

From: Cadenasso, Eugene
Sent: 11/9/2012 3:52:32 PM
To: Ramaiya, Shilpa R (/o=PG&E/ou=Corporate/cn=Recipients/cn=SRRd)
Cc: Doll, Laura (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=LRDD);
Redacted
Bcc:
Subject: Re: Reduced pressure on PG&E Line 300

Thank you!

From: Ramaiya, Shilpa R [mailto:SRRd@pge.com]
Sent: Friday, November 09, 2012 2:05 PM
To: Cadenasso, Eugene
Cc: Doll, Laura Redacted
Subject: Reduced pressure on PG&E Line 300

Eugene,

Attached are responses to your questions on the Line 300B pressure reduction. Let us know if you have further questions or would like us to walk you through any of this information.

Take care.

Shilpa

Shilpa Ramaiya

PG&E

415-973-3186

1) Is the Line 300 pressure reduction due to complexities at the Colorado River crossing?

No, operating pressure on Line 300B, from the Colorado River to the Topock Compressor Station, was reduced due to an over-pressure event that occurred on February 1, 2011. During this event the pipeline was pressurized to 727 psig – one pound above the 110% maximum allowable operating pressure (MAOP) limit set in 49 CFR 192.201. Pursuant to 49 CFR 191, PG&E immediately reported this incident to the Pipeline and Hazardous Materials Safety Administration (PHMSA) and to the California Public Utilities Commission (CPUC). On February 2, 2011, following an order from CPUC Executive Director Paul Clanon, PG&E reduced the operating pressure on L300B by 20% -- from 660 psig to 528 psig. L300B has been operating at this reduced pressure ever since.

In 2011 and 2012, PG&E completed hydrostatic testing of L300B from the Topock Compressor Station to the Colorado River suspension bridge (the HCA segment of the line) in accordance with 49 CFR 192 Subpart J. PG&E also developed a Pipeline Features List (PFL) and completed the MAOP validation for all HCA and non-HCA pipelines and associated components. PG&E submitted the HCA hydrotest records, along with pipeline MAOP validation records for the suspension bridge pipe (the non-HCA segment), to CPSD in July for early review. On September 20, 2012 PG&E filed our formal request to restore pressure on L300B on the suction side of the Topock Compressor Station between the station and the Colorado River (attached).

PG&E is currently awaiting the Consumer Protection and Safety Division's (CPSD) concurrence with the request to restore pressure on L300B. However, CPSD has questioned why PG&E did not hydrotest the non-HCA portion of the line across the suspension bridge. Independent experts advised against a water test given the weight on the suspension bridge; however, PG&E recently provided CPSD with additional pressure test documentation (24-hour air pressure test) for the Colorado River crossing obtained from El Paso Natural Gas, joint owner of the bridge.

2) To what extent has the pressure been reduced on Line 300 and when is the pressure reduction expected to be lifted?

As stated above, PG&E reduced the operating pressure on L300B by 20% from 660 psig to 528 psig. In the attached pleading, PG&E originally asked to restore pressure on L300B by October 31, 2012 in order to assure reliable gas supplies to the Milpitas Terminal before potential cold storms could cause critical curtailments. However, CPSD has not completed its review of PG&E's Supporting Information.

3) Is it possible that the pressure reduction could impact PG&E's ability to provide reliable service to its customers? If so, describe the circumstances (e.g., extreme cold weather) that could result in a service disruption and likelihood.

Yes, as a practical matter, L300B cannot operate at 528psig in the Winter. L300B's impact on PG&E's ability to provide reliable service to our customers will be seen if there are any capacity issues on L300A. Capacity problems on Baja Path could occur if PG&E faces one of the three scenarios outlined below:

- A Cold Winter Day (CWD) in mid-winter when gas storage supplies are moderate
- A cool (but not cold) day in fall when storage withdrawals are constrained due to off-season maintenance
- A cold day in late Winter when gas storage supplies are more limited

In each of the scenarios below, we assume the loss of L300A and consider the likely responses and impacts to service reliability and possibility of diversions from noncore to core customers.

Scenario 1: It is a Cold Winter Day (CWD) in January. The total system demands are 4200 mmcf/d and El Paso is scheduled to provide 800 mmcf/d. PG&E storage withdrawal capacity is 1500 mmcf/d, of which 1200 is committed. The total supply scheduled from the other interconnects and independent storage providers is 2200 mmcf/d. Sufficient supply is available to meet demand until PG&E loses L300A upstream of Topock. With L300A isolated, the only other way to flow El Paso gas is to open up L300B. However, with an operating pressure limit of 528 psig, this is not possible (given El Paso's obligation to supply 600 psig to the SoCalGas). This means that both L300A and L300B will be shut off, eliminating PG&E's largest gas source from the South.

