BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY TRANSCANADA KEYSTONE PIPELINE, LP FOR A PERMIT UNDER THE SOUTH DAKOTA ENERGY CONVERSION AND TRANSMISSION FACILITIES ACT TO CONSTRUCT THE KEYSTONE XL PIPELINE PROJECT

HP 14-001

NOTICE OF RE-FILING OF EXHIBITS

COMES NOW, the Standing Rock Sioux Tribe, by and through counsel, and provides notice of the re-filing of exhibits numbered 8023-8028 by the provision of an external flash drive in hearing room 414 of the South Dakota Capitol.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 2 - 2015

ASSISTANT ADMINISTRATOR
FOR ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Amos Hochstein
Special Envoy and Coordinator for International Energy Affairs
Bureau of Energy Resources
U.S. Department of State
Washington, DC 20520

Ms. Judith G. Garber
Acting Assistant Secretary
Oceans and International Environmental and Scientific Affairs
U.S. Department of State
Washington, DC 20520

Dear Mr. Hochstein and Ms. Garber:

In accordance with our authorities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Department of State's (Department) Final Supplemental Environmental Impact Statement (SEIS) for a Presidential Permit application by TransCanada Keystone Pipeline, LP (Keystone) to construct and operate the Keystone XL Project (Project). We are providing these comments now, rather than when the Final SEIS was published, because of the possibility that a decision of the Nebraska courts would have led to changes to the Final SEIS.

EPA recognizes that the Department has made a considerable effort to evaluate the potential environmental impacts associated with the proposed Project and reasonable alternatives, and to consider measures to mitigate potential harmful effects. The Final SEIS is comprehensive and provides responses to our April 2013 comments on the Draft SEIS. We would like to especially point out the usefulness of the new compilation of all of the proposed mitigation measures (Appendix Z).

The Department has also strengthened the analysis of oil spill prevention preparedness, response and mitigation and has committed to requiring numerous mitigation measures regarding leak prevention and detection, as well as spill cleanup measures. While risks of oil spills and adverse impacts remain, and spills of diluted bitumen can have different impacts than spills of conventional oil, the Department has included provisions to reduce those risks, including working with the state of Nebraska to develop an alternative route that avoids much of the Sand Hills region, and incorporating mitigation measures recommended by both the Pipeline Safety and Hazardous Materials Administration and the independent engineering analysis. We note as particularly important the commitment by Keystone to be responsible for clean-up and

Exhibit 8023

restoration of groundwater as well as surface water in the event of a release or discharge of crude oil. These efforts will decrease the risk of spills and leaks, and provide for necessary remediation should spills occur. Nonetheless, the Final SEIS acknowledged that the proposed pipeline does present a risk of spills, which remains a concern for citizens and businesses relying on groundwater resources crossed by the route.

The analysis of climate change issues has also improved from the Draft SEIS. The Final SEIS makes clear that oil sands crude has significantly higher lifecycle greenhouse gas emissions than other crudes. The Final SEIS states that lifecycle greenhouse gas emissions from development and use of oil sands crude is about 17% greater than emissions from average crude oil refined in the United States on a wells-to-wheels basis.[1]

The Final SEIS also finds that the incremental greenhouse gas emissions from the extraction, transport, refining and use of the 830,000 barrels per day of oils sands crude that could be transported by the proposed Project at full capacity would result in an additional 1.3 to 27.4 million metric tons of carbon dioxide equivalents ($MMTCO_2$-e) per year compared to the reference crudes.[2] To put that in perspective, 27.4 $MMTCO_2$-e per year is equivalent to the annual greenhouse gas emissions from 5.7 million passenger vehicles or 7.8 coal fired power plants.[3] Over the 50-year lifetime of the pipeline, this could translate into releasing as much as 1.37 billion more tons of greenhouse gases into the atmosphere.[4]

Until ongoing efforts to reduce greenhouse gas emissions associated with the production of oil sands are more successful and widespread, the Final SEIS makes clear that, compared to reference crudes, development of oil sands crude represents a significant increase in greenhouse gas emissions.

The Final SEIS also provided a more robust market analysis, and examined how market dynamics may influence the levels of greenhouse gas emissions associated with the proposed Project. Based on that market analysis, the Final SEIS concluded, in January of 2014, that if the Project were not approved, oil sands crude would be likely to reach the market some other way, most likely by rail. The Final SEIS acknowledged that the alternative of shipment by rail is more expensive than shipment by pipeline, and would therefore increase the costs of getting oil sands crude to market.[5] However, the Final SEIS concluded that given global oil prices projected at that time this difference in shipment costs would not affect development of oil sands, which would remain profitable even with the higher transportation costs of shipment by rail. Therefore, the Final SEIS concluded that although development of oil sands would lead to significant additional releases of greenhouse gasses, a decision not to grant the requested permit would likely not change that outcome, i.e., those significant greenhouse gas emissions would likely happen regardless of the decision on the proposed Project. This conclusion was based in large part on projections of the global price of oil.

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[1] Final SEIS Executive Summary, p. ES-15.
[2] Final SEIS Executive Summary, p. ES-15.
[3] Final SEIS p. 4.14-46.
[4] Final SEIS p. 4.14-41.
[5] Final SEIS p. 1.4-90.

Given the recent variability in oil prices, it is important to revisit these conclusions. While the overall effect of the Project on oil sands production will be driven by long-term movements in the price of oil and not short term volatility, recent large declines in oil prices (oil was trading at below $50 per barrel last week) highlight the variability of oil prices. The Final SEIS concluded that at sustained oil prices of $65 to $75 per barrel, the higher transportation costs of shipment by rail "could have a substantial impact on oil sands production levels – possibly in excess of the capacity of the proposed project."[6] In other words, the Final SEIS found that at sustained oil prices within this range, construction of the pipeline is projected to change the economics of oil sands development and result in increased oil sands production, and the accompanying greenhouse gas emissions, over what would otherwise occur. Given recent large declines in oil prices and the uncertainty of oil price projections, the additional low price scenario included in the Final SEIS should be given additional weight during decision making, due to the potential implications of lower oil prices on project impacts, especially greenhouse gas emissions.

Finally, we note that the Final SEIS includes additional information on how the Department screened pipeline route alternatives, and determined what routes to analyze in detail in the SEIS. Through this process, the Department determined that the Keystone Corridor alternatives, which would parallel the entire existing Keystone pipeline route in the United States, are not reasonable alternatives for the purposes of NEPA. The additional information provided in the Final SEIS is useful, but we note that eliminating alternatives from a detailed analysis based on an abbreviated estimate of environmental impacts is not the preferred approach under NEPA's requirement to take a "hard look" at alternatives, which would provide a more detailed and comprehensive discussion of the issues associated with these route alternatives.

Please feel free to contact me or have your staff contact Susan Bromm, Director, Office of Federal Activities, at (202) 564-5400 if you have any questions or would like to discuss our comments.

Sincerely,

Cynthia Giles

Cynthia Giles

[6] Final SEIS Executive Summary, p. ES-12.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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JUN 06 2011

ASSISTANT ADMINISTRATOR
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Mr. Jose W. Fernandez
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Economic, Energy and Business Affairs
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Dr. Kerri-Ann Jones
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Dear Mr. Fernandez and Dr. Jones:

In accordance with our authorities under the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) NEPA regulations, and Section 309 of the Clean Air Act, EPA has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) for TransCanada's proposed Keystone XL Project ("Project").

EPA reviewed the Draft Environmental Impact Statement (DEIS) for this project and submitted comments in July of 2010. At that time EPA rated the DEIS as "Inadequate-3" because potentially significant impacts were not evaluated and additional information and analyses were necessary to ensure that the EIS fully informed decision makers and the public about potential consequences of the Keystone XL Project. Since that time, the State Department has worked diligently to develop additional information and analysis in response to EPA's comments and the large number of other comments received on the DEIS. The State Department also made a very constructive decision to seek further public review and comment through publication of the SDEIS, to help the public and decision makers carefully weigh the environmental costs and benefits of transporting oil sands crude from Canada to delivery points in Oklahoma and Texas. The consideration of the environmental impacts associated with constructing and operating this proposed pipeline is especially important given that current excess pipeline capacity for transporting oil sands crude to the United States will likely persist until after 2020, as noted in the SDEIS.

While the SDEIS has made progress in responding to EPA's comments on the DEIS and providing information necessary for making an informed decision, EPA believes additional analysis is necessary to fully respond to our earlier comments and to ensure a full evaluation of

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the potential impacts of proposed Project, and to identify potential means to mitigate those impacts. As EPA and the State Department have discussed many times, EPA recommends that the State Department improve the analysis of oil spill risks and alternative pipeline routes, provide additional analysis of potential impacts to communities along the pipeline route and adjacent to refineries and the associated environmental justice concerns, together with ways to mitigate those impacts, improve the discussion of lifecycle greenhouse gas emissions (GHGs) associated with oil sands crude, and improve the analysis of potential impacts to wetlands and migratory bird populations. We are encouraged by the State Department's agreement to include some of these additional analyses in the Final Environmental Impact Statement (Final EIS). We have noted those agreements in this letter, and look forward to working with you to develop these analyses for the Final EIS.

