



Haisla Nation Council

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June 20, 2013

VIA EMAIL: tsep-cesnc@tc.gc.ca

Tanker Safety Panel Secretariat
330 Sparks Street, Place de Ville Tower C (AAM)
Ottawa, Ontario
K1A 0N5

Attention: Captain Gordon Houston, Chair, Tanker Safety Expert Panel

Dear Captain Houston:

**Re: Haisla Nation – Written Submission to the Tanker Safety Expert Panel -
Phase 1**

The Haisla Nation welcomes measures to strengthen tanker safety and capacity for oil spill preparedness and response. Please find attached for your consideration an executive summary accompanied by detailed reports concerning spill preparedness and response and other information relevant to Phase 1 of the mandate of the Tanker Safety Expert Panel.

The primary submission of the Haisla Nation is the document titled *Comments on Tanker Panel Review* prepared by Nuka Research and Planning Group, LLC, dated June 11, 2013 (attached as document HN1). Nuka Research is an environmental consulting firm specializing in oil spill prevention and response planning, regulatory compliance, disaster preparedness, and emergency management. This document was commissioned by the Haisla Nation specifically for the purpose of providing information to inform Phase 1 of the Expert Panel mandate.

As has been demonstrated during the Northern Gateway Project assessment by the Joint Review Panel, there are significant shortcomings in both public and private capacity to respond to oil spills in the Pacific North West region. The Haisla Nation is extremely concerned that the proposed transportation of oil sands products through the Pacific North West region is being pursued without adequate scientific knowledge concerning the fate and behaviour of oil sands products in the marine environment; without clear parameters regarding the challenges and capacity requirements needed to maintain and deploy effective containment and cleanup of spills in the North West Pacific region; and without effective technology designed to respond to sunken or submerged oil.

Oil and diluted bitumen pose different and far greater challenges to effective spills response and have greater adverse effects on the environment if released than lighter products such as liquefied natural gas. Even if significant improvements in oil spill preparedness and response are undertaken, the toxic effects of oil sands products and the propensity of some products to sink or submerge render these products unsafe for transportation through the Pacific North West region.

The Haisla Nation urges the Tanker Safety Expert Panel to adopt a precautionary approach to preserving and protecting marine resources and requests that the Tanker Safety Expert Panel recommend strict controls on the products which may be shipped through the Pacific North West region.

The Haisla Nation would also like to reiterate concerns relating to the limited amount of time that was made available for providing input to the Expert Panel and the lack of any capacity assistance to facilitate the participation of the Haisla Nation in this process. Oil spill preparedness and response is a key concern for the Haisla Nation and the limited opportunity for engagement compromises our ability to provide fulsome and meaningful input into this process.

Yours truly,

A handwritten signature in black ink, appearing to read "Ellis Ross". The signature is fluid and cursive, with the first name "Ellis" and the last name "Ross" clearly distinguishable.

Chief Councillor Ellis Ross

Enclosures

cc: Haisla Nation Council
Allan Donovan, Donovan & Company
Michael Gordon, M. R. Gordon & Associates Ltd.



Haisla Nation Council

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EXECUTIVE SUMMARY

WRITTEN SUBMISSION OF THE H AISLA NATION TO THE TANKER SAFETY EXPERT PANEL

PHASE ONE

June 20, 2013

The Haisla Nation presents this executive summary and the attached materials in response to the Tanker Safety Expert Panel (Expert Panel) request for written submissions concerning Phase One of the Expert Panel mandate.

PRIMARY SUBMISSION

The primary submission of the Haisla Nation is the document titled *Comments on Tanker Panel Review* prepared by Nuka Research and Planning Group, LLC, dated June 11, 2013 (attached as HN1). Nuka Research is an environmental consulting firm specializing in oil spill prevention and response planning, regulatory compliance, disaster preparedness and emergency management. This document was commissioned by the Haisla Nation specifically for the purpose of providing information to inform Phase 1 of the Expert Panel mandate. This document provides the direct response of the Haisla Nation to the questions posed in the Lines of Inquiry document provided as an attachment to the correspondence of the Expert Panel to the Haisla Nation dated May 22, 2013. It also includes recommendations on the methodology that should be applied to by the Expert Panel to fulfill its mandate and offers critical assessment of the comprehensive risk assessment process which has been undertaken to support the mandate of the Expert Panel.

