

**APPENDIX E**

**COMMENTS RECEIVED ON THE ENVIRONMENTAL  
ASSESSMENT, MAY 2012**

## **Comments from the U.S. Department of Homeland Security**



**United States Department of State**

*Bureau of Oceans and International  
Environmental and Scientific Affairs*

*Washington, D.C. 20520*

September 5, 2012

Mr. James R. Brown  
Correspondence Analyst  
Office of the Executive Secretary  
Office of the Secretary  
Department of Homeland Security

Re: Response to Comments Received from the Department of Homeland Security on the Environmental Assessment for the Vantage Pipeline Project

Dear Mr. Brown,

Attached are the responses from the Department of State to comments received from the U.S. Customs and Border Patrol on July 9<sup>th</sup>, 2012 on the Environmental Assessment for the proposed Vantage Pipeline project. In an effort to ensure the information was as up-to-date as possible, we have held off responding until the tribal consultation process had moved to the stage of preparing a Programmatic Agreement. If it is acceptable to the reviewer, we will include these comments and the attached responses in an appendix to the Final Environmental Assessment. For your information, the only substantive comments received on the Draft Environmental Assessment were from your Agency. Please let me know if you (or your reviewer) need any further information to resolve these comments.

Thank you for your assistance in this matter.

A handwritten signature in black ink, appearing to read "George M. Sibley".

George Sibley  
Director, Office of Environmental Policy

**Response to Comments Received from the Department of Homeland Security on the  
Environmental Assessment for the Vantage Pipeline Project**

- 1. Page 2-2 The geology section makes a brief discussion on geologic hazards. However, the section fails to discuss the potential for subsidence resulting from mineral (i.e. oil, gas, etc.) removal. Removal of fluids from reservoirs (e.g. oil, groundwater, etc.) has caused subsidence at the surface in many areas around the country. In some cases, this has resulted in surficial faulting. What would be the effect on the pipeline should subsidence occur?**

The exact place and time of a subsidence cannot usually be predicted, however, subsidence potential can be associated with locations of mineral extraction operations. As discussed in section 2.1.1 of the Environmental Assessment (EA), no sand and gravel pits were identified within 500 feet of the Vantage Pipeline Project (Project) and, while there is potential subsurface petroleum and geothermal resources in the Project area, no active mining operations exploit these resources within the area to be disturbed by construction and operation. The known oil and gas wells within 500 feet of the Project listed in table 2.1.1-1 of the EA are all between 5,400 and 19,683 feet deep. The proposed pipeline would be buried to a depth of 4 to 5 feet.

Overall, the potential for localized subsidence or collapse features to develop along the proposed pipeline route is believed to be low based on a Natural Resources Conservation Service and U.S. Geological Survey data of the Project area. Localized areas of subsidence that materialize as a sinkhole can cause a span area in the pipeline. The length of acceptable span varies depending on the pipe design parameters, but the strength and ductility of the pipeline allows it to span over a considerable distance without threatening the integrity of the pipeline.

All of the pipeline facilities would be designed by state-licensed engineers and constructed in accordance with U.S. Department of Transportation (DOT) regulations codified in Title 49 Code of Federal Regulations (CFR) Part 195 and in accordance with all state and local codes. These specifications ensure that pipeline facilities are designed and constructed in a manner to provide adequate protection from hazards (e.g., subsidence) that could cause pipeline facilities to move or sustain abnormal loads.

DOT regulations also require periodic monitoring of the right-of-way during operation to detect abnormal conditions, such as subsidence or fissuring. As such, Vantage Pipeline US LP (Vantage) would monitor its right-of-way for potential subsidence areas during construction and operation. If a span was created that posed a safety hazard, Vantage would be required to mitigate the hazard as required by DOT regulations. It is not expected that any unanticipated subsidence would pose a significant risk to the proposed pipeline facilities.

