

From: Igor Paprotny  
Sent: 2/29/2012 8:08:52 AM  
To: 'Shori, Sunil' (sunil.shori@cpuc.ca.gov); [Redacted]; 'Bermel, Mike' (MBermel@semprautilities.com)  
Cc: Yura, Jane (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=JKY1); 'Paul Wright' (pwright@me.berkeley.edu); 'Gaymond Yee' (Gaymond.Yee@uc-ciee.org); 'Richard White' (rwhite@eecs.berkeley.edu); 'Fernando Pina' (FPina@energy.ca.gov)  
Bcc:  
Subject: RE: Folow-up regarding the meeting last week Nat. Gas Sensors PAC meeting

Hi Mike,

This is excellent – thank you. Can I call you sometime on Thursday to follow up on some of these points ?

What would be a good time ?

Igor

**From:** Bermel, Mike [mailto:MBermel@semprautilities.com]  
**Sent:** Wednesday, February 29, 2012 8:00 AM  
**To:** 'Igor Paprotny'; 'Shori, Sunil'; [Redacted]  
**Cc:** 'Yura, Jane'; 'Paul Wright'; 'Richard White'; 'Gaymond Yee'; 'Fernando Pina'  
**Subject:** RE: Folow-up regarding the meeting last week Nat. Gas Sensors PAC meeting

Igor, See my answers below Igor,

I'll get you a couple of PDF drawings.

Thanks, Mike

**From:** Igor Paprotny [mailto:igorpapa@eecs.berkeley.edu]  
**Sent:** Friday, February 17, 2012 4:11 PM  
**To:** Bermel, Mike; 'Shori, Sunil'; [Redacted]  
**Cc:** 'Yura, Jane'; 'Paul Wright'; 'Richard White'; 'Gaymond Yee'; 'Fernando Pina'  
**Subject:** Folow-up regarding the meeting last week Nat. Gas Sensors PAC meeting

Dear Mike, Sunil, [Redacted],

Thank you for great feedback, and good technical discussion during our PAC meeting last week. We appreciate the suggestion of accessing the pipe at the valves located along the pipeline, allowing us to locate some of the radio an power equipment outside the pipeline. I wanted to follow up on that. Specifically;

- a) Could you elaborate what these access points are currently used for ?// We have taps along our pipelines at various points for transmitters which are used to measure diff press, pressure, temp and in some cases gas quality and or flow. Generally 3/4" or 1" diameter, sometimes large. They are generally NPT fittings.
- b) What is the frequency between these points ? // 3-5 miles in the city, up to 20 miles in the outlying areas
- c) Do you have any drawing or schematics of the access points that we could look at ? //  
Yes
- d) Are the access points currently instrumented in any way ?// Yes many are
- e) Is there a company that manufactures these access points that we could contact to perhaps get some samples ?// The access points are simply fittings which are welded onto the pipe and then a drilled to allow access.

Also, we were wondering if it would be possible to arrange a road-trip for our group to look at the pipeline, and perhaps examine those access-points more closely. [Redacted] and Jane, since PG&E would be ideal for this, could you perhaps help us arrange this ?// Any time Igor, Mike

Sincerely,

Igor, UC Berkeley Nat. Gas Sensors Group