Before the
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety
Washington, D.C.

In the Matter of	)	
	)	CPF No. 4-2021-034-NOPV
Texas Eastern Transmission, LP	)	Notice of Probable Violation
	)	
Respondent.	)	

Post-Hearing Brief

I. Introduction

The Pipeline and Hazardous Materials Safety Administration (PHMSA) maintains a regulation that requires continuing surveillance of the pipeline right of way for signs of unusual operating and maintenance conditions such as geohazards at 49 C.F.R. § 192.613. The regulation simply requires operators to "have a procedure for continuing surveillance of [. . .] other unusual operating and maintenance conditions" and to "initiate a program" to address unsatisfactory conditions. PHMSA has only provided minimal guidance to clarify its requirements and has not previously sought enforcement under 49 C.F.R. § 192.613 for violations related to the management of geohazards.

Texas Eastern Transmission, LP (TETLP or the Company) did exactly what the regulations require with respect to geohazards during the time period in question, June 20, 2019 – May 4, 2020: maintained procedures regarding the surveillance and response to geohazards and initiated a program to manage geohazards. At the same time and with the goal of continual improvement, TETLP was advancing significant industry leading improvements to its geohazard program and procedures to incorporate lessons learned, which took time to evaluate and incorporate appropriately, and which were undertaken in the absence of regulatory direction. Taken together, throughout this time period, TETLP maintained and implemented the following procedures regarding geohazard management: (1) foundational continuing surveillance procedures (14 SOPs in total) and (2) interim dedicated geohazard procedures, which were adopted in September 2019, shared with PHMSA in October 2019, subsequently updated, and formally published on May 4, 2020. The record is replete with supporting documentation and testimony.

PHMSA's allegation in the underlying Notice of Probable Violation (NOPV) item at issue[1] and as articulated at the June 8, 2022 hearing, however, is divorced from the law and the facts. PHMSA misapplies the regulation, mischaracterizes the record, and ignores the existence of TETLP's geohazard procedures and the extensive work being done to address geohazards while incorporating lessons learned in the field and in the industry. In doing so, this allegation discourages continual improvement and proactive self-identification of lessons learned, and development and implementation of expanded programmatic changes. As a legal matter, PHMSA has failed to meet its burden of proof to establish an alleged violation of 49 C.F.R. § 192.613 and the allegation should be withdrawn in its entirety.

[1] The underlying NOPV alleges two violations of the Part 192 regulations under 49 C.F.R. §§ 192.613 (Item 1 regarding continuing surveillance) and 192.705 (Item 2 regarding patrolling), proposed a total civil penalty of $640,300 for both items, and proposed a compliance order associated with Item 2. TETLP contested Item 1 and the associated proposed civil penalty.

II. PHMSA's Performance-Based Continuing Surveillance Regulation Lacks Specificity and Agency Direction for Geohazard Management.

49 C.F.R. § 192.613 is a performance-based regulation that requires operators to "have a procedure for continuing surveillance" for certain enumerated conditions including in relevant part, "other unusual operating and maintenance conditions." There is no reference to the requisite specificity or comprehensiveness of the "procedure." There is also no specific reference to geohazards or landslides, although TETLP agrees that they are captured by "other unusual operating and maintenance conditions."

The regulation has remained unchanged since its issuance in 1970, where the rulemaking preamble emphasized the performance-based nature of the regulation. Final Rule, *Establishment of Minimum Standards,* 35 Fed. Reg. 13248, 13272 (Aug. 19. 1970) (expressing the intent of PHMSA's predecessor agency "to state Federal safety standards in performance terms, rather than detailed specifications, whenever it is possible to do so") (emphasis added). Subsequent interpretive guidance under 49 C.F.R. § 192.613 further supports the performance-based nature of this regulation and specifically that it "does not specify how the standards are to be met" which "allows pipeline operators to use whatever means are suitable to achieve compliance." *OPS Interpretation PI-89-023 to M. Henry from R. Beam* (Oct. 18, 1989) (emphasis added).

PHMSA guidance acknowledges that there is no one size fits all approach to an operator's procedures and that they may vary in length, structure, and complexity. Specifically, "[a]n operator's [O&M] procedures manual may vary in length and complexity depending on the specific equipment in service, the variety of facilities, the locations, and referenced versus incorporated material. The procedures must have adequate detail to clearly describe the manner in which each [regulatory] requirement will be met." *PHMSA Operations & Enforcement Guidance Part 192 Subparts L and M*, at 12 (Jul. 21, 2017) (emphasis added). Further, "[t]he structure of the operations and maintenance procedures manual is not prescribed and may consist of a single comprehensive manual or multiple cross reference volumes with referenced documents." *Id.* at 12 (emphasis added).

