Distribution Incident History

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MPSC
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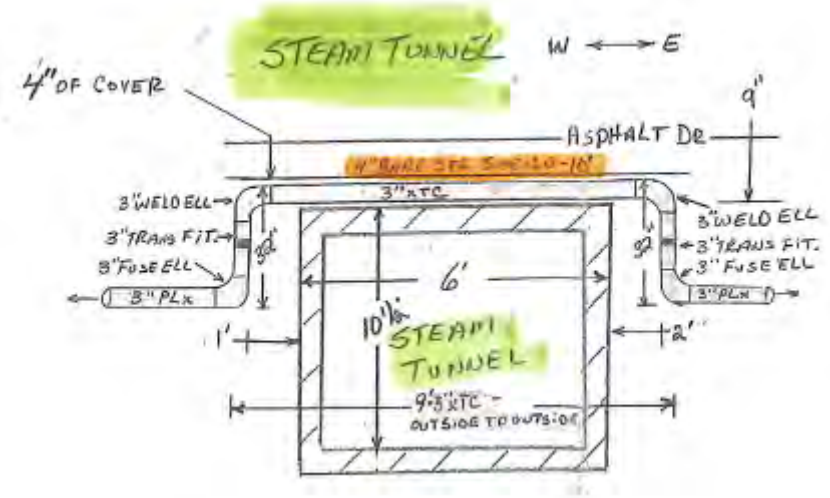
2016 Incident – 381330

- Vehicle exits road and strikes an above ground regulator station, escaping gas ignites.
- Driver was fatigued; injured, but not hospitalized.
- 1,193 customers lost, $500,800 in damages.
- 38 hours between the incident and completing the first attempt on relights.
- 192.317(b): Not protecting gas facilities from outside force.

2017 Incident – 411427

- Excavator cut through a 3-inch gas service with an asphalt saw to remove sidewalk.
- Gas service line was marked but was less than 1-foot deep at damage location.
- Rule 460.725(5): Failure to expose the marked facility in the caution zone by soft excavation prior to using power equipment.



2017 Incident – 401625

- Snowplow hit mall meter bank.
- Meter bank was not protected from vehicular damage.
- Similar incident occurred in 2013, where operator recommended that mall management install meter protection.
- Rule 460.20308(d): Failure to install a meter and service regulator in a readily accessible location and protect the meter and regulator from corrosion and other damage.

2017 Incident – 412025

- Third-party damage on service line.
- 1 hour and 9-minute delay in dispatching distribution crew after requested.
- 192.615(a)(4): Failure to establish written procedures to minimize the hazard resulting from a gas pipeline emergency that provide for the availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.

2017 Incident – 416425

- Distribution overpressure due to working-monitor regulator failure.
- History of oil accumulation.
- Recommend operator ensure procedures are in place to promptly dispatch personnel and consider drive time when dispatching emergency personal to report to an emergency.
- 2 hour, 35 minute delay in dispatching, technician lived 1 hour away from the site.

2017 Incident – 421825

- House fire.
- Discarded cigarette ignited landscaping which spread to meter.
- 2 injuries.
- Recommend operator leak test service lines at operating pressure and not pressure test above the maximum allowable operating pressure.

2017 Incident – 433825

- Girth weld failure due to surface loading from heavy equipment.
- 8-inch steel installed in 1950.
- Girth weld had defects such as lack of penetration and significant misalignment.
- Recommend operator examine nearby girth welds to verify integrity and perform more frequent leak surveys until all nearby girth welds are examined or the main replaced.

2017 Incident – 435525

- Distribution overpressure. Primary regulator failed due to grease and debris.
- Relief vented for over 5 hrs.
- 12 MMcf gas loss.
- 3 hour and 43-minute delay in responding (vehicle wouldn’t start).
- Recommend operator dispatch a second technician if conditions impede the arrival of the first technician.

2017 Incident – 435525 Cont.

- Recommend operator implement actions to prevent reoccurrence, such as the installation of separation equipment upstream of regulating station.
- Recommend operator analyze the frequency with which regulation failures and overpressure situations are occurring and benchmark with other utilities to determine best practices for mitigating contaminants in the gas stream.

2017 Incident – 428429

- Residential house explosion and fire.
- Cause of explosion undetermined.
- Inside meter destroyed by fire.
- Cannot rule out jurisdictional gas involvement.
- 192.481(a): Failure to conduct atmospheric corrosion inspection on inside meter. No record of inspection could be produced.

