Guidance on the Excavation and Backfill Procedures in Areas of Geohazards and High Axial Strain and Stress

SBD-1-5

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Technical Committee Meeting
October 22-25, 2018
Incentive

Unique challenges when working in areas of geohazards
- Stability of ROW
- Pipe segments may already be under stress
- Potential in doing more damage when involving heavy equipment
  - On target lines
  - On adjacent lines

Examples
- Strain/stress relief excavation
  - Where to start
  - Monitoring during the process
  - Stop/continue criteria

Real work incidents
- Improper backfill
- Affect adjacent lines
- Buckles at toe of hills
Project Overview

- No centralized source for guidance on excavation/backfill procedures
- Companies are learning the same lessons – individually
- Project goal: developing consolidated guidelines for
  - Working in areas of geohazards
  - Excavation
  - Strain relief and confirmation (Year 2019 work)
  - Backfill (Year 2019 work)
- Initially intended approach
  - Consolidating information from
    - Industry standards
    - Company guidelines
    - Company experience
  - CRES working with project team to provide critical review and develop common procedures
Work Progress and Activities Completed

- Work progress to date, Year 2018
  - Task 1 Refinement of work scope, completed
  - Task 2 Assessing the risks for working in the areas of geohazards, in progress
  - Task 3 Procedures for excavation, in progress

- Major project activities since last TC meeting
  - Meetings
  - Conducted literature reviews
  - Issued survey on experiences regarding working in areas of geohazards/excavation procedures
  - Developed report skeleton with areas of focus highlighted for user feedback
Project Challenges

- Lack of member response
  - Survey: five responses total
  - Report skeleton: two responses total
  - Recent meetings (7/19, 8/16, 8/30): 1-2 team members in attendance
- Answer: one-on-one discussions
General Observations from One-on-One Discussion

- Experiences can be regional/localized
- Owner company may not have procedures for working in areas of geohazards
  - There may be procedures related to
    - Worker safety via OSHA
    - Environmental safety via FERC
- Consultants may oversee many excavation/backfill events
  - Golder
  - Geosyntec
Next Steps

- Continue one-on-one communication
- Engage geotechnical consultants
- Parallel execution of 2019 scope (focusing on backfill)
- There might be a need to developing procedures / best practice within this project if there are no existing documents we could draw on.
Thanks

- Q&A