To respond, PG&E would immediately go to maximum withdrawal at all the PG&E storage fields to make up 300 mmcf of the 800 mmcf loss of supply. PG&E would call for additional supplies from the other interconnects and independent storage providers, however, on short notice it is likely we could only get 5 percent more than what was scheduled. This makes up another 110 mmcf. PG&E is still short 390 mmcf of gas for the Cold Winter Day event. PG&E would invoke an Emergency Flow Order (with potential diversions from noncore) to balance supply and demand on the system. This will result in limitations to what some noncore customers can use and may require diverting noncore gas to support core customers. Any noncore customer on the system can potentially be impacted.

Scenario 2: It is a cool day in the Fall. Total system demands are 3000 mmcf and El Paso is scheduled to provide 700 mmcf. Due to maintenance, PG&E storage withdrawal capacity is 400 mmcf, of which 200 is committed. The total supply scheduled from the other interconnects and independent storage providers is 2100 mmcf. Sufficient supply is available to meet demand until, again, PG&E loses L300A upstream of Topock. With L300A isolated and L300B limited to 528 psig, both lines will have to be shut off, eliminating PG&E's largest gas source of Baja Path gas.

To respond, PG&E would immediately go to maximum withdrawal at all the PG&E storage fields and make up 200 mmcf of the 700 mmcf loss of supply. PG&E would call for additional supplies from the other interconnects and independent storage providers but it is likely we can only get 5 percent more than what was scheduled (another 105 mmcf). PG&E is still short 395 mmcf of gas. PG&E would invoke an Emergency Flow Order (with potential diversions) to balance supply and demand on the system. This will result in limitations to what some noncore customers can use and may require diverting noncore gas to support core customers. Any noncore customer on the system can potentially be impacted.

Scenario 3: It is a cold day in March. Total system demands are 3300 mmcf and El Paso is scheduled to provide 800 mmcf. PG&E storage withdrawal capacity is 1100 mmcf, of which 700 is committed. The total supply scheduled from the other interconnects and independent storage providers is 1800 mmcf. Sufficient supply is available to meet demand until PG&E loses L300A upstream of Topock and has to shut off both Lines 300A and 300B.

To respond, PG&E would immediately go to maximum withdrawal at all the PG&E storage fields and make up 400 mmcf of the 800 mmcf loss of supply. The call for additional supplies from the other interconnects and independent storage providers yields only 5 percent

more than was scheduled (another 90 mmcf/d). PG&E is still short 310 mmcf/d of gas and would have to invoke an Emergency Flow Order (with potential diversions) to balance supply and demand on the system. This will result in limitations to what some noncore customers can use and may require diverting noncore gas to support core customers. Any noncore customer on the system can potentially be impacted.

In addition to the potential wide spread customer usage restrictions, the loss of El Paso gas supply can also drive up the price of gas at the Citygate. As an illustrative example, if prices were to increase 10 cents/Dth, it can translate to a \$6 million/month impact to customers.

In summary, the lack of L300B upstream of Topock presents a significant risk to system reliability and can impact customers operationally and economically.

4) Has PG&E made any operational changes to mitigate the impact of the pressure reduction? If so, describe the changes.

Yes, PG&E has since restored pressure through the Topock Compressor Station to maintain Baja Path flows from both El Paso and Transwestern. PG&E also restored pressure on L300A to maintain El Paso capacity.

5) Has PG&E developed any contingency plans to address the possibility of service being disrupted due to the pressure reduction?

Yes, in the event of disrupted service, PG&E plans to use available storage withdrawals and increase shipments from other suppliers in response to the loss of supply. However, as the scenarios in Response 3 suggest, there may not be enough storage and suppliers may not be able to respond or respond fast enough to make up the loss. PG&E will also work with El Paso and SoCalGas to lower El Paso's delivery pressure so that gas can flow on L300B during L300A outages. However, the outcome will depend on the temperature and SoCalGas' ability to meet its customer natural gas demands at the lower pressure.

In addition, in order to prepare for possible service interruptions, PG&E conducts routine

training exercises on the Emergency Flow Order (EFO) and diversion process to ensure we can manage situations where there is a shortage in gas supplies. PG&E also conducts training exercises in emergency response to prepare for emergencies on the gas system.

From: Cadenasso, Eugene [<mailto:eugene.cadenasso@cpuc.ca.gov>]
Sent: Monday, November 05, 2012 04:54 PM
To: Doll, Laura
Subject: Reduced pressure on PG&E Line 300

Laura,

We have some questions about the existing pressure reduction on PG&E backbone Line 300.

- 1) Is the Line 300 pressure reduction due to complexities at the Colorado River crossing?

- 2) To what extent has the pressure been reduced on Line 300 and when is the pressure reduction expected to be lifted?

- 3) Is it possible that the pressure reduction could impact PG&E's ability to provide reliable service to its customers? If so, describe the circumstances (e.g., extreme cold weather) that could result in a service disruption and likelihood.

- 4) Has PG&E made any operational changes to mitigate the impact of the pressure reduction? If so, describe the changes.

- 5) Has PG&E developed any contingency plans to address the possibility of service being disrupted due to the pressure reduction?

Thank you,

Eugene

PG&E is committed to protecting our customers' privacy.
To learn more, please visit <http://www.pge.com/about/company/privacy/customer/>