The *Comments on Tanker Panel Review* document is accompanied by a separate document titled *Oil Spill Response Gap and Response Capacity Analysis for Proposed Northern Gateway Tanker Oil Spills in Open Water and Protected Water Operating Environments*, dated July 2012 (HN2). This document was prepared by Nuka Research for the Haisla Nation and forms part of the Haisla Nation evidence before the Joint Review Panel in the hearing process for the Northern Gateway Project. It provides analysis of the capabilities and limitations related to mechanical oil spill response along the vessel routes for the proposed Northern Gateway project. The “response gap” analysis estimates how often environmental conditions will limit or prevent the effective deployment of mechanical spill response equipment or reconnaissance activities required to locate where to deploy equipment. The “response capacity” analysis estimates the quantity of forces that would be required to achieve a given on-water mechanical recovery goal. Combined, these two analytical approaches illustrate what is possible and what is required to respond effectively to a spill that could result from shipping oil along the Northern Gateway tanker routes.

SECONDARY SUBMISSIONS

In addition to the primary submission of the Haisla Nation, various reports developed by the Haisla Nation and other parties to the Northern Gateway Project are provided for the information of the Expert Panel. These materials are focused on the specific circumstances of the proposed Northern Gateway Project and those areas that may be affected by the project. The information contained in these reports, however, provides valuable insight into the detailed planning required to develop oil spill response and preparedness capacity for a specific project. The reports also address many of the enormous challenges associated with spill response and preparedness in the Pacific North West region and offer critical information concerning how the fate and behavior of oils sands products present formidable impediments to effective spill response in the marine environment.

The secondary submissions are divided into three sections. The first section presents documents submitted by the Haisla Nation to the Joint Review Panel; the second section presents documents submitted by third parties to the Joint Panel; and the third section presents relevant documents submitted by Northern Gateway. A brief summary of each of the documents submitted is provided below for your reference.

1) Haisla Nation Submissions

a. Spill Response and Preparedness

The Haisla Nation has made numerous submissions to the Joint Review Panel for the Northern Gateway Project concerning spill response and preparedness in the context of the Northern Gateway Project. The following documents are submitted for the review of the Expert Panel.

- i. *Preliminary Analysis and Observations regarding Enbridge Northern Gateway Project Proposal Documents – Oil Spill Contingency Planning, December 2011 (HN3)*

This document evaluates the oil spill contingency planning documents submitted by Northern Gateway to the Joint Review Panel. It also provides an overview of the state of knowledge on the fate of diluted bitumen spilled to water, oil spill risks, spill mitigation and prevention measures, and oil spill response as background for the analysis of the North Gateway submission.

- ii. *Attachment 5 to JRP IR 1.1, Analysis and Observations regarding Enbridge Northern Gateway Response to M.R. Gordon and Associates TERMPOLE Comments and Information Requests, February 2012 (HN4)*

This document examines double hull tanker ship safety; characterization of cargo; ship traffic management analysis; general risk analysis; procedures and technologies for spill containment and clean-up; and liability for spill clean-up and environmental costs relating to the Northern Gateway Project in the context of the TERMPOLE review process.

- iii. *Attachment 6 to JRP IR 1.1, Analysis and Observations regarding final TERMPOL report on Enbridge Northern Gateway Project, June 2012 (HN5)*

This document reviews the final report prepared as part of the voluntary TERMPOL review process for the Northern Gateway Project. It provides commentary on both the substantive conclusions of the TERMPOL review process as well as the limitations of the TERMPOL review process to ensure overall safety of the project.

b. Effects of a Spill

In order to recommend meaningful improvements to Canada's marine oil spill preparedness and response regime, it is necessary for the Expert Panel to have a strong appreciation of the resources and values that are placed at risk in the event of a release of oil sands products into the marine environment. The following two reports provide information on the toxic effects of oil to fish and the potential impacts of a spill on the resources and culture of the Haisla Nation.

