



PA DEP Response to Bulk Chemicals, Inc



Tom Wolf, Governor

Patrick McDonnell, Secretary

Bulk Chemicals: Facility Details

- Bulk Chemicals Inc. (BCI) is a blending facility that receives various chemicals, mixes them together into proprietary blends and sends them out to customers.
 - Primarily for metal pretreatment
 - Industrial cleaners, conversion coatings, rust inhibitors

Bulk Chemicals: History with PA DEP

- Facility is a registered Large Quantity Generator of Hazardous and Residual Waste
- BCI also has a permit-by-rule for a hazardous waste neutralization system

Bulk Chemicals: History with PA DEP

- Facility had five (5) registered storage tanks
 - Nitric Acid (4500 gallons)
 - KOH (4000 gallons)
 - NaOH (5400 gallons)
 - HF (2500 gallons)
 - Phosphene (6150 gallons)

Bulk Chemicals

809 Mohrsville Road, Shoemakersville, PA



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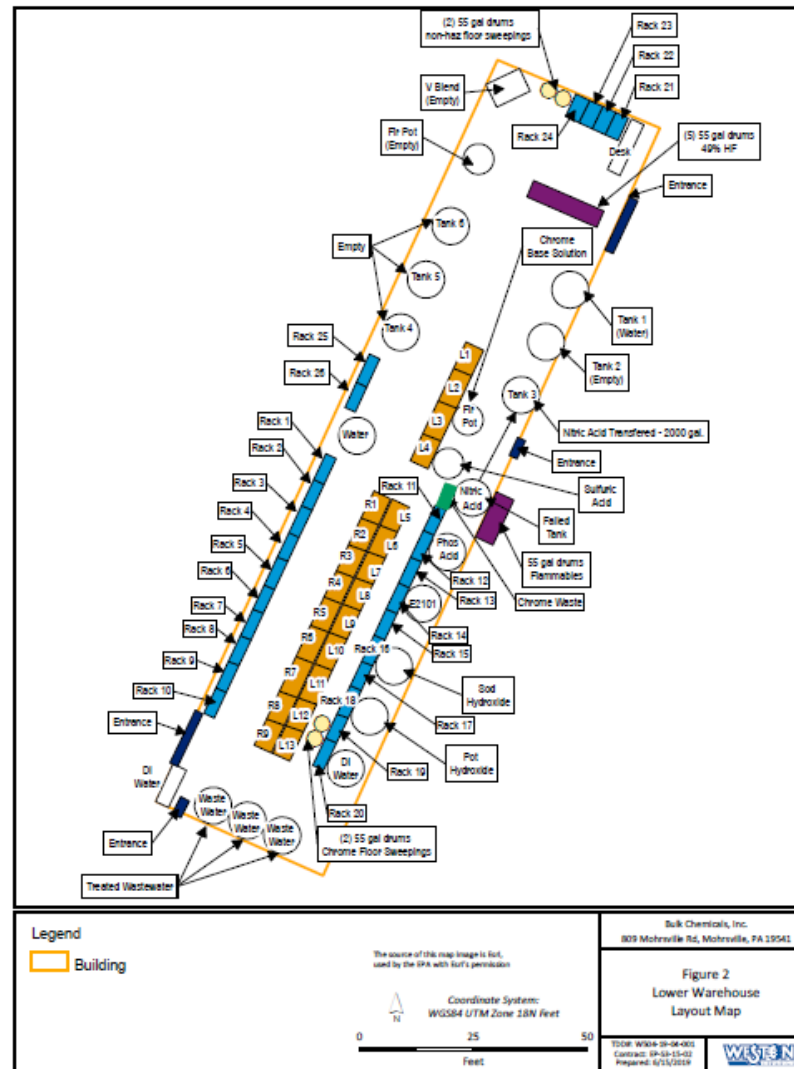
Bulk Chemicals: Prior to Incident

- 5/31/2019: BCI replaced a flange gasket on the nitric acid storage tank.
- 6/3/2019: BCI received 4000 gallons of nitric acid.
- 6/7/2019: 34 – 275 gallon totes were moved inside the facility for storage.

