

2015 Communication Meeting

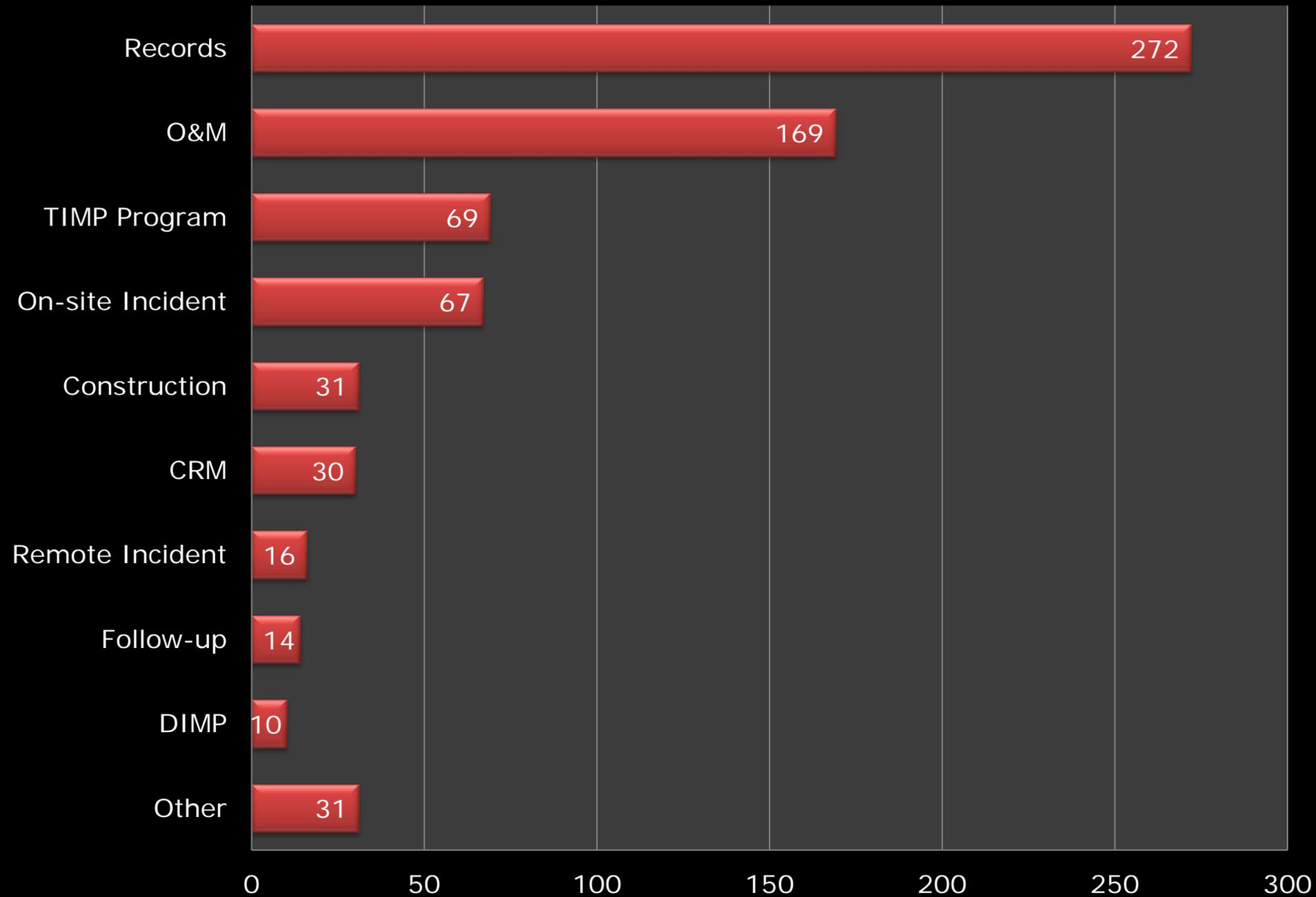
Presented by:
Michigan Public Service
Commission

LARA Public Service Commission

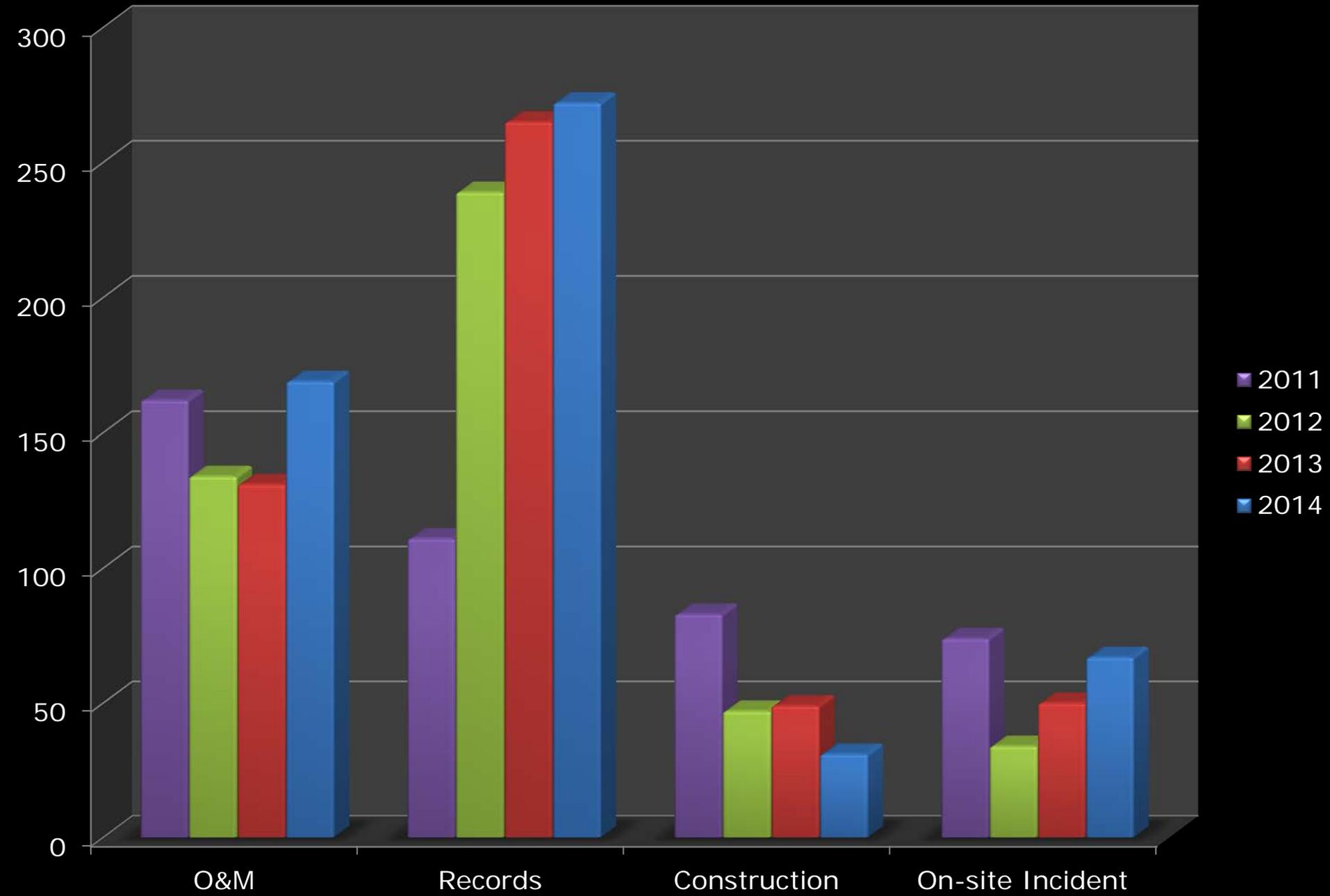
Department of Licensing and Regulatory Affairs