- i. *Technical Data Report Toxicity of Oil to Fish – Potential Effects of an Oil Spill into the Kitimat River from a Northern Gateway Pipeline Rupture (Peter V. Hodson et al, 2011) (HN6)*

The *Technical Data Report Toxicity of Oil to Fish* provides a detailed analysis of the environmental risks of a petroleum product spill from the Northern Gateway Pipeline. The Kitimat River terminates at the Kitimat Estuary and the flows directly into the marine environment of Kitimat Arm. This report provides valuable information about the toxic effects of oil on species inhabiting both the marine and freshwater environments and examines how the chemical composition of various products influences how they interact with the marine environment.

This information is valuable to the Expert Panel because it provides information about the distinct effects of different products on the marine environment and because it provides in depth scientific analysis of how spills affect fish species. The two primary authors of the report, Dr. Peter Hodson and Dr. Tracy Collier, are established experts in the field and both were qualified as experts in environmental toxicology and the effects of contaminants on fish by the Joint Review Panel for the Northern Gateway Project.

- ii. *Stewards of the Land... Haisla Ownership and Use of their Traditional Territory, and their Concerns regarding the Northern Gateway Project and Proposed Tanker Traffic in the Douglas Channel and Kitimat Arm (Powell, 2011) (HN7)*

Stewards of the Land is a report prepared by Dr. James (Jay) V. Powell. Dr. Powell is a linguistic anthropologist focusing on the cultures of the Pacific Northwest cultural area and Associate Professor Emeritus of the UBC Department of Anthropology in Vancouver. *Stewards of the Land* presents the Haisla people's basis for their concerns regarding the Northern Gateway Project pipeline, terminal and tanker traffic in the Douglas Channel and Kitimat Arm. It includes discussion of the Haisla Aboriginal Territory, the Haisla land ownership system, Haisla culture and the use of subsistence resources from their traditional territory, Haisla watersheds considered to be at risk and their cultural resources, areas of Haisla concern along the tanker entry route, including

Haisla IR #14 (Gander Island), Caamaño Sound, Campania Sound and adjacent areas, and a corpus of Haisla cultural narratives. This information should inform the considerations of the Expert Panel when assessing the marine oil spill preparedness and response because it presents information on the unique resources present in the Pacific North West region and the catastrophic impact that oil spills may have on First Nations interests.

2) Third Party Submissions

a) Living Oceans Society

Living Oceans Society is Canada's largest non-government organization focusing exclusively on marine conservation issues. The Society's vision is to ensure the long-term health of the ocean and coastal communities on the Pacific Coast of Canada. They have submitted comprehensive information to the Joint Review Panel concerning spill response and preparedness.

- i. A Technical Analysis of Marine Transportation Statements for the Enbridge Northern Gateway Project Tanker Casualty Risk Reduction and Spill Response Preparedness Prepared for Living Oceans Society Sointula/Vancouver, BC Canada by EnviroEmerg Consulting Duncan, BC, Canada, February 2011 (HN8a and HN8b)*

This report provides an evaluation of Northern Gateway's proposed tanker casualty risk reduction and spill preparedness measures for the marine transportation component of the proposed Northern Gateway Project. It contains detailed qualitative descriptions of the proposed risk reduction and spill preparedness measures and lists deficiencies in the Northern Gateway application based on the technical evaluations.

- ii. Dispersant Use on Canada's Pacific Coast: Relevant factors and preliminary response gap analysis for the Enbridge Northern Gateway project area, Living Oceans Society, 2011 (HN9)*

This report contains a qualitative assessment of expected dispersant efficacy based on specific characteristics of the proposed Northern Gateway Project and the associated marine operating area, drawn from existing literature. It also provides a preliminary response gap analysis, calculating the portion of time that weather conditions in the proposed marine operating area for the Northern Gateway Project will marginalize or preclude dispersant use in the event of an oil spill.

- iii. A Review of Countermeasures Technologies for Viscous Oils that Submerge prepared by Counterspil Research Inc. for Living Oceans Society, November 2011 (HN10)*

This report reviews publications on the current state of oil spill detection and countermeasures technologies for viscous, heavy oils that might submerge (i.e., become suspended or sink) when spilled.

- iv. *Terhune, K. (2011). Tanker Technology: limitations of double hulls. A Report by Living Oceans Society. Sointula, BC: Living Oceans Society (HN11)*

This report examines the design, construction, operation, and maintenance of double-hull tankers to assess limitations that may lead to an accident and oil spill.

