STATE OF VERMONT by
PUBLIC UTILITY COMMISSION

Investigation Pursuant to 30 V.S.A. §§ 30 and 309 regarding the alleged failure of Vermont Gas Systems, Inc. to comply with the Certificate of Public Good in Docket 7970	)))))	Case No. 17-3550-INV
Notice of Probable Violations by Vermont Gas Systems	)))	Case No. 18-0395-PET

INTERVENORS' REPLY TO OPPOSITION BY VGS AND DPS TO MOTION TO ALTER OR AMEND, AND TO INTERVENORS' OBJECTION TO FINDINGS BASED ON COUNSEL EINHORN'S HEARSAY LETTER

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Intervenors thank opposing counsel and the Commission for allowing this response six days subsequent to its initial due date. Intervenors' reply will be brief.

1. The Exemption Urged by VGS and the Department Has No Basis in Vermont Law; Mr. Byrd's Testimony Corroborates Mr. Liebert's Testimony

VGS and the Department argue that Mr. Liebert's testimony that AC mitigation constitutes electrical engineering is not undisputed because Mr. Byrd disputed it. They argue that Mr. Byrd's testimony was that in other states AC Mitigation Plans have not been signed by a licensed professional engineer; they have been signed by corrosion experts because AC mitigation is a form of corrosion engineering and corrosion engineering is not a licensed engineering specialty. (9/1/20 Tr. 154-156).

Before considering the actual content and relevance of Mr. Byrd's testimony, it is necessary to recognize that the existence and scope of the licensure requirement found in Vermont statutes is a question of law, not fact. No witness is competent to testify about the interpretation of any Vermont statute, as this function lies solely within the authority of the tribunal. *Town of Brighton*

v. Griffin, 148 Vt. 264, 271, 532 A.2d 1292 (1987). The Commission must decide for itself, with the aid of briefing but not expert testimony, whether utility projects in Vermont are exempt from the professional engineering statutes, and, if not, whether the statutes regulate particular conduct—such as the preparation of Issued for Construction AC Mitigation Plans for a natural gas pipeline.[1]

As has been previously and repeatedly briefed by Intervenors[2], the governing statutes are chapter 20 of 26 V.S.A., particularly §§ 1161, 1162, and 1188. Section 1161(2) defines the nature of work that requires a licensee's signature and seal; the definition explicitly includes utility works and systems:

> "Professional engineering" means any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences and the principles and methods of engineering analysis and design acquired by engineering education and engineering experience, insofar as the service or work involves safeguarding life, health, or property. This includes consultation, investigation, evaluation, planning, and design of engineering works and systems, planning the use of land, air, and water and accomplishing engineering surveys and studies, any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, control systems, fire protection systems, communication systems, transportation systems, projects, and equipment systems of a mechanical, electrical, hydraulic, pneumatic, chemical, or thermal nature.

(Emphasis added.) The statute relies on the dictionary to define "engineering" itself. The dictionary defines "engineering" as "the application of science and mathematics by which the

[1] If the law of Vermont did permit expert opinions on the interpretation of statutes, the witness' qualifications as an expert in statutory interpretation would have to be demonstrated, pursuant to Vermont Rule of Evidence 702. Mr. Byrd was not offered as, and did not demonstrate that he qualifies as, an expert in statutory interpretation or that he was interpreting Chapter 20. He did not mention Chapter 20 or any of its component statutes in his report or in his testimony. His testimony addressed his general knowledge of pipeline engineering nationally, not his interpretation of Chapter 20.

[2] See, e.g., Intervenors' Response to Proposal for Decision, 11/4/22, p.14-16.

properties of matter and the sources of energy in nature are made useful to people." *Merriam-Webster.com* ("engineering" accessed 5/23/23). Section 1188 states that all "plans, specifications, reports, and other instruments of service issued by a licensee shall be signed and sealed by the licensee." (Emphasis added.) Instruments of service are "project deliverables, such as reports, specifications, drawings, plans, construction documents, or engineering surveys, that have been prepared under the licensee's responsible charge." 26 V.S.A. § 1161(4) (emphasis added). These statutes unambiguously require that the construction plans for all aspects of constructing a natural gas pipeline in Vermont must be prepared and signed by a licensed professional engineer. These statutes contain no exemption for corrosion engineering or AC mitigation. If the plans are to be used to construct a gas pipeline for a utility, they must be signed by a professional engineer.

It is salient that neither the reply by VGS nor the reply by the Department argue that AC mitigation falls outside of the wording of 26 V.S.A. §§ 1161 and 1188. Neither memorandum mentions the texts of §§ 1161 and 1188.

VGS's and the Department's failure to consider the language of the controlling statutes stands in contrast to their previous pleadings—in which VGS and the Department both agreed that these statutes govern and that these statutes required that a licensed professional engineer prepare and sign the construction plans. See, e.g., VGS Post Hearing Memorandum of Law, 1/10/22, at p. 27, agreeing that Title 26 "required" that a responsible charge engineer prepare the construction documents, and DPS Post-Hearing Penalty Recommendation, 1/10/22 p.28, concluding that VGS's violation of these statutes had harmed the public's trust in the regulatory process.