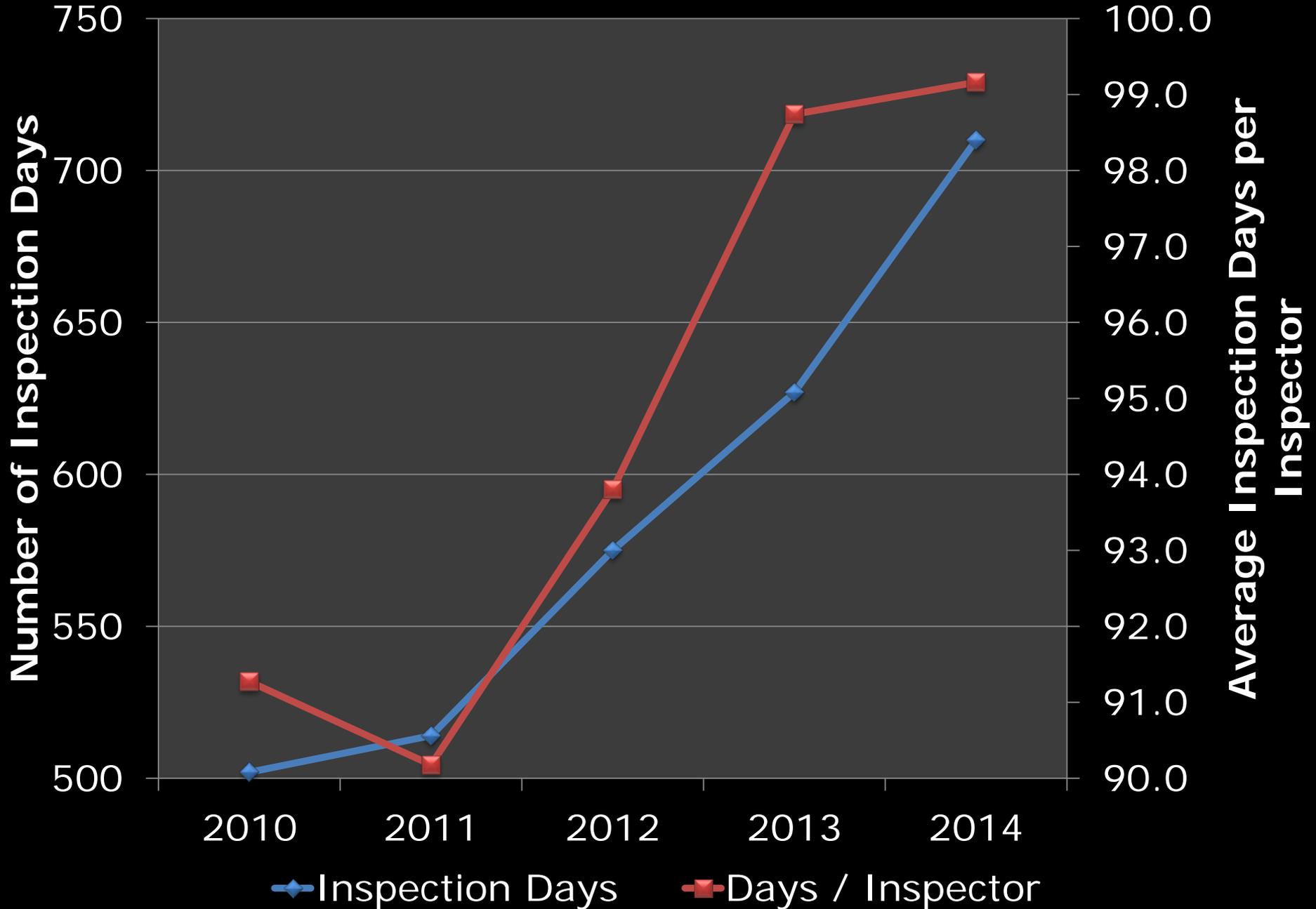
2014 Inspection Days



Inspection Day Activity

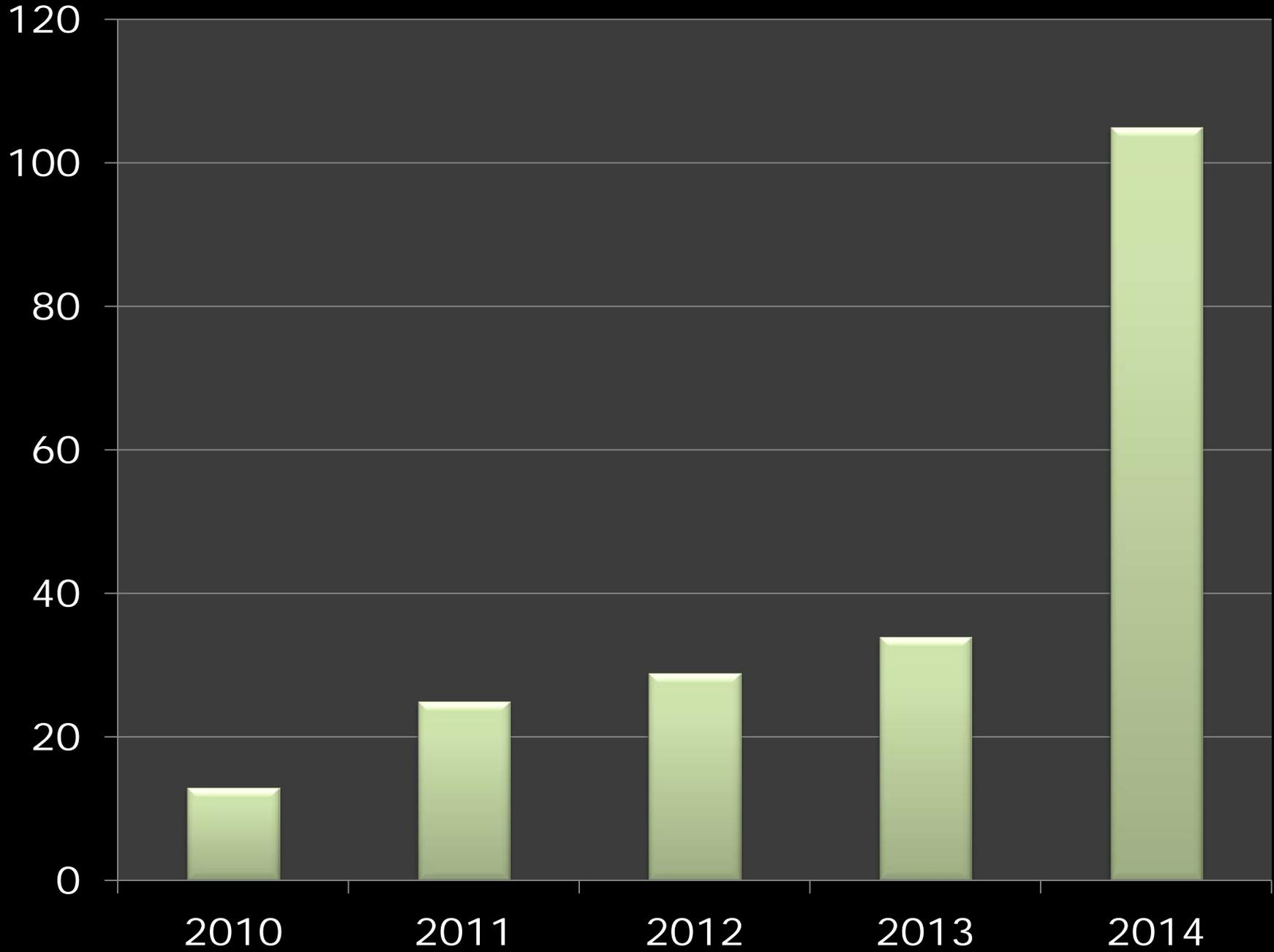


Inspection Days

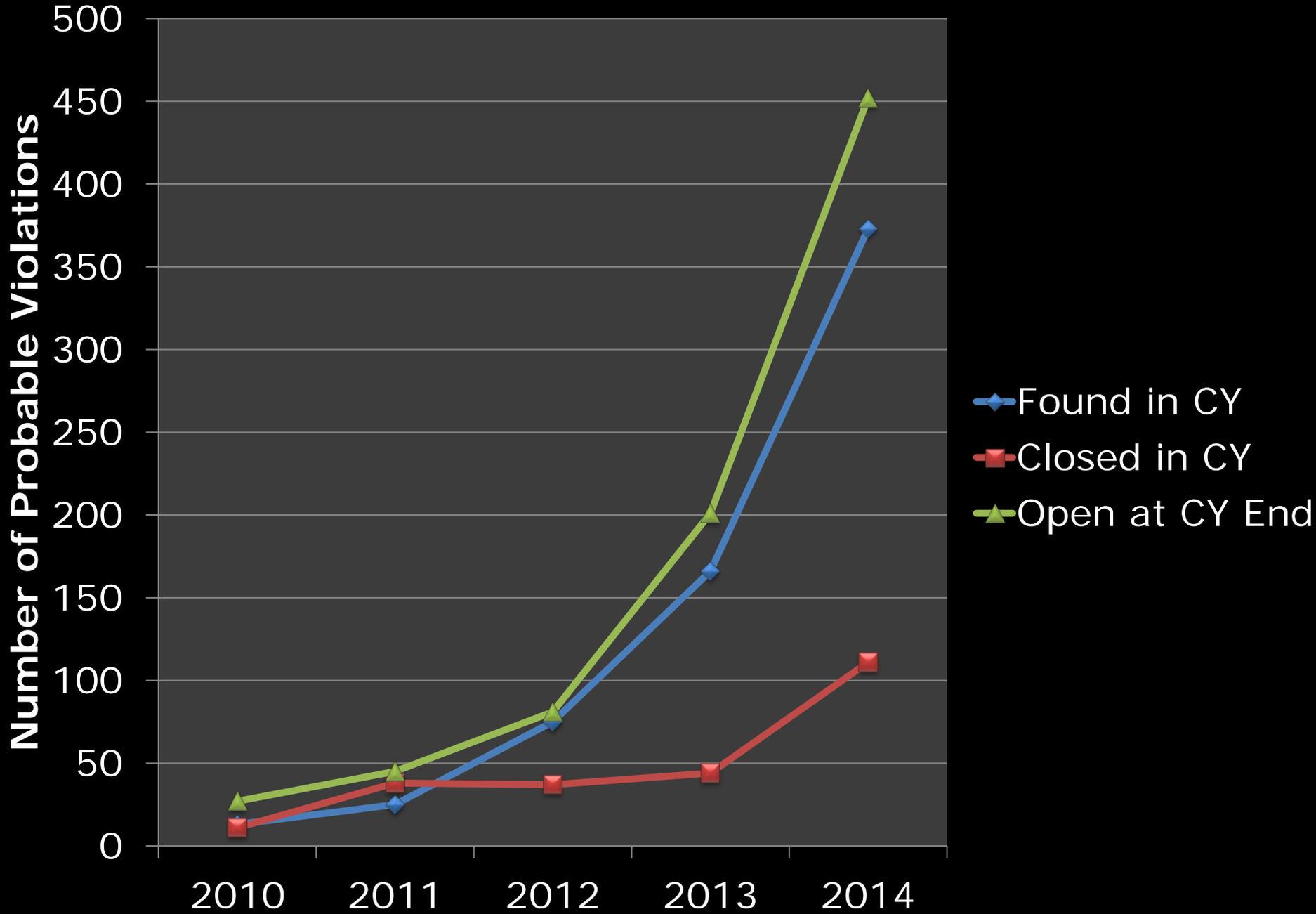


Compliance Actions

Number of Compliance Actions taken
in Calendar Year



Intrastate Probable Violations



Significant Incidents

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Significant Incident - 261523

- Flame sensor unit triggered compressor station ESD.
- One of four block valves closed and all four blowdown valves opened.
- Three of four block valves failed to close due to frozen pilots.
- 18.4 MMcf gas loss.



Significant Incident – 261523



Significant Incident – 289827

- Over-odorization at gate station: NJEX falsely sensed gas flow rate increase from 300 Mcf/hr to 8 MMcf/hr
- 610 leak calls responded to
- Cost: \$87,000



Significant Incident - 295127

- Transmission line rupture following operating pressure increase from approximately 720 to 805 psig.
- 200 evacuated homes
- Pipe characteristics:
 - 22” pipe
 - Coal tar enamel coating
- Origin:
 - 21 feet segment of pipe installed in 1960 (pipeline constructed in 1949)
 - Pipe wall.
 - Saturated wet environment



