



Regional Citizens' Advisory Council / Royal Center, 310 Egan St., Rm. 210 / Box 3470 Valdez, Alaska 99686 / (907) 835-5957 / FAX (907) 835-5926

March 3, 1994

Earl Hubbard
Water Quality Management Section
Alaska Department of Environmental Conservation
410 Willoughby Ave., Suite 105
Juneau, AK 99801-1795

RE: A/C 9525 Port Valdez Classification as an Impaired Waterbody

Dear Mr Hubbard:

The Prince William Sound RCAC Terminal Operations & Environmental Monitoring Committee appreciates the opportunity to respond to your department's request for water quality information to be used in the development of the Water Quality Assessment report, also referred to as the "305(b) report." The TOEM Committee was formed under the Oil Pollution Act of 1990, which directs the committee to monitor the environmental impacts of Alyeska's Marine Terminal operations in Port Valdez. Consequently, the committee is actively involved in the water quality research conducted at the terminal and in Port Valdez.

The TOEM Committee maintains its position that Port Valdez should be on the impaired waterbody list, as stated in RCAC's comments to ADEC on March 25, 1992 (Attachment A). To our knowledge, the concerns identified in our March 25, 1992 letter have not been addressed sufficiently to warrant the deletion of Port Valdez from this list. In addition, new information gathered over the last year indicates Port Valdez should be placed on the list.

In 1992, the TOEM Committee commissioned three reports (funded partially by ADEC) to provide recommendations regarding influent, effluent and environmental monitoring at the Alyeska Marine Terminal. Two of the reports, "Design of a Sampling and Testing Plan for Ballast Water Effluent" by Investigative Sciences Inc. (August 24, 1992) and "Toxicity Study Review for Alyeska Marine Terminal Ballast Water Treatment Plant" by Northwest Aquatic Sciences (September 16, 1992), review existing laboratory procedures and performance to determine, in part, the toxicity and chemical composition of the BWTP effluent. The report by Investigative Sciences Inc. states there is good evidence that polynuclear aromatic hydrocarbons (PAHs) are being discharged into Port Valdez without being monitored, that up to five phenol compounds have been detected in the BWTP effluent, and that heavy metals, such as zinc, chromium, or vanadium may be building up in the port.

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According to Investigative Sciences Inc., "[I]t is apparent from reviewing various pertinent data sources that heavy metals, particularly zinc,...are present in the BWTP effluent in concentrations that are of concern in pollutant loading."¹ Northwest Aquatic Sciences states in its report that "zinc in the effluent is at concentrations similar to reported LC50s for sensitive marine organisms and therefore, is likely a significant part of the toxicity observed in the effluent."² These reports also identify problems with the method detection limits and the quality control program used at the Alyeska Marine Terminal's laboratory.

New data reported by Columbia Aquatic Sciences for Alyeska Pipeline Service Company indicated the presence of polynuclear aromatic hydrocarbon metabolites in the bile samples of yellowfin sole from Port Valdez.³ The analysis of flatfish was conducted as part of the new monitoring requirements under the NPDES permit related to the biological impact of the Alyeska Marine Terminal BWTP discharge on Port Valdez. National Oceanic and Atmospheric Administration (NOAA) scientist Dr. M.M.Krahn reviewed this data and stated in a letter to the US EPA that the "sole from the terminal showed substantial exposure to ACs [petroleum-related aromatic compounds]."⁴ Dr. Krahn also reported that nine of the fifteen yellowfin samples collected at the terminal had "chromatographic patterns that strongly resembled the patterns in fish captured following the Exxon Valdez spill and also in fish injected with Exxon Valdez oil."⁵

In July of 1993, Tetra Tech prepared a report for the US EPA, "Review and Assessment of the 1992 NPDES Environmental Monitoring Program" for Alyeska Pipeline Service Company Ballast Water Treatment Facility, Port Valdez, Alaska (July 14, 1993). This report states, "tarry materials were observed in 6 replicate samples collected at the subtidal biological monitoring stations. Oil smudges were found in one of the replicate samples collected from the outfall station (station D33)."⁶ The TOEM Committee considers tarry materials and oil smudges in Port Valdez to be a serious indication that Port Valdez is becoming more impaired.

The TOEM Committee remains unconvinced that the discharge at the terminal is in compliance with the Alaska Water Quality Standards (AWQS) for total hydrocarbons. In a letter dated October 12, 1993, the RCAC wrote to ADEC urging them to enforce the water quality standard for total hydrocarbon as it relates to Alyeska's total hydrocarbon exceedence at the edge of the Ballast Water Treatment Plant Mixing Zone (Attachment B). As stated in our letter,

¹ Design of a Sampling and Testing Plan for Ballast Water Effluent, Investigative Sciences Inc. August 24, 1992.p. 95.

² Toxicity Study Review for Alyeska Marine Terminal Ballast Water Treatment Plant, Northwest Aquatic Sciences Inc. September 16, 1992. p.71.

³ Analysis of Flatfish Bile for Metabolites of Aromatic Compounds, Columbia Aquatic Sciences, April 1993.

⁴ Letter from Dr. Krahn, NOAA, NMFS to the US EPA, June 17, 1993.

⁵ Ibid.

⁶Review and Assessment of the 1992 NPDES Environmental Monitoring Program for Alyeska Pipeline Service Company Ballast Water Treatment Facility, Port Valdez, Alaska, Tetra Tech, July 14, 1993. p. 92.

Alyeska was out of compliance "on 44 of 66 days on which TH measurements were taken from January through August, 1991."⁷

While we understand the department feels this standard should be revised, it is nonetheless the current regulation. Until it can be proven otherwise through a dye study, or until the standard is modified, this discharge is in violation of the AWQS. Not only has ADEC chosen to ignore Alyeska's reported violation, it still does not see the benefit to conducting a mixing zone verification study -- an original permit requirement.

The TOEM Committee believes Port Valdez clearly fits the 1992 Alaska Water Quality Assessment, Section 305 (b), definition of an impaired waterbody: "A waterbody or segment of a waterbody has definitive and credible documentation of a violation of State Water Quality Standards, or documentation of impairment of designated uses, as established in the Water Quality Standards."⁸

Therefore, given the noncompliance of this discharge with the total hydrocarbon standard, concern regarding the toxicity of zinc and evidence of biological impact on flatfish near the terminal, the TOEM Committee urges ADEC to include Port Valdez on the 305 (b) list.

Please feel free to contact TOEM Committee staff, Joe Bridgman or Leann Ferry, in Valdez if you have questions about these comments or if you need copies of any documents referenced here. The forms for the 1994 Statewide Water Quality Assessment are also attached.

Sincerely,



Jim Levine, Chair
PWS RCAC/Terminal Operations and Environmental Monitoring Committee

cc: Stan Stephens, RCAC
Stan Stanley, RCAC
TOEM Committee
Steve Provant, ADEC
Bill Newbold, Alyeska
R.L. Mikkelsen, Alyeska
Gene Dickason, Alyeska
Gary Bader, Alyeska
Steve Schwicht, Alyeska
Technical Advisory Group

⁷ Letter from RCAC to Robert Flint, ADEC regarding RFI 9513, Alyeska's Total Hydrocarbon Exceedence at the Edge of the BWTP Mixing Zone, October 12, 1993.

⁸ 1992 Alaska Water Quality Assessment, Section 305 (b) Report to the Environmental Protection Agency. p8.