Turning to Mr. Byrd's testimony, Intervenors note that the testimony was not quite as VGS and the Department have described it, and the nuance is important. His testimony was that only a

small percentage of electrical engineers are competent to design and do design AC mitigation plans for steel pipelines. Therefore, "I don't care" what the engineering statutes require, he said, the statutes might as well require licensure in cosmetology. These are his exact words:

> … You know, I would dare say 99 percent of licensed electrical engineers have absolutely no idea how to design an AC mitigation system for a buried steel pipeline, and with good reason. They never do it. That's not their job. So I don't care. As far as I am concerned, you can, you know, they weren't licensed in cosmetology. It's like these are totally irrelevant licenses. So, you know, to say that AC mitigation program wasn't done correctly because a person wasn't a licensed engineer, to me, just is a nonsense statement.

9/1/20 tr.142-143.

The fact that some electrical engineers do design such plans corroborates, rather than contradicts, Mr. Liebert's testimony that the Issued for Construction AC Mitigation Plans for the Addison Natural Gas Project consist of electrical engineering. The electrical engineers who design AC mitigation for steel pipelines must believe that AC mitigation falls within their specialty or they would not provide their services. In most states[3], their special expertise may not be legally required because utilities are exempt from engineering statutes. In Vermont, their special expertise is required.

Because the ANGP was constructed in Vermont where 26 V.S.A. §§ 1161 and 1188 govern, even if only 1% of electrical engineers design AC mitigation for steel pipelines the law required that one of that number perform that function for the ANGP.

[3] Liebert Exhibit 2; National Transportation Safety Board, Safety Recommendation Report, Natural Gas Distribution System Project Development and Review (Urgent), November 14, 2018, p.3.

2.A. VGS and the DPS Do Not Dispute that the AC Mitigation Plan Was Not Prepared by CHA and Remains Unsigned

Intervenors asked that the Commission correct its finding that the AC Mitigation Plan had been signed. VGS does not address this matter and the Department argues that the Commission made no such finding. Intervenors ask that the Commission make clear that it has not found that the AC Mitigation Plan has been signed.

2.B. VGS and the DPS Are Correct in Arguing that the Hearing Officer Found that the AC Mitigation Had Been Accomplished—But It Was an Unsigned Plan and Mr. Byrd's Opinion that AC Mitigation Was Adequate Had No Foundation

VGS and the DPS are correct in stating that the Hearing Officer found that the AC Mitigation had been fully accomplished. Counsel apologizes for asserting the contrary.

More importantly, however, the Hearing Officer's Liability Order did not find that the Issued for Construction AC Mitigation Plans had been reviewed and signed by a licensed engineer. The installation may have been completed, but the Issued for Construction AC Mitigation Plans that were completed lacked professional engineer review and signature.

VGS also asserts that Mr. Byrd opined that the AC Mitigation Plan was thorough and technically sound—but VGS ignores that Mr. Byrd testified that generally corrosion engineers are competent to design and review AC mitigation plans, and sometimes electrical engineers, and that he is neither. There was no foundation for Mr. Byrd's opinion, and his opinion cannot substitute for review and signing by a licensed professional electrical engineer.

3. VGS and the DPS Do Not Dispute that the Commission's Order Incorrectly Cites the Agreement that the Zinc Ribbon Had Been Located As Proof that Intervenors Conceded that the AC Mitigation Was Safe, and that Intervenors Consistently Argued that the Unsigned AC Mitigation Plan Is a Public Safety Risk

VGS and the DPS have not responded to Intervenors' objection that the Commission's order incorrectly asserted that Intervenors had agreed that the AC Mitigation in particular and the ANGP in general is safe.

VGS and the Department also have not responded to Intervenors' objection to the Commission's assertion that Intervenors' argument that engineer sign-off is necessary to protect public safety is "unsupported." VGS and the Department do not dispute that this argument was abundantly supported and that the Commission's summary of the evidence is erroneous. The National Transportation Safety Board reached exactly this conclusion.

4. VGS and the Department Overlook the Hearing Officer's Rulings in Arguing that There Has Been Adequate Notice that this Proceeding May Result in an Amended Permit

VGS and the Department have responded to Intervenors' complaint about lack of notice by reiterating the Commission's position that the opening order sufficed to place all parties on notice that an amended permit could result—but neither VGS nor the Department has responded to Intervenors' explanation that, subsequent to the orders opening this investigation, the Hearing Officer narrowed the scope to addressing *potential* harms, and whether those potential harms triggered a duty to file *an application* for an amended permit. Intervenors had no right or duty to submit evidence contrary to the scope of the proceedings established by the Hearing Officer because of the possibility that the Commission might later overrule the Hearing Officer and issue an amended permit without any application. Intervenors were justified in assuming that if the Hearing Officer's ruling on scope were to be overruled, Intervenors would be afforded the opportunity to address the broadened scope.