Significant Incident - 295127



Significant Incident - 295127



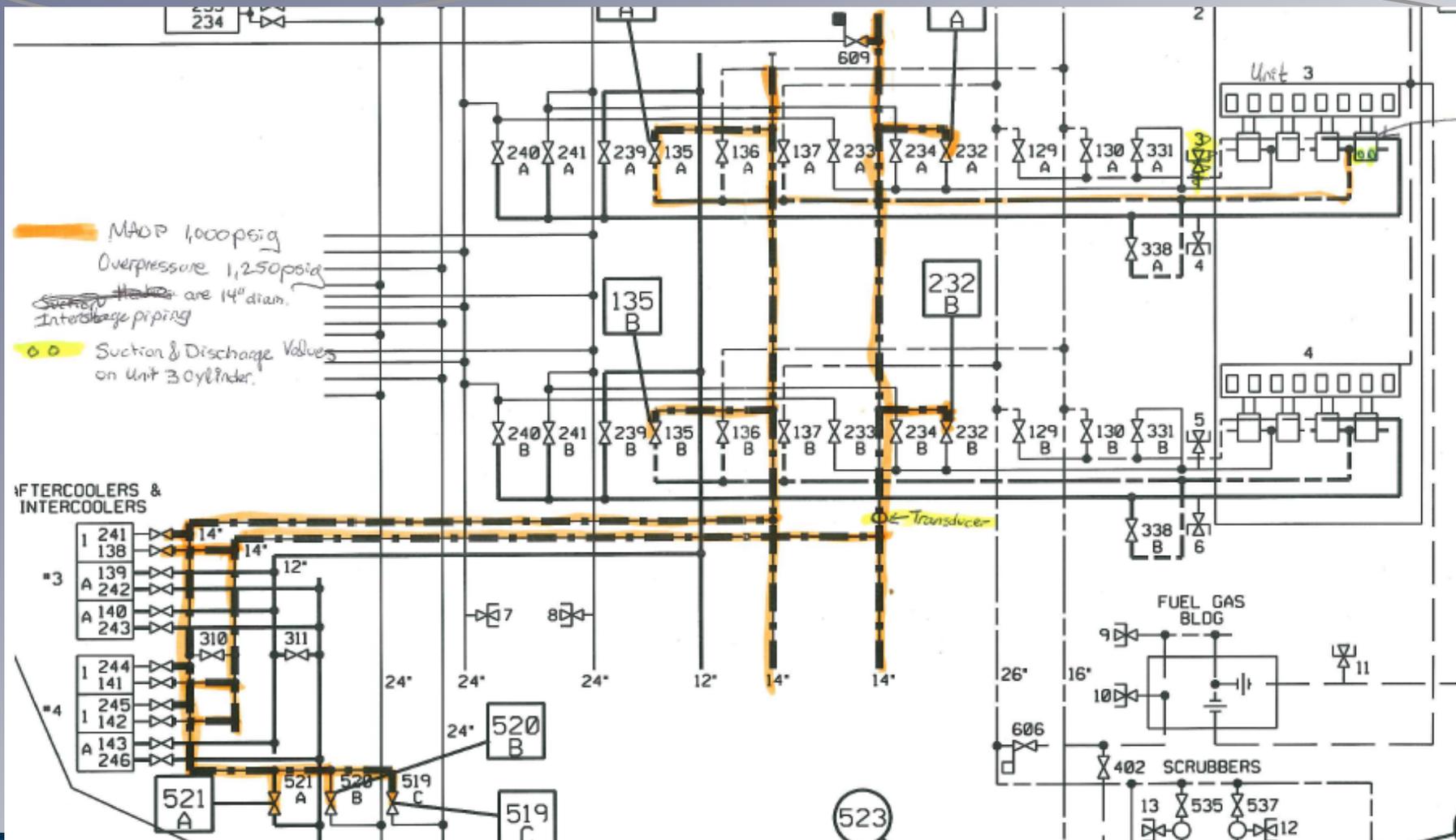
Significant Incident - 301927

- Third-party damage
- Six-inch 200 psig main
- Horizontal directional drill
- Initial isolation failure
- Gas blowing ~29 hours
- 6.4 MMcf gas loss



Significant Incident – 300825

SRC. Overpressure at compressor due to equipment failure.



Significant Incident – 300825

- Five suction and discharge valves on compression cylinder failed due to cracked plates. Causing gas temperatures to spike.
- Mechanic actuated a manual ESD of compressor engine, allowing a backfeed of pressures into the interstage piping.
- No SCADA alarms - Gas Control did not become aware of overpressure because they were not actively monitoring pressures.
- No overpressure protection on the interstage piping to protect it during a manual ESD.
- 900 feet of interstage piping experienced an overpressure of 1225 psig. (1000 psig MAOP)
- Pressures exceeded MAOP for 12-hours.



Significant Incident – 268125

- House fire; gas leak found on main 45' from house.
- Fire started in downstairs utility room. Property damages \$112,580.
- After the fire, gas was detected at an exterior building wall and inside the basement.
- Evidence of previous excavation damage to main.



Significant Incident – 268125



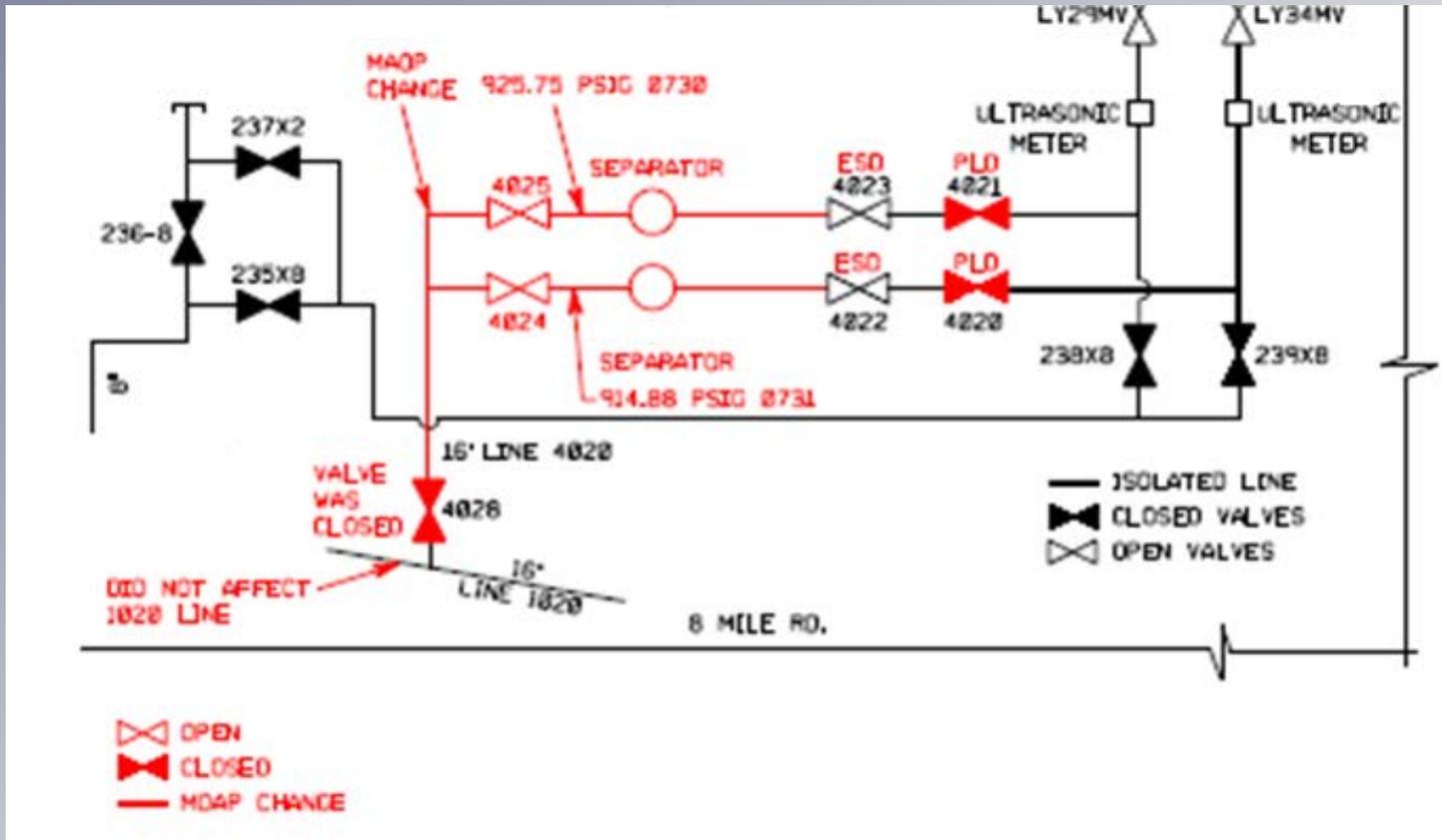
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Significant Incident – 264511

- SRC. Overpressure within storage field due to equipment failure.



