TPC GROUP PLANT FIRE – PORT NECHES

Lone Star Legal Aid
December 7, 2019
Unified Command for Response Effort

Photo credits: U.S. EPA
Important Information

Website:
https://portnechesresponse.com/

Community Assistance Helpline / Claims:
(866)-601-5880
TEXAS PETROLEUM CHEMICAL (TPC) GROUP PORT NECHES OPERATIONS

- High-priority violator by U.S. EPA for over 2 years
- Out of compliance with Clean Air Act since August 2017
- Since 2016, emitted 9,000 lbs of 1,3 butadiene beyond permit

**Enforcement and Compliance Summary**

<table>
<thead>
<tr>
<th>Statute</th>
<th>Insp (5 Years)</th>
<th>Date of Last Inspection</th>
<th>Compliance Status</th>
<th>Qtrs with NC (of 12)</th>
<th>Qtrs with Significant Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAA</td>
<td>1</td>
<td>08/08/2017</td>
<td>High Priority Violation</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Photo: U.S. EPA ECHO
## Penalties against TPC Port Neches Plant

<table>
<thead>
<tr>
<th>Year</th>
<th>EPA</th>
<th>State (TCEQ) Fines</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td>$41,191</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>$13,688, $55,753, $7,500</td>
</tr>
</tbody>
</table>
| 2017 | $72,187 federal penalty  
$275,000 fence line monitoring for 1,3 butadiene  
$95,000 compliance action cost (install flare monitoring equipment) | $7,500 |
| 2016 | $14,900 compliance action cost  
$30,750 federal penalty (chlorine release) | $22,063, $7,125 |
| 2015 |                                                                      | $15,600            |
| 2014 |                                                                      | $45,75, $5,775     |
| 2013 |                                                                      | $13,688            |
| 2011 |                                                                      | $6,775, $6,800     |
| 2009 |                                                                      | $10,200, $20,206   |
| 2008 |                                                                      | $3,625, $8,000, $7,300, $3,600 |
Air Monitoring

- 1,3 Butadiene
- Benzene
- Total Volatile Organic Compounds (VOCs)
- Carbon Monoxide
- Oxygen
- Hydrogen Sulfide
- Particulate Matter

Photo credits: U.S. EPA
NEDERLAND HS
STATIONARY MONITOR

- Closest stationary monitor with timely information on relevant pollutants
- 4-miles West of the TPC Group Port Neches plant
- Variable seasonal winds have steered emission plumes away from the monitor
- Average butadiene readings for December are 40 times higher (0.0077 ppm) than yearly average (0.00019 ppm)
- Maximum hourly average (0.16443 ppm) is 22 times higher than the average maximum hourly median for rest of year (0.01153)
AIR MONITORING

Photo credit: U.S. EPA
EPA AIR MONITORING PLANE
A.S.P.E.C.T.

Photo credit: U.S. EPA
Photo credit: U.S. EPA
EPA HANDHELD MONITORING IN WEST PORT ARTHUR

Photo credit: U.S. EPA
EPA HANDHELD MONITORING IN WEST PORT ARTHUR

Photo credit: U.S. EPA
EPA HANDHELD MONITORING IN WEST PORT ARTHUR

Photo credit: U.S. EPA
CHEMICAL OF CONCERN

Action Level
0.5 ppm

1,3 Butadiene or Butadiene

- Colorless gas used to make rubber, plastics & resins
- Causes cancer
- Short-term effects:
  - Irritation of eyes, nose, throat and lungs (Low Exposure)
  - High Exposures
  - Neurological effects
  - Blurred vision
  - Headache
  - Dizziness

<table>
<thead>
<tr>
<th>Duration</th>
<th>TCEQ AMCV</th>
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<tbody>
<tr>
<td>Short-Term</td>
<td>1.7 ppm</td>
</tr>
<tr>
<td>24-hour</td>
<td>0.43 ppm</td>
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<tr>
<td>Long-Term</td>
<td>0.009 ppm</td>
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</table>

<table>
<thead>
<tr>
<th>Duration</th>
<th>CalEPA REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>1.474 ppm</td>
</tr>
<tr>
<td>8-hour</td>
<td>0.02 ppm</td>
</tr>
<tr>
<td>Chronic</td>
<td>0.045 ppm</td>
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</tbody>
</table>
PARTICULATE MATTER

Action Level

0.137 ppm

Photo: U.S. EPA
TIMELINE

Photo credit: US EPA
11/27 - Wednesday

- Explosion occurred at facility
- 3 workers at plant injured during explosion
- Second explosion occurred at 2pm
- 11 schools in a 4-mile radius
- 50,000 people evacuated
- At least 3 tanks were impacted
- Water contamination begins at 201 Canal Outfall due to overflows