2017 Incident – 392930

- Third-party crossbore damage.
- Excavator installing communication lines across the road when the 8-inch bore head punctured the gas main.
- 12-inch cast iron main installed in 1901.
- $164,180 damages.
- 192.614(a): Gas main was not marked at location of damage.
- 192.614(a): Locator failed to document on-going coordination with excavator while on-site.

2018 Incident – 452125

- Contractor working on retiring 2-inch steel and plastic main.
- While purging the old main, a slug of nitrogen and air was introduced to the new main.
- 535 outages, damages of $41,300 (including relights).
- Two potential causes: incorrect operations by introducing the slug of air and nitrogen into the wrong main or equipment failure by an inadequate seal on a stopple fitting.
- Recommend operator revise pressure control procedures to specify gas blowdown points, nitrogen/air injection points, and nitrogen/air purge points and have operations check off the steps once completed and sign and date the form.
- Recommend operator conduct a tailgate prior to the retirement process that involves all involved parties and clearly communicate the plan to all involved parties.

2018 Incident – 473025

- A vehicle hit a gas meter service riser causing a threaded joint to separate, leading to ignition.
- Damages of $51,800.
- 460.20308(d): Meter was not protected from vehicle damage.

2018 Incident – 451929

- An operator accidently marked a retired service line instead of the live service. Contractor hit the live service.
- 192.614(a): Failure to mark facilities. Markings inaccurate by approximately 5-feet.

2018 Incident – 333330

- 6.2-inches of rain over six hours.
- 42 areas required response from exposed pipelines varying from ½-inch plastic service to four-inch steel main.

2018 Incident – 333330 Cont.

2018 Incident – 451041

- House fire.
- Incorrect operations during scheduled meter replacement.
- Technician placed too much stress upon the connected riser, causing the steel riser to break below the lockwing.
- Escaping gas ignited.

2018 Incident – 451041 Cont.

- 192.355(b)(2): Neighboring service regulator vented directly into the ground.
- 192.357(a): Neighboring meter supported solely on the riser and customer piping.
- 192.481(a): Records showed periods exceeding three years for atmospheric inspections for neighboring residences.
- 192.481(b): Records showed atmospheric conditions as “Good” for five neighboring service risers in poor condition.

2018 Incident – 451041 Cont…

- 192.605(a): Procedures were inadequate for continuing surveillance of its facilities for taking appropriate action for the corrosion present on meter assemblies.
- 192.805(h): Records showed atmospheric conditions good for service risers as "Good." However, risers showed levels of deterioration beyond what should be recognized as good.

2018 Incident – 456741

- Damaged 1-inch service line off 8-inch steel main operating at 309 psig.
- Excavator also cracked the weld that attached service tee to main as a result of the damage.
- Gas vented for 19.5 hours before main was isolated to complete repair.

2018 Incident – 456741 Cont.

- 192.614(a): Although the excavator was not working under their own one-call ticket, a ticket covering the area was requested by a different contractor and not marked.
- 192.615(a)(6): Valves were not used to isolate the main and perform repairs, stopple fittings were preferred option. 20 vs 33 customers.
- MCL 460.725(1): Excavator did not have own MISS DIG ticket.

2018 Incident – 460041

- Contractor installing shoring for culvert work inside of a road median damaged 8-inch plastic.
- Staking was accurate.
- Gas blew for 12 hours while waiting for equipment to be obtained to squeeze-off plastic.
- 192.614(a)(4): Failure to have personnel, equipment, tools, and materials as needed at the scene of an emergency.
- MCL 460.725(5) – Excavator failed to hand expose.

2018 Incident – 475241

- Contractor saw-cutting hit 8-inch steel main installed in 1963 that was only 9-inches deep.
- Staking was accurate but main was not noted as shallow.
- Gas main was parallel and underneath a hard surface. Excavator failed to consult with operator to reach an agreement on how to protect the facility.
- MCL 460.725(1) - Excavator working under an expired locate request (21 day life).

