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Order of Appearances

Enbridge Northern Gateway Panel 5

Shipping and Navigation

Mr. John Carruthers	Mr. Jerry Aspland	Mr. Jens Bay
Mr. Audun Brandsaeter	Mr. David Fissel	Mr. Al Flotre
Mr. Keith Michel	Mr. Steven Scalzo	Mr. Thomas Wood
Mr. Michael Cowdell	Mr. Henrik Kofoed-Hansen	

Examination by Mr. Chris Jones for the Province of B.C. 28

Examination by Mr. Chris Jones for the Province of B.C. (continued) 28

Vessel inspection and vetting

Mr. Jones began the day picking up on the previous day’s conversation around tanker inspections. Further clarification around the inspection process and approval of incoming tankers was asked for and discussed with Mr. Aspland. It was established that the tanker vetting process will look different than what is conveyed in [Exhibit B38-2](#), Adobe 29. 28-74.

Regulatory compliance and monitoring

Bringing up [Exhibit B3-22](#), Adobe 29, Mr. Jones asked for clarification around the following statement: “*All applicable environmental, regulatory and statutory requirements will be addressed, and compliance with the commitments will be monitored.*” Mr. Carruthers provided a response, referring to [Exhibit B47-28](#), Adobe 64,

citing various statutes, project standards, and commercial standards, involved in the compliance process, such as the Tanker Acceptance Program, and terminal regulations. Mr. Aspland reiterated earlier statements about his confidence in the “very regulated [tanker] industry” and in “meeting the standards of other well-run terminals in the world” in Kitimat. 76-94

Specifically addressing a question about monitoring compliance, Mr. Cowdell explained various methods of monitoring terminal regulations, including measures for: escort tugs, BC Coast pilots, remote monitoring, terminal personnel reporting, and the Prince Rupert Marine Communication and Traffic Services System. Mr. Carruthers added that “we’re also prepared to have our Tanker Acceptance Program audited to confirm that it was correctly and appropriately applied... and we’re prepared to share those results with the public and our compliance with the terminal regulations”. 99-107

Further discussion surrounded broad details of compliance mechanisms, duties of pilots and tug operators, and “world-class spill prevention and response”. Mr. Jones asked if NGP would be conducting remote monitoring and whether they would be keeping records of such monitoring. Mr. Aspland and Mr. Flotre explained that it would be the Coast Guard traffic system doing remote monitoring, and that vessels themselves have some of this information in addition to voice recordings of “all of the exchanges on the bridge”. 109-160

Mr. Jones asked for clarification that the Coast Guard would be maintaining electronic records, to which Mr. Aspland replied, “that’s my understanding, that they do keep track”. Mr. Jones sought confirmation that the Coast Guard would not be responsible for ensuring compliance with regulations, to which Mr. Carruthers stated, NGP “will be monitoring that and is prepared to have an audit of that and make it public”. Further discussion on monitoring and compliance ensued, with broad details provided around qualified vetting organizations, similar to those given above. 165-171

Tanker routes

Mr. Jones then asked for clarification as to whether or not additional tanker routes would be used, as referred to in [Exhibit B3-24](#), Adobe 15. Mr. Cowdell spoke to the statement in [Exhibit B23-3](#), Adobe 111, “*the North Route and the two South Routes described above are considered the only viable routes for tankers bound for the terminal*”, stating that those routes “are the proposed routes that would be used by tankers coming to and from the Kitimat Terminal. However, there are alternatives to those proposed routes that could be used in exceptional circumstances”. He explained that the proposed routes are the ones that “the tankers would want to use”, but that you wouldn’t want to “take those alternatives away from the pilot to use at their discretion when it’s appropriate and in exceptional circumstance.” 202-220