There are no express regulatory requirements related to geohazard management in Part 192. This enforcement action is the first of its kind. PHMSA has never issued enforcement against an operator under 49 C.F.R. § 192.613 related to the management of geohazards. Moreover, PHMSA has never squarely addressed this issue in any of its interpretation letters related to this requirement. In interpretation letters under 49 C.F.R. § 192.613, PHMSA has vaguely referenced external forces with no mention of geohazards or landslides. More importantly, these interpretations relate to specific events and do not provide guidance for operators implementing complex programmatic changes.

To date, PHMSA has provided minimal guidance for how operators should manage geohazards. At the June 8, 2022 hearing in this matter, PHMSA referenced advisory bulletins issued prior to 2019 related to "land issues, not specifically land movement." M. McDaniel, Hr'g. Tr. at 9:23-24.[2] As PHMSA admits, these advisories do not address land movement explicitly and they

[2] All citations to the transcript are based on an initial draft of the June 8, 2022 hearing transcript. TETLP is currently coordinating with the PHMSA Southwest Region and its counsel to finalize an errata sheet with corrections to the

provide no guidance with respect to an operator's geohazard procedures or program. They relate to other distinct threats such as earthquakes or river scour.

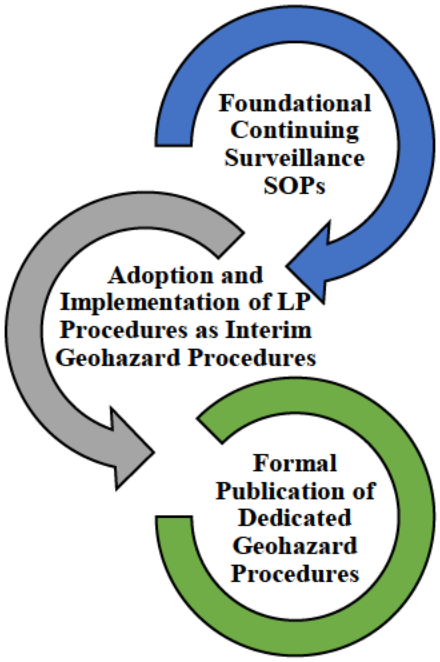
PHMSA has issued a single advisory bulletin related to geohazards, on May 2, 2019, with only minimal voluntary considerations for operators. Advisory Bulletin, *Potential for Damage to Pipeline Facilities Caused by Earth Movement and Other Geological Hazards*, 84 Fed. Reg. 18919 (May 2, 2019). Subsequent to issuance of this enforcement action, on June 2, 2022, PHMSA updated that advisory to recommend a handful of additional voluntary considerations. Advisory Bulletin, *Potential for Damage to Pipeline Facilities Caused by Earth Movement and Other Geological Hazards*, 87 Fed. Reg. 33576 (Jun. 2, 2022). Notably, the recently updated advisory recognizes that the Agency's recommended actions to manage geohazards – all of which TETLP was already doing as part of its geohazard management program during the relevant time period – are not required by the federal safety regulations. *Id.* at 33578-79 (noting that "pipeline operators should consider" implementing the recommendations and explaining that the Agency "encourages pipeline operators to enhance their preparations and procedures beyond the minimum Federal standards"). Additionally, the recent advisory makes apparent that even for PHMSA the management of geohazards is an evolving process, which is consistent with the lack of maturity in the industry regarding the management of geohazards as compared to other threats. *Id.* at 33578 (noting that PHMSA is considering revising 192.613 to require inspections after extreme weather events).

III. TETLP Maintained a Compliant Program to Address the Threat of Geohazards Pursuant to 49 C.F.R. § 192.613.

TETLP plainly met and exceeded the requirements of 49 C.F.R. § 192.613 during the relevant timeframe; namely to (1) maintain procedures for the continuing surveillance of its system and (2) initiate a program to address unsatisfactory conditions. TETLP maintained and implemented 14 foundational continuing surveillance SOPs that expressly identify and address geohazard conditions. Based on the lessons learned identified as a result of an incident in Noble County, Ohio (NCI) which were finalized in a June 20, 2019 report, TETLP supplemented its program by adopting and implementing geohazard management procedures used by the Company's liquids business unit as interim procedures. *See* Figure 1, Development of Geohazard Management Procedures; *see also* Pre-Hr'g. Br., Exh. 7. During this time and in the absence of regulatory direction or guidance, TETLP also initiated and led an industry effort to develop what did not yet exist: an industry standard for the management of geohazards.

hearing transcript. An updated copy of the transcript, along with the errata sheet, will be submitted for the record once finalized.

Figure 1.0, TETLP Geohazard Management Procedures (Jun. 20, 2019 – May 4, 2020)



A. TETLP Maintained Foundational Geohazard Continuing Surveillance Procedures.

At the time of the issuance of the NCI investigation report, TETLP was implementing 14 foundational procedures to manage geohazard risks as part of various operations and maintenance programs under Part 192, including continuing surveillance at 49 C.F.R. § 192.613. As explained at the hearing by Kurt Baraniecki, the Director of Pipeline Integrity for TETLP, that program "was based on visual observation. [. . . T]hey had 14 procedures that all addressed geohazard management. It was mainly field instructions where the – the field would understand, identify geohazards, and then they were expected to act and make decisions based on those procedures." K. Baraniecki, Hr'g. Tr. at 34:20-25; 35:1. The most pertinent of the 14 procedures and relevant references are set forth below in Table 1.0 and were discussed in detail at the hearing. *Id.* at 35-39; *see also* Pre-Hr'g. Br., Exh.6.

