Records Research Procedure

Purpose and Scope:

This attachment lists steps to perform when researching PG&E records for a pipeline maximum allowable operating pressure (MAOP) increase, requalification, or similar project. This is specific and limited to pipelines that are proposed to operate greater than 60 pounds per square inch gauge (psig). It covers records research steps during the preparation of a project. This attachment excludes construction, mapping, or closeout records processes.

References:

TD-4125P-04 Attachment 1, "Uprate Written Plan Sample."
TD-4126P-04 Attachment 3, "Pipeline Features List Template."
TD-4125P-04 Attachment 4, "Station Equipment List Template."
Form TD-4125P-04-F01 Attachment 5, "Approval to Revise MAOP."
Form TD-4125P-04-F02 Attachment 6, "Typical Uprate Pressure Increase Report."
Form TD-4125P-04-F03 Attachment 7, "Engineering Review Check List."
Form TD-4125P-04-F04 Attachment 8, "Post-MAOP Revision Documentation Check List."
Numbered Document A-34.1, "General Requirements Work Reportable to the California Public Utilities Commission."

General Requirements:

The responsible PG&E engineer performs or directs research. If performed by others, the responsible PG&E engineer must review and approve the work product.

Researchers must follow appropriate due diligence to ensure all pertinent company records are reviewed and that the system is fit for uprating. The project team must search all pertinent records to identify the system details.

Review of operating, maintenance, and corrosion history must include interviews with appropriate personnel. Recording these interviews is not necessary. However, the interview should be documented on Form TD-4126P-04-F03, "Engineering Review Checklist."

Also, document the detailed steps performed for research on Form TD-4125P-04-F03, "Engineering Review Checklist."

Procedure:

1) Define the system to be uprated. This includes marking up maps by drawing a boundary around the existing and/or proposed MAOP break points, including the level of detail necessary to clearly distinguish MAOP breaks. It is recommended to highlight the system on plat sheets and also create project construction drawings. Identify both upstream and downstream MAOP break points.

2) Review the following Codes to clarify scope of work and code requirements:
   CFR Title 49 §§ 192.551 to 557, 192.501 to 507, and 192.619

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G.O. No. 112-E, Subpart B-Reports, Sec. 129 Change in Maximum Allowable Operating Pressure.
Numbered Document A34, "Piping Design and Test Requirements."
Numbered Document A34.1, "General Requirements Work Reportable to the California Public Utilities Commission."

3) Review the design, operating history, and maintenance history of the lines.
   - Search all available records sources to identify the system pipe specifications and equipment ratings
   - Document the search and key results on the Form TD-4125P-04-F03 Attachment 7, "Engineering Review Check List," and TD-4125P-04 Attachment 1, "Uprate Written Plan Sample."
   - Document the features found on the TD-4125P-04 Attachment 3, "Pipeline Features List Template," and TD-4125P-04 Attachment 4, "Station Equipment List Template."

Search the following records:
- GIS and pipeline survey sheets
- For distribution plat sheets, identify all pipes, PCFs, fittings, services, associated jobs in the uprate area.
- Operating maps and diagrams.
- Pipeline plan and profile drawings.
- Transmission Plat Sheets.
- Station Drawings.
- For as-built job records, review as-builts, bill-of-materials, strength test pressure reports (STPR).
- Identify all services and specifications where available.
- For regulator datasheets, identify all equipment and ratings.
- Review leak history including integrated gas information system (IGIS) leaks, A-forms, and any other available leak data.
- Cathodic protection records.
- Any other physical records available.
- For service records, identify all services and material specifications where available.

4) Identify unknown equipment pressure ratings in field as necessary – such as regulator station equipment, services, pressure control fittings, service tees, Sav-a-valves, and taps.

5) Pothole and inspect unknown underground fittings such as pressure control fittings, taps to regulator stations, service tees, and Sav-a-valves. If there are numerous, specific unknown underground fittings installed on the same job, pothole a representative sample and determine if the sample meets the requirements of the proposed MAOP and test criteria. If this sample meets the requirements, consider the rest of the items to be of the same design specification.

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6) Calculate designs specifications (for example, new MAOP, % SMYS at new MAOP). Answer the following question using the model provided.
What pressure should design specifications achieve?
Existing MAOP ____ psig
Proposed MAOP____ psig, %SMYS highest @ new MAOP
Document summary on TD-4125P-04 Attachment 1, "Uprate Written Plan Sample," and detailed results on TD-4125P-04 Attachment 3, "Pipeline Features List Template."

7) Review the project with system integrity management personnel specifically for HCA identification, manufacturing threats, whether to include in the Integrity Management program or not, and other Subpart O integrity issues. If line is covered in the ECDA or ILI programs, review that program data for integrity issues.

8) Interview operating and maintenance personnel to (T&R supervisor and mechanics, GSO) to review the design, operating history, CP, leak, and maintenance history of the lines. Document results on the uprate written plan and actions taken on Form TD-4125P-04-F03 Attachment 7, "Engineering Review Check List."

9) Compare designs specifications to physical equipment and to code limitations. Using the comparisons, answer the following questions:
- To what pressure can the pipe system uprate?
- Is the proposed pressure increase safe and consistent with code requirements?

10) Write the uprate written plan following TD-4125P-04 Attachment 1, "Uprate Written Plan Sample." Clearly label the plan "DRAFT" until it is completed and issued for construction. Removing DRAFT must indicate the responsible engineer's approval of the work product.

11) Write and submit CPUC notification if required (CPUC reportable if required in Numbered Document A-34-1, "General Requirements Work Reportable to the California Public Utilities Commission.") Submit by email to "GT&D GE Regulatory Support & Analysis".

12) Store all relevant documents in the job package.

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