The Deer Park LEPC is a cooperative partnership between community, government, emergency response agencies, businesses, and industry striving to promote and maintain public health and safety by preparing for hazardous materials-related incidents as part of a comprehensive community program. Our goal is to protect citizens and the environment by providing hazard awareness education, training exercises, emergency response plans and an emergency notification system.

DEER PARK LOCAL EMERGENCY PLANNING COMMITTEE AGENDA

A meeting of the Deer Park Local Emergency Planning Committee is to be held at the Deer Park City Hall, 710 E. San Augustine, Deer Park, Texas on May 27, 2025, beginning at 11:00 a.m. to discuss the following business:

PLEDGE OF ALLEGIANCE

INTRODUCTIONS

COMPANY OVERVIEW

- OxyChem/DPVCM & DPPVC

PRESENTATION

- Novvi

PUBLIC COMMENTS

- On LEPC Mission/Function (3-minute time limit)

APPROVALS

- Consideration and approval of minutes from the April 22, 2025 meeting
- Consideration and approval of the monthly financial report
- Consideration of and action on a recommendation from the Executive Committee to approve the siren maintenance invoice in the amount of $3,255 from Joe Goddard Enterprises.

COMMITTEE REPORTS

- Executive Committee
- Communications
    - 2025 Company Overview Sign-Up
    - Review any Level 2 and Level 3 incidents
    - TCEQ Grant Update
- Community Awareness
    - 2025 Volunteer Opportunities
    - 2026 Calendar Update
- Emergency Response/Transportation
    - Drill

OPEN FOR NEW BUSINESS

NEXT MEETING

- Jun. 24, Aug. 26, Sept. 23, Oct. 28, and Nov. 25, 2025

ADJOURN

Angela Smith

Angela Smith, TRMC, CMC, Treasurer/Board Secretary

I, Angela Smith, City Secretary, do certify that a copy of the LEPC May 23, 2025 agenda was posted in the glass case outside City Hall convenient and accessible to the general public at all times and to the LEPC's website at http://deerparklepc.org/1845/Regular-Meeting-Agendas-and-Minutes .
Date time posted May 23, 2025 @ 8:30am Date removed May 27, 2025 @ 2:00pm

DEER PARK LEPC ...safety in knowledge

Council Chambers
710 E. San Augustine
Deer Park, TX 77536

DEER PARK LEPC MEETING MINUTES
MAY 27, 2025

CALL TO ORDER/PLEDGE OF ALLEGIANCE

Chairman James Stokes called the meeting to order at 11:00 a.m. and Kevin Machemehl led members in the Pledge of Allegiance to the United States and Texas flags.

INTRODUCTIONS

First-time visitors were welcomed at the Deer Park LEPC meeting, including Josh Crowley with Westlake Epoxy, Mallory Hicks with CTEH, Karah DeLong Summer Intern for City of Deer Park.

COMPANY OVERVIEW

OxyChem representatives Josh Munn and Jeff Koetitz presented an overview of the company's operations, safety initiatives, and community involvement. OxyChem is a leading U.S. marketer and global producer of basic chemicals and vinyl chloride monomer (VCM), recognized for its strong safety culture and commitment to sustainability. The company operates multiple facilities in the Houston area with approximately 950 personnel and robust emergency response capabilities, including a Central Emergency Operations Center located at the Deer Park PVC/KOH site. The Deer Park PVC/KOH Plant, in operation since 1949, currently produces 641 million pounds of PVC and 28,500 tons of potassium hydroxide annually. The Deer Park VCM Plant, acquired from Shell in 1987, produces 1.6 billion pounds of VCM per year. OxyChem's chemical products are essential to a wide range of industries, including water treatment, healthcare, construction, and electronics. Additionally, OxyChem actively supports community initiatives and sustainability efforts, such as providing over 1 billion gallons of clean water through its partnership with Water Mission and participating in various educational and support programs.

PRESENTATION

Novvi representative, Robert Wolff, provided a comprehensive overview of Boron Trifluoride (BF_3), a toxic, colorless gas primarily used as a co-catalyst in oligomerization and other organic synthesis reactions such as polymerization and alkylation. Since BF_3 is no longer manufactured in the U.S., it is imported in Multiple-Element Gas Containers (MEGCs). The presentation highlighted the significant hazards associated with BF_3, including its acute toxicity, corrosiveness, and tendency to react instantaneously with water to form harmful hydrates and acids like boric and fluoroboric acid. Because of its reactivity, BF_3 does not exist in ambient air in its pure form, making detection reliant on visual monitoring and hydrofluoric acid-specific sensors. Robert Wolff explained that Novvi has safety systems in place, including remotely operated valves and deluge monitors for BF_3 trailers, to mitigate potential leaks. Water sprays are effective for leak response but must be used with caution due to the corrosive byproducts. All byproducts must be contained and treated in compliance with environmental regulations.