Bulk Chemicals: Day 1

- 6/9/2019: Nitric acid begins to leak from tank
 - Escapes containment, runs across facility floor, and through cracks in wall.
 - Local Fire Chief drives by and notices material on side of road.
 - Initiates response from Berks County and PA DEP.
 - Nearby residents evacuated.

Bulk Chemicals: Day 1



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Bulk Chemicals: Day 1



Bulk Chemicals: Day 1



2019-06-09 15:13:18.021 EDT

Exterior - Back Garage Door (c277c)

Bulk Chemicals: Day 1



2019-06-09 15:48:28.805 EDT

Exterior - Back Garage Door (c277c)

Bulk Chemicals: Day 1



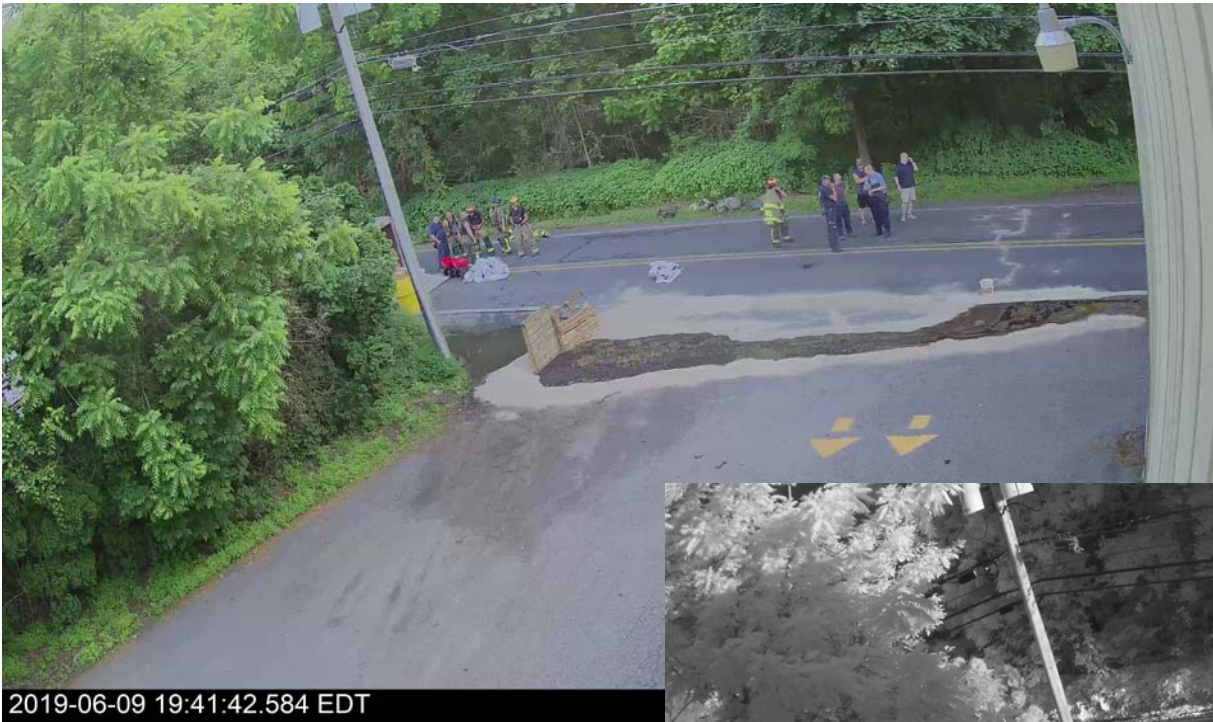
Bulk Chemicals: Day 1



Bulk Chemicals: Day 1



Bulk Chemicals: Day 1



2019-06-09 19:41:42.584 EDT



2019-06-09 21:00:31.834 EDT

Exterior - Entrance (c26B9)

Bulk Chemicals: Day 1

- HAZMAT Teams made entry
 - Transferred remaining nitric acid (2000 gallons) to nearby empty tank
- RP calls cleanup contractors
- Contractors arrive and begin cleanup operations.

