

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Guidance for Horizontal Directional Drill)
Monitoring, Inadvertent Return Response, and)
Contingency Plans)

Docket No. AD19-6-000

**COMMENTS OF
THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA**

Pursuant to the Environmental Staff of the Federal Energy Regulatory Commission (“FERC” or “Commission”) Office of Energy Projects’ October 26, 2018 *Notice of Availability of Draft Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans*,¹ the Interstate Natural Gas Association of America (“INGAA”) respectfully submits the following comments. INGAA supports FERC staff’s efforts to improve the quality and consistency of horizontal directional drill (“HDD”) plans filed with the Commission, and INGAA believes the FERC staff’s Draft Guidance document² is a step in the right direction towards meeting this goal. INGAA is providing these targeted comments to help refine the Draft Guidance.

INGAA is a trade association that advocates regulatory and legislative positions of importance to the interstate natural gas pipeline industry in the United States. INGAA’s 28 members represent the vast majority of interstate natural gas transmission pipeline companies in the U.S. INGAA’s members, which operate approximately 200,000 miles of interstate natural gas pipelines, serve as an indispensable link between natural gas producers and consumers. Its

¹ *Notice of Availability of Draft Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans*, Docket No. AD19-6-000, Oct. 26, 2018.

² *Draft Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response, and Contingency Plans*, Docket No. AD19-6-000, Oct. 26, 2018 (“Draft Guidance”).

members' interstate natural gas pipelines are regulated by the Commission pursuant to the Natural Gas Act ("NGA").³

INTRODUCTION

INGAA supports FERC staff's efforts to improve the quality and consistency of HDD plans filed with the Commission. INGAA also agrees with the Commission's recognition that "[t]his guidance does not substitute for, amend, or supersede the Commission's regulations under the *Natural Gas Act* or the Commission's and Council on Environmental Quality's regulations under the National Environmental Policy Act of 1969 (NEPA)."⁴ Moreover, INGAA appreciates and agrees with FERC staff that some aspects of the Draft Guidance "may not be appropriate for the scope of a proposed project. Each HDD plan should be prepared in consideration of project-specific issues, impacts, and public and agency comments."⁵ Some portions of the Draft Guidance should not be applied, or intended to apply, to all trenchless methods that could be generically labelled HDDs. INGAA requests clarification that the Commission's intent is to apply the guidance manual to projects with proposed HDDs, as opposed to all trenchless construction techniques. For purposes of any final guidance, INGAA would define HDD as a type of trenchless construction method of installing pipelines through areas to avoid or minimize impacts to sensitive environmental resources, or where traditional open-cut excavations are not feasible due to logistical reasons but does not include all such trenchless methods (which include conventional bores). For example, it would provide little to no value to develop comprehensive HDD plans for small HDDs utilized to achieve additional depth of cover or separation from foreign utilities, rather than those adopted to avoid or minimize surface impacts to environmental

³ 15 U.S.C. §§ 717-717w.

⁴ Draft Guidance, *supra* n.2, at p. 3.

⁵ *Id.*

resources. Thus, the application of the guidance, once finalized, should be commensurate with the complexity of each HDD design, its location, and the specific environmental conditions.

As discussed further below, some of the information requested in the Draft Guidance may be unavailable for various reasons, or may remain subject to change, during the Commission's NEPA-mandated environmental analysis of a proposed project. Consequently, INGAA requests that the Guidance be revised to ensure that the best available information is provided in the HDD plans included in certificate applications, with the understanding that the HDD plans will be supplemented, or updated, as additional information becomes available during the certificate application review process, or prior to the commencement of construction of the applicable HDD.

COMMENTS

- I. HDD plans included in certificate applications should reflect the best available information, and applicants should supplement their plans as additional information becomes available.

In Sections 2-4 of the Draft Guidance, FERC staff recommends the inclusion of detailed information in HDD plans, so that it can be considered by the Commission during its NEPA review of a proposed project.⁶ However, some of the information identified in the Draft Guidance is either unavailable, or is subject to change, at this early stage in the process. Accordingly, INGAA requests that the Draft Guidance be revised to ensure that the best available information is included in the HDD plans developed during the NEPA review process, with the understanding that the information will be supplemented, updated, or provided as responses to data requests as the project moves through FERC's certificate application review process, as well as prior to construction of the applicable HDD.