2018 Incident – 475241 Cont.

- 192.614(a)(4): Failure to have personnel, equipment, tools, and materials as needed at the scene of an emergency.
  - Company welders were unable to perform the work that was required of them, requiring contractor welders to be mobilized and arrive after gas had been blowing for over 15 hours.
  - After the welding was complete, there was only one qualified employee able to execute the pressure control procedure.
  - Gas was blowing for approximately 33 hours.
- Recommend that operators' employees and contract locating companies identify shallow facilities with the word "shallow" if known at the time of marking.

2018 Incident – 476043

- Excavator using an auger under an expired ticket had not requested a restake and hit a 4-inch plastic main.
- 192.614(a): Failure to mark gas facility. Staker posted "Additional Locating Needed" on the dig start date but failed to ever mark the gas main.
- MCL 460.725(1): Failure to provide a dig notice to the notification system not more than 14 calendar days before the start of any blasting or excavation.

2018 Incident – 473634

- Contractor installing new bridge footings hit a 6-inch plastic main operating at 45 psig.
- $165,000 damages.
- Two-way feed located in Huron River.
- Recommend operator incorporate the Common Ground Alliance's Best Practices 4.20 entitled "Locating and Marking in Navigable Waterways" into their damage prevention practice.

2018 Incident – 475429

- Third-Party Damage.
- 4-inch steel main one-way feed to an island.
- 19 commercial outages.
- Excavator was installing 34-inch conduit between a bridge and existing gas main.
- Horizontal directional drill punctured main under a river while reaming.
- Temporary 3-inch plastic main with a 5-inch PVC sleeving was installed to restore gas to the island.

2019 Incident – 3314

- First-party damage with ignition.
- Distribution crew hit 2-inch plastic main during pipe lowering project.
- While attempting to expose the damaged main, crew contacted an electric service line located in joint trench, causing ignition and injury.
- $120,203 damages.

2019 Incident – 3314

- 192.605(a) – Failure to have a gas detector present at squeeze off point, prior to cutting into the pipe to cap it. After Staff inquired if there was a gas detector nearby, Operator's technician had to retrieve one from their truck.
- 192.751(a) - Operator of the backhoe continued to operate the equipment in the presence of blowing gas, ultimately resulting in their injury after the operator damaged an electrical conductor sharing the same trench as the distribution main.
- MCL 460.725(5) - Operator failed to adequately expose the marked gas main and electric facilities located in a joint trench in the caution zone prior to excavation with power equipment. Both the gas main and electric facilities were damaged by the backhoe, resulting in an employee injury.

2019 Incident – 3093

- House explosion with fire.
- Gas leak nearby on service line at a connection to a buried regulator operating at 265 psig.
- Operator employee onsite investigating the gas leak one block away.
- Gas in sanitary sewer and migrated into several houses.
- When gas shut off at buried regulator, all gas readings dissipated in the sewers.
- Resident injured.
- $93,067 damages.

2019 Incident – 3093 Cont.

- 192.605(a): Employee did not complete required documentation to demonstrate that the gas migration boundaries were determined.
- 192.605(a): Employee responding to the original leak call did not have access to the current service line map.
- Recommend operator reevaluate the applicability of using a drag tube in frost conditions to establish underground gas migration.

2019 Incident – 3093 Cont.

- 192.605(a): Employee did not determine the gas migration boundaries of the leak at the buried service regulator.
  - Employee indicated that the ground was too hard to bar hole because of the frost, and instead the area was surveyed using a drag tube. O&M Procedure states drag tube is only acceptable to locate potential leak sources; after this point, bar hole testing must be conducted to pinpoint and classify the leak.
  - Gas was detected in the sewer, but the extent of this gas migration was not determined nor documented.
- Recommend operator consider in their DIMP plan if there is a threat associated with buried regulators.

2019 Incident – 3622

- Accidental ignition due to operator error.
- Operator's contractor working on making a tie-in as part of a main replacement project.
- Fuser prepared to complete a 2-inch coupling electrofusion, but mistakenly connected the fuse leads to a previously completed electrofusion tee that was already tapped and operating at 60 psig.
- Several seconds into the fuse, gas released and ignited.
- No injuries.

2019 Incident – 3652

- Apartment explosion.
- Mowing company hit gas meter. Driver claimed he did not know he hit meter.
- Downstream fuel line separated and gas migrated into apartment.
- Explosion occurred.
- PHMSA reportable because impact to a regulated piece of equipment caused a failure in a nonregulated pipe which then caused an explosion.

Questions?

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