Table 1.0, TETLP Relevant Geohazard Procedure Excerpts

TETLP Procedure	Geohazard Provisions

SOP 1-6060, *Mining Subsidence and Soil Slippage* [PSVR, Exh. B-12]	• Scope expressly includes and addresses "***soil slippage***," including "***natural geological conditions [that] can cause soil subsidence, landslides or other problems***." It is not limited to mining.
	• Directs TETLP to "***perform protective measures when excessive deformations or significant increases of pipe stress are suspected***," including:
	  ○ *"removal of sliding soil,"*
	  ○ "*stabilization of the land slippage area by drying the areas with surface or subsurface drains*," and
	  ○ "*excavation of a trench parallel to and immediately uphill of the pipeline to relieve lateral soil pressure on the pipe*."

SOP 1-5010, *Right-of-Way Maintenance* [PSVR, Exh. B-6]	• "*During patrols, any evidence of erosion, scour,* ***subsidence, or slides****, or the potential for any of these conditions to occur will be noted*." • Requires employees to identify "*any condition that could endanger the pipeline or the public*."
SOP 1-6040, *Aerial Pipeline Patrol* [PSVR, Exh. B-11]	• Requires aerial patrol pilots to observe and document "*soil slippage*" and "***landslide areas***."
SOP 1-6010, *Pipeline Patrol and Leakage Survey Frequency Criteria* [PSVR, Exh. B-7]	• "*The Company's patrol program encompasses observation of surface conditions . . .* ***for indications of . . . soil slides*** *. . . and other factors affecting safety and operation*."
TRGD 490, *Weather-Related and Outside Forces* [PSVR, Exh. B-14]	• For pipelines located in high consequences areas, provides a process for gathering and integrating data, conducting risk assessments and addressing certain threats, including "*Earth Movements*" and sub-threats "*steep slopes*," "*subsidence*" and "*extreme surface loading*." • Defines landslides as "*mass movement of the ground caused by inertial forces associated with seismic shaking. . . . Principal forms of movement include rock falls, relatively shallow slumping and sliding of soil and relatively deep rotation and translation of soil and rock."* • Lists risk assessment factors including "*topography and soil conditions*" including "*unstable slopes*," "*potential for land movement*" and "*areas of extreme surface loading*." • Provides a process for "*continuous assessments of conditions which could impact the pipeline*." • Provides a process for continuous monitoring and examination of "*steep slopes*," which includes "*ground or aerial patrol, geological studies, monitoring instruments, and on-site visual field observations*." • Provides a process for monitoring and mitigating the risk associated with steep slopes.

B. TETLP Implemented Significant Program Updates to Incorporate Lessons Learned.

Based on lessons learned following the NCI investigation and during the relevant time period, the Company leveraged Enbridge's liquids pipeline program (LP) expertise and the processes of its technical expert, BGC, to inform the development of a more robust geohazard program and dedicated geohazard procedures. It was an iterative and intentional process that took time, with several significant step changes along the way, and which culminated in the formal adoption of new procedures on May 4, 2020. In the 10-month window of time between the NCI report and May 4, 2020, TETLP gathered, combined, and improved existing programmatic resources, including the adoption of Enbridge LP procedures, leveraging BGC's procedures and processes, and the learnings from an industry joint industry project (JIP), and used those resources to accomplish 1,000s of documented assessments and dozens of mitigations. The learnings from all of those efforts fed back into final, published procedures. As noted by Andy Drake, Vice President of Asset Integrity for Enbridge Gas Transmission & Midstream, "Geohazard management standards are not as mature in the pipeline industry as they are for other threats such as corrosion. As a result, there was a significant amount of ambiguity and variability across the industry on how best to manage them. And correspondingly an – an explicit effort was needed to fill that space." A. Drake, Hr'g. Tr. at 27:20-25; 28:1. This effort emphasized substance (the assessments and mitigation work) over form (the use of interim adopted procedures), with final procedures following extensive substantive learnings about geohazard management.

