



Standards Oversight Council (SOC)

Developing effective technical standards that protect Wisconsin's natural resources

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1072 Horizontal Directional Drilling Standard Team

MEETING NOTES

Thursday, February 13, 2020 ▲ 9:30am – 3:00pm ▲

Lee Sherman Dreyfus State Office Building, 141 NW Barstow Street, Room 151, Waukesha WI 53188

9:30 Welcome & Notes Review (Kate, Team)

Goal: Welcome, review meeting objective, and review and approve 1/16/2020 draft meeting notes.

Attendance: Kate Brunner;

Team: Kim Gonzalez (Team Leader); John Edwardsen (remote); Brad Eifert (remote); Matt Fehler; Mike Hackel; Ann Nye; Geri Rademacher; Dana Halverson; and Abby Williamson (remote).

Absences: Susan Knabe; Elliott Mergen; and Lance Newman.

Guests: none

Draft meeting notes were emailed around to the team. No specific questions or comments on these draft 1/16 minutes. The wetland quality clarified for the risk evaluation table. Kate will post online as final in a couple days.

No Action Items from last meeting (1/16) remained open.

At the last meeting we started to detail what factors would contribute to maximum and minimum risk. As a reminder, when we use the term "Risk", this is more loosely defined as the "risk of something not going according to plan". This discussion of "Risk" likely won't go in the standard but it is a stepping stone to use in our discussions. Subjective terms that aren't defined by the DNR (like "high quality") may also need to be adjusted or defined as we get to writing.

Appropriate Practices

Goal: Continue discussion from last meeting identifying appropriate activities for the extremes of each risk factor (size, geology, resource). Include items that are standard practice in the industry.

Team revisits the list of practices we started generating at the last meeting. This list isn't activities appropriate for all HDD projects, just some. Team reviews the list of practices, makes and adjustments and reorders some of the items by priority.

The list below remains a working version of practices that may be implemented in HDD projects:

- Risk Evaluation – identify challenges
 - Desktop survey (SWDV and other readily available tools) – proximity to wetland/waterway resource, resource type,
 - Desktop – existing utilities
 - Desktop – NRCS soil survey, existing geotech data,
 - Field site walk-through – initial design
 - Field geotechnical investigation – soil borings
 - Field wetland identification/delineation
 - Field water quality survey
 - Field geophysical investigation (incl. resistivity) – optional, include as a consideration
- Planning
 - Frac Out
 - Generic Frac out plan
 - Site-specific frac out plan
 - include communication plan
 - Spill Plan – generic vs site-specific
 - Field site walk-through
 - Staging Plan
 - Execution Plan
 - Profile details
 - Contingency Plan
 - Annular Pressure Curve (APC) - for higher risk, more complex projects, FERC projects
- Construction phase
 - Field bore path walk-through – with contractor
 - Pre-construction meeting

- Monitoring and Inspections – frac out monitoring (utility owner or 3rd party), erosion control inspections, HDD machine logging
- Reporting – spills, weekly erosion control reports (county/local requirement),
- Recordkeeping/documentation

Sequencing and Prioritizing Practices

Goal: Develop an organization for the practices that are steps to implementing HDD projects.

The full team discusses the list of practices and prioritizing the activities within each of these three categories and reorder the list on-screen together. Team identifies what practices apply to all HDD projects (highlighted green in list above).

Team begins discussion on what types of activities are more rare, reserved for only very large or sensitive resource areas.

12:15 Communicating Expectations

Goal: Discuss ideas for how to communicate which practices are appropriate for a specific project. Should all three factors be combined, or remain separate, or should there be limited combination of factors?

At the previous meeting we identified the risk extremes for three basic factors: **size**, **geology**, and **resources**. The extremities of risk were used as a guide to identify appropriate practices.

The team discusses that geology by itself isn't a risk factor comparable to resources or HDD size.

- Geology-related complications like gravel, boulders, variable soil consistency are often discovered much later in the process and not in the planning phase (other than limited projects that had geotech surveys).
- Geologic issues are often both discovered and overcome in the field by adjusting depth of HDD or using smaller diameter.
- Geology is not an initial risk factor but would typically be considered after resources and size.

Team splits up into groups to discuss ideas for communicating appropriate practices based on risk. For reference, the team reviews a handout with examples of flow charts, matrices, tables, etc. from previous homework.

The breakout groups discuss ideas to merge the types of risk factors or lists of activities that would be appropriate for decision making.

Breakout groups: Group 1: John, Brad, Abby (remote, conferenced together)
 Group 2: Geri, Ann, Matt
 Group 3: Mike, Kim, Dana

Share Ideas from Group Decision-Making Activity

Goal: Breakout groups report back on how to communicating practices for an HDD project. Full team discusses ideas and decides on structure.

Each of the 3 breakout groups report back on their discussion. The full team discusses merits and weaknesses of different concepts and appears to merge concepts from all three:

- Team generally likes the concept of using wetland/waterway quality as the beginning decision-making factor. The user would first come up with maximum, medium and minimum risk based on proximity to wetland/waterway and quality.
 - The max and min may be easily defined (by existing program requirements and waterway classifications). Geri will look into what information is available and clear on the DNR Surface Water Quality Data Viewer.
 - The water quality categories should be well defined (ideally using existing categories) and should be based on information that is readily accessible and easy to interpret by potential users of the standard.
- After water quality categorization, the Team discusses that this further breakdown of the medium risk area could be achieved by a “scorecard” with numerical values for the details of these risk factors (diameter, length, gravel present, etc.). This further breakdown may also be achieved by natural breaking points in how HDD projects are implemented.
- Future discussions will need to work out details further; Team is not yet at a consensus on a complete structure.

Plan of Action (Kate, Kim)

Goal: Review action items and agenda items for next meeting (March 31, 2020 in Portage).

Action Items:

1. Kate – prepare draft meeting notes with Kim, then send to full team for review and comment. Notes will be approved by the team at the next meeting (3/31/2020).
2. Kate and Kim – prepare next meeting agenda and share with team by March 24, 2020.
3. Geri – look into what wetland/waterway quality information is available and clear on the DNR Surface Water Quality Data Viewer.
4. Kate will email the team the list of activities for HDD from meeting today.
5. Team – review the list of activities for HDD and continue thinking of options for grouping or identifying categories of activities appropriate to different types of projects (are there any obvious groups of activities to help clear up the details for the “medium” area.

Next agenda topics?

1. Further clarify the medium risk factors – how to define and what are appropriate practices. Are there 3 general categories in how HDD practices are applied, or are there 10?
2. Continue discussion on developing a communication tool (decision tree, matrix, flow chart, scorecard, etc.). Is the team’s initial approach still the best option when medium items are also included?

Parking lot for later discussion:

1. Provide information on what resources to use and where to find them (like DNR’s SWDV and NRCS soil survey).
2. Clarify requirements on medium risk projects – definition (and is it one medium category, or should we have a gradation of multiple categories?), practices, drawing lines in practices.
3. Itemize what should be in a Frac Out Plan and a Spill Plan.
4. Clarify requirements for projects that have multiple stream crossings or different quality resources.
5. Revisit use of bore length as a risk criteria – try to better manage temptation to create projects that avoid requirements by working just under length thresholds.

Team meetings on the following dates and locations (also in calendar invitations):

March 31, 2020 (online meeting)

April 22, 2020 (online meeting)

May 14, 2020 (online meeting)

June 18, 2020 – Stevens Point – Schmeeckle Nature Preserve

July 16, 2020 – Madison – UW Extension Dane Co.

Aug 13, 2020 – Madison – UW Extension Dane Co.

3:00 End