Photo credit: REUTERS/Erwin Seba/File Photo
11/28 - Thursday

- Four-mile mandatory evacuation order still impacting 50,000 people
- Unified Command had to relocate Command Post to Beaumont on 11/27
- Foaming product being used for firefighting operations
- ASPECT did not fly
- Wastewater Treatment Plant is without power
- Additional overflows at 201 Canal Outfall due to firefighting water

Photo Credit: U.S. EPA
11/29 - Friday

- 9 fires going
- 3 actively fed
- Mandatory evacuation order rescinded at 10am
- High Particulate Matter (300 ug/m3) readings west of site (above 0.137 ppm community action levels)
- No ASPECT flight
- Car driver cut water supply to firefighters
- Containment booms installed
11/30 - Saturday

- All fires in Block 5 were extinguished
- 3 active fires in Block 10 area
- 13 tanks impacted, 3 tanks compromised
- South 45B tower collapsed
- 10 detections of butadiene of 1.0 ppm (above 0.5 ppm action levels)

Photo credit: U.S. EPA
12/1 - Sunday

- Fires still burning
- Butadiene readings of 3.0 ppm at Hwy 366 & Spur 136 (above action level of 0.5 ppm)
- 23 detections of butadiene in work area – 3.22 ppm
- Isobutylene detected 1 ppm at Orchard Rd & Hwy 366 by ASPECT
- Port Neches – Grove ISD Schools open
- Water sampling conducted

Photo credit: U.S. EPA
12/2 - Monday

- One fire still burning
- Piece of equipment fell (not a tower)
- Particulate Matter readings were 0.338 ppm (above action level of 0.137 ppm)
- 27 detections of butadiene (1.8 ppm in work area)
- 7 detections of butadiene in community at Hwy 366 & Spur 136 of 0.79 ppm (above action level of 0.5 ppm)
- Low cloud ceiling kept ASPECT from flying
- Car driver cut water supply to firefighters
- Port Neches –Grove ISD Schools open

Photo credit: U.S. EPA
12/3 - Tuesday

- One fire still burning
- Piece of equipment fell (not a tower)
- 28 readings of butadiene in the community (1.1 ppm – 1.35 ppm) (above action levels of 0.5 ppm)
- Butadiene detections raised concerns about schools on fence line
- 59 readings of butadiene in work area (5.1 ppm)
- Schools reopened in Port Neches-Grove ISD
- Additional 201 Outfall Overflows (water contamination)

Photo credit: U.S. EPA
12/4 - Wednesday

- One fire still burning
- Piece of equipment fell (not a tower)
- Detections of butadiene in the community (highest reading was 12.09 pm) (above action levels of 0.5 ppm). Wind was blowing emissions to south and south-east of facility.
- Shelter-in-place ordered for City of Port Neches
- Voluntary evacuation order for City of Port Neches
- Additional 201 Outfall Overflows (water contamination)
12/5 - Thursday

- Discovered leaking pressure relief valve on an impacted Tank 25.
- Reduced concentrations of butadiene in the community to 0.168 ppm (highest concentration 0.230 ppm) (still above action levels of 0.5 ppm)
- Work area levels maxed out at 17 ppm.
- Port Neches – Groves ISD schools closed
- ASPECT conducted fly over
- Additional 201 Outfall Overflows (water contamination)
12/6 - Friday

- 2 small fires are still blazing onsite
- Residual fires are likely to continue, but can be contained
- Smoke may still be visible at the site
- Fire has impacted 12 tanks on site
- TPC is making plans to transfer all remaining materials from the site
- Still likely to have elevated air measurements on site and in the community
- Port Neches – Groves ISD schools closed
IMPACTS
EVACUATION

Mark Felix for The New York Times
Evacuation Claim Form Port Neches Response

November 27, 2019

As a result of the Port Neches Response on November 27, 2019 my household was included in a mandatory evacuation zone order issued by Judge Jeff R. Branick of Jefferson County.

Claims:
- (1) evacuation related and
- (2) property damage.