Bulk Chemicals: Day 2

- Cleanup contractors remained on-scene cleaning up the interior and exterior of building.
- Weather affected cleanup process.
- Process was slow and contractors were overwhelmed.

Bulk Chemicals: Day 2



2019-06-10 09:50:44.760 EDT

Exterior - Entrance (c26B9)



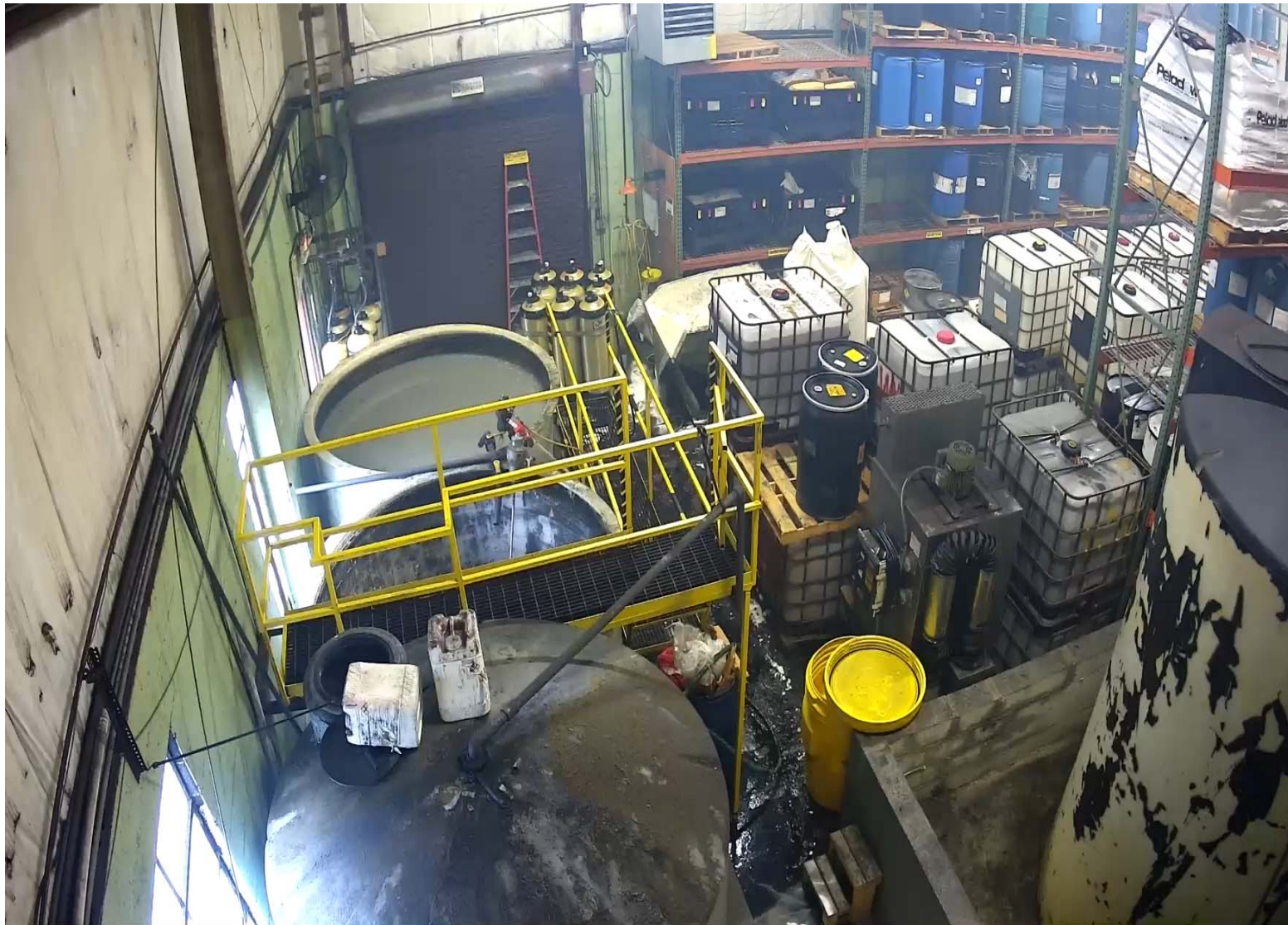
2019-06-10 10:43:46.317 EDT

Plant - Waste Water Area (99f26)