Mr. Flotre gave examples of such exceptional circumstances, such as weather conditions making the southern route “unadvisable to use”, in which case “the pilot may choose the northern route through Browning Entrance... the other situation that may come up is Lewis Channel in a heavy fishing season may be blocked with fish boats. And there’s a

deep water viable route bridge passage that is not in the plan as a route but would be viable”, at Cridge Passage. 221-224

Route decision authority

The discussion proceeded around who is in charge of making route decisions, with Mr. Flotre establishing that in compulsory pilotage areas, “the captain of the ship has the right to question what the pilot does but it is the pilot who makes that decision”, while also stating that NGP “does not have the purview of dictating to ships where they transit the open water area, that is Transport Canada... so [NGP] can only propose the route the tanker will take in that area.” Mr. Wood clarified that outside of pilotage areas, “and, unless...Transport Canada were to impose routing, then the choice of route is entirely up to the master of the vessel.” 249-281.

Further discussion clarified that the proposed routes in NGP’s port information handbook “are the routes the tankers would take... unless there’s an exceptional circumstance”, as stated by Mr. Cowdell, with discussion about route decision-making, continuing. 283-307

Mr. Jones asked about [Exhibit B3-24](#), Adobe 24, in regards to updates to charting “though Hecate Strait, Queen Charlotte Sound and down to Cape Scott.” Mr. Carruthers spoke about the Canadian government’s plans to “generate improved navigational charts and other related safety products” such as hydrographic charts, stating that such “safety information are important elements... [which] will ensure mariners are adequately provided with the navigational support they require for safe and efficient navigation of vessels to and from the Port of Kitimat.” 325-333

Radar Installation

Discussion moved to funding for installation of radar and other navigational equipment. Mr. Carruthers confirmed that if the Government of Canada didn’t fund such installation, NGP would do so. In the instance that NGP pay for radar installation, Mr. Jones asked where the installation would occur, to which Mr. Cowdell indicated that “we haven’t made a final decision on the number of radar installations or where they would be located. That would be a step that would be taken... in the detailed design phase of the Project.” 345-366

Mr. Jones asked about “*a series of recommended improvements to the regional navaid system*” as stated in [Exhibit B23-6](#), Adobe 68-69. Mr. Cowdell answered that it was another “issue that would be addressed during detailed planning.” 371-376

Terminal regulations

Mr. Jones asked about the terminal regulations and the Port Information Handbook, inquiring if the regulations would determine “speed limitations and weather restrictions on tankers operating”. Mr. Cowdell confirmed this to be the case, and indicated that the terminal regulations are rules that must be followed, whereas the Handbook gives guidance and information only. 392-402

Mr. Cowdell confirmed for Mr. Jones that the terminal regulations will be authored by NGP, but that they will “want to” seek review from certain groups, such as Transport

Canada, the Pacific Pilotage Authority, BC Coast Pilots, a tug escort operator, and “a group like Chamber of Shipping”. When asked if the Coast Guard had a statutory role in approving the terminal regulations, Mr. Crowther declined to answer, stating it was a legal question. 417-428

Enforcement of voluntary commitments

Turning to [Exhibit E9-34-2](#), Mr. Jones asked how NGP intends to enforce the stated voluntary risk reduction measures, which “*are voluntary, and as such, no provisions in Canadian marine shipping legislation are in place that would make them mandatory or enforceable.*” In particular, he sought an understanding of how NGP would enforce aspects of the voluntary commitments that placed obligations on other parties. Through some discussion, it was established that such obligations would fall under the terminal regulations, which would be enforced by NGP. 431-457

Referring to the same Exhibit, Mr. Jones used the example of the stated commitment to have tug crews trained in emergency response, asking how NGP would ensure this commitment were met. Mr. Scalzo explained “there are different arrangements”, one example being a contract arrangement, which he described at length in a hypothetical example. 459-483.

