



CASE STUDY

Achieving Swift and Successful Refinery Turnaround with Expert NDT

Turnaround and shutdown periods at major refineries are essential for ensuring safety and operational readiness. For the CHS Inc. refinery in McPherson, Kansas, their 2025 spring turnaround required a vast scope of non-destructive testing (NDT) to validate the facility's readiness for reinstatement into production. CHS entrusted XCEL to execute thorough NDT testing over a rigorous 24/7 operational schedule.

Challenge:

Refinery turnarounds present unique challenges due to their scale and complexity, and the spring turnaround for CHS was no exception. The project's requirements included a comprehensive range of NDT services, from basic techniques like Liquid Penetrant Testing (PT), Magnetic Particle Testing (MT), Ultrasonic Thickness Testing (UTT), and Radiographic Testing (RT), to advanced methods such as Guided Wave Ultrasonic Testing (GWUT) and Phased Array Ultrasonic Testing (PAUT).

Adding to the complexity, the scope of work had to be executed continuously over a five-week duration on a 24/7 schedule. Staffing for such an intensive project presented a significant challenge, requiring 100 skilled personnel sourced from XCEL's locations all across the United States.

Solution:

To ensure the success of the turnaround, XCEL implemented a robust plan, leveraging its expertise in large-scale inspection projects. Key actions included:

01

Comprehensive NDT Service

A full suite of NDT services was deployed to meet the extensive inspection requirements, ensuring weld quality and detecting equipment anomalies before the facility's reinstatement into production.

02

Quick Mobilization

A team of 100 personnel was mobilized from all XCEL locations nationwide, matching the project's extensive manpower demands to ensure uninterrupted operations during the 24/7 inspection schedule.

03

Task Management

The intricate scheduling and execution of inspection activities were carefully managed to ensure quality and adherence to the client's timeline.

XCEL's ability to deliver advanced inspection services while adhering to a strict structure was key to addressing the unique demands of this turnaround.

Outcome:

Through XCEL's efforts, CHS' McPherson refinery received comprehensive data to confirm the integrity of its critical assets and validate the facility's readiness for production. For XCEL, the success of the project, despite the small timeframe, made it one of their most impactful inspection efforts in recent history.

CTA:

XCEL is your trusted partner for large-scale NDT and inspection services, preserving integrity even under the most demanding conditions. Contact us today to learn how we can help optimize your facility's safety and safeguard assets.