Pipeline Safety/Oil Spill Risks

EPA is the lead federal response agency for responding to oil spills occurring in and around inland waters. As part of that responsibility, we have considerable experience working to prevent and respond to oil spills. Pipeline oil spills are a very real concern, as we saw during the two pipeline spills in Michigan and Illinois last summer. Just in the last month, the Keystone Pipeline experienced two leaks (in North Dakota and Kansas), one of which was brought to the company's attention by a local citizen. These leaks resulted in shut-downs and issuance of an order to TransCanada from the Pipeline and Hazardous Materials Safety Administration (PHMSA), requiring that corrective measures be taken prior to the subsequently approved restart of operations. PHMSA's Order of June 3, 2011 for the Keystone Pipeline – which also carries Canadian oil sands crude oil and is operated by the same company as the proposed Keystone XL Project – was based on the hazardous nature of the product that the pipeline transports and the potential that the conditions causing the failures that led to the recent spills were present elsewhere on the pipeline. These events, which occurred after EPA's comment letter on the DEIS, underscore the comments about the need to carefully consider both the route of the proposed Keystone XL Pipeline and appropriate measures to prevent and detect a spill.

We have several recommendations for additional analyses that relate to the potential for oil spills, as well as the potential impacts and implications for response activities in the event of a pipeline leak or rupture. We recommend and appreciate your agreement that the Final EIS use data from the National Response Center, which reports a more comprehensive set of historical spill events than the Pipeline and Hazardous Material Safety Administration's incident database, to assess the risk of a spill from the proposed pipeline. With respect to the spill detection systems proposed by the applicant, we remain concerned that relying solely on pressure drops and aerial surveys to detect leaks may result in smaller leaks going undetected for some time, resulting in potentially large spill volumes. In light of those concerns, we also appreciate your agreement that the Final EIS consider additional measures to reduce the risks of undetected leaks. For example, requiring ground-level inspections of valves and other parts of the system several times per year, in addition to aerial patrols, could improve the ability to detect leaks or spills and minimize any damage.

The SDEIS indicates that there may be a "minor" increase in the number of mainline valves installed to isolate pipeline segments and limit impacts of a spill, compared to what was

originally reported in the DEIS (SDEIS, pg. 2-4). However, no detailed information or decision criteria are provided with regard to the number of valves, or their location. In order to evaluate potential measures to mitigate accidental releases, we appreciate your agreement to provide additional information in the Final EIS on the number and location of the valves that will be installed and to evaluate the feasibility of increasing the number of valves in more vulnerable areas. For example, it may be appropriate to increase the number of valves where the water table is shallow, or where an aquifer is overlain by highly permeable soils, such as the Ogallala aquifer. We also recommend consideration of external pipe leak detection systems in these areas to improve the ability to detect pinhole (and greater) leaks that could be substantial, yet below the sensitivity of the currently proposed leak detection systems. In addition, while we understand that valves are not proposed to be located at water crossings that are less than 100 feet wide, we recommend that the Final EIS nevertheless consider the potential benefits of installing valves at water crossings less than 100 feet wide where there are sensitive aquatic resources.

Predicting the fate and transport of spilled oil is also important to establish potential impacts and develop response strategies. While the SDEIS provides additional information about the different classes of crude oils that may transported, we recommend the Final EIS evaluate each class of crude that will be transported, how it will behave in the environment, and qualitatively discuss the potential issues associated with responding to a spill given different types of crude oils and diluents used.

With regard to the chemical nature of the diluents that are added to reduce the viscosity of bitumen, the SDEIS states "the exact composition may vary between shippers and is considered proprietary information" (SDEIS, pg. 3-104). We believe an analysis of potential diluents is important to establish the potential health and environmental impacts of any spilled oil, and responder/worker safety, and to develop response strategies. In the recent Enbridge oil spill in Michigan, for example, benzene was a component of the diluent used to reduce the viscosity of the oil sands crude so that it could be transported through a pipeline. Benzene is a volatile organic compound, and following the spill in Michigan, high benzene levels in the air prompted the issuance of voluntary evacuation notices to residents in the area by the local county health department. Similarly, although the SDEIS provides additional information on the potential impact of spills on groundwater, we recommend that the Final EIS improve the risk assessment by including specific information on the groundwater recharge areas along the pipeline route, recognizing that these areas are more susceptible to groundwater contamination from oil spills.

We appreciate that the SDEIS provides additional information about the feasibility of alternative pipeline routes that would reduce the risk of adverse impacts to the Ogallala aquifer, by re-routing the pipeline so it does not cross the aquifer. Many commenters, including EPA, expressed concerns over the potential impacts to this important resource during the review of the DEIS. If a spill did occur, the potential for oil to reach groundwater in these areas is relatively high given shallow water table depths and the high permeability of the soils overlying the aquifer. In addition, we are concerned that crude oil can remain in the subsurface for decades, despite efforts to remove the oil and natural microbial remediation.

However, the SDEIS concludes that the alternative routes that avoid the Ogallala aquifer are not reasonable, and consequently does not provide a detailed evaluation of the environmental impacts of routes other than the applicant's proposed route. The SDEIS indicates that no other alternatives are considered in detail because, in part, they do not offer an overall environmental advantage compared to other routes. In support of this conclusion the SDEIS presents a limited analysis of the potential environmental impacts of the alternative routes and offers qualitative judgments about the relative severity of impacts to different resources, e.g., considering potential impacts from spills to the Ogallala aquifer less important than impacts to surface waters from a spill associated with an additional crossing of the Missouri River. We think this limited analysis does not fully meet the objectives of NEPA and CEQ's NEPA regulations, which provide that agencies rigorously explore and objectively evaluate reasonable alternatives. CEQ guidance states that reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense.[1] Recognizing the regional significance of these groundwater resources, we recommend that the State Department re-evaluate the feasibility of these alternative routes and more clearly outline the environmental, technical and economic reasons for not considering other alternative routes in more detail as part of the NEPA analysis.

Oil Spill Impacts on Affected Communities and Environmental Justice Concerns

The communities facing the greatest potential impact from spills are of course the communities along the pipeline route. We are concerned that the SDEIS does not adequately recognize that some of these communities may have limited emergency response capabilities and consequently may be more vulnerable to impacts from spills, accidents and other releases. This is particularly likely to be true of minority, low-income and Tribal communities or populations along the pipeline route. We appreciate your agreement to address this issue in the Final EIS by clarifying the emergency response capability of each county along the pipeline route using the plans produced by Local Emergency Planning Committees. We also appreciate your agreement to identify potential mitigation measures in the Final EIS based on this information. We look forward to working with your staff to identify data sources and approaches for addressing these issues.

As part of this analysis, we are concerned that the SDEIS may have underestimated the extent to which there are communities along the pipeline with less capacity to respond to spills and potentially associated health issues, particularly minority, low-income or Tribal communities. We appreciate your agreement to re-evaluate in the Final EIS which communities may have such capacity issues by adopting the more commonly-used threshold of 20% higher low-income, minority or Tribal population compared to the general population, instead of the 50% used in the SDEIS.

With respect to data on access to health care, we are encouraged that the SDEIS provided critically important information on medically underserved areas and on health professional shortage areas. We will provide recommendations on methods to present this data to make it

[1] 40 CFR 1502.14; "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026 (1981) - Question 2a: Alternatives Outside the Capability of Applicant or Jurisdiction of Agency.

more meaningful to reviewers and will work with your staff as you move towards publishing a Final EIS.

The SDEIS does recognize that minority, low-income or Tribal populations may be more vulnerable to health impacts from an oil spill, and we appreciate the applicant's commitment to provide an alternative water supply "if an accidental release from the proposed Project that is attributable to Keystone's actions contaminates groundwater or surface water used as a source of potable water or for irrigation or industrial purposes..." (SDEIS, pg. 3-154). Further, the SDEIS states that impacts would be mitigated by the applicant's liability for costs associated with cleanup, restoration and compensation for any release that could affect surface water (SDEIS, pg. 3-154). We believe that this mitigation measure should also apply for releases that could affect groundwater. Finally, we recommend that the Final EIS evaluate additional mitigation measures that would avoid and minimize potential impacts through all media (i.e., surface and ground water, soil, and air) to minority, low-income and Tribal populations rather than rely solely on after-the-fact compensation measures. Some examples of additional mitigation include developing a contingency plan before operations commence for emergency response and remedial efforts to control the contamination. This would also include providing notification to individuals affected by soil or groundwater contamination, ensuring the public is knowledgeable and aware of emergency procedures and contingency plans (including posting procedures in high traffic visibility areas), and providing additional monitoring of air emissions and conducting medical monitoring and/or treatment responses where necessary.

Environmental and Health Impacts to Communities Adjacent to Refineries

We are also concerned with the conclusion that there are no expected disproportionate adverse impacts to minority or low-income populations located near refineries that are expected to receive the oil sands crude, particularly because many of these communities are already burdened with large numbers of high emitting sources of air pollutants. It is not self-evident that the addition of an 830,000 barrels per day capacity pipeline from Canada to refineries in the Gulf Coast will have no effect on emissions from refineries in that area. We recommend that the Final EIS re-examine the potential likelihood of increased refinery emissions, and provide a clearer analysis of potential environmental and health impacts to communities from refinery air emissions and other environmental stressors. As part of this re-evaluation, we encourage the State Department to provide more opportunities for people in these potentially affected communities to have meaningful engagement, including additional public meetings, particularly in Port Arthur, Texas, before publication of the Final EIS. Public meetings in these potentially affected communities provide an opportunity for citizens to present their concerns, and also for the State Department to clearly explain its analysis of potential impacts associated with the proposed project to the people potentially affected.

Lifecycle GHG Emissions

We appreciate the State Department's efforts to improve the characterization of lifecycle GHG emissions associated with Canadian oil sands crude. The SDEIS confirms, for example, that Canadian oil sands crude are GHG-intensive relative to other types of crude oil, due primarily to increased emissions associated with extraction and refining.