- 2. Page 2-2, 2-9 The Geology and Soils sections do not discuss erosion on stream beds wherein the pipeline would be installed by horizontal drilling. Should erosion occur to the depth of the pipeline, the pipeline would be left unsupported across the width of the streambed. Discuss inspection and corrective measures associated with the potential to leave pipeline exposed or unsupported.**

As discussed in section 2.4.2 of the EA, the majority of the waterbodies/wetlands that would be crossed by the pipeline are intermittent drainages and washes that are expected to be dry at the time of construction. The crossing location would be reclaimed to original contour and preconstruction conditions, and the depth of cover over the pipeline once reclaimed would be a minimum of 4 feet. Vantage would minimize direct impacts on waterbodies/wetlands where water is flowing, including

associated floodplains, by installing the pipeline using the horizontal bore technique with the entrance and exit points located outside the waterbody/wetland boundaries. The horizontal bore method installs the pipeline to a depth where surface hydrology is unaffected.

As discussed in sections 1.12 and 2.14 of the EA, Vantage's pipeline facilities would be operated and maintained consistent with minimum federal safety standards established by the DOT, the Pipelines and Hazardous Materials Safety Administration, and the North Dakota Pipeline Authority, as well as applicable industry standards, including those issued by the American Society of Mechanical Engineers, National Association for Corrosion Engineers, and American Petroleum Institute. Some of the DOT's regulations found at 49 CFR 195 related to inspection and corrective measures include (summarized):

- § 195.412: Each operator shall inspect the surface conditions on or adjacent to each pipeline right-of-way at intervals not exceeding 3 weeks, but at least 26 times each calendar year using methods such as walking, driving, flying, or other appropriate means of traversing the right-of-way.
- § 195.401: An operator must make repairs on its pipeline system that could adversely affect the safe operation of its pipeline system within a reasonable time, or, if the condition presents an immediate hazard to persons or property, the operator may not operate the affected part of the system until it has corrected the unsafe condition.
- § 195.402: Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.
- § 195.569: An operator shall examine the exposed portion of a buried pipeline for evidence of external corrosion if the pipe is bare, or if the coating is deteriorated. If external corrosion is found that requires corrective action under §195.585, the operator must investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

Vantage has committed to inspecting the pipeline right-of-way from the air and on foot as operating conditions permit, but no less frequently than as required by applicable regulatory requirements. These surveillance activities would provide information on possible encroachments and nearby construction activities, erosion, exposed pipe, and other potential concerns that may affect the safety and operation of the pipeline. As noted in Question 1, if an erosion-induced span were to develop between inspections, the strength and ductility of the pipeline allows it to span over a considerable distance without threatening the integrity of the pipeline.

The proposed Project would be monitored and controlled 24 hours per day, 365 days per year, from a central control facility located in Joffre, Alberta using a state-of-the-art supervisory control and data acquisition system. A leak detection system would continuously monitor the pipeline. In the event any anomaly is detected, mainline valves would automatically shut to isolate that portion of the pipeline.

3. **Page 2-2, 2-9 The Geology and Soils sections do not discuss the potential for freeze and thaw on soils resulting from inclement weather in North Dakota and Canada. It could be presumed that the burial depth and engineering of the pipeline may account for the freeze and thaw action, however, it should be discussed in the EA.**

Based on historical soil temperature and frost penetration data, the average frost penetration depth in the State of North Dakota was 50 inches (4.2 feet), ranging from 36 inches (3 feet) in the extreme southwest corner of the state to 60 inches (5 feet) in the northern part of the state. Frost depth is difficult to predict because it depends on several factors, including: 1) winter air temperature; 2) soil conditions including moisture content, type of soil, and the presence or absence of vegetative cover; and 3) snow cover, including its presence or absence, depth, and density. In general, dry soils freeze deeper and faster than wet soils, and snow is an insulator between the air and soil. [Source: U.S. Geological Survey website, "Climate of North Dakota," which was based on the book "North Dakota Climate and Weather" by Frank J. Bavendick of the Bismarck Weather Bureau:

<http://www.npwrc.usgs.gov/resource/habitat/climate/temp.htm>.]

