TURN DATA REQUEST
TURN-SCG-DR-14
SOCALGAS 2016 GRC – A.14-11-004
SOCALGAS RESPONSE
DATE RECEIVED: APRIL 21, 2015
DATE RESPONDED: MAY 5, 2015

1. Regarding SoCalGas Exhibit 8-CWP, in response to TURN DR 7-1c, SoCalGas states that "The DREAMS algorithm… is only capable of calculating a relative risk score." In response to question 1.b., SoCalGas states that "As a starting point to establishing a 10 year plan of top priority pipe segments to replace the listing encompassed… steel with a risk score of 75 or greater and … plastic segments with a risk score of 45 or greater."

   Is the relative risk of a steel pipe segment with a risk of "75" equivalent in DREAMS to a plastic segment with a risk score of "45"?

   a. In either event, please explain how those risk scores were chosen as the minimum for replacing pipe segments
   b. If the relative risk between the two scores is not equivalent, please explain the decision to use different minimum risk scores for selecting replacements.
   c. Given the variation in DREAMS marginal risk scores from 2013 to 2014, as discussed in response to question 7-4.d, have the minimum scores for replacement of gas and plastic pipe changed? If so, please provide the minimum DREAMS scores for steel replacement and plastic replacement, by year, since SoCalGas began using DREAMS scores through 2014.

SoCalGas Response:

No, the relative risk of steel and plastic segments are not equivalent.

a) As a starting point to establishing a 10 year plan of top priority pipe segments to replace, the listing encompassed segments with 1 or more pending leak for steel with a risk score of 75 or greater and 5 or more repaired leaks for plastic segments with a risk score of 45 or greater. Together these segments make up approximately 550 miles.
b) The failure mode for steel pipe and plastic pipe are different therefore the algorithms are different as well. The results of the steel and plastic algorithms are not comparable. As mentioned in the testimony of Maria Martinez (SCG-08-CWP pg. 38-39). there is a 2:1 ratio between non state of the art steel and non state of the art plastic leaks. This ratio was used when formulating the 10 year plan of top priority segments to replace.
c) Yes, the minimum DREAMS scores for replacing steel and plastic pipe has changed for 2014. Please see table below.

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Response to Question 1 (Continued)

Year	Minimum DREAMS Risk Score for Pipe Replacement	
	Plastic	Steel
2007	100	100
2008	100	100
2009	100	100
2010	100	100
2011	100	100
2012	100	100
2013	Top 5% Risk*	Top 5% Risk*
2014	5 year plan*	5 year plan*
2016	10 year plan*	10 year plan*

* In 2013 SoCalGas changed its approach in terms of quantifying "high-risk" since the automation process was implemented and the DREAMS database was fully populated. As proposed in the 2016 GRC Exhibit SCG-08-CWP, page 38 SoCalGas is targeting the replacement of 55 miles per year over a 10 year plan and will monitor systems performance rather than set a threshold for "high-risk."

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2. In response to TURN DR 7-4a, SoCalGas states, "since the ratio for the steel leak population is twice as large as the plastic leak population the replacement ratio is 2:1." In the response to DR 7-1c, SoCalGas mentions that the "failure modes" for steel and plastic pipe are different, with steel pipe having "pending leaks", while plastic pipe has "repaired leaks".
    a. Please confirm that the decision of which steel pipe to replace is based on a different criterion or different criteria than the decision of which plastic pipe segments to replace.
    b. Please identify and briefly describe each criterion used in making the decision of which steel pipe to replace.
    c. Please identify and briefly describe each criterion used in making the decision of which plastic pipe segments to replace.
    d. Please explain how SoCalGas applies the different steel and plastic replacement criteria discussed in its response to question 7-1.c. to achieve the 2:1 replacement ratio discussed in response to question 7.4.a.