⁶ See, e.g., Draft Guidance, *supra* n.2, at p. 2.

Specifically, if a project sponsor is unable to access the right-of-way prior to the issuance of a certificate, or when a pipeline faces a re-route due to agency requirements contained in a permit obtained months after making its certificate filing, the applicant will be unable to:

- Identify all springs, which can be difficult depending upon time of year and visibility;
- Acquire detailed geotechnical information;
- Prepare all site-specific plans, which the Commission has previously required to be filed before commencing construction of the applicable HDD;⁷ and
- Perform a hydrofracture analysis for evaluating inadvertent return (“IR”) risks.

In addition, the following information may be unavailable until *after* FERC’s environmental review process since the project sponsor typically does not hire a contractor to conduct the HDDs until after the certificate is issued:

- Drilling plan;
- Specific drilling fluid composition;
- Contractor IR risk evaluations; and
- Personnel names and responsibilities of the HDD contractor.

The items listed above are meant to be a representative, but not all encompassing, list of information that may be unavailable during FERC’s environmental review process.

Accordingly, the Draft Guidance should be revised to ensure the Commission is provided with the best information available, supplemented and updated, as appropriate, either during the environmental review process or prior to commencement of construction of the applicable HDD (as part of the Implementation Plan or other filing). All pertinent information should be provided no later than commencement of the project-specific HDD operations subject to the provisions of the final guidance issued in this proceeding. This is consistent with the Commission’s *Wetland and Waterbody Construction and Mitigation Procedures*, Section V.B.6.d, cited in the Draft

⁷ See *Wetland and Waterbody Construction and Mitigation Procedures* at p. 3, Docket No. AD12-2-000, May 31, 2013.

Guidance at p. 2, which requires companies to file a site-specific plan *prior to the beginning of construction* for all HDD crossings of wetlands and waterbodies.

II. INGAA offers the following specific comments to improve the contents of HDD plans.

A. INGAA recommends providing site-specific drawings and reducing the information summarized in tabular format since it is available elsewhere.

As an initial matter, INGAA supports preparing a comprehensive HDD plan for each project, where a plan provides FERC information about each HDD crossing included in a given project.

The Commission has presented three tables in Section 3.1 as examples of “basic information for each crossing” to include in the HDD Plan. Table 3.1-1 summarizes information regarding proposed HDD locations. Tables 3.1-2 and 3.1-3 summarize information specific to HDD wetland and waterbody crossings. INGAA believes that most of the information requested in these tables can be better displayed on site-specific drawings. INGAA’s concerns about these tables can be summarized as follows:

1. The stratigraphy crossed by a particular HDD might not be easily or accurately described in a “Subsurface Material” column. If the crossing traverses several stratigraphic layers (which is true of nearly all HDDs), trying to summarize more complex stratigraphy in a table may cause inconsistency or confusion when compared to the geotechnical reports. This information is best provided in the geotechnical reports filed with FERC and on the geotechnical stick figures on the HDD drawings.

2. The following data points in Tables 3.1.-1, 3.1-2⁸ and 3.1-3⁹ are not well suited to tabular format or when multiple features are crossed: subsurface materials, entry/exit elevation difference, depth of cover, horizontal setback distance from the wetland or waterbody, estimated range of stream flow during crossing. This information is better displayed in the site-specific drawings or other reports that are provided to FERC (e.g., geotechnical reports, hydrofracture analysis, etc.). These drawings and reports should be included, or referenced, in the HDD Plan. If FERC would like to retain the tables suggested in Section 3.1, then some of the information in Tables 3.1-1, 3.1-2 and 3.1-3 could be consolidated. For example, some of the information could be consolidated as shown below to include crossing identification, pipeline length and diameter, location data, and feature information. By way of example, INGAA recommends that Table 3.1 be revised as shown below in redline/strikeout:

⁸ “HDD Wetland Crossings.”