The pipeline would be installed to a depth of 4 to 5 feet, which, based on historical frost data for the northern part of the state, may result in frozen soils to the pipeline's depth. Regardless of the factors listed above that determine frost depth, Vantage would construct its pipeline in accordance with the DOT's regulations found at 49 CFR 195, Subpart C. The DOT's pipeline design requirements related to considering the environment in which the pipeline is installed (e.g., soil freeze and thaw, frost heave) include, but are not limited to, the following:

- § 195.102 Design temperature.
  - (a) Material for components of the system must be chosen for the temperature environment in which the components will be used so that the pipeline will maintain its structural integrity.
- § 195.110 External loads.
  - (a) Anticipated external loads (e.g., earthquakes, vibration, thermal expansion, and contraction must be provided for in designing a pipeline system. In providing for expansion and flexibility, section 419 of ASME/ANSI B31.4 must be followed.
  - (b) The pipe and other components must be supported in such a way that the support does not cause excess localized stresses. In designing attachments to pipe, the added stress to the wall of the pipe must be computed and compensated for.
- § 195.112 New pipe.

Any new pipe installed in a pipeline system must comply with the following:

  - (a) The pipe must be made of steel of the carbon, low alloy-high strength, or alloy type that is able to withstand the internal pressures and external loads and pressures anticipated for the pipeline system.
  - (b) The pipe must be made in accordance with a written pipe specification that sets forth the chemical requirements for the pipe steel and mechanical tests for the pipe to provide pipe suitable for the use intended.

(c) Each length of pipe with a nominal outside diameter of 4 1/2 in (114.3 mm) or more must be marked on the pipe or pipe coating with the specification to which it was made, the specified minimum yield strength or grade, and the pipe size. The marking must be applied in a manner that does not damage the pipe or pipe coating and must remain visible until the pipe is installed.

**4. Considering the depth of the pipeline and its vulnerability, you may wish to address acts of terrorism against the pipeline.**

Since September 11, 2001, increased security awareness has occurred throughout the pipeline industry and the nation. The Office of Homeland Security (predecessor to the Department of Homeland Security) was established with the mission of coordinating the efforts of all executive departments and agencies to detect, prepare for, prevent, protect against, respond to, and recover from terrorist attacks within the United States. The attacks of September 11, 2001 have changed the way pipeline operators as well as regulators must consider terrorism, both in approving new projects and in operating existing facilities. However, the likelihood of future attacks of terrorism or sabotage occurring along the Vantage pipeline, or at any of the pipeline or energy facilities throughout the United States, is unpredictable given the desperate motives and abilities of terrorist groups. The continuing need to construct facilities to support the future pipeline infrastructure is not diminished from the threat of any such future acts. Moreover, the unpredictable possibility of such acts does not support a finding that this particular project should not be constructed. The factor that might make this infrastructure more vulnerable to terrorism is its isolation; however, the pipeline will not be vital to the U.S. economy and an attack against it would not produce mass casualties, making it an unlikely target for a terrorist organization seeking to harm the United States.

**Additionally, DHS would like to be updated on cultural resource discussions with the tribes.**

Since issuance of the EA on May 3, 2012, the following activities associated with tribal consultations have occurred:

- May 3, 2012: U.S. Department of State (DOS) emails tribal representatives informing them that the EA for the Vantage Pipeline Project has been issued.
- May 3, 2012: DOS issues the EA to tribal representatives (Tribal Chairman or Chairwoman, or President, and Tribal Historic Preservation Office).
- June 2 through 17, 2012: Makoche Wowapi, a consultant chosen by interested tribal representatives, conducted a traditional cultural properties survey on behalf of the interested tribes and sponsored by Vantage.
- June 20, 2012: DOS emails tribal representatives who assisted with planning the tribal field survey, encouraging all parties to continue working towards a resolution of the unfinished tribal survey.
- June 22, 2012: DOS issues an email invitation to tribal representatives involved with planning the tribal survey, North Dakota State Historic Preservation Office (SHPO), and Vantage for a conference call on June 27, 2012.
- June 27, 2012: DOS hosts a telephone conference call to address concerns about the tribal field survey conducted between June 2 and June 17, 2012.

