

From: Yura, Jane  
Sent: 11/6/2013 6:49:31 PM  
To: Malashenko, Elizaveta I. (elizaveta.malashenko@cpuc.ca.gov)  
(elizaveta.malashenko@cpuc.ca.gov)  
Cc: Doll, Laura (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=LRDD)  
Bcc:  
Subject: FW: PG&E project

Liza,

I had a very good meeting with [Redacted] welding and metallurgy experts---- I am sharing a draft of what we briefly discussed yesterday.

We can discuss during our Friday team meeting how to assess experts and then, contracted, to help develop the plan. I am gathering several other expert recommendations, and will bring those also on Friday.

Thanks,

Jane

[Redacted] has experts in several areas relevant to the needs of PG&E efforts to ensure its gas lines, and in particular the gas line weld inspections, are safe. These experts include:

- Weld technology
- Metallurgy
- Non-Destructive Evaluation
- Sensor Technology
- Quantification of Margins of Uncertainty (QMU)**
- Data Fusion

[Redacted] uses these experts and others to perform a very similar function for the Department of Energy's weapons program for the purposes of certifying the safety and security of the nuclear stockpile, one of only two Labs in the nation charged with this responsibility.

We discussed supporting PG&E's most immediate need to prepare a plan to evaluate

suspect gas line weld inspections. We also discussed that that plan would likely outline an approach that involved using experts such as those listed above, along with other industry experts, to evaluate all available information on the weld inspections of concern. The evaluation would compare the data with a set of variables and criteria along with a sophisticated statistical process (QMU) to characterize the weld inspections that should be of most concern. The evaluation can also identify the methods that would be best to use to improve or validate the results and/or where physical re-verification of the weld inspections, ongoing monitoring and possibly subsequent replacement of welds, may be the best course of action.

Redacted

can initially support the project by either providing individual experts to a team that prepares the plan, or by leading a team of experts, including those at Livermore, to prepare the plan. Ultimately, depending on the details of the plan, LLNL experts could be utilized to assist in executing the plan.