PUBLIC COMMENTS ON LEPC MISSION/FUNCTION (3-MINUTE TIME LIMIT)

Richard Nguyen addressed the committee during public comment period.

MINUTES

Buddy Rice made a motion, and George Tullgren seconded to accept the minutes for April 22, 2025, as presented. The motion carried unanimously.

FINANCIAL REPORT

Buddy Rice made a motion, and Sara Costlow seconded to accept the financial report as presented. The motion carried unanimously.

Brian Lawson made a motion, and Cody Stephens seconded to approve the siren maintenance invoice for the amount of $3,255.00 from Joe Goddard Enterprises.

COMMITTEE REPORTS

Executive Committee: There are no updates to report at this time.

Communications Committee Chairman, Jamie Galloway: *Updated by Angela Smith*

Company Overviews: In the absences of Jaime Galloway, Ms. Smith reminded members to contact either Jaime Galloway or Monica Chavez to schedule your company overview to avoid being automatically assigned to a presentation month.

Level 2 and Level 3 Incidents: Ms. Smith reported that there were no Level 2 or Level 3 incidents during the period of April 22, 2025 to May 22, 2025. During this time, 14 fire training drill were conducted, 52 system tests were completed, 17 Level 1 courtesy notifications were issued, and 6 training reports were submitted.

TCEQ Grant Update: Ms. Smith was pleased to announce that the LEPC has officially received the Notice to Proceed for the TCEQ Grant.

Community Awareness Chairman, Christina Perez: *Updated by Angela Smith*

2025 Volunteer Opportunities: In the absences of Christina Perez, Ms. Smith provided the update on community volunteer events. In April, the LEPC participated in two successful events: San Jacinto Day Celebration and the Strides Fun Run. Special thanks to Novvi, Oxy and Texas Molecular for their active participation and support. Looking ahead, the next event is *Salute to Education* on August 6, 2025; and all volunteer positions for this event have been filled. Volunteer opportunities are still available for *National Night Out* and *HOTZONE* both scheduled for October.

2026 Calendar: Ms. Smith shared that progress for the 2026 LEPC calendar is moving forward. Monthly theme assignments have been completed, and photographs are currently being taken for the upcoming submission.

Emergency Response/Transportation Chairman, Robert Campise:

Drill: Robert Campise announced that a proposal has been received from a third-party vendor for a three-year drill plan. Further review and discussion will be conducted to assess the scope and implementation timeline of the proposed plan.

NEW BUSINESS

None to report

NEXT MEETING

The next meeting is scheduled for **June 24, 2025**. The remaining meeting dates are listed on the agenda.

The meeting adjourned at 11:34 a.m.

ATTEST:

Angela Smith, TRMC, CMC
LEPC Board Secretary/Treasurer

APPROVED:

James Stokes
Chairman

OxyChem®

OXYCHEM – HOUSTON OVERVIEW

DEER PARK LEPC MEETING – MAY 2025

Josh Munn – Deer Park VCM Plant Manager
Jeff Koetitz – Deer Park PVC/KOH Plant Manager

OxyChem®

INDUSTRY LEADERSHIP

- Top marketer in the U.S. for the principal basic chemicals products it manufactures, as well as for vinyl chloride monomer (VCM). We are a global leader in the production of polyvinyl chloride (PVC).
- Worker Safety: 17 facilities have achieved OSHA Voluntary Protection Program Star Status as some of the safest work sites
- Safety and Stewardship Focus: Participant in the American Chemistry Council's (ACC) Responsible Care® Health, Environment, Safety and Security initiative since its inception in 1988
- Industry Recognition: Four-time winner of the ACC's top safety performance award and recipient of ACC's Responsible Care® Company of the Year
- Member of ACC's Operation Clean Sweep Blue program
- Founding member of the Alliance to End Plastic Waste

OXY

OxyChem develops and sustainably manufactures indispensable chemicals used in a broad range of **life-enhancing** products, including:

- Drinking water treatment & other disinfection
- Pharmaceuticals
- Medical equipment
- Vinyl
- Aluminum
- Paper and pulp manufacturing
- Environmentally friendly refrigerants
- Ice and snow removal products
- Agricultural products

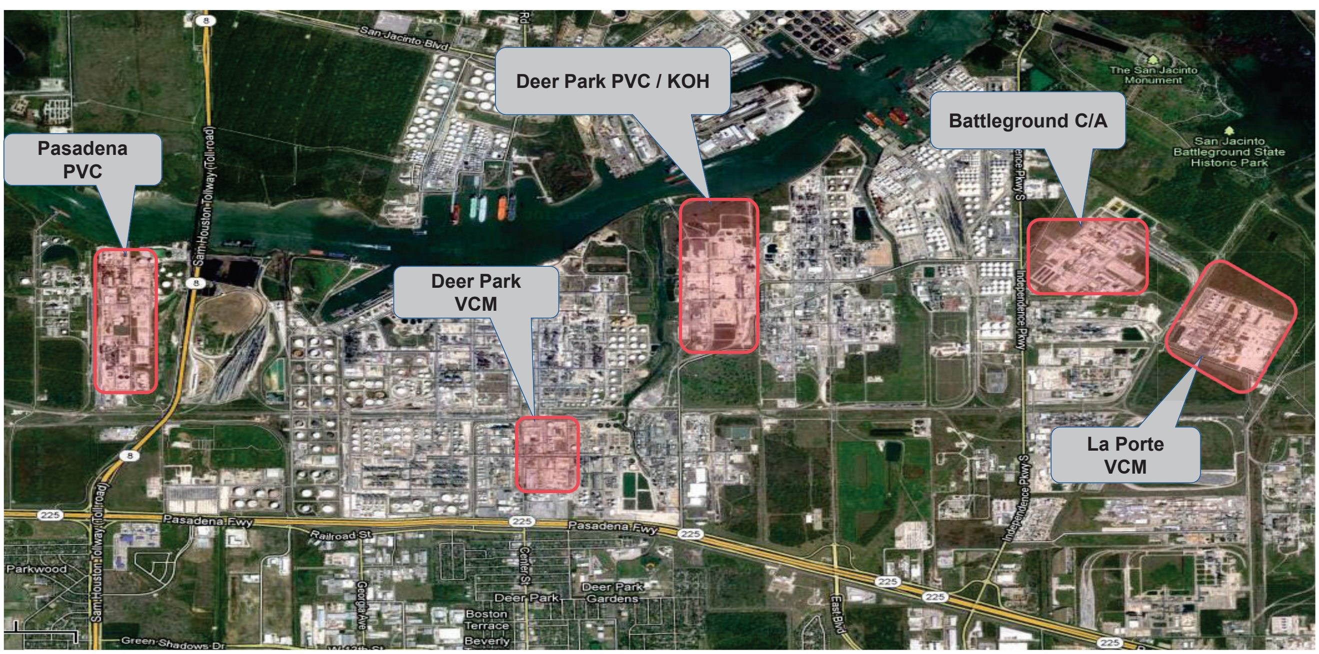
Social Responsibility

- **Partnering with Water Mission to solve the global water crisis:**
  - Provided 1 Billion gallons of safe drinking water since 2016, made hygienic with OxyChem ACL®
  - Clean drinking water to > one million people in vulnerable communities, including refugee camps and disaster relief
  - ACC sustainability leadership award
- **Engagement throughout our communities:**
  - American Corporate Partners Veterans Mentoring
  - Children's Medical Network
  - Food banks, STEM programs, first responder support, elementary and high school mentoring