- June 29, 2012: DOS issues an email invitation to tribal representatives involved with planning the tribal field survey, North Dakota SHPO, and Vantage for a field visit and government-to-government consultation.
- July 10, 2012: DOS representatives attend a field visit along the proposed pipeline route at the request of tribal representatives to view sites of cultural and religious importance to the tribes.
- July 11, 2012: DOS sponsors a government-to-government meeting in Minot, North Dakota (conference call available).
- July 27, 2012: DOS issues an outline of the Draft Programmatic Agreement (PA) to tribes, North Dakota SHPO, and Vantage, requesting comments by August 17, 2012.
- July 27 through August 17, 2012: Comments received from the Santee Sioux Nation and Upper Sioux Community of Minnesota on the outline of the Draft PA.
- August 24, 2012: DOS issues Draft PA to tribes, North Dakota SHPO, Advisory Council on Historic Preservation, and Vantage, requesting comments by September 7, 2012.

**DHS would also like to be informed if the pipeline would require blasting into bedrock.**

As discussed in sections 2.1.1 and 2.2.1 of the EA, it is unlikely that bedrock would be encountered during Project construction due to the overlying thickness of the glacial deposits and, therefore, bedrock is not anticipated to be encountered by Project construction and blasting is not anticipated.

**DHS also commented that Section 4 pdf (References) on this internet location is actually Section 1, Introduction. There is no reference section.**

The DOS was made aware of this error and the website link for Section 4 (References) was corrected on May 31, 2012.

## **Comments from the U.S. Army Corps of Engineers**

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Default Report

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<b>Response Type:</b> Normal Response	<b>Collector:</b> Vantage Pipeline Project Comments (Web Link)
<b>Custom Value:</b> <i>empty</i>	<b>IP Address:</b> 141.116.212.32
<b>Response Started:</b> Wednesday, June 20, 2012 3:17:11 AM	<b>Response Modified:</b> Wednesday, June 20, 2012 3:20:25 AM

## 1. Comments

the Army has no objections to the approval of the subject Presidential Permit application, however OASA(CW) and the Corps Regulatory Branch, POC Chip Smith, OASA(CW), 703-693-3655 Pentagon 3E431, request that the following edits be considered for incorporation into the Environmental Assessment to clarify and correct discussions pertaining to the Corps statutory authority and Nationwide Permit (NWP) requirements. "Section 1.8.2.1: 3rd paragraph, first and second sentence: The Corps does not authorize construction projects of others through the Nationwide Permit program. The Corps authorizes the discharge of dredge and fill material into waters of the United States as part of overall construction projects. Please re-word the first sentence to state: "Under the Nationwide Permit program, the Corps authorizes work in waters of the United States in association with categories of certain activities that are similar in nature and will cause no more than minimal adverse effects." Please re-word the second sentence to state: "The USACE NWP 12 authorizes work in waters of the United States in association with the construction of utility line crossings, provided that work does not result in the permanent loss of greater than 0.5 acre of waters of the United States and would comply with all general and regional terms and conditions of the NWP 12." Section 2.4.1: Last paragraph: Please refer to statement in this paragraph which indicates the USACE concluded formal wetland delineations were not necessary for the pipeline route planning, and that USACE recommended a conservative and approximate wetland boundary. This language is confusing and inaccurate; the paragraph should be clarified with the following revisions: "The applicant was instructed that if no notification criteria would be triggered in association with work in waters of the United States, then a formal delineation of wetlands would not need to be completed and submitted to the USACE." Section 2.4.2: 2nd full paragraph, page 2-25: please re-word "the Project would fall under NWP 12" to "work in waters of the United States would fall under NWP 12." Chip Smith, Office of the Assistant Secretary of the Army for Civil Works, 703-693-3655, Charles.R.Smith567.civ@mail.mil

## 2. Contact Information

Name: - Charles Smith

Address: - 108 Army, Pentagon 3E431

City/Town: - Washington

State: - DC

ZIP: - 20310-0108

Email Address: - Charles.R.Smith567.civ@mail.mil