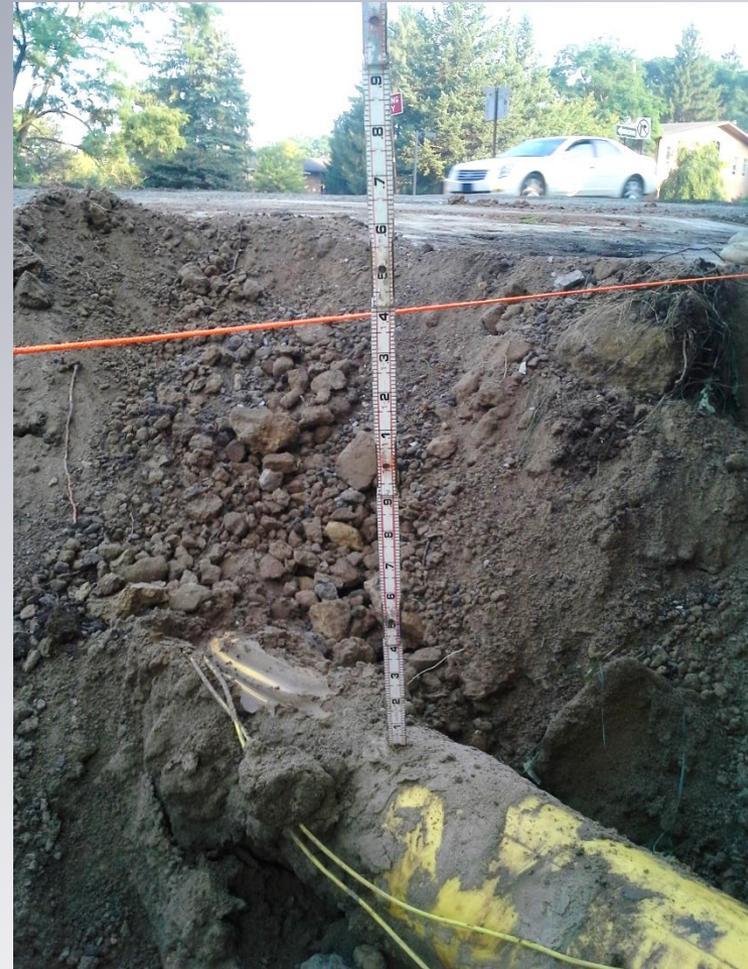
Significant Incident – 264511

- Gas Control was gradually opening control valve to withdraw from storage.
- Downstream blockage – Manual valve closed.
- Gas Control interpreted pressure stabilization as line-packing and continued to open control valve.
- Gas Control's 4th command to gradually open the control valve
 - Control valve quickly jerked open and pressures increased near 800 psig MAOP.
- Gas Control recognized the downstream blockage.
 - Sent a command to close the control valve; took 20 minutes to close.
- ESD valve failed to provide OPP due to faulty solenoid.
- 802 feet of storage piping encountered an overpressure for 20 minutes in duration, reaching 925.75 psig.



Significant Incident – 289525

- Third-party damage because contractor failed to hand expose.
- Operator's contractor installed the six-inch main two months prior via directional bore.
- Approximately 16" of cover at location of damage.
- 192.327(b) – Main must be installed with at least 24" of cover.

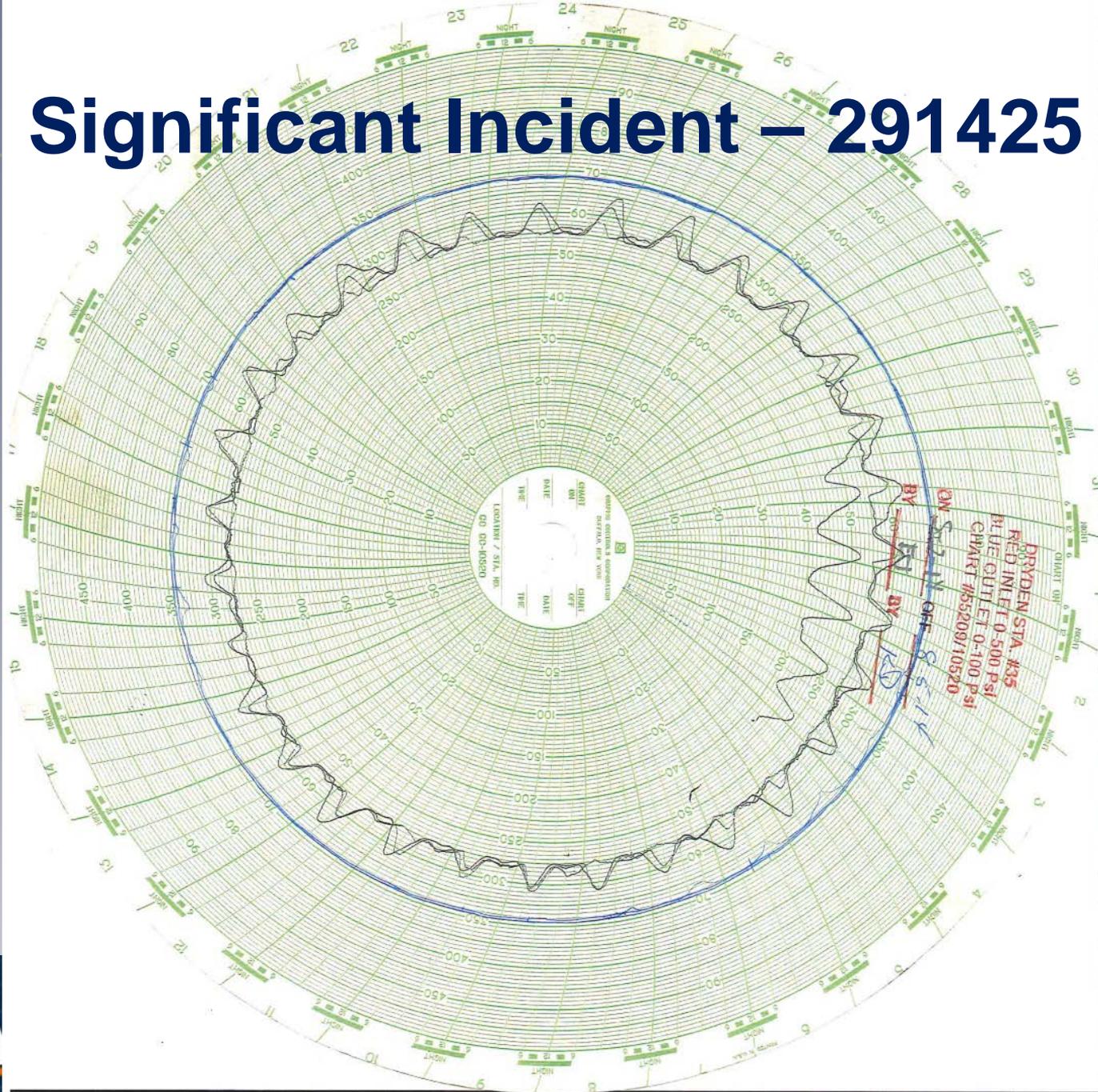


Significant Incident – 291425

- Overpressure caused by a double failure of a regulator and relief at a regulator station.
- Regulator inspection took place 1 week before incident
 - Both regulators failed lock up test.
 - Technician did not make an immediate repair or contact his supervisor.
- The day of the incident, Technician was onsite overhauling regulators. Did not monitor downstream pressures. Left the site.
- Regulator failed due to shavings from a shell-cutter tapping machine.
- Relief valve was isolated. Failed to serve as OPP.
- 67 miles of a four-inch main experienced 96 psig pressures on a 60 psig system; relief valve set point 62 psig.



Significant Incident – 291425



LA



Significant Incident - 271425

- Home explosion. While excavating to pressure test service line, crew broke tee off main. During repair, staff observed:
 - Not monitoring gas and O₂ levels while working with escaping gas.
 - Smoking at top of hole while crew members are repairing leak on main.
 - Not using appropriate primer for hot applied wax.
 - Welded a steel pin without the use of a welding procedure.
 - Used harden hex-head pin. (avoid due to brittle cracking)



Significant Incident – 263223

- ESD of Compressor Station
- No permanent heat-trace on pilot gas regulator.
- Pilot gas system over-pressured due to frozen regulator.
- Relief activated and then froze open as well.
- Pilot gas pressure bled down to zero psig which triggered the ESD.



Significant Incident – 263223

- One of two compressor blowdowns activated and vented to atmosphere.
- The other compressor blowdown valve had a frozen pneumatic pilot switch which prevented the blowdown valve from operating.
- The two station blowdown valves activated, but were unable to operate due to the presence of ice in the actuator gear boxes.