VGS and the Department also have not addressed the important public policy reasons set forth by the Hearing Officer and reiterated in Intervenors' motion, why, in this case, it would be inappropriate to issue an amended CPG. These are set forth in Intervenors' motion at pages 12-13.

VGS misunderstands Intervenors' reference to notice under §§ 248(a)(4)(C) and (D). VGS complains (p.7) that these sections are irrelevant because they are triggered only by a permit application—but that is the point. The substantial changes triggered the need for an amended permit application. The amended application would have provided notice to selectboards, regional planning commissions, municipal planning commissions, state agencies and affected landowners that the Commission was being asked to issue an amended CPG with new terms governing depth of pipeline burial, the method of pipeline burial, laying pipe directly on trench bottom, review and signing by licensed professional engineers, soil compaction, and trench breakers, and giving these potential parties the opportunity to be heard on those issues.

5. Objection to the Einhorn Letter About the Sink-in-Swamp Method

Intervenors objected to the use of Mr. Einhorn's letter to prove that the burial method used in the Clay Plains Swamp caused no harm to the wetlands. VGS has replied that, even though the letter was written in response to VGS's letter referring only to depth of burial, not the method of burial, ANR must have known about the sink-in-swamp method at the time and therefore the letter must have approved of all the later-revealed consequences of the sink-in-swamp method. VGS also argues that Intervenors failed to object to admission into the record of the Einhorn letter.

Intervenors respond to the second VGS response first. Intervenors objected to the use of the Einhorn letter to prove that the changed construction method caused no harm or that ANR believes

the changed construction method caused no harm. Intervenors did not and do not object to use of the letter to prove that ANR did not object to the changed depth. Until the April 6, 2023 Order, Intervenors had no reason to believe that the letter would be used to demonstrate that the changed construction method had caused no harm or that ANR believes the changed construction method had caused no harm.

As to the harm caused by the construction method, Intervenors stand on their objection. If allowed, they expect to prove that the letter was written before the deposition of Mr. Bubolz was taken and submitted into the record, along with the photographs he took when he returned to the site, and before Mr. Shelton's photographs and testimony were submitted, that ANR was unaware in June of 2017 of the sink-in-swamp means of construction, unaware that it used not one but two trenches side-by-side in the Rare and Irreplaceable Natural Area wetland, unaware that wetland soils were not segregated and then restored, and unaware that the sink-in-swamp method changed the surface topography and water runoff of the area, as shown in Mr. Bubolz's photographs.

6. Additional Objections to the Supplemental Findings

As noted above, Intervenors continue to object to Finding 1.

VGS has responded to Intervenors' objection to Finding 5 by pointing out that its experts believe the pipeline is safe despite its reduced depth of cover. VGS does not dispute that the one-foot buffer between safe and unsafe loading pressure is gone, that the margin of safety has been reduced to between 5 and 9 inches, that VGS's own engineer stated that a one-foot buffer would help ensure the pipeline would remain safe and operational in the event of settlement, and that this particular area is highly prone to flooding. Clearly, the potential for undue harm has been shown, which it was the purpose of these hearings to address, according to the Hearing Officer.

Intervenors stand on their objection to Finding 6 and the discussion of the sink-in-swamp method on pages 10-11. The April 6 order found that VGS's departure from specified burial methods did not affect safety because native soils were used, thereby avoiding differential oxygen corrosion. Intervenors pointed out that, in the Clay Plains Swamp, failure to adhere to specifications had resulted in laying pipe down without using screened backfill, which is an abrasion issue not a differential oxygen issue. VGS argues that there is no evidence that abrasion occurred, citing inspections. But the inspections cited by VGS did not occur at the Clay Plains Swamp.

Intervenors agree with VGS that Finding 7, about the absence of trench breakers, is supported by VHB's report, and Intervenors therefore withdraw this objection.

Conclusion

The construction and operation of 27.2 miles of a natural gas pipeline adjacent to a high voltage electric line based upon Issued for Construction plans prepared without a licensed engineer's review and signature is not a minor problem or a legal technicality. The National Transportation Safety Board found that the absence of engineering review and sign-off on the Lawrence, Massachusetts gas pipeline resulted in the fatal explosion, and the NTSB therefore urged reform of Massachusetts' and other states' exemption for utilities from the requirement of licensed engineer review and signing. The Vermont legislature has decided that public safety requires that utility projects in Vermont must comply with the engineering statute, and chose not to exempt utilities as most states do. The statute contains no exemption for utilities generally or for the AC mitigation component of gas pipeline construction. Regardless of how many electrical engineers are competent to review and place their signature upon plans for AC mitigation of steel pipelines,

the law of Vermont required that one of those duly qualified engineers review and sign off on the AC Mitigation Plans for the ANGP. Five years have passed since Intervenors brought the NTSB ruling and the statutory requirement to the attention of VGS and the Commission, yet the Issued for Construction AC Mitigation Plans remain unreviewed and unsigned by a licensed engineer. Intervenors respectfully submit that the Commission withdraw its determinations that the ANGP is safe and that an amended permit should be issued.

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