

**PG&E/City of Lafayette/Gas Safety Task Force/CPUC  
Follow-Up Meeting - May 28, 2019  
Meeting Notes**

**Meeting Attendees**

**PG&E:** Christine Cowser-Chapman, Benny Barnes, Tom Guarino

**City of Lafayette:** Greg Wolff, Mike Anderson

**Gas Safety Task Force:** Dave Kosters, Dennis Kuzak, Scott Honegger, Howard Fuchs, Michael Dawson, Gina Dawson

**CPUC:** Terence Eng, Paul Penney, Dennis Lee

**Meeting Context**

This meeting was third gathering of stakeholder representatives.

**Meeting Purpose/Objectives/Agenda**

Continue to broaden understanding of how PG&E evaluates and prioritizes projects to address gas pipeline threats in the Lafayette community.

**Next Steps:**

- Meeting set for July 9, 2pm-4pm. PG&E local engineer to attend.
- PG&E to present list of all transmission pipeline risks within Lafayette including LOF, location, and mitigation/corrective action (if applicable).
- PG&E to concentrate on risks of Weather & Outside Forces.
- CPUC to provide report on Lafayette records validation after they receive PG&E response.
- Other: PG&E to confirm mileage length in Lafayette & look into why HCA decreasing in Lafayette. Tom G can help Howard get building plans for bridge.

**Meeting Notes:**

1. Introductions & confirmation of agenda: City would like to discuss how PG&E assesses risks to system & identify mitigations including time frames. PG&E said agreement in last meeting was to understand slides that were sent last meeting, and this meeting is to get Lafayette-specific on transmission risks & what is being done. Not going to cover worst-case scenario or distribution. PG&E transmission engineer will come to the next meeting. PG&E provided hand-out materials.
2. Slide 2. Lafayette pipelines operate at maximum pressure of 23% of design (slide 4); pipelines 3.5" - 16" diameter. PG&E said they don't have all records. More than 1/2 pipe installed before 1961 – that's when GO (General Order) 112 regulations came to Lafayette. There may be some issues between data based on boundaries drawn when pulling record. Prior to that PG&E used ASME B31.1 on how to design & construct pipeline. PG&E discussed history of regulations.
3. Lafayette residents thought one line was running at 32%, PG&E stated it was replaced for capacity. That's why SMYS dropped: pressure capacity dependent on grade, diameter & wall thickness. Doesn't tell pressure, they've chosen to operate pressure much lower than it could handle. Lafayette residents said we get different information each time. 10.9 miles of pipeline before, now 11.3 miles...why did that change? Benny will look at it, may be how they defined boundaries.

4. Age of pipeline? 3001-01 in front of Scott's house as example. Can provide map showing what age installed in each segment? PG&E said it's critical infrastructure, public knowledge of where exactly located can be a concern after 9/11. Specific address questions can be sent to PG&E.
5. High Consequence Area (HCA) discussion - should that be expanded to include secondary effects? For example, for wildfires after loss of gas incident? Analysis is Pipeline Impact Radius (PIR) an just number of structures, and number of people. Other industries model for this, Lafayette residents have done it professionally and feel strongly about this. PG&E thinks it's a valid point, but they haven't analyzed. Defining HCA can use two methodologies - PIR or class location. Federal code says a company can choose either. G.O. 12 for pipelines > 12", PG&E pushed to use class location, not PIR. Class methodology sliding mile linear footage from pipeline. Sometimes low pressure pipelines covering much more ground, increasing mileage. PG&E said their HCA territory is growing across the system, and it's a regulatory requirement to update annually for integrity assessment. Lafayette residents pointed out PG&E's maps provided to residents have showed that HCA's are decreasing in Lafayette, notably along Mt. Diablo and Lafayette reservoir. PG&E will look into.
6. MAOP based on existing records. HCA factors into it? CPUC confirmed yes, if there's something new like church or preschool, it could add to mileage, or decrease if it goes out of business. For Lafayette, on Mt. Diablo, more people, buildings are being added. After San Bruno, expanding scrutiny beyond HCA. PG&E has many programs - weather related & outside threats - three assessment methodologies. PG&E uses standards of ASBB31AS (??), look at land movement & fly entire pipeline with lidar to strip away vegetation. High level annual info & look for changes for indicator to drive boots-on-ground assessment. Independent of HCA, and prioritization happens based on if there are people around it or not. PG&E said Lafayette has six "landslides" or "lateral stability" locations; five inactive. One this summer they are doing boots-on-the-ground. PG&E not prepared to say where in Lafayette.
7. Slide 6 - All the threats & looking at how to prioritize efforts (control or mitigation). Biggest threats matched with budgets. Left hand side is catastrophic risk. List of loss of containment across whole system. On the right, how you tackle risks by looking at individual threats to identify programs. RAMP - before, there was no concern loss of life, only PG&E trucks, personnel. PG&E said they look at consequences, but those would be costs to shareholders. Residents don't care who pays for it. In proceeding for analyzing risk, PG&E uses "multi-aggregate value function" in looking at define financial consequences, something that has to be talked about fines & penalties (those are shareholder funded). What gets filed are those things that are ultimately shareholder costs. Insurance has written for fire loss. You want to quantify overall risk - we need total risk to society, then worry about costs. Gas side of business should consider wildfire more, need to figure out how to quantify and consequence.
8. Slide 7 - eight major categories of threat. Underneath is multiple sub-threats (example: weather & outside forces). How does PG&E apply sub-threats? Does PG&E weight the sub-threats? PG&E says they have done good job of weighting within a family of threats, but across threats they need to do more work with weighting distribution. Weather related forces, they look at geographical data, but need more improvement. Model would allow distinction by segment.
9. Slide 9 - threats in Lafayette, linear scale. External corrosion highest threat, stress corrosion cracking & internal corrosion lowest. How does PG&E calculate SCC threat if no ILI has been performed in town? PG&E uses general info & industry data for likelihood of threats & looks at factors for causation: SCC requires susceptibility of material, coating breaks, coating types, environment, large moisture accumulation. PG&E compares to PHMSA incident data when they don't have data. Lafayette had no reportable incidents, but have had leaks. Take all factors in consideration to generate SCC likelihood.