The SDEIS also includes an important discussion of lifecycle GHG emissions associated with oil sands crude and provides quantitative estimates of potential incremental impacts associated with the proposed Project. For example, the SDEIS (pg. 3-198) states that under at least one scenario, additional annual lifecycle GHG emissions associated with oil sands crude compared to Middle East Sour crude are 12 to 23 million metric tons of CO_2 equivalent (CO_2-e) at the proposed Project pipeline's full capacity (roughly the equivalent of annual emissions from 2 to 4 coal-fired power plants).[2] While we appreciate the inclusion of such estimates, EPA believes that the methodology used by the State Department and its contractors to calculate those estimates may underestimate the values at the high-end of the ranges cited in the lifecycle GHG emissions discussion by approximately 20 percent. We will continue to work with your staff to address this concern as you move towards publishing a Final EIS.

Further, in discussing these lifecycle GHG emissions, the SDEIS concludes "on a global scale, emissions are not likely to change" (SDEIS, pg. 3-197). We recommend against comparing GHG emissions associated with a single project to global GHG emission levels. As recognized in CEQ's draft guidance concerning the consideration of GHG emissions in NEPA analyses, "[T]he global climate change problem is much more the result of numerous and varied sources, each of which might seem to make a relatively small addition to global atmospheric GHG concentrations."[3]

Moreover, recognizing the proposed Project's lifetime is expected to be at least fifty years, we believe it is important to be clear that under at least one scenario, the extra GHG emissions associated with this proposed Project may range from 600 million to 1.15 billion tons CO_2-e, assuming the lifecycle analysis holds over time (and using the SDEIS' quantitative estimates as a basis). In addition, we recommend that the Final EIS explore other means to characterize the impact of the GHG emissions, including an estimate of the "social cost of carbon" associated with potential increases of GHG emissions.[4] The social cost of carbon includes, but is not limited to, climate damages due to changes in net agricultural productivity, human health, property damages from flood risk, and ecosystem services due to climate change. Federal agencies use the social cost of carbon to incorporate the social benefits of reducing CO_2 emissions into analyses of regulatory actions that have a marginal impact on cumulative global emissions; the social cost of carbon is also used to calculate the negative impacts of regulatory actions that increase CO_2 emissions.

Finally, we continue to be concerned that the SDEIS does not discuss opportunities to mitigate the entire suite of GHG emissions associated with constructing the proposed Project. We appreciate your agreement to identify practicable mitigation measures in the Final EIS for

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[2] http://www.epa.gov/cleanenergy/energy-resources/calculator.html

[3] "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions," (February 18, 2010)

[4] "Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866;" Interagency Working Group on Social Cost of Carbon, United States Government, February 2010. Presents four estimates of estimated monetized damages associated with a ton of CO_2 released in 2010 ($5, $21, $35, $65) ($2007); these estimates grow over time and are associated with different discount rates.

GHG emissions associated with operation of the pipeline in the United States. As part of that analysis, we recommend consideration of opportunities for energy efficiency and utilization of green power for pipeline operations. In addition, we recommend a discussion of mitigation approaches for GHG emissions from extraction activities that are either currently or could be employed to help lower lifecycle GHG emissions to levels closer to those of conventional crude oil supplies. We recommend that this discussion include a detailed description of efforts ongoing and under consideration by producers, as well as the government of Alberta, to reduce GHG emissions from oil sands production.

Wetlands Impacts

EPA co-administers the Clean Water Act Section 404 regulatory program, which regulates the discharge of dredged or fill material into waters of the United States, including wetlands. While we appreciate that the U.S. Army Corps of Engineers is responsible for day-to-day processing of permit applications, our review of aerial photography recently posted on the Project's website indicates that the DEIS may have underestimated the extent of ecologically valuable bottomland hardwood wetlands in Texas. We appreciate your agreement to evaluate these wetland estimates in the Final EIS and to display the location of the bottomland hardwood wetlands with maps and aerial photography. Given their ecological importance, we recommend the same evaluation be done for prairie pothole wetlands that may be impacted by the proposed Project. EPA also recommends that the Final EIS discuss whether it is possible to make further pipeline route variations to avoid both bottomland hardwood and prairie pothole wetlands.

Our review of the aerial photography also indicates that there may be numerous wetland crossings that would impact more than 0.5 acres of wetlands, which is the upper threshold for impacts under the US Army Corps of Engineers' (Corps) nationwide general permit for utility line crossings in waters of the United States. In that light, and recognizing that there will be several hundred acres of wetlands affected along the entire pipeline route, we recommend that the Corps review the proposed wetland impacts as a single project requiring an individual Clean Water Act Section 404 permit. Consolidating each of these crossings into one individual permit review would also provide for more transparency as to the project impacts and allow for more effective mitigation planning, as well as compliance monitoring of the entire project.

Finally, we appreciate your agreement to provide a discussion of potential mitigation measures for project activities that permanently convert forested wetlands to herbaceous wetlands. We continue to recommend providing a conceptual wetland mitigation plan in the Final EIS, including a monitoring component that would, for a specified period of time, direct field evaluations of those wetlands crossed by the pipeline (and mitigation sites) to ensure wetland functions and values are recovering. We also recommend that the Final EIS evaluate the feasibility of using approved mitigation banks to compensate for wetlands impacts.

Migratory Birds

The SDEIS includes a summary of regulatory and other programs aimed at protecting migratory bird populations that may be affected by oil sands extraction activities in Canada. However, we recommend that the Final EIS provide additional information that would address

potential impacts to specific migratory species, with an emphasis on already-vulnerable species, and we appreciate your agreement to provide that information in the Final EIS. Data found in the North American Breeding Bird Survey (a partnership between the U.S. Geological Survey's Patuxent Wildlife Research Center and the Canadian Wildlife Service's National Wildlife Research Center), which monitors bird populations and provides population trend estimates, should be helpful. We also recommend that the Final EIS discuss mitigation measures that are either currently or could be employed for identified impacts.

Conclusion

Based on our review, we have rated the SDEIS as "Environmental Objections - Insufficient Information (EO-2)" (see enclosed "Summary of Rating Definitions and Follow-up Actions"). As explained in this letter, we have a number of concerns regarding the potential environmental impacts of the proposed Project, as well as the level of analysis and information provided concerning those impacts. Our concerns include the potential impacts to groundwater resources from spills, as well as effects on emission levels at refineries in the Gulf Coast. In addition, we are concerned about levels of GHG emissions associated with the proposed Project, and whether appropriate mitigation measures to reduce these emissions are being considered. Moreover, the SDEIS does not contain sufficient information to fully assess the environmental impacts of the proposed Project, including potential impacts to groundwater resources and communities that could be affected by potential increases in refinery emissions.

We look forward to continuing to work with you to strengthen the environmental analysis of this project and to provide any assistance you may need to prepare the Final EIS. In addition, we will be carefully reviewing the Final EIS to determine if it fully reflects our agreements and that measures to mitigate adverse environmental impacts are fully evaluated. We look forward as well to working with you as you consider the determination as to whether approving the proposed project would be in the national interest under the provisions of Executive Order 13337.

Please feel free to contact me at (202) 564-2400, or have your staff contact Susan Bromm, Director, Office of Federal Activities, at (202) 564-5400, if you have any questions or would like to discuss our comments.

Sincerely,

Cynthia Giles

Cynthia Giles

Enclosure

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 16 2010

ASSISTANT ADMINISTRATOR
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Dear Mr. Fernandez and Ms. Jones:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (Draft EIS) for the Keystone XL project pursuant to our authorities under the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) NEPA regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

We appreciate the substantial efforts by the State Department to solicit broad expert and public input to analyze the potential environmental impacts of the Keystone XL project, and believe the Draft EIS provides useful information and analysis. However, we think that the Draft EIS does not provide the scope or detail of analysis necessary to fully inform decision makers and the public, and recommend that additional information and analysis be provided. The topics on which we believe additional information and analysis are necessary include the purpose and need for the project, potential greenhouse gas (GHG) emissions associated with the project, air pollutant emissions at the receiving refineries, pipeline safety/spill response, potential impacts to environmental justice communities, wetlands and migratory birds.

Project Purpose and Need/Alternatives

We are concerned that the Draft EIS uses an unduly narrow purpose and need statement, which leads to consideration of a narrow range of alternatives. The Draft EIS considers issuance of a cross-border permit for the proposed project and to a limited extent, the no-action alternative (i.e., denying the permit). By using a narrow purpose and need statement, the Draft EIS rejects other potential alternatives as not meeting the stated project purpose. While we recognize that an objective of the applicant's proposal is to construct a pipeline to transport oil sands from Canada to Gulf Coast refineries in the United States, we believe the purpose and need to which the State

Exhibit 8025

Department is responding is broader. Accordingly, EPA recommends that the State Department frame the purpose and need statement more broadly to allow for a robust analysis of options for meeting national energy and climate policy objectives.

In evaluating the need for the project and its alternatives, we also recommend that the discussion include consideration of different oil demand scenarios over the fifty-year project life. This would help ensure that the need for the project is clearly demonstrated. The Draft EIS uses one demand scenario that indicates that with permit denial, the demand for crude oil would continue at a rate such that U.S. refineries "would continue to acquire crude oil primarily from sources other than Canada to fulfill this demand and/or find alternative methods of delivery of Canadian oil sands." We recommend that this discussion be expanded to include consideration of proposed and potential future changes to fuel economy standards and the potential for more widespread use of fuel-efficient technologies, advanced biofuels and electric vehicles as well as how they may affect demand for crude oil.