Overall, "[t]he approach [TETLP] used to advance our procedures and the standard of care used in the industry to [manage] geohazards was, one, deliberate; two, intensive; three, multifaceted; and four, iterative." A. Drake, Hr'g. Tr. At 27:9-12. Building from the 14 foundational procedures that expressly required the field to survey the pipeline for geohazards and directed actions be taken to address them, TETLP undertook significant step changes. The changes were undertaken in coordination with leading industry experts and PHMSA. As acknowledged by PHMSA at the hearing, TETLP met with PHMSA and OH PUC on October 14, 2019, where the Company provided its draft dedicated geohazard management procedures for review and comment.[3] *See* Exh. A, DRAFT – Event Based Geohazard Monitoring Process (Oct. 14, 2019); Exh. B, DRAFT – Flood Monitoring Procedure (Oct. 14, 2019); Exh. C, DRAFT– Geohazard Assessment Process (Oct. 14, 2019); Exh. D, DRAFT – Geohazard Identification Process (Oct. 14, 2019); Exh. E, DRAFT – Geohazard Management Program (Oct. 14, 2019); Exh. F, DRAFT – Geohazard Remediation Process (Oct. 14, 2019); Exh. G, DRAFT – Monitoring Seismic Activity Procedure (Oct. 14, 2019); Exh. H, DRAFT – Routine Geohazard Monitoring Process (Oct. 14, 2019). Identifying and implementing appropriate procedural changes took time for the Company to understand, develop, and incorporate. Pre-Hr'g. Br., Exhs. 10, 15, 16, & 26 (summarizing TETLP's efforts to implement procedural changes prior to finalizing formal procedures in May

[3] During the hearing, Gery Bauman, PHMSA Accident Investigator, acknowledged that he reviewed draft procedures provided by TETLP in October 2019. At the same time, Mr. Bauman emphasized the draft nature of the procedures. G. Bauman, Hr'g. Tr. at 78:15-25; 79:1-6 ("All of these procedures have "draft" written on every page. There were comments in the margins associated with these procedures, and there were also areas that were highlighted and there were areas that were blank. At that particular time I would make no comments associated with the acceptability of these procedures because they were draft and they contained errors and omissions and were clearly in need of additional work before being submitted for an approval."). While a few items remained for confirmation, the procedures reflect TETLP's iterative process of developing a more robust geohazard management program.

2020). It is unreasonable for PHMSA to argue now that the draft status of the procedures shown to PHMSA invalidates them in their entirety. TETLP was seeking PHMSA's input which, if offered, would have been considered for inclusion in the final version of the procedures.

During the underlying inspection that occurred from June 16, 2020 through November 11, 2020, PHMSA requested "written procedures associated with the TETLP geohazard program." In response to PHMSA's request, TETLP provided the foundational procedures, which included the 14 procedures that were in place before the NCI, as well as the dedicated geohazard procedures that were formally published on May 4, 2020. These latter procedures superseded the LP procedures that had been adopted as an interim step. Because PHMSA did not request interim procedures that were in place prior to May 4, 2020, and because those interim procedures were superseded by the procedures published on May 4, 2020, TETLP did not provide the interim LP procedures or any BGC processes that were being implemented during the timeframe relevant to this enforcement action.

1. TETLP Leveraged and Adopted Enbridge LP Procedures.

As explained by Andy Drake at the hearing (A. Drake, Hr'g. Tr at 28: 3-18 (emphasis added)),

> [o]ur first step was to leverage our liquid pipeline affiliates program and procedures. They reflected a better understanding of movement at the pipe level and represented a step change that was added to our program and procedures. Our procedures were revised to reflect the incorporation of the LP procedures and an interim set of documented procedures was created and used by the geohazards management team to institute the step change quickly as well as to accommodate instrumental learnings through collaboration with industry peers and geohazard expects as well as control the change we were going through. . . . [T]hat first step created the first iteration of interim procedures that we used and followed in the relevant period.

See Exh. I, Geohazard Identification Process (Jun. 30, 2017); Exh. J, Routine Geohazard Monitoring Process (Jun. 30, 2017); Exh. K, Event Based Geohazard Monitoring Process (Sep. 30, 2015); Exh. L, Geohazard Assessment Process (Jun. 30, 2017); Exh. M, Geohazard Remediation Process (May 28, 2018); Exh. N, Geohazard Management Program (Aug. 28, 2018). TETLP actively used the interim LP procedures to supplement its program and manage geohazards across its system. *See* Exh. O, Email – FW Geohazard Program – Enbridge LP (Apr. 19, 2019) (requesting the BGC specialist, seconded to support TETLPs' geohazard management program, to review the interim LP procedures); Pre-Hr'g. Br., Exh. 16; (internal training provided on January 9, 2020 related to the implementation of the interim LP procedures).

To further develop its program, TETLP established a dedicated geohazard management department, with key positions, including bringing Kurt Baraniecki from the liquids program. TETLP also seconded BGC Engineering, Inc. Geohazard Specialist, Caroline Scheevel, from April 2019 – December 2019. In September 2019, TETLP hired Doug Cook to serve in a newly established position, Supervisor of Geohazard Management Program. While implementing these changes, TETLP considered a variety of changes to its geohazard program. *See* Pre-Hr'g. Br.,

Exhs. 13 & 14 (containing a draft geohazard classification system under review by TETLP). Ultimately, TETLP made the decision to adopt the LP procedures as interim procedures on September 4, 2019.

