report annually how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment.
- There are currently over 650 chemicals covered by the TRI Program.
  - Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical.

STEERS

- TCEQ's Online Services
- Registrations
  - Air New Source Review Registrations/Permit-by-Rule
- Permitting
  - Stormwater General Permits
  - Tier II Core Data
- Reporting
  - Annual Emissions Inventory Report
  - Air Emissions & Maintenance Events
  - Industrial & Hazardous Waste Registrations/Summary
  - Pollution Prevention Planning Reporting



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Last Note

- Know what you are doing
- Know what you generate, store, emit
- Know what the requirement are
- Recordkeeping is your friend!

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Questions/Comments

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