In addition, we are concerned that the Draft EIS does not fully analyze the environmental impacts of the no-action and other alternatives, making a comparison between alternatives and the proposed project more difficult. EPA believes it is important to ensure that the differences in the environmental impacts of non-Canadian crude oil sources and oil sands crude be discussed. Alongside the national security benefits of importing crude oil from a stable trading partner, we believe the national security implications of expanding the Nation's long-term commitment to a relatively high carbon source of oil should also be considered.

GHG Emissions

The Draft EIS estimates GHG emissions associated with construction and operation of the pipeline itself and the refining process, although not the GHG emissions associated with upstream oil sands extraction intended for this pipeline or downstream end use. In order to fully disclose the reasonably foreseeable environmental impacts on the U.S. of the Keystone XL project, we recommend that the discussion of GHG emissions be expanded to include, in particular, an estimate of the extraction-related GHG emissions associated with long-term importation of large quantities of oil sands crude from a dedicated source. This would be consistent with the approach contemplated by CEQ's recent Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions (February 18, 2010).

Extraction and refining of Canadian oil sands crude are GHG-intensive relative to other types of crude oil. Our calculations indicate that on an annual basis, and assuming the maximum volume of 900,000 barrels per day (bpd) of pipeline capacity, annual well-to-tank emissions from the project would be 27 million metric tons carbon dioxide equivalent ($MMTCO_2e$) greater than emissions from U.S. "average" crude.[1] Accordingly, we estimate that GHG emissions from Canadian oil sands crude would be approximately 82% greater than the average crude refined in the U.S., on a well-to-tank basis. To provide some perspective on the potential scale of

[1] 900,000 bpd * (181 kgCO2e/bbl – 99 kgCO2e/bbl) *365 = 27 $MMTCO_2e$/yr. Based on average 2005 crude oil lifecycle GHG emissions estimates in EPA's Renewable Fuel Standard (RFS2) final rule (75 FR 14669); also see DOE/NETL. 2009. Petroleum-Based Fuels Life Cycle Greenhouse Gas Analysis - 2005 Baseline Model.

emissions, 27 million metric tons is roughly equivalent to annual CO_2 emissions of seven coal-fired power plants.[2]

Based on our review, there is a reasonably close causal relationship between issuing a cross-border permit for the Keystone XL project and increased extraction of oil sands crude in Canada intended to supply that pipeline. Not only will this pipeline transport large volumes of oil sands crude for at least fifty years from a known, dedicated source in Canada to refineries in the Gulf Coast, there are no significant current export markets for this crude oil other than the U.S. Accordingly, it is reasonable to conclude that extraction will likely increase if the pipeline is constructed. While we recognize that other pipeline projects are currently being planned that might bring additional pipeline capacity for oil transport should the Keystone XL project not be constructed, these other proposed pipelines appear to still be in the planning stages, and whether and when they will be approved or constructed appears uncertain. We also note that the Draft EIS discusses end use GHG emissions from combustion of refined oil, indicating they would not differ from those of conventional crude. Because they are easily calculated and are of interest to the public in obtaining a complete picture of the GHG emissions associated with the proposed project, it might be helpful to provide a quantitative estimate of these emissions.

In addition, we recommend that the State Department expand the discussion of alternatives or other means to mitigate the emissions. The analysis in the Draft EIS focuses primarily on carbon sequestration benefits that might accrue from re-vegetation measures proposed as mitigation for wetland losses associated with the pipeline. We believe there are a number of other mitigation opportunities to explore, including control of fugitive emissions, pumping station energy efficiency, and use of renewable power, where appropriate. In addition, we recommend that the State Department consider project alternatives that could significantly reduce extraction-related GHG emissions. For example, these alternatives could include a smaller-capacity pipeline or deferring the project until current efforts to reduce extraction-related GHG emissions through carbon capture and storage, improved energy efficiency, or new extraction technologies are able to lower GHG emissions to levels closer to those of conventional crude.

Air Quality Impacts - Refinery Emissions

We appreciate the efforts to predict pollutant emissions from refineries processing crude oil from the proposed project, and recognize that it is likely that some of the oil sands crude from the project would replace declining feedstock at existing refineries, and that some of the oil sands crude would supply newly upgraded or expanded facilities. We also agree with the Draft EIS's conclusion that there may be increases in air emissions from refineries in the area, and we recommend that additional information and analyses be presented to substantiate the conclusion that these increases "would not likely be major (Draft EIS, pp. 3.14-36)." Further, we recommend that additional information be provided concerning potential impacts from emissions associated with events such as start up, shut down, and malfunctions, which are not addressed by existing permits and which may have substantial adverse impacts.

[2] See, http://www.epa.gov/cleanenergy/energy-resources/calculator.html (translating 27 $MMTCO_2e$ to annual coal plant CO_2 emissions).

Pipeline Safety/Spill Response

We believe that additional efforts to evaluate potential adverse impacts to surface and ground waters from pipeline leaks or spills, including potential adverse impacts to public water supplies and source water protection/wellhead protection areas, are necessary.

First, we note that in order for the bitumen to be transported by the pipeline, it will be either "diluted with cutter stock (the specific composition of which is proprietary information to each shipper) or an upgrading technology is applied to convert the bitumen to synthetic crude oil." (Draft EIS, pp. 3.13-18). Without more information on the chemical characteristics of the dilutent or the synthetic crude, it is difficult to determine the fate and transport of any spilled oil in the aquatic environment. For example, the chemical nature of the dilutent may have significant implications for response as it may negatively impact the efficacy of traditional floating oil spill response equipment or response strategies. In addition, the Draft EIS addresses oil in general and as explained earlier, it may not be appropriate to assume this bitumen oil/synthetic crude shares the same characteristics as other oils. This is especially of concern in light of the Draft EIS's statement that "Some characteristics could not be described or distilled from assay data for the example oils for this EIS, including viscosity profiles, proportion of volatile and semi-volatiles compounds, the amount or proportion of PAHs, and toxicity to aquatic organisms based on bioassays." (Draft EIS, pp. 3.13-19)

We recommend that a more complete chemical/physical profile of the oil and details describing the processing activities be provided in order to accurately predict the potential impacts to aquatic environment from a spill event. We are also concerned that while the Draft EIS discusses the impacts of oil in general on dissolved oxygen in waters in the event of a spill, it does not emphasize the primary effect of an oil spill, i.e., acute toxicity to the aquatic environment or address the chronic impacts of the undefined polynuclear aromatic hydrocarbons (PAH). We recommend further information be provided regarding both acute and chronic impacts.

We are concerned that the Draft EIS only uses what the Department of Transportation's Office of Pipeline Safety (OPS) considers a "serious or significant" spill to assess risks, and did not estimate the number of spills that may have caused harm to the waters of the U.S. under the Oil Pollution Act. EPA recommends also using historical data regarding oil spills that caused harm using EPA's regulations (40 CFR 110) and that were required to be reported to the National Response Center. The risk assessment should also address spills from pipeline-related pump stations, breakout tanks and construction activities. In order to better assess the risks of spills, we also recommend that additional information be provided concerning the frequency of pipeline inspections and the methods for inspection by the OPS and Keystone.

We recommend that additional information be provided to describe the means by which small pipeline leaks would be detected (including those leaks that will not be detected by the proposed Supervisory and Control Data Acquisition System) and the time frames over which a small leak may occur prior to detection and control, as well as the potential volume of oil that would be released before shut-off could occur. We also recommend that information be

provided to describe what methods would be employed to patrol the pipeline in search of a possible leak, especially at times of severe weather.

We are concerned that the Draft EIS only provides a summary of the procedures likely to be included in yet to be developed Emergency Response Plan, and does not provide information about potential Facility Response Plans. We recommend that detailed information regarding these plans, including draft versions of the plans, be provided. More specifically, we also recommend that the draft plans (including the draft Spill Prevention Control and Countermeasure (SPCC) plans, include strategies for responding to bitumen that is mixed with a dilutent, which may affect its behavior in water, as described above.

We recommend that more information be provided on proposed measures to reduce the risk of spills in "high consequence areas (HCA)" (49 CFR 195.450) (i.e., populated areas, designated zones around public drinking water intakes, and unusually sensitive ecologically resource areas). In particular, we recommend that the State Department and OPS work with Keystone to ensure that the Integrity Management Plans for these HCAs would be completed before the pipeline would begin operation.

In order to further reduce the risks of damage to water resources, we recommend including an analysis of the feasibility of increasing the number of mainline valves, which can shut down the pipeline in the event of an emergency, particularly where the pipeline would cross perennial streams or drinking water source aquifers.

We also recommend that a description be provided of Keystone's financial assurances for potential liability in the event of a spill, including potential bond amounts that would be necessary to protect both human health and the environment.

In addition, we recommend that the State Department more clearly outline the issues associated with the request for a special permit from OPS to operate portions of the pipeline at a greater pressure than allowed under current regulations. We recommend that the sulfur content of the oil sands crude be specifically considered in making the decisions on the pipeline wall thickness. Finally, we recommend that the State Department and the OPS work together to develop one NEPA analysis for all of the permits required for the project, including OPS's special permit.