OXYCHEM HOUSTON OPERATIONS

OxyChem®

OXYCHEM'S HOUSTON OPERATIONS

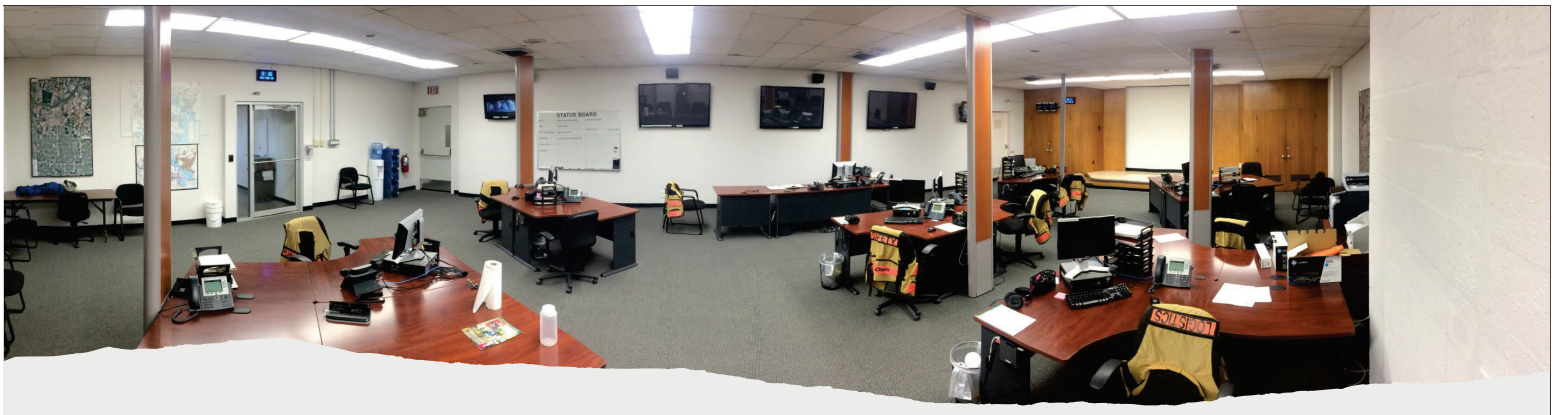


Staffing: ~ 950 Total (~ 600 Oxy Employees + ~ 350 Resident Contractors)

OxyChem®

EMERGENCY RESPONSE CAPABILITIES

- 135 HEAT members across the 5 Plants, shift staffing at each location
- 4 Emergency Services Technicians
- Response equipment and vehicles strategically located at sites
- HEAT Members trained for:
  - Exterior and Interior structural fires
  - HazMat response
  - Basic First Aid/CPR/AED
  - Confined Space and High Angle Rescue
- Central Emergency Operations Center
- Houston Strike Team
- Houston Plant Special Situations Team
- Corporate Special Situations Team



CENTRAL EMERGENCY OPERATIONS CENTER

- Located at the Deer Park PVC/KOH site on Tidal Road
- Staffed by Managers, Superintendents and other support functions

DEER PARK PVC/KOH PLANT

Plant History

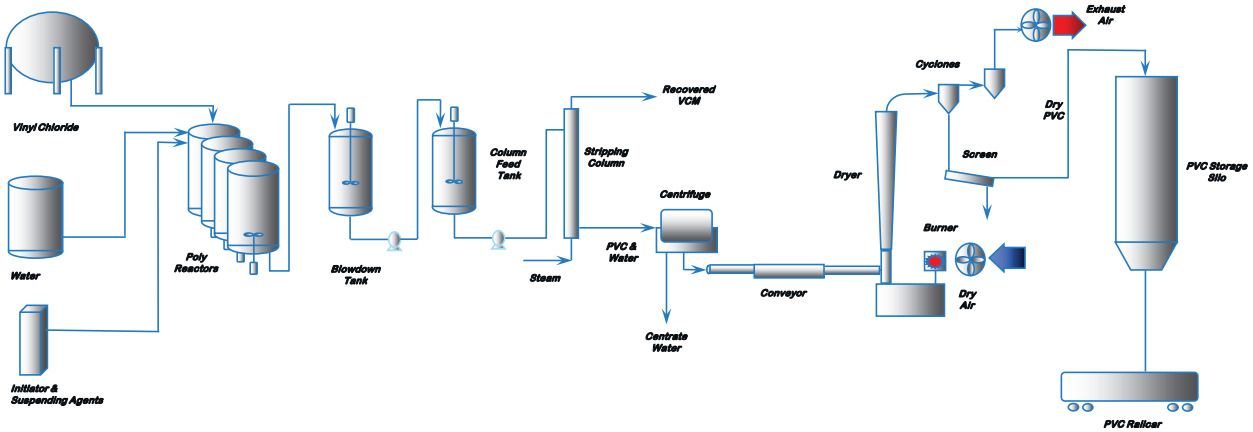
- 1949 Operations began as Diamond Shamrock Chlor-Alkali unit.
- 1957 No KOH plant → started up as Anhydrous NaOH.
- 1974 Diamond Shamrock built PVC site, 6 reactor plant @ 400 MMlbs/yr capacity.
- 1996 PVC expansion added 2 additional reactors.
- 2001 Diaphragm Chlor-Alkali unit and Cogen idled.
- 2007 Flake NaOH unit converted and restarted as Anhydrous KOH unit
- 2007 OxyChem acquires full ownership of site