Bulk Chemicals: Day 2

- At 1043 fire breaks out at the facility.
- Local fire, Berks County, and DEP respond to scene.
- Nearby residents evacuated again.

Bulk Chemicals: Day 2



2019-06-10 10:42:58.513 EDT

Plant - Waste Water Area (99f26)

Bulk Chemicals: Day 2



Bulk Chemicals: Post Fire

- Contractors continued to perform cleanup on interior of building.
- Exterior cleanup was focused on containment of fire run-off and rain water.
- EPA Assistance Requested

Bulk Chemicals: EPA Assistance

- EPA assistance needed for:
 - Air monitoring
 - Assistance with cleanup contractors
 - Private well concerns
- EPA arrived on-scene in the evening on 6/10/2019 along with their START contractor.

Bulk Chemicals: 6/11/19 to 7/10/19

- Lewis Environmental arrived on-site on 6/11/19 and became the sole contractor.
- US EPA began to monitor the air at the facility and surrounding properties.
- Containers within the facility had compromised structural integrity, damaged by cleanup and fire.

Bulk Chemicals: 6/11/19 to 7/10/19

- “High Priority” containers were removed from the facility first.
- All totes were off loaded into new totes and decontaminated as they were brought out of the facility.
- Damaged containers were staged for disposal.

Bulk Chemicals: 6/11/19 to 7/10/19

- Nitric acid was removed from the open top tank.
- Absorbent/pot ash from floor was collected for disposal.
- All other containers (drums/buckets/bags) were evaluated and if needed, removed from facility.

