

Plains Pipeline, L.P.
Highway 1804 Re-Route North Pipeline Project
Case No. PU-15-614

LATE-FILED EXHIBIT 9
USE OF NITROGEN IN OUT-OF-SERVICE PIPELINES

At the October 29, 2015 public hearing for the Certificate of Corridor Compatibility and Route Permit Application submitted by Plains Pipeline, L.P. ("Plains") for the Highway 1804 Re-Route North Pipeline Project ("Project"), the North Dakota Public Service Commission ("Commission") requested that Plains provide an explanation as to the use of nitrogen in pipelines that are no longer being utilized.

With respect to the northern portion of the existing Fort Buford to Highway 1804 6-inch pipeline that is being replaced by the Project, Plains intends to take the existing pipeline out of service upon construction and utilization of the Project. Out-of-service pipelines are those pipelines that are not currently being used to transport oil, natural gas, sulfur, or produced water but could be put back in service at a future date. Plains plans to take the existing pipeline out of service by purging and retiring the existing pipeline. This process, as discussed at the public hearing, will include removing any crude oil remaining in the pipeline and refilling the pipeline with nitrogen.

Nitrogen is the most common form of an inert gas, *i.e.*, a gas that is non-explosive and non-flammable and thus poses minimal hazards. Nitrogen is often used in pigging and purging a pipeline. For example, when taking a pipeline out of service, nitrogen can be used to displace a crude oil purging pig through the line so that all crude oil is purged and no hazardous gas or liquid is left behind. Once a pipeline is purged of oil or gas and taken out of service, the residual nitrogen blanket will stay in the pipeline, even with a pressure of zero pounds per square inch, and the line will remain safe to the environment and the general public, as well as workers near or on the pipeline.

Concerns were raised as to whether nitrogen would need to be refilled in the out-of-service pipeline in the event of damage to the pipeline. The purpose of purging a pipeline with an inert substance, such as nitrogen, is to prevent the formation of explosive mixtures, so upon completion of the purge, the nitrogen would not necessarily need to be refilled in the event of a leak. The bigger issue hinges on how such damage would be detected in the event such pipe would be returned to service. If the pipeline was to be returned to service, Plains would require an integrity test be run, through means such as ILI tools, or a hydrostatic test be performed. These tests would be the primary source for detecting if the line was breached or struck.