Current Capacity

- 641 Million lb/yr Polyvinyl Chloride (PVC)
- 28,500 Tons/yr Potassium Hydroxide (KOH)

DPPVC SUMMARY

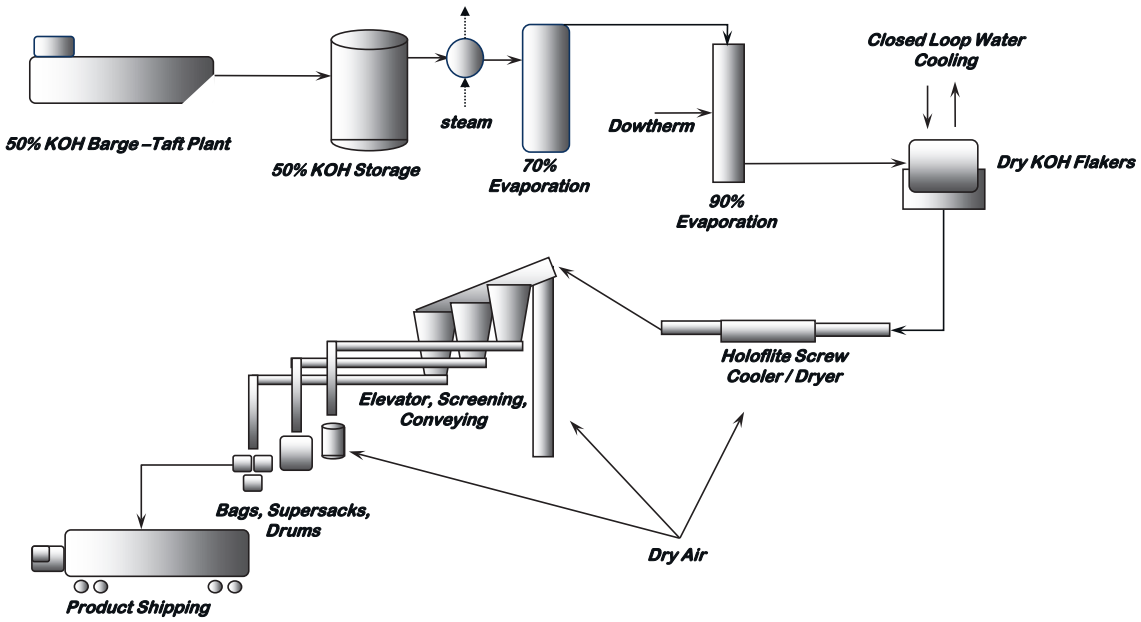
OVERALL PRODUCTION PROCESS



Reaction | Stripping | Drying

Batch | Continuous

OVERALL PRODUCTION PROCESS



DEER PARK VCM PLANT

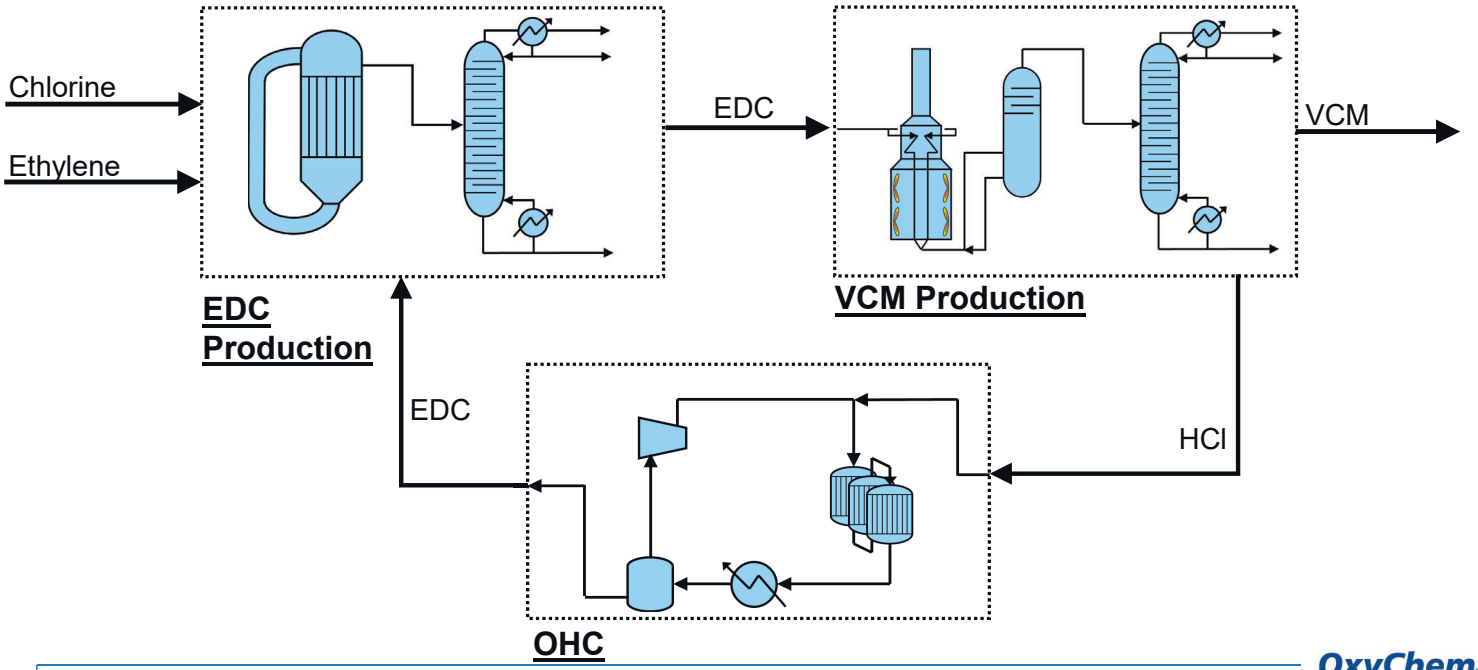
Plant History

- 1971 Plant built and commissioned by Shell. Original plant had two cracking furnaces.
- 1977 Two vent incinerators and additional VCM storage spheres erected.
- 1987 OxyChem acquired plant from Shell.
- 1988 Fourth furnace built and commissioned.
- 1995 & 2002 Plant debottlenecked twice.

Current Capacity

- 1.6 Billion lb/yr vinyl chloride monomer (VCM)
- VCM product is used to supply Houston area PVC plants.

