

Silently sour

Extensive planning helped Nexen complete a major sour gas well workover on Calgary's outskirts virtually unnoticed

WITH THE RECENT GAS LEAKS west of Edmonton, the idea of sour gas makes many people very anxious. So when it comes to a sour gas well workover, no news is good news.

In late October 2004, Nexen Canada Ltd. moved a service rig on to its sour gas wellsite facility, located on the east side of 84 Street NE just north of 16 Avenue NE, to complete maintenance on the well.

Nexen had suspended and isolated the wellsite in October 2003 following a routine inspection that identified a maintenance requirement. The workover entailed inspecting the casing, running new production tubing and sub-surface safety landing nipple and valve to ensure the continued safe operation of the well.

After a year of planning and extensive consultations with stakeholders, the workover took place from Oct. 29 to Nov. 12, 2004. "We went above and beyond the current regulations. We worked in consultation with the City of Calgary's Disaster Services as well as local residents," said Allan Seredynski, senior staff engineer, Canadian gas operations, Nexen. "We anticipated we might have to incinerate some sour gas during the operation to fully satisfy ourselves and the Alberta Energy and Utilities Board's (EUB) requirements."

He added that Nexen did some real-time modelling with RWDI West Inc. to look at worst-case scenarios with sour gas. "We used parameters from Questor Technology Inc. (QTI) and looked at various

weather conditions. Using current weather conditions, we knew where the H₂S or SO₂ plume would travel."

The use of the Questor Incinerator for combusting the sour gases (35 per cent H₂S) vented from the well and the inclusive method that Nexen used when planning the project allowed for smooth passage of the workover with the EUB, the City of Calgary, the Municipal District of Rockyview and the many residential stakeholders.

"We used Questor because of the quality of the units. They're the most effective with almost 100 per cent efficiency in burning all the gas off. It's a proven unit," said Seredynski.

Although no sour gas was released during the workover, Nexen had extensive emergency plans in place. "We conducted an emergency response exercise prior to the work starting," Seredynski said. Armed with the facts, local residents carried about their business with little or no safety concerns. "We've been in the area since the early 60s. We've always worked hard to keep residents informed. It's better to provide too much information than too little," he added.

But most people didn't hear a word about the sour gas workover because Nexen completed the project without incident. "The job was an excellent example of how good planning and proper communications can allow work on a sour gas well to be done without a big fuss," said Greg Harasym, marketing manager, QTI.

— Candice Ball

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