



# WEATHERED PIPES

## Is Enbridge Building a New Pipeline with Damaged Pipes?

### Why are oil pipes that have been left exposed to the elements dangerous?

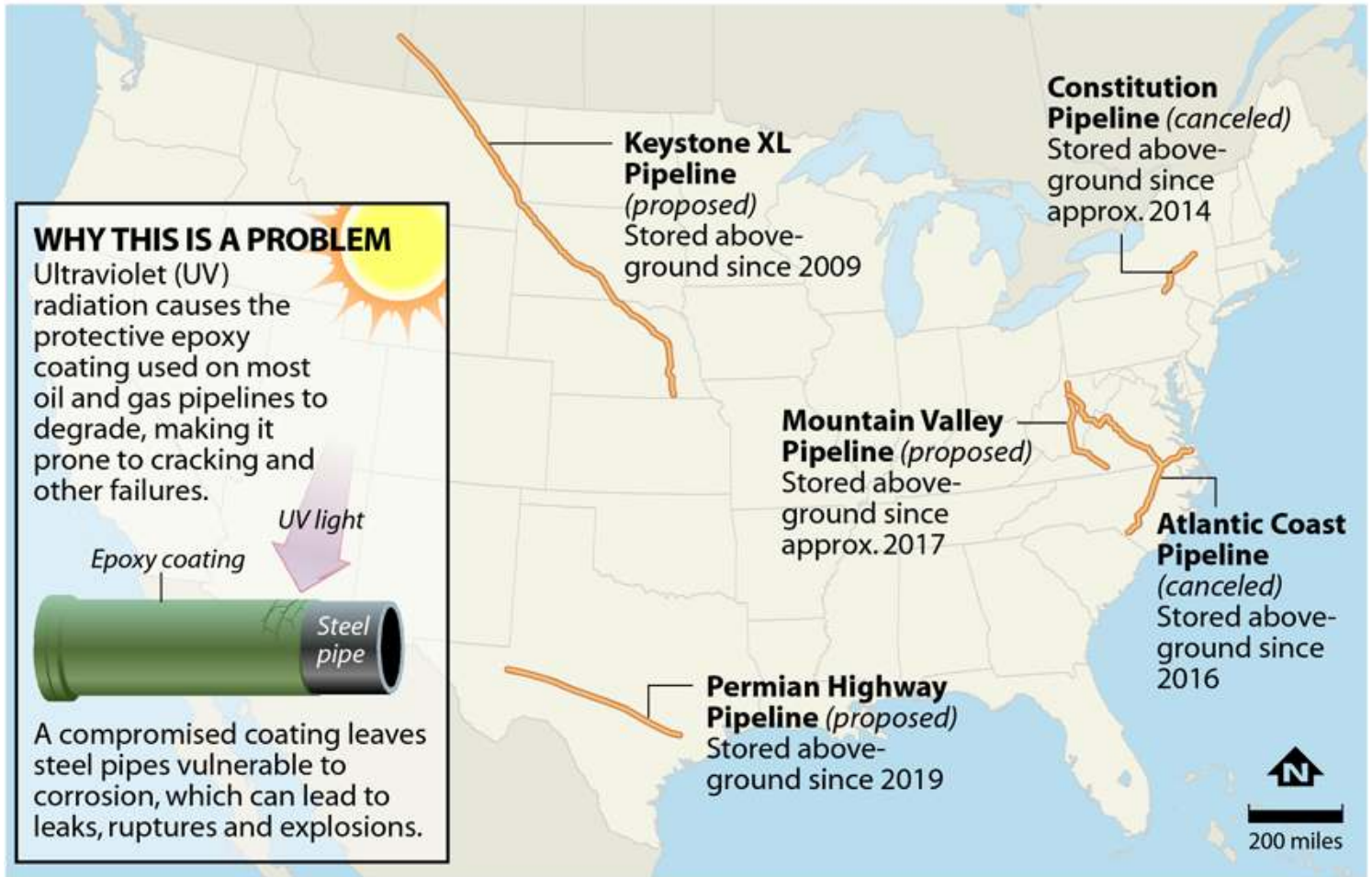
- Exposure to the sun and elements degrades the pipe coating that prevents corrosion- risking leaks, ruptures and explosions.
- Fusion bonded epoxy- the often turquoise-green protective coating degrades with ultraviolet (UV) exposure, allowing water to permeate the pipe.
- The corrosion-proof coating should not be exposed to ultraviolet light for more than 6 months, according to the National Association of Pipe Coating Applicators.
- One fifth of all pipeline failures that transport gas, oil, and other hazardous liquids are due to corrosion.
- Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations are inadequate to monitor how long pipe sections are stored above ground, and there are no federal regulations that limit pipe exposure to UV radiation.
- Besides weakening the pipes before they are put into the ground, long term storage of oil pipes may result in toxic compounds may be released as the coating wears down, posing a health risk threat to those who live near the large pipe storage yards.
- Pipeline coatings contain chemicals that can cause birth defects or other reproductive harm, cancer, and other potential health effects. This includes the 3M Scotchkote Fusion Bonded Epoxy 6233 coating used in the pipes that supply the Atlantic Coast Pipeline and The Mountain Valley pipeline.

### Concerns specific to Line 3:

- Enbridge has had pipes that are going into the ground for the new pipeline sitting exposed to the sun and elements for years; several staging areas have had stacks of pipe since November, 2017.
- The Minnesota Public Utility Commission (PUC)'s September 2018 order that approved Line 3's Certificate of Need justified the approval on the claim that the new pipeline would "reduce the risk of an accidental oil release" because it would have qualities such as, "stronger steel and superior coating."
- Enbridge's Line 3 Replacement Project Pipeline Safety Report claims the coating was "state of the art," but does not dictate how long pipes can be safely stored outside before compromising the anti-corrosion coating.
- The regulatory framework is insufficient along the Line 3 pipeline route to ensure the pipe's protective coating still has integrity.
- Pipe corrosion threatens the clean water and wild rice along the Line 3 pipeline where Ojibwe people have treaty-protected rights to hunt, fish and gather on the lands they ceded to the U.S. government under the 1854 and 1855 treaties.

# Pipes Vulnerable to Sun's UV Radiation at Risk of Failure

Pipeline installation delays leave pipes stored longer than recommended aboveground, where ultraviolet light can deteriorate the coatings that prevent corrosion. Shown are five major pipeline projects where pipes have been stored aboveground long term.



SOURCE: InsideClimate News research

PAUL HORN / InsideClimate News

## Has this happened elsewhere?

Degraded coatings were implicated in an oil spill from a failed pipeline near Santa Barbara in California in 2015. Here PHMSA concluded that, “external corrosion that thinned the pipe wall to a level where it ruptured suddenly” and that “the condition of the pipeline’s coating and insulation system fostered an environment that led to the external corrosion,” although, in this case, the coating hadn’t been degraded by exposure to sunlight.

None of the pipe segments photographed across multiple storage yards followed NAPCA’s guidance in an investigation along Kinder Morgan’s 428-miles Permian Highway Pipeline route.

Sections of the delayed Keystone XL Pipeline had been stored outside with partial whitewash cover for nearly a decade.

Pipes are sometimes covered with “whitewash”- common household paint- in attempts to shield their coating from the sun. Green protective coatings on areas that were not whitewashed “completely failed to retain their original properties and attributes” according to the small sample of pipes inspected by TC Energy along the Keystone XL route.

As in the case of the Permian Highway pipe investigation, the company that stamps the coating (Valspar for the Permian Highway), can be a wholly-owned subsidiary of the pipeline construction company (Sherwin-Williams Company in this case).