2. TETLP Engaged Leading Technical Geohazard Experts.

The second significant step change in response to the NCI lessons learned included engaging leading geotechnical experts to leverage their expertise and carry out aspects of the interim geohazard procedures. As Andy Drake testified at the hearing, the "[s]econd step was to hire the leading industry technical experts …, namely BGC, to leverage their experience and expertise, to further develop the program, and augment our program risk assessments with their SME [insights], procedures, and controls for specialized analysis similar to what we do with inline inspection vendors." A. Drake, Hr'g. Tr. at 28: 19-25. Additionally, Kurt Baraniecki explained, "[w]e hired some strain experts, hydrotechnical experts, and geotechnical experts to carry out our program, to carry out the improvements that were identified from the [NCI] lessons learned, and to really enhance the geohazard program that was in place at the time of the [NCI] to what it is today." K. Baraniecki, Hr'g. Tr. at 43:20-25; 44:1. As PHMSA is well aware, in carrying out various programs under the pipeline safety regulations, it is commonplace for industry operators to rely on specialized vendors' processes and specifications in performing their services.[4]

3. TETLP Led Joint Industry Project and Incorporated Further Improvements.

As the next significant step change, TETLP initiated and led a JIP through the Interstate Natural Gas Association of America (INGAA), and incorporated procedural improvements based on those learnings.[5] Pre-Hr'g. Br., Exhs. 35 -38 (detailing TETLP's efforts to initiate and coordinate the JIP); Exhs. 39-41 (presentations provided during a PHMSA R&D forum based on TETLP's efforts to develop a geohazard program); K. Baraniecki, Hr'g. Tr. at 44-47. As Andy Drake explained at the hearing (A. Drake, Hr'g. Tr. at 29:4-13), the

[4] As Kurt Baraniecki explained, TETLP "employ[ed] BGC to interpret the strain[ ] data – the strain[ ] data and to compare that to the geohazard sites that – that they had identified in their desktop inventory through [LiDAR] satellite images or USGC mapping data. That's similar to the way we used an [ILI] vendor." K. Baraniecki, Hr'g. Tr. at 42:5-10.

[5] At the hearing, PHMSA attempted to establish the existence of prior industry guidance by vaguely referencing a 2006 PRCI report. M. McDaniel. Hr'g. Tr. at 73: 22-25; 74:1 ("That if you go back to 2006, PHMSA sponsored a [PRCI] research about this specific topic. So it wasn't something that this was like something brand new that you guys – there were—had been work done."). PHMSA sponsored a single research and development paper in 2006 that was published by PRCI in 2009 titled "Guidelines for Constructing Natural Gas and Liquid Hydrocarbon Pipelines Through Areas Prone to Landslide and Subsidence Hazards." This research paper is not an industry standard and focuses, consistent with its title, largely on construction considerations for pipelines. This standard did not lead to any regulatory changes, nor is TETLP aware that it is cited by PHMSA regarding management of geohazards.

> [t]hird step was to initiate and lead a joint industry project . . . to develop a guidance document, an industry standard on how geohazard recognition and management with 16 other operators to improve the clarity and raise the standard of care across the industry on geohazard management. The development of the JIP created a parallel process to clarify and improve geohazard management, the learnings from which were incorporated into our procedures during the time period in question.

C. TETLP Initiated a Program to Address Unsatisfactory Conditions in the Field.

Based on lessons learned after the NCI, TETLP continued to work to update and evaluate the threat of geohazards and take mitigative actions where necessary based on available information. In doing so, TETLP relied upon its foundational geohazard procedures as supplemented by the interim adoption of the LP procedures and processes of the technical experts engaged on these issues. This included review, evaluation, integration, and updating of information identified through helicopter flyovers, LiDAR, aerial imagery, inertial measurement unit (IMU) and strain analysis, field site visits (including at the Fleming County geohazard site), and pressure reductions and/or pipe replacement where appropriate. *See* Pre-Hr'g. Br., Exh. 9 (reviewing programs to identify deficiencies); Exh. 15 (summarizing TETLP's response to the NCI); Exh. 27 (summarizing mitigation activities in 2019); Exh. 28 (detailing helicopter flyovers to monitor for geohazards); Exh.30 (documenting the inspection at the Fleming County site); Exh. 31 (analyzing the strain data associated with the Fleming County site); Exh. 32 (providing strain data); Exh. 33 (analyzing strain data at the Fleming County site); Exh. 34 (summarizing TETLP's activities that comply with PHMSA's May 2019 advisory bulletin); *see also* Exh. P, NTSB Pipeline Investigation Report PIR-22/01 (dated May 31, 2022; published Jun. 8, 2022) (describing TETLP efforts to evaluate Line 10 for geohazards, performing a site assessment and strain analysis in October 2019 at the Fleming County geohazard site, and performing a multidisciplinary review of that site to determine the monitoring and mitigation plan in February 2020).