⁹ “HDD Waterbody Crossings.”

| Table 3.1-1 Proposed HDD Locations | | | | | |
|--|----------------------------|------------------------|-----------------------|---------------------|---|
| Crossing Name (HDD ID) | Pipeline Diameter (inches) | Approx. Entry Milepost | Approx. Exit Milepost | Total Length (feet) | Subsurface Material Crossing Feature ¹ |
| (Feature crossed or other unique identifier) <u>(Provide a unique identifier and/or reference on the site-specific drawing)</u> | | | | | (description of overburden or bedrock) |
| | | | | | |

¹ Identification of the primary feature to be crossed, e.g., Wetland ID, Waterbody ID

Similarly, should the Commission wish to retain a table specific to waterbody crossings, that table could be consolidated to remove items that are better displayed in drawings or other reports. Further, INGAA suggests replacing “Estimated Range of Stream Flow During Crossing (cfs)” with “Waterbody Type” (as defined in FERC Staff’s Wetland and Waterbody Construction and Mitigation Procedures).

INGAA also recommends deleting the sentence that states “You should modify these tables as necessary to also include sensitive resources that are not crossed by the HDD but which could be susceptible to impacts from HDD activities, as determined based on specific project geology or design.” As written, this statement is vague and ambiguous because it fails to clarify how close such resources need to be to the HDD to be included in the tables.

Finally, the last paragraph of Section 3.1 of the Draft Guidance should be modified as follows:

~~You should also identify or tabulate other unique conditions or features in~~ The site-specific drawing should identify the feature crossed or other unique identifier, as well as the proximity to the alignment(s) that may “increase the risk of drill failure or potential impacts (e.g., existing contamination, artesian groundwater, karst features, significant grade change, presence of retaining walls, abandoned and/or orphan oil and gas wells,

specially managed infrastructure [such as levees], proximity to residences [and basements]) and measures that would be implemented to minimize any risks.

B. INGAA recommends revisions to Table 3.4-1 regarding maintained documentation.

In Table 3.4-1, Documentation Maintained, INGAA requests that the Commission revise the documentation required for HDD Instrument Logs as follows:

The contractor should maintain instrumentation logs that document pilot hole progression, drill string axial and torsional loads, drilling fluid discharge rate and pressure, and down-hole annular pressure monitoring during drilling of the pilot hole (or provide alternative monitoring methods and/or best drilling practices to ensure that the drilled ~~and bored (reamed)~~ holes do not become plugged with drill cuttings leading to hydrofracture and IR).

The deleted language, “and bored (reamed)” holes, is a subset of “drilled holes” and therefore is included within that first phrase. Moreover, the vast majority of IRs occur during pilot hole drilling, which is when contractors carefully monitor and steer the drill bit in order to closely follow the designated alignment and profile below the surface. Both equipment and surface surveillance are used to monitor for IRs during this stage. During the reaming stage, the hole is enlarged, and the reaming tools are not equipped with downhole pressure monitoring devices. Thus, “alternative methods and/or best drilling practices” are employed to monitor for potential IRs, as stated in the guidance.

C. The Drilling Fluid Management requirements in Section 3.5 should be modified to provide additional flexibility and clarity.

Section 3.5.1 of the Draft Guidance notes that the HDD Plan should provide information about drilling fluid additives and that such additives should “comply with permit requirements and environmental regulations. . . .” INGAA agrees that it is important to ensure that such additives comply with permit requirements and regulations; however, for accuracy, INGAA suggests that the guidance be revised to state that the additives should “comply with permit

requirements and applicable regulations. . .” because not all of the regulations that apply may be “environmental” regulations per se.

The Draft Guidance also states that, “Only pre-approved, non-petrochemical-based, non-hazardous additives”¹⁰ may be used. It is unclear what FERC means by “pre-approved” additives. INGAA agrees that only non-petrochemical-based, non-hazardous additives should be used. To the extent that a state imposes additional restrictions (e.g., limiting potential additives to a specific list such as the NSF/ANSI Standard 60 (Drinking Water Treatment Chemicals – Health Effects) list), the HDD contractor will comply with applicable state requirements.

As to when this information about drilling fluid additives must be provided, INGAA notes that a pipeline operator may not know all the drilling fluid additives that may be needed when it files its certificate application or when it begins construction of the applicable HDD. The specific additives that are ultimately used may be subject to change when an HDD contractor is chosen or during the course of an HDD due to actual onsite conditions. To ensure a successful completion, it is important to provide the HDD contractor some flexibility as to the additives that may be used. Therefore, INGAA recommends that HDD Plans provide the drilling fluid additives that the operator anticipates will be used, but the preliminary list may be subsequently updated to reflect the additives that are actually necessary or proposed for use during HDD implementation.