Online Evacuation Claim Form,
- https://form.jotform.com/93328046922156
- You live or work in the evacuation zone
- You do not already have a claim number from reporting by telephone

Community Assistance Helpline
(866-601-5880)
REPORTING DEBRIS ON YOUR PROPERTY

Community Assistance Helpline (866-601-5880)

- Debris located at over 46 homes
- Environmental response specialists with CTEH will come to your property
- Will assess homes and yards within approximately ½ mile of TPC Group Plant
- Chemical ash on property

Photo credit: Steve Tingler, Orange County Resident

Photo credit: Fred Heubach, Port Neches Resident
ASBESTOS ALERT

- Found 7 miles away from the plant
- Primarily NE of the facility
- Soil contamination concern
- Used in building and construction materials for insulation and as a fire retardant.
- Asbestos fibers may have been released into the air
- Exposure may increase risk of lung disease

Photo credit: U.S. EPA
SURFACE WATER CONTAMINATION
WATER CONTAMINATION TIMELINE

- On 11/27, firefighting water overtopped tank containment berm and discharged to 201 Canal
- 11/28 - Sheen seen in 201 Canal
- 11/29 - Booms put in place
- 11/30 to 12/1 - Sheen seen up to 2 miles away from Canal 201 outfall up to Port Neches/Atlantic Road
- 12/1 to 12/3 - Sheen observed 1.3 miles upstream from Neches River
- PFAs compounds present in firefighting foam (1,320 gallons est. released)
- 12/4 to Present – 201 Canal outfall overflow has continued

Photo credit: U.S. EPA
WATER SAMPLING RESULTS

Exceedances found in surface water at TPC-01 and TPC-02 of

- Methyl tert-butyl ether (MTBE)
- Benzene

No exceedances of PCLs for Neches River samples

Photo credit: U.S. EPA
WILDLIFE IMPACTS

- 11/30 - Fish Kill reported at Orchard St. Bridge (11 am)
- 12/1 - Fish Kill reported at Port Neches Atlantic Road Bridge (100-300 dead fish estimated; 54 fish carcasses collected)
- 12/2 - Dead Alligator and three dead birds recorded
- From 12/1 to 12/6, additional dead wildlife reported:
  - 30 fish
  - 24 crabs
  - 2000 shad carcasses

Photo credit: U.S. EPA, Water Sampling
RESOURCES
NEDERLAND RECOVERY CENTER

Where: First Baptist Church of Nederland, 1911 Nederland Ave, Nederland, TX 77627

When: Dec. 7, Saturday 9:00 a.m. - 1:00 p.m.

Caseworkers will work one-on-one with residents to help them with their specific disaster-caused emergency needs:
- create personal recovery plans,
- navigate paperwork
- locate assistance from the Red Cross and other agencies.

Trained Red Cross spiritual care and mental health workers will also be available.
Emotional support/ stress management services

FREE emotional support hotline staffed by licensed professional counselors

Provider: Samaritan Counseling Center of Southeast Texas.
Call: (409) 727-6400, ext. 250
Hours: 9:00 a.m. – 6:00 p.m.
After hours routed to Spindletop Crisis Hotline, (800) 937-8097

In-person follow-up sessions with counselors available, as needed.

Counseling calls and session discussions will be kept confidential.
MORE DETAILED MONITORING INFORMATION

- EPA South 4 Group Fire Website
- Story Map: https://response.epa.gov/site/site_profile.aspx?site_id=14566
- Air quality monitoring information
- Water sampling results
- TCEQ Website: https://www.tceq.texas.gov/response/tpc-incident
- Air quality monitoring information
- Unified command updates
TIME FOR ACTION
SHORT TERM ACTION ITEMS

Report
- Damages to TPC Claims Hotline

Assess
- Damages fully – Consult an attorney, if needed

Seek
- Mental health resources or claims assistance at recovery center

Attend
- TCEQ Commissioner Meeting on December 18th in Austin regarding TPC Explosion

Request
- Elected officials to host community forum regarding event
- Website that allows you to monitor and report pollution violations.
- Sign up to receive alerts and report polluters in your area.

http://www.neighborhoodwitness.org/
LOCAL ACTION ITEMS

Establish
- Pollution Control Services for Jefferson County

Conduct
- 360 Review – Gap Analysis of TPC Response

Implement
- Regional Air Toxics Plan

Purchase
- Mobile air monitors for Jefferson County

Create
- Community air monitoring network

Sign Up
- For alerts from Southeast Texas Alerting Network (STAN) and Blackboard Connect
HOW TO GET INFORMATION DURING A EMERGENCY RESPONSE

REGISTER FOR STAN
- http://thestan.com/register/
- Or call 1-844-578-7826
- Sign up for emergency notifications
  - via voice or text on cell phone
  - via email

BLACKBOARD CONNECT
- https://setrpc.bbcportal.com/
- Sign up and enter your contact information to receive important messages from your local jurisdiction.
STATE & NATIONAL ACTION ITEMS

Follow
- Chemical Safety Board Review Results

Increase
- Funding for TCEQ Investigators and Enforcement

Comment
- Enforcement action at TCEQ

Reinstate
- Chemical Disaster Rule
Join LSLA's EJ Team's mailing list.

Just send your email address by text message:

Text **EJUSTICE** to **22828** to get started.