Most importantly, TETLP began to use IMU data to predict geohazard risks as part of implementing lessons learned from the NCI. Reprocessing and use of IMU data "became a lesson learned as part of the investigation that we needed to improve our program to – to incorporate more than visual observation and actual measure data of what was happening at the pipe level." K. Baraniecki, Hr'g. Tr. at 41:16-20. As BGC Geohazard Specialist Caroline Scheevel explained, "[w]hen I joined the Enbridge program, it was in the middle of a step change [. . .] That incorporation of IMU, the way that Texas Eastern does it, is – compared to all the operators that I see with BGC and all the operators I'm aware of in the – in the industry is groundbreaking. [. . .]" C. Scheevel, Hr'g. Tr. at 55:22-25; 56:1-3 (emphasis added).

For the 6,000 miles of Enbridge pipeline in Appalachia, 1,000s of sites were assessed during the desktop review, 100s of ground inspections were performed, with 27 sites identified to be in unsatisfactory condition and which were mitigated in 2019.[6] C. Scheevel, Hr'g. Tr. at 59:1-10.

[6] While TETLP has provided evidence of its work to identify and mitigate the geohazard threat at the Fleming County site, its efforts were not limited to this location. Pursuant to its geohazard program, TETLP was employing this same process (identifying the potential geohazard, conducting a site inspection, analyzing the risk, coordinating with geotechnical experts, and implementing mitigation measures) to identify and mitigate threats at other sites on its system. *See, e.g.*, Exh. Q, Email – FW High Strain (~0.8%) ON whee-10: Review Needed (Jul. 2, 2019) (notifying Enbridge senior management of a strain notification at the WHEE-10); Exh. R, Email – FW More Tier 1 Site Visits

By the time PHMSA issued its advisory in May 2019, TETLP was already implementing the voluntary considerations. *Id.* at 61:4-12 ("By the time that the May advisory came out, then our IMU program on all of these assessments were well underway. Assessment had essentially begun with Noble County and had never really stopped. [. . .] And then all of the other work that we did through the year – they had mitigations and monitoring – were also in agreement with the advisory.").

IV. PHMSA Failed to Meet Its Burden of Proof to Establish a Violation of 49 C.F.R. § 192.613.

PHMSA bears the burden of proof to establish all elements of an alleged violation by a preponderance of the evidence. The Agency has not met its burden under 49 C.F.R. § 192.613 and this NOPV item and the associated proposed civil penalty should be withdrawn in their entirety.

A. PHMSA Misapplies the Law.

PHMSA's application of the regulation in this enforcement action is without precedent and contradicts the performance-based nature of the regulation. Without any basis in the regulations or guidance and despite having reviewed versions of TETLP's foundational procedures in prior audits, PHMSA for the first time alleges a violation which is premised on the assumption that 49 C.F.R. § 192.613 prescribes that operators maintain (1) dedicated "comprehensive" geohazard procedures and (2) a standalone geohazard program.

PHMSA has never provided specific industry guidance related to the management of geohazards or that would suggest that TETLP's procedures or its program was deficient. In fact, PHMSA has previously reviewed and approved other updates to TETLP's 49 C.F.R. § 192.613 procedures without commenting on geohazards.[7] PHMSA's allegation is further based on the unspoken and unrealistic assumption that, when an operator identifies significant procedural and programmatic updates, they can and must be implemented immediately. *See* PHMSA Pipeline Safety Violation Report, PSVR p. 10 (alleging a violation beginning on June 20, 2019 and ending May 4, 2020); M. McDaniel. Hr'g. Tr. at 14:20-22 ("[E]ssentially, the procedures had not been revised after the Noble County incident.").

Further, TETLP was directly coordinating with PHMSA about its programmatic changes and improvements, even providing PHMSA with copies of draft procedures for review and input.

(Jul. 2, 2019) (indicating that the WHEE-10 site would be added as a priority site and to the field program); Exh. S, WHEE_10 Strain 57 - BGC Daily Report (Jul. 7, 2019) (indicating that Line 10 was depressurized and that there was a meeting with Enbridge personnel to discuss possible mitigation measures); Exh. T, Email – Ohio ATHE-WHEE LN 10 (MP 614) Slip Response – Curtain Drain Discussion (Jul. 15, 2019) (detailing the decision to install a curtain drain as a mitigation measure).

[7] Response to Notice of Amendment, In re TETLP, CPF 1-2011-1012M (Sep. 28, 2011) (providing continuing surveillance revised procedure 1-6040 Aerial Pipeline Patrol under 49 C.F.R. 192.613(a)); PHMSA Closure Letter, In re TETLP, CPF 1-2011-1012M (Dec. 8, 2011*)* (stating "[m]y staff reviewed the amended procedures, and it appears that the inadequacies outlined in this Notice of Amendment have been corrected").