10. CPUC mentioned filtering criteria: > 60% SMYS, > 100 degrees F, <20 mi downstream compressor station, built >10 yrs ago, all coatings other than fusion bonded epoxy. PG&E is expanding filtering criteria depending on data that comes in – might have threat at lower SMYS. As community, we don't have information; Lafayette has 14 exposed pipeline, is that factored into risks? PG&E said the info is Lafayette-specific – each segment for characteristics that make it susceptible. 0% SCC means it doesn't have any factors that lead to SCC. SCC caused by material stress + environment. Propensity of SCC at 23% SMYS, it's low likelihood, even if you had the environment to cause it. Does PG&E know where welds are, they are more prone to failing. Girth welds seeing less stress due to orientation, so very little SCC seen in nation. Longitudinal is more likely, and that can be found with strength/spike testing. PG&E says they use even more stringent criteria for SCC than what CPUC listed today. At low stress situation there will be a leak before a rupture, and PG&E has robust leak detection program. Consequences not listed on this slide.
11. Slide 10 - looking at all threats, highlight 4-5 w/red arrow, and then primary prevention measures (on right). Budgeting? Leak detection on repetitive cycle on frequency.
12. Slide 11 - Risk placemat. Red boxes aligned to threats highlighted in slide 10. We don't have any PHMSA incidents, but doesn't mean we don't have risk. The risk algorithm data feeds the risk reporting. Example: one data might be the number of 811 tickets in an area, or land use there (Example was given of Bakersfield farmland being more susceptible to excavation damage, so elevated risk). PG&E has procedures when there is an incident. CPUC said there are incidents PG&E doesn't even know about it (example: scraping by backhoe on pipe). Residents looked at bridge being installed on EBRPD trail – PG&E not sure who is contact. Tom G has been in contact with Carol Johnson & staff, will help Howard get plans.
13. Residents asked: can you calculate accurate Likelihood of Failure (LOF) for each sub-cause? PG&E has, but hasn't provided. We as city and residents want to know specifics. We cannot use the general categories, but more specifics would help us bring it back to the community. Example: tsunamis is not a big factor, but liquefaction must be. Where is the landslide? If external corrosion is high, where is it? How did PG&E assign risk to LOF with tree roots? PG&E said they analyzed information from 84 tree sites, identified external corrosion, identified handful of locations that breaking coating and external corrosion that aligned with tree roots. There's a lack of PHMSA incidents, but they still put risk around it. Programs and practices in place to address for roots and for land movement based on industry information and site specific understanding of land movement. Trees roots on distribution pipes will grab on to pipe. PG&E has identified 207 trees as result of specific risk analysis. Think of tree and different interacting threats. If pipeline close enough to trees, there are varying degrees of corrosion, land movement, vintage girth weld stress, wind stress, weak soil. Residents have many concerns with what was said today about tree roots, and would appreciate an opportunity to dig further into the research PG&E has provided. Other information in these reports is not being considered by PG&E.
14. LOF would be more helpful. PG&E can break it down graphically, by pipeline. PG&E asked how would it be helpful? Residents asked for specific information, not just list the broad brush categories. There are examples in deck that are actionable, but dig-ins were identified and nothing has changed. Some projects can be mitigated tomorrow, such as vehicle damage. It would be helpful to know the threats so we can take action. PG&E will provide as breakout of threats.
15. CPUC saw large auger digging into transmission line. CPUC spoke to digger who had no 811 ticket, PG&E educated him on need to call 811. CPUC encourages people here to be vigilant if anyone is digging. City should also be involved, maybe residents should get rewards like PG&E employees. Residents want to take action now.
16. Slide 13 - Dig-in information. 1/2 of Lafayette incidents on distribution don't have 811 tickets. System wide, 93% trans; 38% distribution don't have tickets. Slide 14 - all things PG&E does to raise

awareness. Are there are any other communities that developed communications programs that Lafayette could use? PG&E: the Gold Shovel program (ex: Sacramento) where cities don't hire anyone not certified. In other communities city work is source of much damage, but here fencing companies, landscapers, more common. In Lafayette there is no building permit for putting in fence, so would need something more grassroots.