- v. *Terhune, K. (2011). Preliminary Mechanical Response Gap Analysis for the Enbridge Northern Gateway Project. Sointula, BC: Living Oceans Society (HN12)*

This report presents a preliminary response gap analysis which examines the frequency in which oil spill response would be impaired or impossible due to environmental conditions encountered in the proposed Enbridge Northern Gateway Project area based on wave height observations.

b) Gixaala Nation

The Gitxaala Nation is a First Nations government located at Kitkatla, British Columbia, Canada in the province's North Coast region.

- i. *Report of Captain John Lawrence Bergin (December 15, 2011) (HN13)*

This report provides the analysis of Captain John Lawrence Bergin concerning the navigational hazards, challenges and risks associated with navigating tankers through the confined channel area from Browning Entrance and Caamaño Sound to Kitimat Arm. It also assesses the measures proposed by Northern Gateway to address navigational hazards, challenges and risks associated with navigating tankers in those areas.

- ii. *Susceptibility of Diluted Bitumen Products from the Alberta Tar Sands to Sinking in Water prepared by Dr. Jeffery Short (March 17, 2013) (HN14)*

Dr. Short analyzed evidence prepared by Northern Gateway to assess the susceptibility of diluted bitumen to sink in the marine environment. Dr. Short identified significant shortcomings in the analyses conducted by Northern Gateway, and he concluded that the diluted bitumen would be expected to sink due to evaporative weathering in fresh and brackish marine waters in less than 24 hours following a spill. He further concluded that evaluation of the environmental risks associated with sinking bitumen products is hampered by the limited number of studies on the kinds of diluted bitumen products likely to be transported by the proposed project. He recommended that testing should be done on a much wider range of candidate products, at realistic oil slick thicknesses, and at realistic environmental conditions of wind speeds, temperatures and salinities.¹

¹ It should also be noted that the concerns expressed by Dr. Short relating to the state of knowledge about the fate and behavior of diluted bitumen are echoed by Environment Canada. Please see testimony of Dr. Bruce Hollebhone of Environment Canada, Transcript Vol. 173, lines 25472, 25523. Available online: https://www.neb-one.gc.ca/ll-eng/livelink.exe/fetch/2000/90464/90552/384192/620327/628981/948146/International_Reporting_Inc._-13-04-29_-_Volume_173_-_A3H3S2?nodeid=948017&vernum=0

c) Coastal First Nations

The Coastal First Nations is an alliance of First Nations on British Columbia's North and Central Coast and Haida Gwaii. The Coastal First Nations include Wuikinuxv Nation, Heiltsuk, Kitasoo/Xaixais, Nuxalk Nation, Gitga'at, Metlakatla, Old Massett, Skidegate, and Council of the Haida Nation.

- i. Appendix II, Marine Navigation: Measures to Reduce the Risk of Marine Incidents. Report of Captain Harrison J. Layton and Michael M. McGuire (HN15)*

This report provides brief analysis of weather conditions, business considerations affecting vessel management, pilotage, tugs, and human error as they relate to marine tanker transportation associated with the proposed Northern Gateway Project.

3) Northern Gateway Submissions

As part of its evidence before the Joint Review Panel, Northern Gateway submitted an Ecological and Human Health Risk Assessment for Pipeline Spills (EHHRA). This document has not been provided as an attachment due to its size but the report is publically available in the Joint Review Panel Public Registry. The Haisla Nation does not accept that this document is either accurate or scientifically sound but references it because it demonstrates that marine spill response measures may be required to respond to spills from pipelines along freshwater rivers which empty into the marine environment.

In the EHHRA, oil spill fate and acute toxic effects modeling and analyses were performed to support evaluation of the ecological and human health risks of potential oil spills into aquatic environments resulting from spills from the Northern Gateway Project's two pipelines. The effects of potential spills into riverine and lacustrine environments were modeled for three oil types (diluted bitumen, synthetic oil, and condensate) and two seasonal environmental conditions. Spill scenarios were run under high and low river flow conditions, with temperatures and other environmental conditions typical of two flow-defined seasons.