Directly applicable to continuing surveillance procedures at 49 C.F.R. § 192.613, PHMSA requires that procedural manuals for operations, maintenance and emergencies be reviewed and updated as necessary "at intervals not exceeding 15 months, but at least once each calendar year." 49 C.F.R. § 192.605(a). TETLP formally published the updated dedicated geohazard procedures within 10 months and 14 days of issuance of the NCI investigation report. In other regulations, PHMSA has expressly (and reasonably) recognized that it takes time for operators to implement significant procedural and programmatic changes. For example, PHMSA provided more than a year for operators to develop procedures applicable to newly regulated underground natural gas storage facilities. Interim Final Rule, *Safety of Underground Natural Gas Storage Facilities*, 81 Fed. Reg. 91860 (Dec. 19, 2016) (requiring operators of underground natural storage facilities constructed before July 18, 2017 to develop "procedures for operations, maintenance, and emergency preparedness" by January 18, 2018 (more than 1 year after the rule was issued)); *see also* 49 C.F.R. § 192.9 (providing operators with 1 year or more to comply with new requirements: 1 year for newly identified Type B gas gathering lines,2 years for newly identified Type A lines after a class location change, and 15 months for newly identified Type C lines).

With the benefit of hindsight, PHMSA's case ultimately relies on the fact that an incident occurred on May 4, 2020. The existence of an incident does not infer or equate to the absence of a program or actions in the field to address certain conditions. Neither the Pipeline Safety Act nor PHMSA regulations provide for strict liability because an incident occurred. Further, regulated entities must have fair notice of the conduct an agency requires under the Administrative Procedure Act and the U.S. Constitution. PHMSA may not now in this enforcement action create substantive legal requirements that do not exist in the regulations and have not been subject to notice and comment rulemaking.

B. PHMSA Mischaracterizes the Facts.

At the hearing, the Region reiterated claims made in the NOPV which are refuted by the facts in the record and testimony at the hearing. PHMSA also advanced a handful of new facts in an attempt to bolster its allegation, which are similarly unpersuasive and not fully accurate.

1. TETLP's Procedures Specifically Addressed Geohazards.

TETLP's foundational procedures are specific to subsidence and landslides. They include specific conditions to monitor as well as actions to address the risk of geohazards. *See* Table 1.0; *see also* K. Baraniecki, Hr'g. Tr. at 35-36. TETLP's program was significantly expanded in direct response to lessons learned from the NCI, with TETLP's leveraging of LP procedures and processes and engagement of technical third-party experts, including the adoption of interim LP procedures on September 4, 2019.

2. TETLP Performed Extensive Geohazard Monitoring in the Field and Employed Mitigative Measures Where Warranted.

PHMSA fails to acknowledge demonstrable facts that TETLP was actively monitoring its system for geohazards. During the hearing, PHMSA stated the "continuing surveillance is continuing. It's not you do something once and then you're done." M. McDaniel, Hr'g. Tr. at 14:20-22. Despite

PHMSA's assertion, TETLP was actively gathering, refreshing, incorporating, and integrating geohazard data across its system, pursuant to the interim LP procedures adopted by TETLP and alongside its foundational continuing surveillance program. PHMSA's statement fails to recognize the facts which demonstrate that TETLP assessed the potential geohazard risk at the Fleming County site on multiple occasions, including by helicopter flyover, field visit, and multiple assessments of strain data. C. Scheevel, Hr'g. Tr. at 61-63; Pre-Hr'g. Br., Exhs. 4, 9, 10, 27, 28, 30, 31, 32, & 33. The NTSB's investigation report of the Fleming County incident (FCI) plainly states that TETLP "took action to analyze the active landslide and started taking steps to mitigate the hazard before the rupture." Exh. P at 5.

3. PHMSA Misconstrues TETLP's Geohazard Incident History.

PHMSA alleged in the hearing for the first time that, reaching back 32 years prior to the NCI, 3 historical TETLP incidents were caused by geohazards. This allegation has no bearing whatsoever on whether TETLP maintained a procedure and program to address geohazards during the timeframe at issue. Further, the record reflects that TETLP has been and continues to address the threat of geohazards and its program has evolved with lessons learned.

4. PHMSA Improperly Relies on the Noble County Investigation Report to Support its Allegation.

PHMSA's reliance on the NCI report recommendations does not prove that TETLP failed to maintain a program to manage geohazards or initiate actions to address geohazards where warranted. Moreover, TETLP was working in a regulatory vacuum throughout this time period while – in coordination with PHMSA – diligently working on multiple fronts to incorporate lessons learned through significant programmatic updates, updating and incorporating new information from the field, and sharing its lessons learned with the industry and with PHMSA.

5. PHMSA Improperly Relies on Procedures Formalized Post May 4, 2022.

During the hearing, PHMSA attempted to rely on certain procedures finalized on or after May 4, 2020 as an admission or proof that TETLP did not maintain sufficient procedures prior to this time period. This assertion is unfounded. It is also contrary to the goal of continuous improvement to use an operator's programmatic updates as the basis in hindsight for alleging that an operator's procedures were deficient. PHMSA asserted that TETLP acknowledged that it failed to maintain geohazard procedures by referencing 49 C.F.R. § 192.613 in its Field Surveillance and Monitoring Process (Jun. 26, 2020). This procedure is a dedicated procedure that was finalized after May 4, 2020, based on existing processes (e.g., aerial patrols) that were in place during the relevant time period. It is simply not relevant and has no bearing on the allegation at issue.

