

PROJECT UPDATE: Construction Greater Than 95% Complete

NWR's Sturgeon Refinery construction progress continues with top quartile safety statistics project-to-date. With construction now greater than 95% complete, the focus continues to progress from mechanical completion toward safe commissioning, start-up and operations. 'Goal-Zero' remains a core value for worker and environmental safety, supplemented by safety-focus campaigns to remind all that the 'Refinery is Live!' with hydrocarbons. Commissioning and Start-Up (CSU) personnel have taken control of many areas of the refinery, with Personal Protective Equipment such as fire-resistant coveralls, and a CSU-specific work-permitting process established to reflect the presence of hydrocarbons in the refinery.

Workforce Numbers Trend Down as Activities Focus on Commissioning and Start Up

The construction workforce continues to trend downward, with a current average of approximately 4,400 workers between day and night shifts. These crews are installing remaining piping components, completing electrical power and heat tracing cable installation, insulating the remaining vessels, columns and site piping, pressure testing, and system turnover completion packages.

NWR's operational staff and contract personnel, currently numbering approximately 400, continue with their operational readiness activities and training for a safe and efficient start-up, all the while reinforcing the focus for all site personnel on Safety In Transition and Operational Readiness Reviews.

Demobilization of the large construction cranes on site continues, as does the reduction in highway coaches bringing workers to and from site. There are currently 55 coaches transporting workers for day shift plus 6 coaches for night shift. Routes continue to be re-organized to best suit worker origins as the nature of work progresses.

Hydrocarbons in the Refinery as Many Systems Reach Mechanical Completion

Over the past weeks, mechanical completion has been achieved on many systems within the refinery including: the hydrocarbon flare, steam and condensate system, waste water treatment, light ends recovery, tank farm priority tanks, and the crude and vacuum unit.

Diesel, synthetic crude oil and diluent have been brought into the tank farm area for commissioning purposes, and product shipment equipment to and from the third-party loading facility has been commissioned. Utility boilers were started in late July, and steam blows have been underway since to commission utility systems throughout the refinery. Synthetic crude oil is about to be introduced into the crude and vacuum unit, allowing commissioning to continue on the front end of the refinery.

Successful Renewal of Regulatory Permit

Following several months of work with Alberta Environment and Parks, NWR achieved its renewed permit to construct and operate the Sturgeon Refinery for the mandated 10 year period. Although this permit, issued under the *Environmental Protection and Enhancement Act* grants approval to construct three identical phases of the Sturgeon Refinery, investor sanction and construction efforts remain limited to Phase 1.

Recycling Program Continues to Fund Community Investment

NWR's Community and Charitable Donations program as funded by construction waste recycling continues with several significant contributions to our local community. The focus remains on seniors programs, educational initiatives, and causes in our local community. Details at nwrpartnership.com.

Photographs show top to bottom, L to R: Refinery wide angle overview at dawn; diesel offload into tank farm area; process area at dusk; process area with steam venting; process area including ponds.