Weather predictability

Turning to [Exhibit B3-42](#), Adobe 26, Mr. Jones asked about severe weather patterns in Caamano Sound, and whether they would cause alternative routes to be required during winter months. Mr. Fissel referred to his weather conditions analysis in [Exhibit B17-18](#), and a subsequent discussion ensued around the feasibility of analyzing and predicting severe weather in the area. Mr. Fissel stated that “the capabilities of... wind and wave predictions has increased considerably in the last 20 years with the establishment of better observational systems.” 488-504

Tug capabilities and operations

Mr. Jones turned to the subject of tug boats and conversation ensued broadly around tug requirements and capabilities. Mr. Scalzo explained that in the compulsory pilotage areas, “one tug will always be with a tanker... available to respond to any offshore incident should it occur”, and continued to provide various details around intended tug locations and capabilities. Mr. Cowdell added that based on forecasted tanker traffic, tug utilization will be “relatively low... so there’s a lot of time when they won’t be escorting and are available... for carrying out a rescue operation”, which he stated will enhance the safety in the area. Further discussion surrounded how tugs would be able to respond to emergency situations. 507-575

Conversation continued around tug capabilities and effectiveness, and Mr. Michel stated that a drift study would be conducted during the detailed design phase, which would evaluate effectiveness. 577

Mr. Jones then asked about simulator training as described in [Exhibit B2-9](#), Adobe 72, questioning if such training would be required for all pilots, captains and tug operators employed on NGP routes. Discussion around simulation training ensued, with Mr. Flotre

and Mr. Scalzo stating the importance of such training, while Mr. Cowdell added that training of pilots “fall under the jurisdiction of the Pacific Pilotage Authority. We’re obviously in no position to tell the PPA what they should do”. Broad explanations of training requirements for the professions in question were subsequently given. 586-610

Emergency training

Mr. Jones subsequently asked about NGP’s “plans for drills and exercises” to properly prepare pilots, ship crew and tug operators, as stated in [Exhibit B44-03](#), Adobe 74. Mr. Scalzo indicated NGP’s commitment to running such programs, while Mr. Carruthers stated “we’d contract with the tugs and so the appropriate training would be something that we would require and fund.” Mr. Scalzo gave further details about possible drills involving tankers and tugs, referring to Adobe 75 of the same document. Further discussion of this topic continued. 615-650

Citing the same Exhibit, [B44-03](#), Mr. Jones moved to questions about the “planned volume of recovered oil and oily water that the tankage would be capable of handling”. Mr. Scalzo spoke at length about escort tug design characteristics and capabilities, referring to Adobe 31-32 of the document. Further discussion around various components of this report proceeded, including explanation of an escort plan on Adobe 58, and intended completion of program design on Adobe 3 of [Exhibit B101-2](#). 696

Turning to Adobe pages 59-60, Mr. Jones asked about the role of NGP in the escort plan responsibilities. Mr. Cowdell answered that the responsibility of NGP is to set “the performance criteria for the tugs, both in terms of the operational capability and also the training... and ongoing elements of...the tug operation. And through the contract that we would have with the tug provider, ensure that those requirements are being met”. Mr. Aspland added that NGP also has “the responsibility to be sure that the ship is informed of the operation... and to confirm that they have the proper equipment on board to do this.” 790-798

Discussion then moved to the manoeuvring study of escorted tankers from [Exhibit B23-18](#), Adobe 62, with Mr. Flotre providing details of the aspects concerning pilots, and Mr. Cowdell pointing out that the document had been developed before the tug escort report, and that it was not intended to develop the tug performance criteria. Mr. Scalzo provided further details on tug capabilities, while stating, “the final design is still to be developed and will rely on the input of pilots. We rely on the input of the naval architects and marine engineers to get to the final tug characteristics”. Further discussion continued. 805-841

Details of transiting to terminals and berth availability were then discussed, referring to [Exhibit B3-24](#), Adobe 4-31 and [Exhibit B45-3](#), Adobe 22. Mr. Cowdell mentioned berth scheduling and noted that the Kitimat Terminal is forecasted to have “220 average tanker calls a year”, which he indicated is quite low in terms of berth utilization. 857-873