Significant Incident – 272429

- Residential Structure Explosion
- Rental property was vacant and between tenants.
- Structure was illegally occupied and injuries ensued.
- Water heater and furnace were stolen after previous tenants moved out.



Significant Incident – 272429

- Unknown condition of fuel line.
- Lockwing valve was locked closed after previous tenants moved out.
- Lockwing was found to be broken and in the open position during the incident.
- Incident due to tampering with DOT jurisdictional facilities.



Significant Incident – 281728

- Third-party damage.
- 750 psig 20” transmission.
- Farmer’s contractor was plowing in drain tile 4’ deep.
- Miss Dig was called, but did not wait 3 days to start.
- Control Room isolated with remote control valves within minutes.



Significant Incident – 281728

- 47,000 lb. tiling machine completely flipped over.



Significant Incident – 282729

- Pipeline rupture.
- 20” transmission within compressor station.
- Operator was purging pipeline after repair of third-party damage.
- Inadequate purging procedure allowed a combustible mixture of gas and air in the pipe.



Significant Incident – 282729

- 20” tee found 230’ away.



Significant Incident – 282829

- Third-party damage.
- 300 psig eight-inch main.
- Farmer was removing tree stumps with loader bucket.
- Incorrectly identified emergency valve failed to isolate section.
- Gas was blowing for approximately 18 hours.



Significant Incident – 289730

- Excessive Odorant & Leakage Complaints
- A simple step in an O/M procedure, on odorization facilities, was omitted; as a result, gas with an extremely high odorant level left an interstate operator and was dispersed across two large distribution systems.
- 900 leakage complaint calls and field follow-ups.



Significant Incident – 308730

- Gas explosion destroyed a house in January.
- The house had an active account/service and an inside meter.
- Tests for gas were conducted and found no leaks; the inside meter was mostly in its original position but partially melted.
- The injured man told investigators that he had dropped a 100-pound tank of propane in the house while moving it on stairs.
- The propane tank was still in the back yard and leaking. The explosion was ruled a result of the propane leak.



Significant Incident – 308730



Significant Incident – 263423

- Debris moving through distribution system caused double regulator failure.
- Working-monitor regulator station.
- Caused 139 psig pressure on a 60 psig system.
- 120 miles of distribution main and 7,010 gas services overpressured.



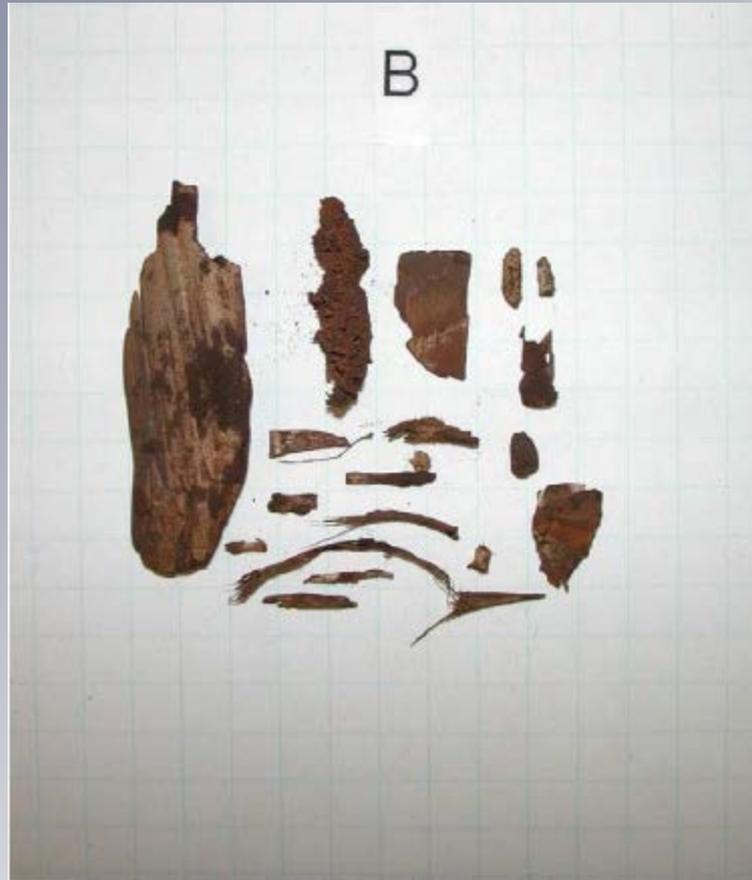
Significant Incident – 263423



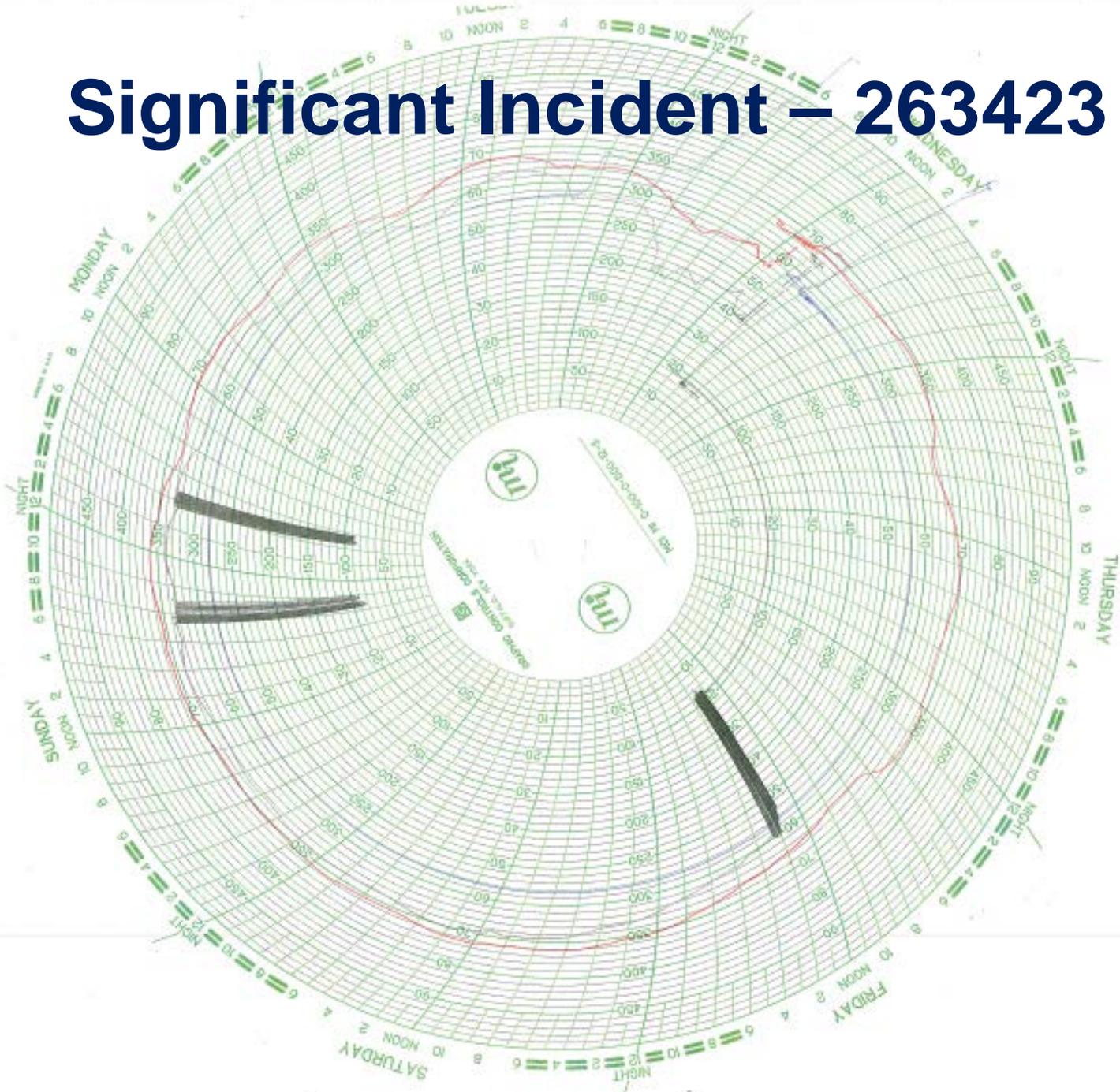
Significant Incident – 263423



Significant Incident – 263423



Significant Incident – 263423



Significant Incident – 265023

- Snow/ice buildup on roof fell onto gas meter, causing a leak which led to ignition.
- Furnace located right inside wall from gas meter.