C. Proposed Civil Penalty Must be Withdrawn.

Based upon the above, the proposed civil penalty cannot be supported in this matter. PHMSA has not met its burden to prove a violation in this case and the proposed civil penalty should be withdrawn. Even if PHMSA has met its burden – which it has not – it did not properly consider 4

civil penalty factors: gravity, culpability, good faith and "other matters as justice may require." *See* Pre-Hr'g. Br., Exh. 42.

With respect to the factors of gravity and culpability, there is no causal link between the allegation and the incident in Fleming County, Kentucky. As explained at the hearing "[f]ormal approval of the program and procedures prior to May of 2020 would not have prevented the incident, as the requirements and guidance in the documents formally approved in May of 2020 reflected in the interim procedures in place and used during the relevant time period well in advance of May of 2020." A. Drake, Hr'g. Tr. at 31:35; 32:1-5. The NTSB identified the probable cause of the FCI as TETLP's "analysis of an active landslide that did not fully address uncertainties associated with pipeline defects, landslide movement, and corresponding pipeline response." Exh. P at 6.

As to good faith, the Company was undertaking good faith efforts to comply with the minimal performance-based regulation, in the absence of express regulatory requirements, prior enforcement, and industry standards on geohazard management. Regarding "other matters as justice may require," TETLP was undertaking an extraordinary amount of work to respond to NCI lessons learned, to update its programs and procedures, and to implement those changes in the field. It also initiated and led the JIP to establish what did not yet exist, an industry standard to management geohazards. As Andy Drake's hearing testimony explained (A. Drake, Hr'g. Tr. at 32: 6-12),

> The efforts we put forth in this time period were prudent to identify and institute the volume of lessons learned as quickly as possible. These efforts yielded a significant improvement in our geohazard program during the relevant period and moved the needle to advance the standard of care in geohazard threat management across the industry.

PHMSA failed to consider these efforts when determining the civil penalty in this NOPV item.

D. PHMSA's Allegation Undermines the Goal of Continual Learning and Improvement.

In addition to the legal and factual arguments outlined above and set forth in the record, a finding of violation of 49 C.F.R. § 192.613 under these circumstances is simply bad policy and undermines the very purpose of the pipeline safety regulations. PHMSA's stated mission is to "protect people and the environment by advancing the safe transportation of energy." PHMSA's Mission, https://www.phmsa.dot.gov (last visited Jul. 15, 2022). To achieve this purpose, PHMSA implements performance-based regulations and provides operators the discretion and flexibility to prepare procedures tailored to their particular systems. PHMSA expects that, when implementing these performance-based regulations, operators will work to continually improve their processes and procedures and exceed the minimum safety requirements. *See, e.g.*, *Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments*, 84 Fed. Reg. 52180, 52187 (Oct. 1, 2019) ("PHMSA expects operators to start with an IM framework, evolve a more detailed and comprehensive IM program, and continually improve their IM programs as they learn more about the IM process and the material condition of their pipelines through integrity assessments.").

PHMSA's position in this action contravenes the performance-based nature of the regulation at issue and the underlying goal of continual improvement and learning. Finding a violation in this matter conflicts with the iterative nature of the continuous improvement cycle which encourages operators to proactively self-identify lessons learned, develop expanded programmatic changes based on those improvements, and expeditiously implement them before the formal procedure publication process is completed.

V. Conclusion and Request for Relief

TETLP disagrees with PHMSA's "form over substance" approach in the NOPV allegation under 49 C.F.R. § 192.613. TETLP conducted a massive amount of work in assessing and mitigating geohazard sites following the NCI. TETLP recognized there was an industry wide gap with regard to the management of geohazards, and made significant efforts to fill it by creating a dedicated geohazard team of experts, leveraging existing, available procedures and external experts, and reaching out to industry and PHMSA to establish and lead a JIP to gather the best information and accumulate experiences of other operators. This substantial undertaking relied on the adoption of interim procedures and leveraging expert processes while the information was being gathered, improvements were being made, and formal, published procedures were being prepared. The continuous improvement cycle required that the learnings take place before being memorialized in formal, published procedures. The 10-month period between the NCI report and May 4, 2020 was not an unreasonable amount of time to fill this gap.

For all of these reasons and the supporting exhibits referenced herein, and for other reasons as justice may require, TETLP respectfully requests that NOPV Item 1 and the associated civil penalty should be withdrawn. To support its position, TETLP incorporates by reference its (1) Request for Hearing filed on February 21, 2022, (2) Pre-Hearing Brief and related exhibits (Exhibit Nos. 1-42) submitted on May 27, 2022, and (3) testimony provided during the June 8, 2022 hearing as reflected in the transcript in the record.

Respectfully submitted,

/s/ Catherine Little

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