IPLOCA

Novel Construction Meeting

Earthworks Committee

Fall Session 2023

München

IPLOCA

TOGETHER - DELIVERING SUSTAINABLE ENERGY INFRASTRUCTURE

Earthworks Committee Composition

- Leader: Joseph Gilmartin (Chairman) , BP (not present)
- **Co-Leader: Ana Cecilia Soares – Petrobras (present)**
- **Daniel Gasquet, IPLOCA**
- **Amir Tajik, Streicher**
- **Benet Chan, Caterpillar**
- **Pablo Guerra, Mears Group**
- **Erhard Kracht, HDI**
- **Neil Smith, Mears**
- **Diana Rennkamp, Herrenknecht**
- **Brian Jorgensen, American Augers**
- **Dominique Huc, American Augers**
- **Renzo Chirulli, Vermeer**
- **Peter Grönholm, Allu**
- Kimberly Abrams, Petra
- Elie Majdalani, C.A.T. Group
- Corne Willemsen, Sitetec
- Craig Larson, LaValley Ind
- Petra Soda, KVV Co
- Etienne Pfister, SCAIP
- Roberto Zillante, Petra - USA

Team Findings

New Committee Chair Selected

ISSUE 1: Committee Direction

- Discussion on how group will focus on specific areas and make them:
  - Generic (No trademarks)
  - Future proof – do not give specifics if likely to change with time (max/min diameter for example)
  - Use references to other publications where they already exist and are recognised
- **Joseph Gilmartin - Flour**
- **ACTION: RESOLVED**

ISSUE 2: RTS Chapters Need Review/Refresh

- Assigned authors to certain sections, left some in the “Parking Lot”.
  - 7.4 HDD draft ready for review. Pictures need refreshing/updating
  - 7.7 “Direct Pipe” is a trade name, this will be renamed and refreshed.
  - Details of other sections on next slide.
  - Some group members in checking only roles
- **ACTION: Topic refresh prioritized, Topic owners assigned, and deadlines established**

RTS Chapters Under Review / Development

Chapter 6: Earthworks

Prioritization and Owners Established

- **6.1 Right of Way (1 Sub) - Joseph**
- **6.2: Earthworks Design / Trenching (40 Subs) – Joseph / Benet**
- **6.3: Environment (1 Sub) – Katherina**
- **6.4: Health and Safety (1 Sub) – Neil Smith + H & S Group**
- 6.5: On-shore pipeline survey (9 Sub) – No changes this cycle
- 6.6: Site investigate (5 Sub) – No changes this cycle
- **6.7: Non-intrusive Survey Techniques (12 Subs) – Ana Suares**
- 6.8: Buoyancy Control (5 Subs) – No changes this cycle
- 6.9: Groundwater Prediction Methods (1 Sub) – No changes this cycle

Chapter 7.0: Crossings

- **7.1: Trenchless Crossings - Erhard**
- **7.2: Decision Criteria – Erhard**
- **7.3: Auger boring – Dominque Huc**
- **7.4: HDD – Pablo: Review by Group**
- 7.5: Tunneling – No changes this cycle
- 7.6: Pipeline installations within casing/tunnel/pipe – No changes this cycle
- **7.7: "Direct Pipe" – Diana: Renamed Chapter with Generic Title**
- **7.8: Overview of existing trenchless technology – Renzo**
- **7.9: New Technologies: Pipe Express – Kimberly/Roberto**

Road To Success: Earthworks Committee

ACTIONS / NEXT STEPS:

- Process Owners: Review and proposed text changes prior to Spring 2024 session
- Entire Team: Review chapters to improve or delete before Spring 2024 Session
- Chair: Arrange meetings via video conference before Spring 2024 session

Chapters Proposed or In Process

Chapters In-Flight

- **Estimation of Trench Digging Production by Excavators**
  - Chapter has been uploaded on working platform
  - May need to be cut or merged into main chapter
- **Other Chapters**
  - ACTION: Review document length and decide on next steps by working group prior to Spring 2024 Session
    - **Connection Onshore / Offshore – Trenchless Technologies - Diana**
    - Blasting and Rock Breaking
    - Compaction
    - Trenching Methods
    - Trenchers

RTS Subjects - Parking Lot - *Primary Level*

Topics Placed on Hold – No Action This Cycle

- Ground Characterization , Classification of Excavation Capabilities, Geotechnical Datasheets
- Pipe Hammering
- Backfill
- Fiber-Optic Cable in pipeline networks
- Earthworks Design:
  - Geotechnical Activity
  - Sampling and Field Testing
  - The Accuracy Requirements of Topographic Surveys
  - Fault Crossings
  - Survey Methods and their Applicability
  - Earthquake-related geohazards / pipeline seismic design

RTS Subjects - Parking Lot - *Secondary Level*

Topics Placed on Hold – No Action This Cycle

- Well Pointing & Dewatering & Water Table
- Pipeline Integrity Preservation in Trenchless Installations
- Padders
- Aerial Crossings
- Riverbank Protection and Design
- Water Crossings
  - Dredging
  - Pump Around
  - Flumes/Water slides
  - River Diversions
  - Lake & Wetland Crossings