Holding areas and anchoring

Mr. Jones then asked about particular holding areas for vessels coming through Principe channel at Anger Anchorage and an alternative holding area north of Banks Island. He

noted that in [Exhibit B23-18](#), Adobe 63, the areas are stated as being subject to difficult weather, asking how they would be used in such weather. Mr. Cowdell provided an explanation by referring to a list of approved anchorage and holding areas in [Exhibit B23-06](#), Adobe 88, and pointed out the difference between tanker anchoring and tug escorting while running slow. Mr. Flotre provided additional details, stating that “the options available to the pilot and the ship’s captain in this area are many.” 875-895

Mr. Cowdell and Mr. Fissel then provided details around anchoring and weather conditions in and around Hecate Strait, with Mr. Fissel stating that in his 42 years of experience, he has “yet to see a ship anchored in any of these areas”, but that in “normal practice”, anchorage in these areas only happens in a “case of machinery failure or something where you need to make repairs.” 901-908

Mr. Jones asked Mr. Bay for a list of the most important marine navigational markings as indicated by pilots, based on [Exhibit B23-19](#), Adobe 62-65, and Mr. Bay agreed to the undertaking. Questions then moved to an arrest test, as described on Adobe page 23. Mr. Bay provided details of the test and described capabilities of tankers to make quick stops. 948

Tanker capabilities and stopping scenarios

Mr. Jones then asked about a First Nation Information Request, as responded to in [B38-2](#), Adobe 37. Discussion of tanker failure scenario and stopping scenarios ensued. Mr. Scalzo referred to [B044-03](#), Adobe 21-24, and explained ship handling methods and strategies, at length. It was conceded that NGP’s explanation in the IR response, around the relevance of ship travel distance in stopping scenarios, “could have been worded...differently.” 985-1035

Further explanation of tanker manoeuvring and stopping scenarios was given, with Mr. Jones asking about available options under certain circumstances. Mr. Scalzo reiterated that the previously discussed details were from a preliminary study only, and that the final operating plan “will go through a detailed review of all these strategies... by each location of the waterway and document the best strategies” 1039-1048

Turning again to the manoeuvring study in [B23-19](#), at page 49, and to [B23-34](#), Mr. Jones asked about NGP’s plans for, and views on, tanker traffic separation schemes. Mr. Cowdell indicated that such schemes are under the jurisdiction of Transport Canada, while Mr. Flotre provided additional details of traffic schemes in relation to the simulation studies, and indicated his opinions on the usefulness and safety of various schemes in various zones. In particular he indicated that he didn’t think a traffic separation scheme should be considered in the Confined Channel Area. 1057-1095

Further explanation of this view and tanker traffic considerations in other areas, were given by various members of the panel. Discussion continued at length. Mr. Jones asked about communications between vessels to avoid meeting, and whether this was captured in the terminal regulations. Mr. Aspland indicated that in his opinion and experience, NGP “should not become involved in the safe navigation of vessels. That’s the responsibility of the pilot, the master, and in this case, Transport Canada.” 1099-1162

Again turning to the manoeuvring study from [Exhibit B23-19](#), Adobe 49, Mr. Jones asked about statements related to “blind spots”, and asked if NGP was proposing to install repeater stations at strategic locations. Mr. Flotre indicated that this was the decision of the Canadian Coast Guard, but that it would be in their best interest to do so. 1165-1170

Mr. Jones’ final questions of the day related to page 50 of the above exhibit. He asked about the meaning in the first paragraph of section 6.3.3, “*stopping with tug only shows that the time and stopping distance for the tanker and escort tug is reduced from about 100% to 75% compared with stopping with the vessel’s own engine only.*” Mr. Bay explained that stopping a tanker using the ship’s engine only has a 25% higher efficiency than stopping it with a tug, 1177-1199