OVERALL PRODUCTION PROCESS



OXYCHEM PVC IN EVERYDAY LIFE

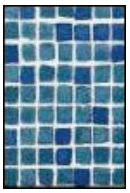

Decking/Doors/Exteriors


Siding


Pipe Fittings


Windows


Medical Tubing


Pool Liners


Flooring


Pipes


Wall Coverings


Fencing


Wire & Cables


Blood Bags


PVC Duct


Roofing Membranes


Solar Energy Cells on PVC Roofing Membrane


Business Machines


IV Bags

OXYCHEM CHLORINE IN EVERYDAY LIFE


Adhesives


Water Treatment

Bleach


Electronics


Medicines


Teflon

Paint


Refrigeration


Pool Chemicals


Home Insulation


Foam

OXYCHEM CAUSTIC IN EVERYDAY LIFE


De-Icer, Aluminum

Batteries


Textiles

Pulp & Paper


Aluminum


Fertilizers

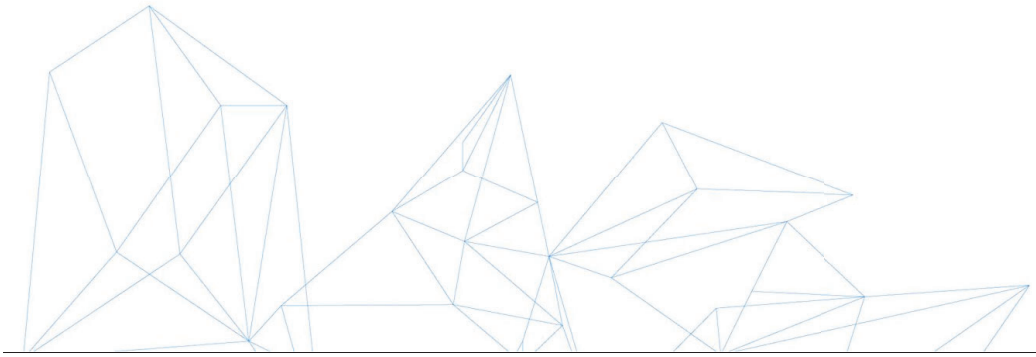
Soap

Soaps / Detergents


Water Treatment / pH Control


Mining

QUESTIONS??