Section 3.5 of the Draft Guidance imposes a requirement to test the drilling fluid for environmental contaminants if the fluid is sourced from an off-site location or if the water supply is a non-municipal source. INGAA notes that it is not common to reuse or use drilling fluid from an off-site location. INGAA has significant concerns about the suggestion to require testing of

¹⁰ Draft Guidance, *supra* n.2, at p. 7.

non-municipal source water for environmental contaminants, as written, because states do not typically require such testing as a condition of the water allocation or withdrawal process.¹¹ The language as drafted is vague and ambiguous as it doesn't list specific parameters to test for, and there is no common list of constituent criteria for which to assess. Likewise, it is unclear to which local or state agencies an operator would need to provide documentation of consultation when no entity has such jurisdiction. Without further specificity, operators will have difficulty assessing whether they have complied with such a requirement, and INGAA requests that the Commission staff remove the suggestion for a testing requirement from its guidance.

D. INGAA proposes revisions to Section 3.6 of the Draft Guidance regarding HDD Operational Conditions and Response Actions.

Section 3.6 of the Draft Guidance, "HDD Operational Conditions and Response Actions," characterizes HDD activities into three operating conditions. The first operating condition is "Normal Drilling (full drilling fluid circulation)." INGAA requests that staff revise "Normal Drilling (full drilling fluid circulation)" to "Normal Drilling (consistent fluid circulation)" since there rarely is full drilling fluid circulation in any HDD. There is always some level of drilling fluid that naturally remains in the formation. So long as the fluid is circulating consistently (i.e., without significant loss of drilling fluid circulation), the Normal Drilling condition is achieved.

Further, in paragraph 1 of Section 3.6.1 Drilling Procedures, INGAA requests that the Commission revise the following sentence as follows:

The contractor should consider utilizing real-time annular pressure monitoring with the use of a down-hole annular pressure tool throughout pilot hole drilling operations, or provide alternative monitoring methods and/or best drilling practices to ensure that the drilled ~~and bored (reamed)~~ holes do not become plugged with drill cuttings leading to hydrofracture and IR.

¹¹ Where such a state obligation does exist, the HDD contractor will comply with that state requirement.

As noted above with regard to Table 3.4-1, the deleted language, “and bored (reamed)” holes, is a subset and therefore included within the phrase “drilled holes.” Moreover, the vast majority of IRs occur during pilot hole drilling, in which contractors carefully monitor and steer the drill bit in order to closely follow the designated alignment and profile below the ground surface. Both equipment and surface surveillance are used to monitor for IRs during this stage. During the reaming stage, the hole is enlarged, and the reaming tools are not equipped with downhole pressure monitoring devices. Thus, “alternative methods and/or best drilling practices” are employed to monitor for potential IRs, as stated in the guidance.

The Draft Guidance further provides that, “In the event of significant or total loss of drilling fluid circulation, the contractor should notify project inspector(s) and the Company, and should take steps to restore circulation.”¹² Commission staff should revise the Draft Guidance to note that an operator’s first action in the event of a significant or total loss of drilling fluid circulation should be to immediately suspend drilling operations and check the drilled alignment for IRs. An operator should not have to locate and notify the project inspector(s) before taking immediate action to address the significant or total loss of drilling fluid circulation.

E. The Draft Guidance should avoid referencing brand-name equipment.

In Section 3.7.1, “IR Response Materials and Equipment,” FERC lists several types of equipment that “should be maintained on site or be immediately available to the site. . . .” INGAA recommends editing this statement because Bobcat[®] is a manufacturer or brand-name of a type of skid-steer loader. To avoid referencing a particular company or brand, INGAA recommends that “bobcat” be replaced by “skid-steer loader.”

¹² Draft Guidance, *supra* n.2, at p. 9.

Similarly, in Section 3.9.1, “Alternative Crossing Measures,” FERC staff refers to HDD contingencies such as “direct pipe installation. . . .” DirectPipe® is a limited and proprietary technology. To avoid referencing this one proprietary technology, the Draft Guidance should refer to more generic “alternative trenchless methods.”