Environmental Justice

We are concerned that the Draft EIS does not fully identify and address the potential for disproportionately high and adverse human health and environmental effects on minority, low-income and Tribal populations. Foremost, we believe the methodology for defining minority, low-income and Tribal populations may have underestimated the extent of these vulnerable populations in the project area. When examining the presence of minority and low-income populations that are potentially affected by the proposed project, the Draft EIS compared the percentage of minority and low-income residents in the counties along the proposed pipeline route with State-level percentages. First, we suggest that in addition to using county-level data, census tract data be used to determine the presence of minority, low income and Tribal

populations in the project area that may be potentially impacted Second, we recommend comparing this community level data to national U.S. population data in order to ensure that the minority and low-income populations are properly identified. EPA believes that this approach will ensure that the presence of minority and low-income populations are not artificially "diluted" (as discussed in EPA Guidance for Consideration of Environmental Justice in Clear Air Act Section 309 Reviews (1999): pp. 12-13) and that the characteristics of the potentially affected communities are identified in order to evaluate potential impacts from the proposed action. We also note that the Draft EIS does not evaluate the environmental justice issues associated with potential impacts to communities in Port Arthur, Texas, where numerous industrial facilities, including chemical plants and a hazardous waste incinerator, are contributing to the residents' overall exposure to contaminants.

In addition, we believe that the potential human health impacts associated with both air emissions from refineries and the potential contamination of drinking water supplies from an oil spill have not been fully evaluated. We recommend that the State Department prepare a health risk assessment to specifically address these issues as they relate to low income, minority and Tribal populations.

Wetlands

The Draft EIS identifies 746 acres of aquatic resources that would be affected by pipeline construction and operations, but does not identify impacts associated with ancillary facilities and connected actions, including staging areas, work camps and storage locations. We recommend that additional information be developed to ensure that a complete estimate of potential impacts is provided. In addition, we recommend that the potential impacts of converting forested and scrub-shrub wetlands to herbaceous wetlands be evaluated, as well as appropriate mitigation measures to address these impacts. In general, the EIS should identify how wetland impacts would be avoided and minimized, to the maximum extent practicable, and how unavoidable wetland impacts would be compensated for through wetland restoration, creation, or enhancement.

Migratory Birds

EPA also recommends that the State Department assess the potential impacts to migratory bird populations in the U.S. from oil sands extraction activities associated with the proposed project. An estimated 30% of North America's landbirds breed in the boreal forests of Canada and Alaska (Saving Our Shared Birds: Partners in Flight Tri-National Vision for Landbird Conservation. Cornell Lab of Ornithology: Ithaca, NY: 2010). As recognized by this recently released study, sponsored in part by the U.S. Fish and Wildlife Service, effects on bird populations in the boreal forest can be felt throughout the birds' migratory range, including wintering grounds in the United States. While we appreciate that the Keystone has agreed to develop a "Migratory Bird Mitigation Plan" in consultation with U.S. Fish and Wildlife Service, it appears that this plan would only address potential impacts from construction activities in the U.S.

Conclusion

The additional information and improved analyses specified above are necessary to ensure the information in the EIS is adequate to fully inform decision makers and the public about the potential environmental consequences of the Keystone XL project. Given these concerns, we have rated the Draft EIS as Category 3-Inadequate Information. As with all projects that have not addressed potentially significant impacts, this proposal is a potential candidate for referral to CEQ. We recommend that the additional information and analysis be circulated for full public review in a revised Draft EIS. Additional detailed comments are also enclosed, as well as a "Summary of Rating Definitions and Follow-up Actions."

Thank you for the opportunity to comment on the Keystone XL Draft EIS. As a cooperating agency, EPA looks forward to continuing to work with the State Department as it revises the Draft EIS to respond to the comments received. Please feel free to contact me at (202) 564-2440, or have your staff contact Susan Bromm, Director, Office of Federal Activities, (202) 564-5400, if you have any questions or would like to discuss our comments.

Sincerely,

Cynthia Giles

Enclosures

cc: Stephen D. Mull, Executive Secretary, U.S. Department of State
Michelle DePass, Assistant Administrator, Office of International and Tribal Affairs, EPA

U.S. Environmental Protection Agency
Detailed Comments – Keystone XL Project Draft EIS

Greenhouse Gas Emissions

We appreciate the inclusion of estimates of GHG emissions from the pipeline construction and operation. With regard to GHG emissions from refining, we recognize that incremental GHG emissions will depend on the feedstock being replaced, and we appreciate the efforts to provide an estimate in the Draft EIS. Given the potential large volumes of emissions, we recommend that the State Department explain in more detail the reasons for the very large range (i.e., 1.3 to 17.2 million tons of CO_2) of the estimate, and provide complete citations for the data and analyses used (i.e., the BP Whiting data, the Natural Resources Defense Council analysis, and the University of Toronto study). In addition, we recommend that the State Department provide information that would allow decision makers to understand the total, as well as incremental, GHG emissions expected from refining the oil sands.

Air Quality Impacts

EPA recommends that the revised Draft EIS provide additional information and analysis regarding potential emissions of pollutants at the receiving refineries and other associated facilities. EPA is prepared to assist the State Department in this analysis; as a first step, we recommend compiling the following information:

1) Describe the expected composition (crude slate) of the oil sands crude that will be transported through the pipeline, including sulfur and nitrogen content.

2) Describe whether the oil sands crude is pre-processed in Canada before shipment, and if so, describe the expected pre-processing and the expected characteristics of the crude before and after the pre-processing.

3) Indicate which of the following refineries are anticipated to have direct access to the proposed project, have contracted to receive the oil sands crude and in what quantities.

ConocoPhillips, Ponca City, OK
Sinclair/Holly, Tulsa, OK
Sunoco/Holly, Tulsa, OK
Valero, Ardmore, OK
Wynnewood Refining, Wynnewood, OK
Motiva, Port Arthur, TX
Total, Port Arthur, TX
Valero, Port Arthur, TX
ExxonMobil, Beaumont, TX
Pasadena Refining, Pasadena, TX
Houston Refining, Houston, TX
Valero, Houston, TX
Deer Park Refining, Deer Park, TX

ExxonMobil, Baytown, TX
BP, Texas City, TX
Marathon Oil, Texas City, TX
Valero, Texas City, TX
Calcasieu, Lake Charles, LA
CITGO Lake Charles, LA
ConocoPhillips, Lake Charles, LA

4) Indicate which of the refineries listed above are expected to receive oil sands crude from the proposed project but do not currently appear to have agreements in place.

5) Indicate whether the refineries that receive the oil sands crude from the project are expected to use it to replace existing supplies; if so, provide available information on the current crude slate utilized at these refineries, including sulfur and nitrogen content.

6) Indicate how many U.S. refineries already receive oil sands crude and whether they have been required to apply for new or modified permits; if so, indicate what type of refinery upgrades have been required and how have emissions been affected after they began processing the oil sands crude oil.

We also recommend that the revised Draft EIS provide information as to whether any new storage capacity would be required in Port Arthur or at the Moore Junction in Harris County, and whether any additional air permits for processing the crude oil would be required in Beaumont/Port Arthur, Texas and in Harris County, Texas. We recommend that the potential for air quality impacts associated with increased emissions from storage and processing be addressed in the revised Draft EIS.

With regard to air quality impacts from construction activities, while these emissions may be temporary, we do not believe it is appropriate to conclude that the construction activities would not significantly affect local or regional air quality without a full analysis. We appreciate the inclusion of an emission inventory for construction and operation of the proposed project; however, since the Draft EIS does not present an air quality impact analysis of these potential emissions, the potential for localized impacts or impairment on Class I areas is not clear. We note that the cumulative 3-year construction emissions depicted in Table 3.12.1-9 are significant (e.g., 1,142 tons NOx), but since these figures are presented at project-wide scale, the potential impacts to the individual Class I and Sensitive Class II areas are not apparent. We recommend that the revised Draft EIS provide emissions information on a more useful scale, such as per spread (the Draft EIS states that the project will be built in 17 spreads) and make clear what distance and time the emissions are spread over. EPA recommends that the revised Draft EIS include a detailed emissions control plan to address concerns related to the potential impacts of particulate matter emissions, as well as diesel emissions. The existing fugitive dust control plan presented in the Draft EIS contains some reasonable types of emission controls, such as water trucks; however, the level of detail currently provided may not ensure protection of air quality. We also recommend that the emissions control plan identify when mitigation measures would take effect, the duration of mitigation measures, and how compliance with the plan would be ensured.

We recommend that the revised Draft EIS clarify the time period used to quantify the estimated emissions associated with the electrical pumps that will be used at the pump stations – see Table 3.12.1-10 (Estimated Direct Emissions for the Project).

Pipeline Safety/Spill Response

It is critical that surface and ground water protection, particularly protection of public water supplies and source water protection/wellhead protection areas, receive high priority in the NEPA analysis and decision making. In many areas of potential project routing, the shallow alluvial ground water systems may be the only sources of potable water for public and rural domestic use. All appropriate precautions and actions to reduce the probability of a spill or leak occurring, to reduce the magnitude of a spill or leak, and to otherwise mitigate the adverse consequences of such an event, should be taken.

Additional comments, specific to Section 3.13 of the Draft EIS (*OIL SPILL RISK ASSESSMENT AND ENVIRONMENTAL CONSEQUENCE ANALYSIS)*, are provided below.

Section 3.13 Introduction

Footnote 1: The Federal Water Pollution Control Act and the Clean Water Act use the term "discharge" when referring to oil spills. Suggest adding "discharge" or "oil discharge" to terms that equate to a release. Additionally, oil products may be present in any water used to hydrostatically test the pipeline prior to being placed in service. We recommend that the revised Draft EIS provide information on the potential impacts, if any, from discharges of hydrostatic testing water, which may be used to pressurize the pipeline.