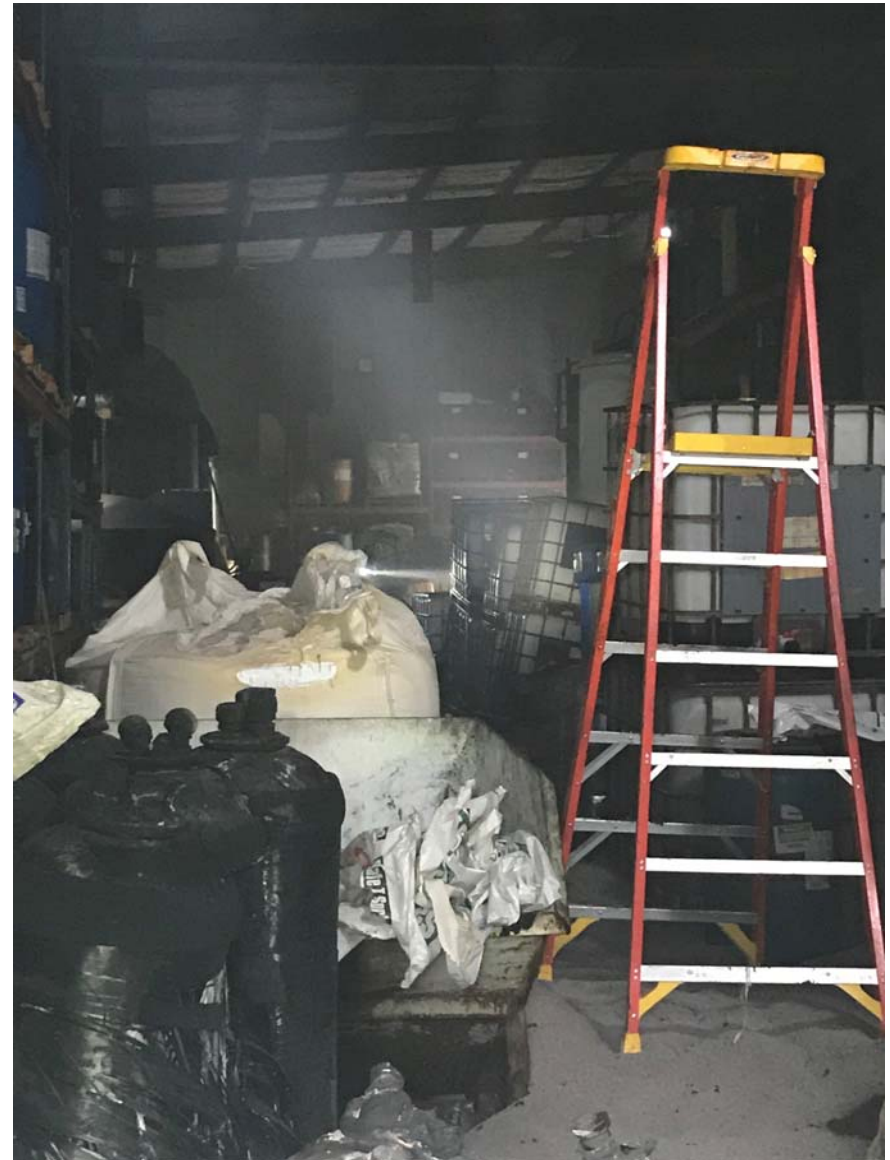
Bulk Chemicals: 6/11/19 to 7/10/19

- Air monitoring at the facility and adjacent properties continued.
 - Adjusted based on hazards expected during days work.
- US EPA and PA DEP provided updates to local community members.
- US EPA conducted well sampling.

Bulk Chemicals: 6/11/19 to 7/10/19



Bulk Chemicals: 6/11/19 to 7/10/19



Bulk Chemicals: 6/11/19 to 7/10/19



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Bulk Chemicals: 6/11/19 to 7/10/19



Bulk Chemicals: 6/11/19 to 7/10/19

- 7/10/19
 - US EPA demobilizes from the site.
 - Public road in front of facility is reopened to traffic.
 - DEP Emergency Response remains on-site until 7/12/19.

Bulk Chemicals: DEP Follow-up

- Storage Tanks Program
 - Investigated cause of leak
 - Flange Gasket (neoprene vs. viton)
 - Work not performed by certified individual
 - Require RP to update storage tank information
 - Nitric Tank
 - Installed 10/1/1993
 - No inspections required, tank <5000 gallons
 - Containment
 - Not required in 1993
 - Third party inspection in 2003, 2012, and 2016 when new tanks were installed

Bulk Chemicals: DEP Follow-up

- Clean Water Program
 - Will work with RP to obtain stormwater permit for facility
- Waste Management Program
 - Oversight of disposal and waste storage
- Environmental Cleanup Program
 - Overseeing soil remediation under DEP's Act 2 program
 - Oversee long-term monitoring of private wells

Bulk Chemicals: DEP Follow-up

- All DEP Programs performed regulatory inspections at Bulk Chemical's other facilities in the area.
- DEP Emergency Response recovered costs from BCI.

Bulk Chemicals: Resources Used

- EPA
- DEP
- 3rd Civil Support Team (Ft. Indiantown Gap)
- PEMMA, Dept. of Health
- US Coast Guard – Atlantic Strike Team
- IMAAC

Bulk Chemicals: Issues

- Initial actions - secure the power!
- Cleanup contractor issues
 - Procurement, qualifications, safety
- Responsible Party
 - Identification of whats in building
- DEP capabilities
 - Air monitoring
 - Contracting abilities
- Municipal and County involvement
- Road closure, detours, and traffic

Bulk Chemicals: What went well

- Responsible Party
- Unified Command
 - 24/7 availability for all involved
- Communication
 - Between RP, DEP, EPA and within agencies.
- Community notifications, updates, etc.
- Objectives were met:
 - Safety
 - Situation mitigated



Office of Water Management



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