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# 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.

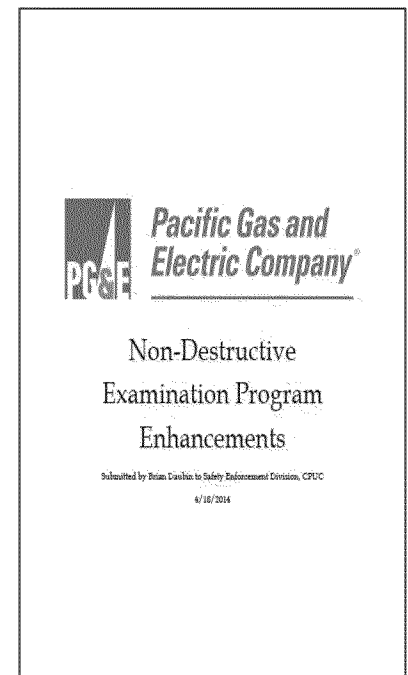
<sup>1</sup>Activity progress/completion is discussed in the Completed Activities To Date section

<sup>2</sup>Dates 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

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- 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 ~~relation~~ 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 3<sup>rd</sup> 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

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- 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