F. The Draft Guidance regarding off right-of-way IRs is impractical and should be deleted.

Section 3.7.2 of the Draft Guidance, “Accessing Releases off Right-of-Way and in Inaccessible Areas,” provides that an operator’s HDD Plan should address procedures a pipeline would use to secure landowner permission to access and restore affected resources and/or areas that are outside of approved workspaces, or not directly accessible without an approved workspace variance. The Draft Guidance provides that an operator “should take proactive steps to seek landowner permissions in advance, to limit downtime during drilling operations and expedite environmental response times if an IR occurs.” Since an IR could surface in an area off the right-of-way, on property owned by someone with whom the pipeline has no contractual relationship (i.e., the land abuts the property with the right-of-way), INGAA believes that a requirement to seek landowner permission in advance for potential off-right-of-way IRs is impractical and should be deleted. Since the operator would not know in advance where the IR could occur, it would not know with whom to secure advance landowner permission. Further, for IRs that occur on affected properties, operators are engaged in communications with affected landowners throughout the construction process and would be in a position to address any needs for landowner permissions quickly in the event that an IR occurs, rather than trying to seek prospective approval for an event that may never occur.

In addition, Section 3.7.2 provides that “[d]uring project development, for HDDs in which hydrofracture analysis, or bedrock conditions . . . indicate a likelihood of IR, [the pipeline]

. . . should consider expanding the biological and cultural survey corridor and pre-prepare variances for off-right-of-way access in adjacent areas prior to initiating HDD operations

.”¹³ Even if an operator’s analysis indicates a likelihood of IR, as noted above, the operator will not know where the IR could occur, if at all. Therefore, an operator would not know where or how far off its right-of-way to prepare biological and cultural surveys. Conducting biological and cultural surveys is costly and time-consuming and encouraging survey work in off-right-of-way areas that are beyond the extent of reasonably anticipated construction effects, without knowing if or where an IR might occur, is not an effective or efficient use of resources. Additionally, such survey efforts might impose an undue burden on landowners, as well as reviewing resource agencies. Accordingly, INGAA requests that the Commission staff remove this suggestion from its guidance.

H. INGAA recommends revisions to Site Specific Crossing Plans.

Section 4.1 of the Draft Guidance, “Site Specific Crossing Plans,” states that “Each site-specific HDD crossing plan should contain an HDD drill alignment profile. . . .”¹⁴ INGAA recommends that this sentence refer to an “HDD plan and profile drawing” rather than an “HDD drill alignment profile.” HDD contractors often refer to “alignment” as the position of the drilled path design in the horizontal plane, while they often refer to “profile” as the position of the design in the vertical plane. Both the alignment and the profile should be included on an HDD plan and profile drawing.

INGAA agrees that it is beneficial to include geotechnical information on the HDD plan and profile drawing; however, INGAA also recognizes that there is limited space available on the drawing itself. Therefore, it is generally necessary to summarize the information provided on

¹³ Draft Guidance, *supra* n.2, at p. 11.

¹⁴ Draft Guidance, *supra* n.2, at p. 12.

the drawing, while focusing on the information that is most important. The engineers responsible for HDD designs should have the flexibility to determine which information to include on the drawing. However, the drawing should include a cross-reference to the geotechnical report(s), and the operator should provide copies of the complete report(s) to potential contractors.

The Draft Guidance also recommends including a discussion of “the potential for hydrofracture and an IR using the U.S. Army Corps of Engineers’ Delft method (or an equivalent method) for crossings through unconsolidated material. . . .”¹⁵ IRs should be considered in all cases during the design phase and could be caused by hydraulic fracture or drilling fluid migration due to formational fluid loss. However, the Delft method is not always the best method to evaluate IR risk. Therefore, INGAA recommends replacing “Discuss the potential for hydrofracture and IR using the U.S. Army Corps of Engineers’ Delft method (or an equivalent method) for crossings. . . .” with “Discuss the potential for hydrofracture and an IR using analysis performed by a qualified person. . . .” This modification would provide some flexibility to determine the best method to evaluate IR risk.

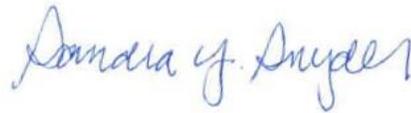
¹⁵ Draft Guidance, *supra* n.2, at p. 13.

CONCLUSION

For the above-referenced reasons, INGAA respectfully requests that FERC staff revise its Draft Guidance, as described herein.



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