OxyChem®

Boron Trifluoride (BF3)

Uses, Characteristics, Hazards, Response

Boron Trifluoride (BF3): Uses

- Boron Trifluoride is widely used as a catalyst for organic synthesis reactions such as:
  - Polymerization
  - Alkylation
  - Isomerization
  - Synthesis
  - Many other uses
- At Novvi, used as a co-catalyst in an Oligomerization process (where monomers combine to form larger, macromolecular structures called oligomers).

Boron Trifluoride (BF3): Uses

- BF3 is no longer manufactured in the US
- ALL BF3 is imported into the US in (ISO Module) Multiple-Element Gas Containers
- MEGC involves mounting of pressure vessels (tubes) in an ISO type shipping container frame.
- MEGCs are built of two standard lengths of 20ft and 40ft. The number of tubes typically ranges from 5 to 12 and length can vary anywhere between 18ft 6in to 36ft.
- Both DOT and UN tubes can be used to construct MEGC.

Boron Trifluoride (BF3): Hazards

Boron Trifluoride

- is a pungent, colorless, and inorganic gas
- As a toxic gas, Boron Trifluoride is fatal if inhaled and causes severe skin burns and eye damage upon exposure.
- Additionally, as it is typically a gas under pressure, it may explode if heated and may displace oxygen and cause rapid suffocation under.
- Boron Trifluoride may also cause damage to organs through prolonged or repeated exposure. One should refer to See the Safety Data Sheet (SDS) for additional information and any protective information.
- It is not considered a carcinogen by OSHA, NTP or IARC.

Boron Trifluoride (BF3): Hazards

GHS:

- NFPA 704

DIAMOND	HAZARD	VALUE	DESCRIPTION
	Health	4	Can be Fatal
	Flammability	0	Will not burn under typical fire conditions
	Instability	1	Normally stable, but can become unstable at elevated temperatures and pressures
	Special		

- IMMEDIATE PRECAUTIONARY MEASURE: Isolate spill or leak area for at least 100 meters (330 feet) in all directions

Boron Trifluoride (BF3): Hazards

- Boron Trifluoride will **INSTANTANEOUSLY REACT** with water to produce several hydrates, depending on the amount of water present, **which are corrosive**.
- Classification of the substance or mixture
  - Gases under pressure, Compressed gas
  - Acute toxicity, Category 2, Inhalation
  - Skin corrosion, Category 1A
  - Serious eye damage, Category 1
  - Specific target organ toxicity - single exposure, Category 3, respiratory tract irritation
  - Specific target organ toxicity - repeated exposure, Category 2, Kidney
  - Simple Asphyxiant

Boron Trifluoride (BF3): BF3 reaction with water

Initial Hydrate Formation:

BF3, being hygroscopic, readily forms a hydrates with water, initially producing a dihydrate,

BF3-2H2O.

Hydrolysis and Acid Formation:

This initial hydrate undergoes hydrolysis, meaning it reacts further with water. This process leads to the formation of boric acid (B(OH)3) and fluoroboric acid (HBF4).

Continued Reaction:

Fluoroboric acid can further hydrolyze to release hydrofluoric acid (HF) and fluoride ions, **but the primary products are boric acid and fluoroboric acid.**

There is no evidence that HF or free fluoride ion will be formed, if free boric acid is present to act as a fluoride scavenger. As the reactions indicate, free boric acid will always be present in BF3 – water solutions.

Boron Trifluoride (BF3): LEAK DETECTION

Leak Detection

- Under normal atmospheric conditions, Boron Trifluoride does not exist as such due to the instantaneous reaction of BF3 with atmospheric.
- Therefore, no detectors have been developed specifically for BF3. The hydrate of BF3 formed is a dense, white cloud visible at a level less than 1 ppm.
- Visual observation via closed circuit television is often used to monitor BF3 processing areas for leaks.
- HF specific point source monitors set at less than 10 ppm detection limits have been employed to detect the intermediate hydrolysis product resulting from a leak. This method cannot be used to quantify the amount or concentration of BF3 only to indicate the existence of a leak.

Boron Trifluoride (BF3): RELEASE

Control of Releases of BF3 to the Atmosphere:

- It is well known that releases of BF3 to the atmosphere create a dense, white cloud.
- This dense white cloud is comprised of aerosol sized droplets of BF3 hydrates formed by the very rapid reaction of BF3 with water vapor in moist air, or even air with very low humidity.
- It is estimated the rate of reaction between BF3, and water is in the order of microseconds.