The modeling prepared for the EHHRA found that, in all cases, a large amount of entrained oil and high concentrations of dissolved aromatics moved down the entire stretch of the Kitimat River into Kitimat Estuary. The potential for oil to enter into the marine environment from pipelines or through freshwater waterways poses additional challenges for effective spill response and preparedness. When making recommendations to the Minister of Transport, Infrastructure and Communities, the Expert Panel should address the need to develop spill response and preparedness capacity to respond to spills originating from oil pipeline infrastructure.

- i. Pipeline Accident Report, National Transportation Safety Board (USA), Enbridge Incorporated, Hazardous Liquid Pipeline Rupture and Release, Marshall, Michigan. July 25, 2010, NTSB/PAR-12/01 PB2012-916501 (HN17)*

This document is a report from the National Transportation Safety Board (USA) concerning a large pipeline spill from a pipeline operated by Enbridge Inc. The report

raises critical concerns about the Enbridge's operational history which are relevant to the safe operation of pipelines by Enbridge Inc. Enbridge claims to have learned from this event and to have implemented new measures to address the operational concerns. However, many of the "new measures" changes have not been demonstrated to be effective or are insufficient to address the concerns of the Haisla Nation.

The Haisla Nation provides this report to demonstrate that the risk levels for marine spill are influenced by operational practices relating to terrestrial oil transportation infrastructure and regulatory oversight. It also provides an example of the need for robust regulation and oversight of corporations engaged in the transportation of oil sands products. The Haisla Nation notes that if a similar spill were to occur on the proposed Northern Gateway Project, it would have immediate and significant adverse effects on the marine environment. A brief summary of the report is provided immediately below.

On Sunday, July 25, 2010, a segment of a 30-inch-diameter pipeline (Line 6B), owned and operated by Enbridge Incorporated (Enbridge) ruptured in a wetland in Marshall, Michigan. The rupture occurred during the last stages of a planned shutdown and was not discovered or addressed for over 17 hours. During the time lapse, Enbridge twice pumped additional oil (81 percent of the total release) into Line 6B during two startups; the total release was estimated to be 843,444 gallons of crude oil. The oil saturated the surrounding wetlands and flowed into the Talmadge Creek and the Kalamazoo River. Local residents self-evacuated from their houses, and the environment was negatively affected. Cleanup efforts continue as of the adoption date of this report, with continuing costs exceeding \$767 million. About 320 people reported symptoms consistent with crude oil exposure. No fatalities were reported.

As a result of its investigation of this accident, the National Transportation Safety Board (NTSB) made recommendations to the U.S. Secretary of Transportation, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Enbridge, the American Petroleum Institute, the Pipeline Research Council International, the International Association of Fire Chiefs, and the National Emergency Number Association.

CONCLUSIONS

The *Comments on Tanker Panel Review* report provides the Haisla Nation responses to the questions proposed by the Expert Panel and offers additional recommendations for both the Expert Panel and the preparation of the Pan-Canadian Risk Assessment. Further and substantial engagement with the Haisla Nation and other First Nations should be undertaken by the Expert Panel to ensure that the Expert Panel's recommendations to the Minister of Transport, Infrastructure, and Communities are well informed and sufficient to serve as a basis for the broad modifications necessary to improve the spill preparedness and response regime in Canada.

SUBMISSION INFORMATION

Primary Contact

Please direct any inquires or correspondence to the attention of Chief Councillor Ellis Ross of the Haisla Nation Council. Contact information is provided below:

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Kitamaat Village BC V0T 2B0
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Publication to the Expert Panel Website

The Haisla Nation notes that the Guidelines for Submissions posted on the Tanker Safety Expert Panel request that materials be provided in both PDF and MS Word document formats and has submitted both formats. None of the documents provided are commercially sensitive but all should be cited accordingly if relied upon by the Expert Panel or third parties. The Haisla Nation consents to this executive summary and all documents prepared by or for the Haisla Nation to be published on Tanker Safety Expert Panel website in their entirety except for information which could compromise the privacy of an individual or the commercial interest of a third party. The Haisla Nation does not consent to the publication of materials prepared by third parties for Northern Gateway Joint Review Panel hearing process. Those materials are publically available in the Joint Review Panel Public Registry. However, as they are third party documents the proprietary rights to their content resides with the third parties and it would be inappropriate for the Haisla Nation to authorize their publication.