Section 3.13.1.3 Industry Standards

The revised Draft EIS should include the applicable standards from the list presented in 49 CFR 195.3 that are specific to breakout tanks.

Section 3.13.2.2 TransCanada Company-Specific Oil Pipeline Operating History

To properly characterize the operating history with respect to environmental impacts (and specifically to waters of the U.S.), we recommend that there be a discussion of enforcement cases/actions related to pipeline oil discharges (or pipeline related pump stations or construction activities) which caused harm, as defined by 40 CFR 110, and were required to be reported to the National Response Center. We recommend that the revised Draft EIS presents oil spills (discharges) in the context of both Department of Transportation (DOT) and EPA enforcement of oil spill cases.

Section 3.13.3.3 Construction Spills

We recommend that the revised Draft EIS clarify that there are a significant number of requirements in 40 CFR 112 in addition to the requirement for containment at

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

SPCC regulated facilities. In addition, we recommend that the revised Draft EIS clarify that the construction operations may require the development of SPCC plans per 40 CFR 112, and that a discussion of the reporting procedures for oil discharges under 40 CFR 110 for these construction activities be provided. Finally, please use 40 CFR 112 as the correct citation for EPA's regulation that applies for spill prevention.

Section 3.13.4 Impacts Related to Oil Spills

We recommend that analysis of the potential of impacts of oil spill discharges be revised to reflect information available in Natural Resource Damage Assessments (NRDAs) conducted by Federal Trustees in response to major pipeline incidents. The current discussion in the Draft EIS is limited with regard to actual documented impacts, and we suggest these NRDAs, several of which have been generated in response to major oil spills from pipelines, be reviewed and used as a source for information regarding the environmental impacts from pipeline oil spills.

Section 3.13.4.5 Keystone Actions to Prevent, Detect, and Mitigate Oil Spills

Spill Response Procedures

We recommend that the revised Draft EIS clarify that the SPCC plans only apply to the non-transportation related equipment and activities at pump stations and breakout tank farms and to pipeline construction activities. The SPCC plan employs measures to prevent spills and mitigate spills on the facility grounds in order to prevent oil discharges to waters of the US. The pipeline itself is regulated by DOT and response preparedness is addressed by the plans required by DOT under 49 CFR 194. It should be noted however, these plans should be shared with EPA response personnel (On Scene Coordinators) in the EPA Regions because EPA is typically the federal responder to inland pipeline spills and responsible for inland area planning required in the National Contingency Plan, 40 CFR 300. Finally, non-transportation related equipment and activities at pump stations/breakout tank farms may require the submission and some cases, approval, of a Facility Response Plan (FRP) as required under 40 CFR 112.20. In addition, the spill reporting procedures in the Draft SPCC plan should be expanded to include procedures to report to federal and local responders, in addition to the NRC and state responders.

Spill Response Equipment

As mentioned earlier, without the actual data explaining the oil's chemical and physical characteristics, the efficacy of traditional "floating oil" spill response equipment is in question. Again, this reflects the importance of obtaining all relevant information related to the bitumen oil/synthetic crude's chemical and physical characteristics.

Section 3.13.4.6 Types of Oil Spill Impacts

Chemical and Toxicological Impacts

Because the exact composition of the PAH content of the oil is not documented, it is difficult to determine any long-term risks from a spill to the aquatic environment. In addition, there is no analysis of impacts to downstream water intakes (both industrial and municipal), nor recognition that oil spills reaching these intakes may impact fire-fighting capabilities at the facility or municipality.

Environmental Justice

EPA believes that additional work is needed to better identify and address potential adverse effects of the proposed project on low-income, minority and Tribal populations, and we offer the following summary comments.

Air Emissions: EPA recommends that the revised Draft EIS analyze whether minority, low income and Tribal populations, may be exposed to greater risks from air emissions from the project, with a specific focus on emissions from refineries receiving oil sands. We recommend that the revised Draft EIS include a health risk assessment to address these issues.

Drinking Water: We recommend additional analysis of whether minority, low income and Tribal populations may be especially vulnerable to drinking water contamination from oil spills because they often obtain their drinking water from private wells or small public water supply systems for which monitoring and treatment of contaminants may be limited or non-existent. In performing this analysis, we recommend that the same "region of influence" be used to evaluate potential impacts for both public and private water supplies.

Local Emergency Response Capacity: We recommend that information and data produced for Local Emergency Response Planning Committees, created pursuant to the Emergency Response Planning and Community Right to Know Act, be evaluated to determine available response capacity of those counties that have meaningfully greater minority, low income and Tribal populations.

Access to Medical Services: EPA is concerned that access to medical facilities for minority, low-income and Tribal populations may not have been fully evaluated; these populations may be especially vulnerable to human health impacts of oil spills due to their lack of access to medical care, combined with potential health disparities. EPA recommends that the revised Draft EIS evaluate these potential impacts and means to minimize or mitigate the impacts in those counties that are designated as medically underserved areas.

Public Involvement: We recommend that as the State Department continues the NEPA process it ensure that efforts are taken to provide meaningful opportunities for public involvement, including measures to address populations that are linguistically or culturally isolated, and ensuring full accessibility of NEPA documents to minority, low income and Tribal populations. Translation of selected documents may be important for public involvement and also for developing mitigation measures in those areas where a significant percentage of the

households speak a language other than English at home. We also recommend that the revised Draft EIS provide a summary of the efforts taken to inform and involve low income, minority and Tribal populations. In addition, we recommend that an Enhanced Public Participation Plan be developed that would provide up-to-date information to communities during project construction and operation.

Additional Issues Related to Impacts on Tribes

EPA recommends that the State Department provide additional information regarding its efforts to consult with Tribal governments, along with measures to address issues raised by non-federally recognized Tribes. We also recommend that impacts to Tribal populations and communities that are associated with their conditions of poverty be further evaluated, including potential impacts due to subsistence consumption of fish, wildlife and vegetation that may be contaminated by oil spills, potential endangerment of drinking water sources, and language/cultural barriers which may impede capacity for public involvement in developing mitigation measures.

The Draft EIS discussion of impacts to Tribes is limited to an identification and count of the number of counties with a higher percentage of Native Americans than the state percentage, and a section on archaeological resources, historic resources (buildings, structures, objects, and districts), and properties of religious and cultural significance, including Traditional Cultural Properties (TCPs). The Draft EIS does not address potential impacts to Tribal members and communities along the pipeline, or to Tribal culture and traditional practices. We recommend a more rigorous analysis of potential for impact to Tribes be included in a revised Draft EIS.

For example, in some areas, impacts may be compounded by the presence of poverty and the high percentage of Native Americans. Coal, Hughes, Okfuskee, Seminole, and Pontotoc Counties in Oklahoma have both high percentages of Native American residents (in contrast with the state's percentage) and high poverty levels. Nacogdoches County in Texas also has a high percent of Native Americans compared with the State, as well as a relatively high poverty level. In these areas, a large portion of the population may rely on hunting, fishing, gathering and other means of subsistence due to both tradition and necessity. They may be disproportionately impacted by spills that reach waters and impact fisheries, or affect areas where food is traditionally obtained.

We recommend that the revised Draft EIS clarify the extent of Indian country lands potentially impacted by the proposed project, including Tribal trust and allotted Tribal member land. We also recommend that the revised Draft EIS address the potential impacts to areas where Tribes may have unadjudicated claims to water bodies that could be affected by spills from the proposed pipeline (e.g., Clear Boggy and its tributaries in Coal County, Oklahoma).

Finally, we recommend that additional information be provided regarding potential impacts to the Arbuckle Simpson aquifer in Oklahoma, which is located east of the proposed pipeline route. In particular, we recommend including specific information regarding the distance of the pipeline to the aquifer, the direction of groundwater flow in the area, and the potential for a plume from an underground leak to reach the aquifer.

Wetlands

Pursuant to 33 CFR 332.4 and 40 CFR 230.94, *Compensatory Mitigation for Losses of Aquatic Resources (Mitigation Rule)*, a compensatory mitigation plan must be submitted and approved by U.S. Army Corps of Engineers (USACE) before issuance of an individual CWA Section 404 permit. EPA recommends that the USACE/EPA regulations that address compensatory mitigation for losses of aquatic resources be reviewed, and that compensatory mitigation consistent with these regulations (73 Fed. Reg. 19594, April 10, 2008, http://www.usace.army.mil/CECW/Pages/final_cmr.aspx) be developed that will adequately compensate for potential losses of wetland functions and services from pipeline construction and operation along the entire route be included in the revised Draft EIS. Additionally, we recommend that the revised Draft EIS include a conceptual wetland monitoring plan that would, throughout a period of time (normally five years), direct field evaluations of those wetlands crossed by the pipeline to assure wetland functions and values are recovering. The monitoring plan should also include the wetland mitigation sites. EPA prefers wetland mitigation take place in areas as close to the project site as practicable (i.e., in close proximity and, to the extent possible, the same watershed) in order to replace lost functions and services.

The Draft EIS states "Implementation of measures in Keystone's Construction, Mitigation and Reclamation (CMR) Plan (Appendix B) would avoid or minimize most impacts on wetlands associated with construction and operation activities, and would ensure that potential effects would be primarily minor and short term." Impacts to forested wetlands are long-term and would be considered permanent. We recommend that Keystone work with each EPA Region and USACE district to determine what kind of compensation would be required for the permanent conversion of forested wetland to herbaceous wetland, and Keystone continue to work with the EPA Regions and the USACE Districts to develop a Wetland Mitigation Plan for review and consideration in the revised Draft EIS.