Boron Trifluoride (BF3): RELEASE

Control of Releases of BF3 to the Atmosphere:

- Although BF3 is heavier than air, the thermal effect of the exothermic reaction between BF3 and water vapor causes the cloud to initially become buoyant.
- Under ambient conditions, the aerosol sized BF3 hydrate droplets may coalesce and eventually precipitate as droplets.
- Because of the very rapid reaction rate between BF3 and water, **water sprays are very effective in mitigating the cloud**.
- Water sprays should be directed as close to the source of the leak as possible.
- Because of the acidic nature of BF3 hydrates and their hydrolysis products, direct contact with the leak source should be avoided as corrosion and enlargement of the leak site may result.
- However, if large quantities of water are available, such as from a fire hose with a coarse fog nozzle, the coarse spray can be directed at the source to serve as both a diluent and coolant.

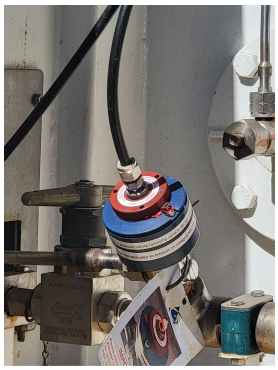
Boron Trifluoride (BF3): RELEASE

Control of Releases of BF3 to the Atmosphere:

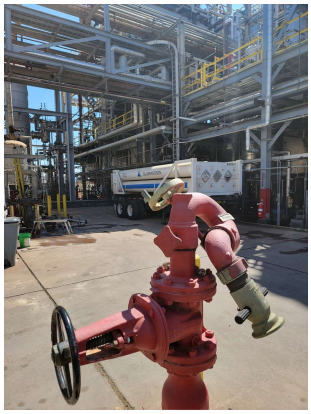
As a reminder,

all the possible species present – BF3 hydrate(s), ionized BF3 hydrate(s), and fluoroboric acid – are strong acids and **must be directed to a containment or treatment facility to be ultimately disposed of in accordance with applicable environmental regulations.**

Boron Trifluoride (BF3): Mitigation



Remotely Operated Valve
Normally CLOSED, requires
N2 or air pressure to open



At Novvi, two monitors that can deluge BF3 trailer

Boron Trifluoride (BF3): Mitigation

QUESTIONS

DEER PARK INDUSTRY ATTENDANCE
2025

FULL MEMBER	J	F	M	A	M	J	A	S	O	N
Clean Harbors										
Delta Companies Group										
Dow Deer Park Operations	√		√	√	√					
Evonik		√		√	√					
GEO Specialty Chemicals		√	√	√	√					
Intercontinental Terminals	√			√						
Kinder Morgan	√	√	√	√	√					
Linde, Inc.										
Lubrizol	√	√	√	√	√					
Novvi	√	√	√	√	√					
Oxy Vinyls/OxyChem	√	√	√	√	√					
PEMEX DP Refinery	√	√	√	√						
Schwan's	√	√		√	√					
Shell DP Chemicals	√	√	√	√						
TM Deer Park Services LP	√	√	√	√	√					
Valvoline	√		√							
Vopak Exolum Houston	√	√	√							
Vopak Terminals	√	√	√		√					
Westlake Epoxy	√	√		√	√					
√ Present - Absent										
ASSOCIATE MEMBER	**J**	**F**	**M**	**A**	**M**	**J**	**A**	**S**	**O**	**N**
Genesis Pipeline										
Houston Ammonia										
Industrial Rescue										
M&M Protection										
Nouryon	√	√	√	√	√					
Resolute										
Shell Pipeline										
√ Present - Absent										

FULL MEMBER	#
Clean Harbors	
Delta Companies Group	
Dow Deer Park Operations	4
Evonik	4
GEO Specialty Chemicals	6
Intercontinental Terminals	2
Kinder Morgan	6
Linde, Inc.	0
Lubrizol	5
Novvi	5
Oxy Vinyls/OxyChem	11
PEMEX DP Refinery	6
Schwan's	11
Shell DP Chemicals	7
TM Deer Park Services LP	12
Valvoline	2
Vopak Exolum Houston	3
Vopak Terminals	5
Westlake Epoxy	6
Total	95
ASSOCIATE MEMBER	
Genesis Pipeline	
Houston Ammonia	
Industrial Rescue	
M&M Protection	
Nouryon	10
Resolute Envir. & Resp. Svcs	
Shell Pipeline	
Total	10