



CPUO Meeting Materials

Weekly Non-Destructive Examination Program Updates

May 30, 2014

DRAFT For Discussion Purposes Only

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- PG&E/SE Alignment
 - L-114 ✓
 - Extent of Conditions for TCI Inspections
 - NDE Program Enhancements ✓
 - NDE Program Validation Protocols/Extent of Conditions (LLNL)
- Completed Activities To Date
- Next Steps
 - Schedule
 - Immediate Needs



- See presentation dated 3/7/2014 for past items
- Completed all 43 committed digs/re-inspections
- Leak Survey details
 - Leak Survey began on 600 miles of identified Gas Transmission pipeline (12/2/2013)
 - March Leak Survey Finalized
 - Zero leaks found on weld (Girth or Long Seam)
 - Continuing with authorization suspend “monthly” leak surveys
 - LLNL has completed comprehensive review of 488 Welds
 - LLNL working with ATS/Keifner and Associates on 8 welds
 - Believed to be in compliance but wanting to ensure correct interpretation of code
 - Final Report still scheduled for week of June
 - LLNL feels confident that weld quality issues are present
 - LLNL will provide statistical backed position a system-wide dig program will not provide desired results of determining weld inspection compliance.

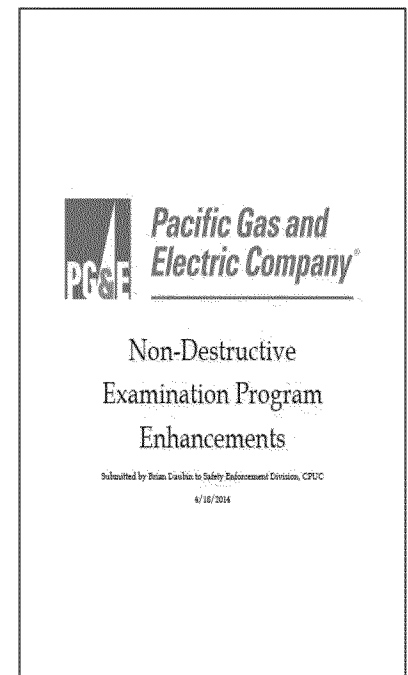
¹Activity progress/completion is discussed in the Completed Activities To Date section

²Dates are contingent on weather, permit, and/or construction schedules



NDE Program Enhancements

- Issuance of PG&E NDE Program Enhancements Package
 - Provides full package of PG&E guidance documents for Gas Operations NDE Program
 - Establishes “best in class” NDE Program
 - Program built on “Continuous Improvement” model (Plan, Do, Check, Act)
 - Program structured for scalability. PG&E based on increased observation, utilizing sound statistical based approaches.
 - Higher volume work = Higher volume Observations
 - QA/QC Model – Effectiveness of Control
- Workstream completed





NDE Program Validation Protocols

- See presentation from 2/7/2014 for previous notes
- PG&E working to provide proposal for incorporation of Girth Weld Inspection Gaps into Risk Model (provided there are no findings from TCI Validation):
 - Follows a proven industry model (IM Model)
 - Provides for on-going and continuous threat assessment
 - Provides for traceable/verifiable/~~complete~~ audit trail (yearly IM Audit)
 - Provides yearly report out on findings (yearly IM Audit)
- LLNL supports approach
 - LLNL will show that there is no reverse ~~action~~ ~~relationship~~ between weld quality and weld inspection
 - Best approach is to utilize continual ~~monitoring~~ program to identify potential areas of concern; which in turn will increase risk profile for a given segment
- PG&E has built IM program Framework for Weld Inspection Gaps
 - PG&E Director of Integrity Mgmt will present to SED on 6/6/14
 - PG&E will provide framework as an update to approach
 - PG&E requesting SED to provide 3rd Party Validation Consultant for IM Program
 - PG&E will consider workstream complete upon submission of updated standards/procedures (RMI's and/or RMP's)



Completed Activities to Date

- See 2/7/14 presentation for items prior to 2/1/14
- Excavated/Tested/Passed 43 welds as of 3/11/14:
- Completed L-114 Final Report
- Created Maps of pipeline segments to be Leak Surveyed as a result of L-114 Findings
- Completed 4 monthly Leak Surveys (Dec, Jan, Feb, Mar) of 600 miles of pipeline
- Completed NDE Program enhancements
 - Implemented for all NDE Contractors as of 4/1/2014
- LLNL has completed review of 488 Non-Compliant welds from TCI
 - Pending final report during week of June 2014
- Framework for long term IM approach completed



- High Level activities within the next 6 Weeks
 - See 2/7/14 presentation for prior items:
 - Finalize Comprehensive Analysis of TCI Data Set
 - Establish required digs (3 months)
 - Finalize digs/re-inspections (TBD)
 - LLNL to complete Final Report of TCI non-compliant x-ray films
 - Presentation of IM framework to SED(6/6/14)
 - Revised IM procedures to incorporate “non-compliant weld inspections” into PG&E Integrity Management Risk Model



Appendix I

DRAFT Response to "SAMPLE REVIEW of TCI RADIOGRAPHS"
by Bureau Veritas