We recommend that the revised Draft EIS provide additional information on the proposed widths of construction zones and right-of-ways for all wetland crossings, along with a clearer explanation of which wetland areas will be re-vegetated and which will not allow re-establishment of scrub-shrub and forested wetlands. In addition, we recommend including a clearer explanation of which wetlands are considered "of special concern and value" and which are considered "standard," as well as the management implications of those designations.

Of particular importance are impacts to prairie pothole wetlands and bottomland hardwood forested wetlands, as these resources are of generally high ecological importance and difficult to replace on the landscape. Whenever practicable, potential impacts to prairie pothole wetlands should be avoided using horizontal directional drilling (HDD) techniques, rather than trenching.

We recommend that the revised Draft EIS provide additional information on the status of the efforts to avoid locating specific mainline valves in wetland areas.

The Draft EIS indicates that there are nine forested wetland crossings in Oklahoma and 78 in Texas, and a total of 261 acres of forested wetlands will be affected during construction

and 137 acres will be affected by pipeline operation. However, these estimates do not include the number of acres disturbed by associated access roads or construction camps; we recommend that these estimates be revised to include all potential impacts.

We also recommend that the revised Draft EIS address compliance with E.O. 11990 (Protection of Wetlands), including the requirement to ensure mitigation of unavoidable impacts to all wetlands and waters of the U.S. on Federal lands and facilities.

Equal mitigation commitments should be made for connected actions, including transmission lines. EPA agrees with the suggestions provided on page 3.4-12 of the Draft EIS, and recommends that these suggestions be applied to all wetlands, including both non-jurisdictional and jurisdictional. These additional measures include a request that pre- and post-construction monitoring plans be developed for depressional wetlands of the prairie pothole region, and that wetlands that no longer pond water after the pipeline is installed should receive additional compaction, replacement, or at the landowner's or managing agency's discretion, compensatory payments should be made for drainage of these wetlands. Recommendations are also included that Keystone should develop a plan to compensate for permanent wetland losses in areas of concern to the National Park Service and Texas Parks and Wildlife.

Water Resources

We recommend that further commitments to protect sensitive waterbodies be provided. The Draft EIS states that 341 perennial waterbodies would be crossed during the construction of the proposed project, and that four techniques would be used to cross perennial waterbodies: the open-cut wet method, the dry flume method, the dry dam-and-pump method, or, horizontal directional drilling (HDD). For each perennial waterbody crossing, a site specific engineering and geomorphologic analysis would determine the best method to use to avoid and reduce aquatic impacts. Based on available information, we understand that the open-cut wet method has the greatest potential for water quality impacts. Open-cut wet trench methods with a flowing river often require a wide ditch since the side walls of the ditch are likely to be unstable in alluvial material, and this often results in discharge of substantial quantities of sediment into the river. Such methods generally result in increased sediment production and transport, and increased risks of adverse effects to water quality and aquatic life. Directional drilling beneath waterbodies or constructing waterbody crossings using coffer dams and pumping to keep the construction work area dry are considered less damaging techniques than wet trench crossings. EPA recommends the revised Draft EIS evaluate potential impacts to water quality, aquatic species, riparian and wetland habitat from the various water crossing methods to determine which method would be both practicable and environmentally preferable.

To ensure protection of drinking water supplies, we recommend that private water wells within 1 mile of the pipeline be identified, rather than within 100 feet, as currently described in the Draft EIS. We recommend that Keystone be required to notify state source water protection officials and private well owners before construction would begin in a Source Water Protection Area (SWPA) or wellhead protection area. Pipeline routing alternatives that avoid Sole Source Aquifers, SWPAs, and wellhead protection zones are preferred; if the pipeline route is unable to avoid these areas, EPA recommends that specific mitigation measures be developed, including

installation of double lining, corrosion protection, cathodic protection, water quality monitoring, and state-of-the-art leak detection methods.

If public or private wells would be located within 100 feet of the proposed pipeline route, we recommend that Keystone be required to sample the wells for appropriate petroleum indicator compounds as part of baseline monitoring, and additional monitoring, as appropriate. We also recommend that water quality monitoring would need to be made available for well and/or spring owners, upon request. Moreover, we recommend that Keystone would mitigate impacts to wells that may occur during construction or by pipeline spills/leaks, by transporting potable water to the affected site, drilling a new well, or other appropriate measures. Applicable mitigation measures should be described in the revised Draft EIS.

EPA also notes that the Ogallala Aquifer is a critical resource that may be affected by the proposed project, as it is the drinking water source for almost 80% of Nebraska's residents, as well as a multi-state agricultural industry. We recommend that the revised Draft EIS provide additional information as to the potential for adverse impacts to this resource.

We are pleased that Keystone proposes to use horizontal directional drilling (HDD) for crossing the Niobrara River in Nebraska. However, we recommend that the revised Draft EIS include a discussion of the Niobrara River's status as a National Scenic River (http://www.nps.gov/niob/index.htm) and how the proposed crossing would not conflict with its status as a National Scenic River.

We appreciate the information provided in Appendix E-4 ("Waterbodies within 10 Miles Downstream of Proposed Water Crossings"). Based on our review of this appendix, we note that that there are numerous proposed water crossings that are located upstream of water supply reservoirs. We recommend that the revised Draft EIS include an analysis of potential impacts to these reservoirs in the event of a spill. There are also many points where the potential alignment of the pipeline will cross stream or river segments which are not attaining the state Water Quality Standards and thus a Total Maximum Daily Load (TMDL) has been prepared; special considerations should be applied to prevent contributing to pollutant loads when crossing these sensitive resources.

The Draft EIS states (p. 3.3-29) that the Lower Brule to Witten 230-kV transmission line would have "negligible effects on water resources" - we recommend that additional information be provided to support this conclusion.

Ancillary Facilities

Due to the large number of potential ancillary facilities, including 50 permanent access roads, 30 new pump stations, 74 mainline valves, two crude oil delivery sites and a tank farm, disclosure of the location of these facilities and evaluation of site-specific impacts should be provided to the maximum extent possible. EPA notes, for example, that impacts to wetlands from ancillary facilities and access roads outside of the 110-foot ROW have not yet been identified and assessed. While EPA recognizes that the exact locations of all the ancillary facilities required for support of construction and operation of the pipeline have not yet been

determined, their omission may result in underestimation of potential impacts of the proposed project. The locations, lengths, and designs for ancillary facilities should be identified and described as clearly and completely as possible in the revised Draft EIS to allow understanding of all site-specific impacts.

Additionally, the Draft EIS does not clearly describe where the right of way (ROW) would be reduced to protect "certain sensitive areas, which may include wetlands, cultural sites, shelterbelts, residential areas, or commercial/industrial areas" (Draft EIS, p. 2-3). EPA recommends that the revised Draft EIS clearly define, using maps and/or a table with milepost numbers, where the reduced ROW would be implemented. This information should be summarized in each of the resource chapters of Chapter 3 – Environmental Analysis to enable the reader to easily understand when extra protection would be provided to sensitive resources.

Hazardous Materials Sites

We recommend that the revised Draft EIS identify any Hazardous Materials Sites that may be located within the proposed ROW or other areas associated with the project, and include plans for minimizing potential impacts from accidental disturbance during construction. The response plans should include measures to minimize impacts to communities from removal of any potential hazardous materials.

THE GLOBE AND MAIL

June 2, 2014

The message of the Joslyn oil sands shelving: Higher prices needed

By PETER TERTZAKIAN

When Total SA deferred the Alberta development, the primary cost issue was labour. But other big oil companies are also reducing investment and the only cure may be the lure of higher revenue

Last week Total SA and their consortium partners shelved the $11-billion Joslyn oil sands project. Predictably, the belt-tightening announcement triggered the usual self-flagellating notions like, "Canadian oil and gas isn't competitive," and "The future of the oil sands is dim." But it's folly to get boxed inside cardboard perspectives that are so thin. Joslyn's halt is symptomatic of smouldering global oil supply problems that transcend Canadian issues.

Over the next couple of years, we are likely to see more mega oil projects axed around the world.

Already, cutting back on oil and gas developments is a fashionable theme among large independent oil companies (IOCs). The bottom line is that the bottom line is too thin. A barrel of oil priced at $110 (U.S.) in world markets sounds high, but paperwork filed by chief financial officers is not convincing shareholders that investing ten-plus billion dollars into far-flung oil fields is worth the growing risks. Too often, the long-term prize for developing elephant-sized projects has been disappointing returns that have been wiped out by one or more of: 1) Cost overruns; 2) Excessive corruption; 3) Civil unrest; 4) Geopolitical sanctions; 5) Domestic impediments; 6) Outright expropriation of assets by bandits in foreign governments; or 7) A smorgasbord of other known unknowns that are parasitic to stable investment.

To illustrate the reluctance to spend more for less, our feature chart this week [1]shows the annual upstream capital expenditures of seven large independent producers between 1995 and 2014 (expected). Notwithstanding the abnormalities of the 2009 financial crisis, year-over-year spending by these biggest publicly traded IOCs in the world will be down in 2014 for the first time in more than a decade. The collective budget cut is not loose change; it's $17.1-billion or 8.8 per cent. In the context of historical behaviour, such wallet tightening by IOCs is unusual at a time when the global economy is showing signs of strengthening.