SoCalGas Response:

a) Yes, the statement is correct.
b) Refer to SoCalGas' response to TURN DR 7-7b. The chart included in subsection "b" breaks out the different attributes by algorithm.
c) Refer to SoCalGas' response to TURN DR 7-7b. The chart included in subsection "b" breaks out the different attributes by algorithm.
d) The steel and plastic models are applied to the steel or plastic pipe data separately. The results of the separate analysis are merged together into the top priority list using the 2:1 ratio. This list comprises of steel pipe segments with a score of 75 or greater and with 1 or more pending leaks, and plastic pipe segments with a score of 45 or greater and with 5 or more repaired leaks.

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3. In response to TURN DR 7-4.d and e. SoCalGas states that the DREAMS estimated marginal risk for steel pipe increased by a factor of nearly 200 between 2013 and 2014, while the marginal risk of plastic pipe declined by 40 percent.
    a. Please explain SoCalGas's definition and use of the term "marginal risk" in this response.
    b. Is more than one steel pipe segment posing a risk of over 40,000 in 2014?
    c. Please provide a distribution of risks, by pipe segment, developed through DREAMS, for steel pipe and for plastic pipe for 2014, in EXCEL format and in graphical form where possible.
    d. Please provide available information on the distribution on risks, by pipe segment, developed through DREAMS, for steel pipe and for plastic pipe for 2013, in EXCEL format and in graphical form where possible

SoCalGas Response:

a) Marginal risk is defined as the average risk score of the pipe in the replacement plan.
b) Yes
c) Please see attached file(s) labeled as TURN-SCG0DR-14-Q3 attachment 1 & 2
d) Please see attached file(s) labeled as TURN-SCG0DR-14-Q3 attachment 3 & 4

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4. Regarding SoCalGas's response to TURN DR 7-14, Cathodic Protection Package remediation, please provide the backlog of packages requiring remediation at the end of 2014.

SoCalGas Response:

At the end of 2014, there were 1,856 cathodic protection packages requiring remediation.

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5. Regarding Workpaper SCG- 04-CWP, pp. 109-114, Cathodic Protection capital spending, given that 2014 adjusted-recorded capital spending for account 001730 was 54% of the 2014 forecast:
    a. What planned or forecasted work did SoCalGas include in the 2014 forecast but did not undertake during 2014?
    b. In SoCalGas's judgment, did the failure to spend the forecasted amount in 2014 undermine in any way the utility's ability to operate its gas system in a safe and reliable manner? If the response is anything other than an unqualified "no," please explain the response in detail.
    c. Please break out 2014 recorded capital expenditures in account 1730 between accounts 1730.001 and 1730.002.

SoCalGas Response:

a. Permitting delays impacted installation of impressed current, which impacted the 2014 recorded amount for capital expenditures on cathodic protection. Capital work can be impacted by permitting and electrification challenges; however, SoCalGas' capital forecasts for 2014 – 2016, as they were developed, continue to provide a reasonable total forecast for capital expenditures over that time period for this work.
b. SoCalGas does not agree with the framing of the question. SoCalGas developed its capital forecasts at a point in time using what it maintains are reasonable forecast methods and expectations of cost drivers. The GRC forecast was developed according to the Rate Case Plan, which does not contemplate the use of 2014 recorded data and the forecasts were not developed using that information. While that recorded data may indicate lower spending than forecasted in some areas, it may also indicate higher spending than forecasted in others. Although SoCalGas provided that data in the spirit of cooperation, the utility is not permitted to revise its forecasts using that data, either up or down, once the application is filed. . The 2014 level of capital expenditures for this capital account does not indicate a failure to make necessary investments in cathodic protection, and does not cause SoCalGas to alter its goal of providing safe and reliable service to customers. Permitting delays (as described above) do however impact SoCalGas' ability to move ahead with projects within any given forecasted year and can impact level of expenditures until such impediments are cleared; however, it is work that has to be done, and as soon as the permitting delays and other challenges are mitigated, the work is completed. This can result in increased upward pressures to achieve the projected levels of work and investment, which we are seeking to address in this GRC to meet our commitment to safety and reliability.
c. A breakdown of historical costs is not available between the two cathodic protection capital sub-workgroups. The cathodic protection capital work related to incremental cathodic protection system enhancements was not tracked separately from other cathodic protection capital work.