17. Slide 16 - how Lafayette can help. Hire someone, use police force? There are lots of ways to pursue, and is internal conversation for Lafayette. There is no permit, so might be more neighborly, and done through communications. Data for dig-ins from PG&E is going back to 2013. What is breakdown of the increasing trend in Lafayette? Why is third-party damage listed on page 9, if no incidents on transmission? They use inferential data, PHMSA data, etc. Like increasing number of 811 tickets, a logical conclusion that the threat is going up. PG&E cannot fine people who hit lines, but they can bill them. Slide 9 - wouldn't this graph mirror PHMSA data for #1 risk, etc.? PG&E said only if they don't have good data, they use PHMSA data, but depends. PG&E is being conservative. The risk exposure will be larger than the actual incidents, except for dig ins. USGS data overlays maps across Lafayette show susceptibility, but not to the granularity of the hillside. PG&E is conservative where they don't have data, and they will collect data over time to try to find out. This shows PG&E where they should be focusing resources to reduce safety threats. For example, PG&E wouldn't test every 20% SMYS pipe, it would be throwing money around since risk is low, and they have the survey program. Residents looked at risk register number for trees, and it was low, and artificially increased. PG&E said that is not how they do it any more, they have evolved from index model.
18. Slide 16 (continued) - PG&E has offered up possibilities for helping address third-party excavation damage (slide 16). As we look at slides, goes into what PG&E is doing and risks being addresses. Do we want to go over, or just pick one, like WROF.
19. Reflections of meeting given by members:
  1. People feel like it was positive meeting, people on same wave length.
  2. Each meeting is increasingly helpful. Still concern on how PG&E is treating tree root risks differently than other risks in community. Need to see what is actually happening.
  3. CPUC role to ensure operators complying with state & federal regulations and ensure safety and integrity of pipeline. Based on Lafayette resident concerns, they did analysis & review of MAOP validation reports & strength test reports in Lafayette. CPUC has follow-up questions, waiting for PG&E response in order to create a report to be shared.
  4. Need to quantify consequences in our community, needs to include wind-driven flames. Need to discuss automated valves to address all the uncertainties.
  5. Would like to see what we're going to do to address big threats.
  6. Thanks for PG&E putting all the work into addressing questions.
  7. Meetings are helpful. It started with not understanding risk and CPSI program.
  8. Thanks to the CPUC, PG&E did a good job explaining. Hopefully we're getting close to something useful. Lots of good discussion, hopefully we can get to actionable items.
  9. CPUC thanked everyone for hosting and attending meeting. Residents have a lot of knowledge, looking forward to seeing it completed.

10. CPUC said in 20 years they haven't seen community group being so dedicated to pipeline safety. CPUC asks PG&E to look at the threats that could effect pipeline. How many trees being considered for removal? 207, but it's in court. We'll have another conversation on this topic.
11. Tom G can help with slides 14-16, he can help with Gold Shovel program. Some of the other projects may be easier. Likes the idea of a citizen's group helping enforce. If Lafayette sees something listed on the slides, we can start working on it.
12. City stated that CPSI was proposed without context. We're now looking at all the risks and the mitigations, and helpful to have high-level understanding before diving into any one thing.
20. For next meeting, we'll stay on transmission for next meeting and local pipeline engineer will attend. Date set for Tuesday July 9, 2pm-4pm. Themes for next meeting: 1. management of change of data (why 11.3-10.9 mi for example, HCA to non-HCA, etc). PG&E can provide written response, wants to put that issue to bed so we're not questioning data. Residents can still ask questions. 2. Getting into details on weather related & outside force - breaking to sub-threats. 3. What is PG&E doing about it?
21. It would be helpful for PG&E to provide data without asking specific questions. Example of 14 exposed pipelines – this is the type of information we found on our own, would like to receive from PG&E. And how is PG&E prioritizing fixes of those exposed segments?
22. Also helpful for PG&E to provide age of pipeline. PG&E can't do this on map, Lafayette-resident specific location information can be given. What is age of pipeline at location of 207 trees?
23. Valve automation should be discussed at some point. Consequence of Failure meeting is needed.