Significant Incident – 265023



Significant Incident – 271123

- Internal corrosion caused a leak on a storage field girth weld.
- Operating at 417 psig; was operating at 1350 psig 3½ months earlier.



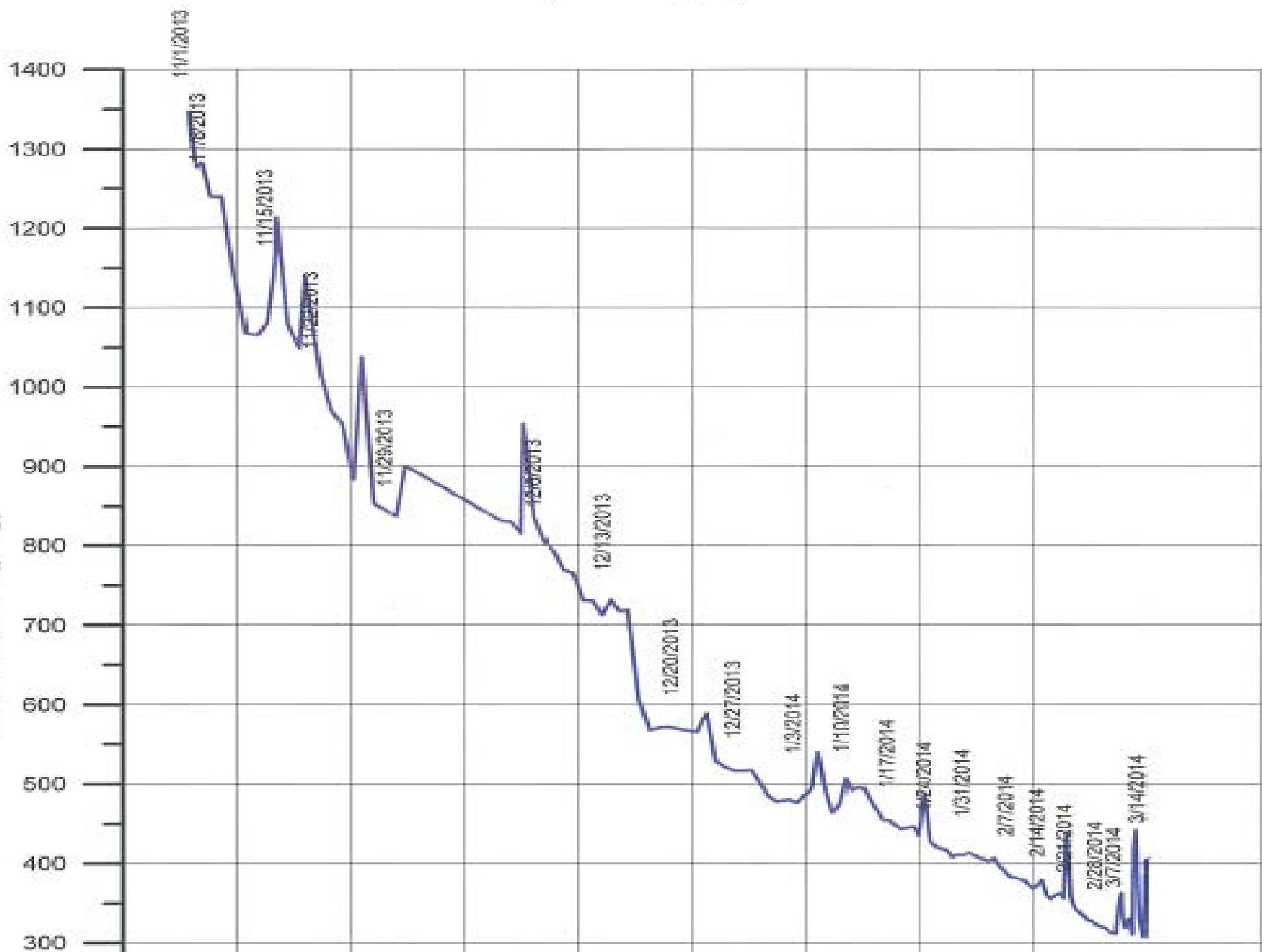
Significant Incident – 271123



Significant Incident – 271123



Field Pressure (psig)



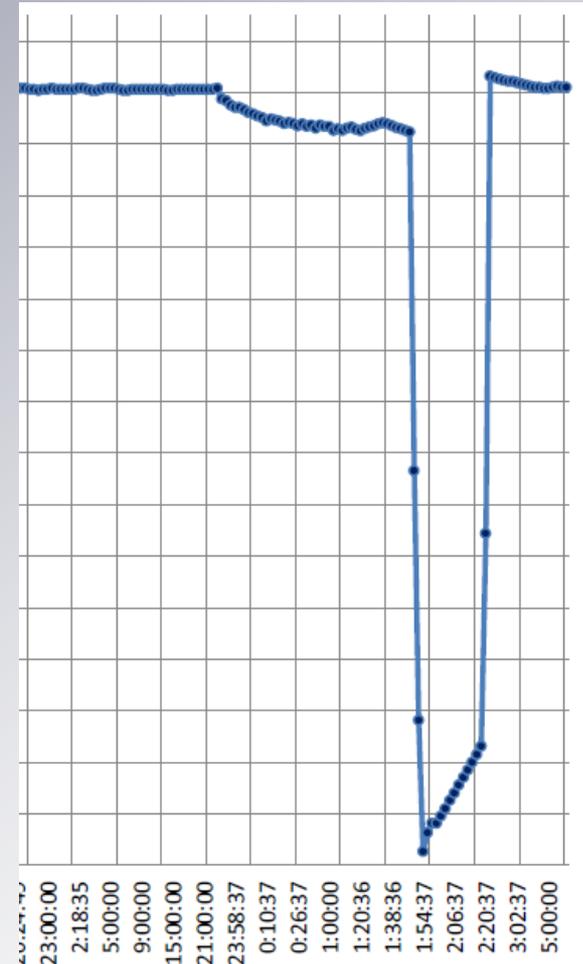
Significant Incident – 280927

- House explosion determined to be non-jurisdictional.
- Fire Department was on-site previous day responding to an odor complaint, cleared the leak with their “nose.”
- Fire Department and public never notified utility.
- No injuries or fatalities.



Significant Incidents – 264722

- Operator changed gas flow through route within a station. – Free Flow Conditions.
- Gas passed through several different sized pipe diameters. Pinch point caused ice formation. This combined with cold weather caused a relief valve to open partially.
- Gas release of 15 MMcf.



Significant Non-Compliances

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Significant Non-Compliances

- 192.150(a): Multiple counts of transmission lines not designed to be piggable.
- 192.179(b)(1): Transmission line sectionalizing block valves not being protected from tampering.
- 192.179(c): A section of transmission line between main line valves with a blowdown valve with insufficient capacity.
- 192.181(a): A single CAP project adds 36 miles of HP plastic distribution main that included zero sectionalizing valves.
- 192.199(e): Pressure relief devices not being discharged into the atmosphere without undue hazard (i.e. outside building/enclosure).



