

Integrity Assurance Turnaround for North Dakota Operator



Project Details:

Process mainly low sulfur Domestic crude.

- 74000 bpd
- Flange sizes- ¾" – 60"
- Flange classes: 150 # and 900#
- Number of Flanges: 10000
- iDMS required to track all joints

"Despite an evolving scope, coordinating multiple contractors and challenges with poor weather onsite, the Hydratight Joint Integrity team were able to deliver the project on time and leak free".

Chris Tudor
Integrity Assurance Service Line Manager

In preparation for a large turnaround of over 8,000 joints a North Dakota operator needed a safe and reliable integrity assurance program to ensure a 100% leak free start up.

The Challenge

A crude oil refinery with a capacity of over 74,000 barrels per day was preparing a major outage. With over 8,000 joints in the scope of work it was imperative that a leak free start up for the entire plant was achieved.

The Solution

As the global world leader for Integrity Assurance Services, Hydratight was solely sourced due to their technical expertise and extensive track record of managing large scale turnarounds. For over 40 years, Integrity Assurance continues to address all requirements for bolt management and flange integrity.

Hydratight provided a gap analysis which was executed by trained and competent Integrity Assurance personnel providing a complete overview of the scope of work and identifying the correct level of inspection and verification for each joint.

Integrity Data Management was a key element to ensuring all joints are inspected, assembled, and tightened correctly with the information recorded via the Hydratight Integrity Data Management System (IDMS). iDMS is designed to store the entire lifecycle data relating to every critical bolted joint on an installation. It provides managers and technicians with essential information about joint components used in assembly, plus it specifies the tools and the torque or tension values to deliver a leak-free joint.

The Project

Large scale TAR's are meticulously planned due to the highly expensive downtime during the regeneration of the entire or parts of the plant. These shutdowns occur every four years due to the need for maintaining, renovating, or refitting of facilities. It is imperative that the plan outage is kept within time constraints.

Hydratight's Joint Integrity program can be implemented at any stage of an assets life, and our experience ranges from technical consultancy during a projects early phases; to major turnaround planning and execution; to multi-year frame agreements for the supply of tooling and services. Hydratight's Joint Integrity offer is not just a single product or service line, but it is the culmination of everything we do. Whether your project is large or small, our comprehensive approach is essential to ensure leak-free start up and operation of a safe and effective asset or facility.

For more information, visit [hydratight.com](https://www.hydratight.com)