

SED-317

Email from Jim Mansdorfer to Rudy Weibel re
RE: Please review 'Generic Topic Areas for Interviews'

I.19-06-016

ALJs: Hecht/Poirier

Date Served: May 17, 2021

Mansdorfer, Jim

From: Mansdorfer, Jim
Sent: Thursday, April 23, 2009 2:12 PM
To: Weibel, Rudy
Subject: RE: Please review 'Generic Topic Areas for interviews'

Rudy, with all of the focus on image management and risk control there is an issue that I have been thinking about and this seems like a good time to present the case.

At Aliso Canyon we have over 100 storage wells that are set up for annular flow with up to 3150 psi on the casing. A few of these wells are under 10 years old, but the majority are from 35 to 70 years old. There is no Cathodic Protection on these wells. Many of the wells pass through known or unknown ancient landslides, and every well in the field crosses the Santa Susana fault, which is considered to be active with a slip rate of 5 mm/yr. (Yeats, et. al.)

Casing corrosion, landslide movement or fault movement are all potential causes of a major subsurface casing leak. Depending on the cause and the number of wells affected, it may be possible to control the well by pumping kill fluid into it, but if a subsurface blowout gets out of control and craters to the surface it would probably require a relief well to control it. Even one of these happening could have severe consequences for the Company's image, and if the cause is a large landslide block or fault movement there could be multiple events at the same time.

Back in the 1970's our predecessors were concerned about this enough to install subsurface safety valves in all wells at Aliso. Unfortunately at the time the technology was not up to the challenge and all of the valves failed and were subsequently removed. However due to deepwater high flow rate wells the technology is now available to install deep set valves that will withstand high flow rates. We have one of these in Miller 4. We could leave the wells in annular flow configuration so we don't have the cost, problems and deliverability loss associated with conversion to tubing flow.

We are soon to be putting together the GRC for the 2012 Rate Case. I recommend that we put together a case for a program to install deep set safety valves in all Aliso Canyon wells. We would pull tubing, run a casing inspection log, pressure test the casing, and rebuild the wellhead seals prior to re-running tubing with the safety valve. My offhand guess is between \$300,000 and \$400,000 per well, including the control panel. We could probably complete 20 to 25 wells per year, so this would be a 5 year program at a cost of about \$6 – 8 million per year.

This would also make me feel more comfortable with utilizing the higher pressure that will be available from the new compressors – with the lighter gas we can gain another 4-5 Bcf by going to higher surface pressure (while staying within our bottomhole pressure limitation), but this would be higher pressure than the wells have ever been exposed to.

If you want me to pursue this I can have Todd do a better cost estimate.

Jim Mansdorfer P.E.

4/23/2009

Storage Engineering Manager
SoCalGas Storage
818-701-3473

From: Weibel, Rudy
Sent: Thursday, April 23, 2009 9:58 AM
To: Thompson, John A.
Cc: Bomberger, Timothy J.; La Fevers, Glenn; Mansdorfer, Jim; Mumford, Joel; Nakano, Lauren; Quon, Lissa; Schroeder, Tom
Subject: RE: Please review 'Generic Topic Areas for Interviews'

A risk assessment review.

From: Thompson, John A.
Sent: Thursday, April 23, 2009 9:57 AM
To: Weibel, Rudy
Cc: Bomberger, Timothy J.; La Fevers, Glenn; Mansdorfer, Jim; Mumford, Joel; Nakano, Lauren; Quon, Lissa; Schroeder, Tom
Subject: RE: Please review 'Generic Topic Areas for Interviews'

I can better comment with a little more info.
What is the basis for this? Who is the interviewer?

From: Weibel, Rudy
Sent: Thursday, April 23, 2009 9:48 AM
To: Bomberger, Timothy J.; La Fevers, Glenn; Mansdorfer, Jim; Mumford, Joel; Nakano, Lauren; Quon, Lissa; Schroeder, Tom; Thompson, John A.
Subject: Please review 'Generic Topic Areas for interviews'

Please review the attached document.

I will be interviewed next week. Please provide your insights on any of the bullet points.
Rudy

4/23/2009