The awakening started last calendar quarter, the first quarter of 2014. Flipping through publicly disclosed materials from the seven big players – Exxon Mobil, Chevron, Shell, Total SA, ConocoPhillips, Statoil and BP – was sobering. Recurrent themes in the presentations could be distilled into a simple missive: Production down, costs up, profits too thin.

Cutting through jargon like "increasing capital efficiency," the future shareholder directive for the seven IOCs that represent 10 per cent of global oil production is pretty straightforward: Shift the emphasis from growing production at all costs to try making money by controlling costs. The capital expenditure cuts in our feature chart clearly shows this sentiment, and the Joslyn story is part of this much bigger dynamic. Note that the consequences of the 2014 spending cuts will lag, because the impact on world oil fundamentals of today's investment typically takes a few years to be felt.

Exhibit 8026

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Yet the cost of developing large oil fields is unlikely to come down, given the long list of antagonizing factors that have been mentioned above. Overseas, the scourges of geopolitics, corruption and banditry are getting worse not better. Technology is improving rapidly, but the costs of developing deep offshore oil fields are multiplying. As well, tightening safety and environmental standards will only get tighter – and costlier.

In Canada, the primary cost issue is labour constraint. In this regard, the withdrawal of Joslyn eases future demand for thousands of skilled workers and therefore increases the probability that peer competitors will realize stable costs with their megaprojects. So, Joslyn's departure is not an indictment of the oil sands resource as a whole.

The trend of reduced spending by the most innovative oil companies in the world has many profound implications. For one thing, if the marginal cost of oil production can't be controlled, then the price of a barrel will have to rise to rekindle investment. Joslyn holds a message that goes far beyond Canadian issues.

Peter Tertzakian is chief energy economist at ARC Financial Corp. in Calgary and the author of two best-selling books, A Thousand Barrels a Second *and* The End of Energy Obesity.

References

1. www.theglobeandmail.com/report-on-business/upstream-capital-expenditures-for-seven-big-independent-oil-companies/article18954753/#dashboard/follows

BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN RE APPLICATION BY TRANSCANADA KEYSTONE PIPELINE, LP
FOR A PERMIT TO CONSTRUCT KEYSTONE XL PIPELINE

DOCKET NO. HP 001

PREFILED TESTIMONY BY WASTE' WIN YOUNG
TRIBAL HISTORIC PRESERVATION OFFICER
STANDING ROCK SIOUX TRIBE

APRIL 2, 2015

Exhibit 8027

Q. State your name and address for the record.

A. My name is Waste' Win Young. I reside at 950 Meadowlark Street in Fort Yates, North Dakota.

Q. What is your occupation?

A. I am the Tribal Historic Preservation Officer for the Standing Rock Sioux Tribe.

Q. Summarize your education and professional background.

A. I graduated from the University of North Dakota in 2001. I have a Bachelor's of Arts in English Language and Literature. I have a Bachelor's of Arts in American Indian Studies as well as a minor in psychology. I have worked in the Tribal Historic Preservation Office for the Standing Rock Sioux Tribe since 2003.

Q. Describe your duties as Director of the Tribal Historic Preservation Officer?

A. As the Tribal Historic Preservation Officer I review archeological and cultural resource surveys for projects within the exterior boundaries of the SRST. After reviewing the report I base my decision on the "determination of effect", whether a project will have an adverse effect or not on the resources. I also consult with agencies on projects off the reservation.

The National Historic Preservation Act ("NHPA") was passed in 1966, was an act to "Establish a Program for the Preservation of Additional Historic Properties throughout the Nation." In 1992 it was amended to include Tribal Nations. Subsequently it recognized the authority of tribes to establish "tribal historic preservation offices" and make determinations on projects that would impact their land, as well as cultural resources which may be located off reservation lands pursuant to section 101(d)(6)(B) of the National Historic Preservation Act.

Q. Is it challenging to protect cultural resources on and near the Standing Rock Reservation? Explain.

A. Yes. The National Historic Preservation Act and its implementing regulations require all agencies involved with federal approvals of projects to "gather information from any Indian tribe… to assist in identifying properties, including those located off tribal lands which may be of religious and cultural significance." 36 CFR §800.4(a)(4). The regulations provide a process for resolving conflicts over the evaluation of identified sites and for resolving adverse impacts to them. 36 CFR §800.4(d); 800.5(c)(2); 800.6(b). The resolution to these issues, especially when they involve off-Reservation development projects sponsored by large corporations such as TransCanada, is complicated by the inordinate amount of political influence that the project beneficiaries exercise with federal and state agencies. Our cultural sites are vulnerable to impacts caused by development projects that promise jobs and profits for non-Indians. This is precisely the situation with the Keystone XL Pipeline.

Q. Describe the process that agencies normally follow under section 106 of the National Historic Preservation Act?

A. Agencies are required to initiate the consultation process early on, and to fully include all eligible parties in the identification and evaluation of historic properties, as well as the determination of effects and proposed mitigation. The process should be straightforward and transparent.

Q. Describe the process that State Department used under section 106 of the National Historic Preservation Act for the Keystone XL Pipeline?

A. The State Department sent a boilerplate letter to our office that did not establish a meaningful process for the participation of my office in the NHPA Section 106 process. The agency attempted to combine historic preservation consultation (SHPO's and THPO's) required under Section 106 of the NHPA with Tribal government consultation required under Executive Order 13175 and SDCL §1-54-5. Consequently, my office was not given the opportunity to participate in a well-defined process for identifying and evaluating historic properties. The

process established for the requisite consultation was akin to getting one's flu shots at the DMV – different functions were combined and as a result neither consultation process was properly conducted. The consultation process has been exaggerated and mischaracterized by the State Department and by TransCanada – in violation of both federal and state law.

The SRST was not afforded a meaningful opportunity to participate in identification efforts for historic properties along the Keystone XL Pipeline route. Keystone XL and other pipelines have the potential to damage (through construction or failure of equipment) and destroy cultural resources that have not been identified through pedestrian surveys.

This has real world consequences. The limited number of historic properties identified in current surveys illustrates the failure of TransCanada's archaeologists to conduct proper identification in accordance with the NHPA. The State Department Final Supplemental Environmental Impact Statement was not available when the Final Order was entered granting TransCanada a permit on June 29, 2010. Now that this information has been released, it is apparent that there have not been adequate surveys with proper Tribal involvement.

In fact, my office requested additional information on sites 24MC0480; 24VL1900; 24VL1905; 24VL1911 and VL1928 – the status of which remains unresolved at this late date.

Many historic properties of Lakota and Dakota origin are difficult for untrained persons to evaluate – the location of rocks, certain striations in rocks or rock formations – may point to ceremonial uses of sites that non-Lakotas and non-Dakotas may not understand. Moreover, TransCanada's role in the consultation and identification process has been unclear from the beginning. The level of expertise invoked in the 106 process has not been established even now.

There are no specific mitigation provisions. The provisions of the Programmatic Agreement ("PA") are too general. I have not signed it on behalf of the Standing Rock Sioux Tribe. Accordingly, an alternative process of resolving disputes over adverse effects and undiscovered historic properties must be put in place. But it has not been. In the absence of a process involving my office as an alternative to the PA, the project remains out of compliance with the NHPA.

For these reasons, the required processes for consultation and evaluation under NHPA Section 106 have not been followed by the State Department or TransCanada. As a result, the 2014 Final Supplemental Impact Statement fails to provide a sufficient basis for approval of a Presidential Permit for the Keystone XL Pipeline.

Q. Did TransCanada cooperate with your office on cultural resources issues related to the Keystone XL Pipeline?

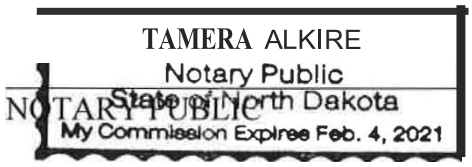
A. No.

Q. Is there anything else you would like to say to the Public Utilities Commission?

A. The Keystone XL pipeline (and other pipelines) will cross aboriginal and treaty territory that was exclusively set aside by the U S government for the Sioux Nation (Ft Laramie Treaties of 1851and 1868). The Sioux people were nomadic people and followed the buffalo. Our valuable cultural resources are located throughout the path of the Keystone XL Pipeline. Yet the proper procedures to make the requisite determinations have not been followed. The Keystone XL Pipeline is unable to continue to comply with Amended Condition number 43 in the Amended Conditions to the Final Order in HP 09-001. The petition to certify should be denied.

Waste' Win Young

SUBSCRIBED and SWORN
to before me this ___ day of
April, 2015.



U.S. Department of State

Keystone XL Pipeline Project
Government to Government Consultation
May 16, 2013

Hilton Garden Inn
815 East Mall Drive
Rapid City, South Dakota 57701
(605) 791-9000

Agenda

Thursday, May 16, 2013

Breakfast 8:00-9:00 AM

Morning Session

- Spiritual Reflection
- Introductions
- Project Discussion and Process Update
- Traditional Cultural Property (TCP) Surveys

Lunch 12:00-1:00 PM

Afternoon Session

- Discussion on the Status of the Programmatic Agreement (PA)
- Open Discussion

Please note: Attendees are responsible for scheduling hotels and travel arrangements. A continental breakfast and lunch will be provided on the day of the consultation meeting. Attendees will be provided a $75 per diem for dinner on the day of the conference and travel related meals upon arrival at the meeting. Up to two nights lodging, mileage or flights for travel to and from the meeting, and appropriate travel related costs (i.e. parking, baggage fees, etc.) will be processed and transmitted within two weeks after receipt of corresponding receipts.

Please RSVP by Wednesday, May 8, 2013.

Exhibit 8028