Significant Non-Compliances

- 192.243(f): Nondestructive testing records not being retained for the life of the pipeline showing the number of girth welds made, the number nondestructively tested, the number rejected, and the disposition of the rejects.
- 192.321(a): Operator had plastic above ground where a steel blind flange rises above ground level.
- 192.327(b): Contract crew initiating directional bore did not provide the required 24 inches of cover for a main.
- 192.361(d): Temporary service line not being protected from damage.



Significant Non-Compliances

- 192.465(a): “Idle” Operator was verifying that rectifier was working properly. However, operator was not verifying that CP was adequate at test stations along the pipeline.
- 192.467(d): Operator was not verifying electrical isolation of casings.
- 192.475(b): Operator failed to check upstream internal pipe surface conditions at three different regulating station projects.
- 192.505(c): Multiple counts of not performing a strength test on pipeline operating at 30% SMYS or greater for at least 8 hours.
- 192.505(e): Not performing a pre-installation strength test on a short section of pipe to operate at 30% SMYS or greater for at least 4 hours.



Significant Non-Compliances

- 192.507(b): Not performing a leak test (between 100 psig & 20% SMYS) nor walking the line to checks for leaks at 20% SMYS (for pressure tests with inert gas).
- 192.513(a): Not pressure testing new service.
- 192.513(c): Pressure tested 2 feet of plastic main at 25 psig.
- 192.517(a): Operator fails to make & retain a 192.505/507 detailed test record for the life of the facility.
- 192.517(a)(5): Multiple counts of not maintaining record of pressure recording charts or pressure readings.
- 192.517(b): Operator fails to make & retain a 192.509/511/513 test record at least 5 years.



Significant Non-Compliances

- 192.603(b): Multiple counts of operator not keeping records necessary to administer procedures established under 192.605(c) (response to AOC) and 192.615(a) (Emergency Plan).
- 192.605(a): Not following procedures for maintaining & calibrating odor testing instrument; not providing a qualified technician to determine if a furnace needs to be red tagged; not following O&M procedures by addressing patrol findings; not following procedures for odor intensity tests (i.e. not using the correct float and/or not using calibration chart); not having gas detector with crew working near blowing gas as required by procedures; not installing a bolt-on leak clamp to the specified torque as required by procedures.



Significant Non-Compliances

- 192.605(b)(1): Not including in the O&M plan procedures to require transmission line leaks to be repaired as soon as feasible.
- 192.605(b)(4): Not including in the O&M plan, procedures to periodically review response of operator personnel to determine effectiveness of response procedures to AOC.
- 192.605(b)(5): Compressor station pipeline not having formal written procedures for changing to/from each mode of operation to ensure operation within the MAOP.
- 192.605(c)(1): Not including specific procedures for responding to a loss of communications.



Significant Non-Compliances

- 192.614(c)(5): Multiple counts of not providing temporary markings of buried pipelines in the area of excavation before the activity begins.
- 192.615(a)(6): Operator did not have access to their sectionalizing block valve, which was in an interstate operator's fenced in area. No way to operate the valve without interstate operator's assistance. Gate and valve were locked.
- 192.619(a)(3): Gathering Line "High Five" considerations; lack of records to support current MAOP's; operator found exceeding MAOP to keep supply of gas to a smaller distribution system during frigid winter.
- 192.619(a): Operator established MAOP without considering the design of the plastic pipe.



Significant Non-Compliances

- 192.623(a): Multiple counts of operating a low pressure system at pressures high enough pressure to make unsafe the operation of any connected gas burning equipment (3"-14" WC per R460.2331(4)).
- 192.625(a): Not odorizing a distribution system to be detectible at a concentration of 1/5 LEL (under-odorizing).
- 192.625(b): Gas is naturally odorized within a class 3 location, but odor intensity reads have not been performed or recorded.
- 192.625(f): Not sampling gas to determine the percentage of gas in air at which the odor is readily detectible; not conducting odor intensity reads for storage field customers with an instrument.



Significant Non-Compliances

- 192.629(a): Not purging a pipeline of air with gas in a manner to prevent the formation of a hazardous mixture of gas and air.
- 192.631: Violations stemming from Control Room Inspections.
- 192.705 & R 460.20325: Operators of gathering lines not aware of patrolling requirements of MI Rule (>40% SMYS).
- 192.705(a): Leak surveyors not aware that they are responsible to conduct patrols, specifically for indications of construction activity affecting safety and operation; operator was performing vehicle patrols where the pipeline crosses the roads. Entire ROW could not be examined.



Significant Non-Compliances

- 192.705(c): Walking patrol not appropriate for ROW condition. Vegetation overgrowth prevented leak surveyor from walking.
- 192.706(a): Operator was not leak surveying the entire length of a Class 3 location. Leak survey work order scope of the Class 3 area was less than the scope provided in the class location study.
- 192.707(a)(1): Line markers not being maintained at each crossing of a public road.
- 192.707(d)(2): Operator did not have their current name on the line markers for a main in a sub-division.
- 192.711(a): Operator not taking immediate temporary measures to protect the public for a leak found on a transmission line operating at or above 40% SMYS.



Significant Non-Compliances

- 192.711(b)(1): Not making transmission pipeline system non-integrity management repairs as soon as feasible.
- 192.725(b): Operator was not pressure testing service risers.
- 192.739(a): No inspection records of programmable logic controller (PLC) that was acting as OPP.
- 192.745(a): Multiple counts of emergency valves not being partially operated at intervals not exceeding 15 months, but at least once each calendar year; emergency valve was not partially operated because gas control would not allow; emergency valves not operated due to LOTO.



Significant Non-Compliances

- 192.745(b): Operator not taking prompt remedial action to correct any transmission line valves found inoperable & no record of alternate valve assigned.
- 192.805(g): Operator employee performing odor intensity reads was qualified using on-the-job training but was not being re-evaluated.
- 192.905(a): Operators not accounting for buildings that are only clipped by a potential impact radius.
- 192.917(a): Operators not considering interactive threats or not considering near-neutral stress-corrosion cracking (SCC), only high-pH SCC.



Significant Non-Compliances

- 192.917(b): Operators not possessing enough justification to eliminate threats, particularly internal corrosion.
- 192.917(c): Operators not having an adequate risk assessment program; not updating risk assessment programs; not considering consequences; only counting the highest threat.
- 192.921(a): Operator using a pressure reduction as an “assessment” method.
- 192.925(b)(1): Operators not correctly identifying ECDA regions.
- 192.925(b)(2)(iii): Operator misclassifying ECDA indications; not all scheduled digs are actually scheduled to be excavated.



Significant Non-Compliances

- 192.925(b)(3): Operators not excavating ECDA immediate conditions until gas control has scheduled an outage.
- 192.927(c)(2): Operators misidentifying ICDA regions using incorrect critical inclination angles.
- 192.933(d)(1): Operators not excavating ILI immediate repair conditions within 5 days as required per ASME B31.8S 7.2.1.
- 192.935(a): Operators not conducting any additional preventive and mitigative measures.
- 192.935(c): Inadequate (or non-existent) studies of determining the feasibility of automatic or remote shut-off valves.



Significant Non-Compliances

- R 460.20311: Pressure tests on steel and plastic pipelines too short.
- R460.20308(d): Not protecting a meter from damage.
- R460.20311(b): Not pressure testing steel main to be operated between 1 psig and 60 psig to at least 90 psig.



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