From: Pamela Miller
To: donlingoldeis, POA

Subject: [EXTERNAL] Comments on the Donlin Gold Project Draft Environmental Impact Statement

Date: Tuesday, May 31, 2016 11:03:44 PM

Attachments: Comment Letter on Proposed Donlin DEIS ACAT 5-31-16.pdf

Please confirm receipt of these comments.

Thank you.

Pamela Miller, Executive Director

Alaska Community Action on Toxics

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We believe that everyone has the right to clean air, clean water, and toxic-free food.



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May 31, 2016

Keith Gordon, Project Manager U.S. Army Corps of Engineers, Alaska District CEPOA–RD–Gordon P.O. Box 6898 JBER, AK, 99506–0898

E: POA.donlingoldeis@usace.army.mil

Dear Mr. Gordon,

Thank you for the opportunity to provide comments on the draft environmental impact statement (DEIS) prepared by the U.S. Army Corps of Engineers (Corps) for the proposed Donlin Gold Project. These comments are submitted on behalf of Alaska Community Action on Toxics (ACAT), a statewide non-profit public interest environmental health research and advocacy organization dedicated to protecting environmental and public health. ACAT includes members that live within the area that would be affected by the proposed Donlin Gold Project. Our members have expressed profound concerns about the significant and long-term harm that the proposed mine would have on water quality, fish and wildlife habitat, subsistence, culture, and community health. We conclude that the Corps should **select the No Action Alternative** and reject the proposed Donlin Gold Project on the basis that it represents an unacceptable long-term risk to the region that would inevitably and irrevocably damage traditional subsistence life, food sovereignty and security, environmental and community health.

ACAT is a signatory and supports the comment letter as submitted on our behalf by Earthjustice. In addition to the areas identified in the Earthjustice comment letter that warrant additional study (the pit lake, mine-site water management, the tailings dam, subsistence, wetlands, the Iditarod National Historic Trail, Scope, and climate change), ACAT notes that the DEIS lacks a rigorous assessment of the public health and environmental justice implications of the proposed development. In these comments, we address these and other areas of the DEIS that are deficient and merit consideration under the National Environmental Policy Act (NEPA) and other statutes. The communities along the Kuskokwim River have the right-to-know what hazardous materials are proposed for transport and use at the mine. Table ES-3 summarizes the Estimated Annual Consumption of Reagents Used at the Processing Facility in tons. It is unacceptable to use trade names of hazardous materials (e.g. "F-549," "UNR 829," as well as general categories such as flocculents, anti-scalants, and water softening agents) without disclosing the chemical composition of these substances. This information is necessary for the affected communities to fully evaluate the risks associated with the mine facility. We find that the risks from fuel and chemical spills and releases are grossly understated in the DEIS.

ACAT is particularly concerned about the significant sources of mercury that will be released to air, water, soil, and sediments through mill and stack emissions, waste rock and fugitive emissions, contaminated dust, and water discharges. Even if capture efforts are effective as estimated by Donlin Gold and their contractors (and this is yet unproven in an environment similar to this region), a significant quantity of mercury (at least 130-200 pounds per year) will be released to the environment of the Kuskokwim watershed. By comparison and according to the EPA's Toxics Release Inventory, 1 about 44 pounds of mercury are released from all industries in the entire state. Thus, the releases from this single mine represent a substantial source to the region and will have serious adverse effects on subsistence fish, wildlife, and human health. The DEIS fails to account for fugitive emissions from the pit lake and that volatilization and release of mercury will likely increase from waste rock and tailings/pond with climate warming. Due to these and other unaccounted sources and the fact that capture efficiencies are likely to be overestimated, we believe that estimates for mercury releases may be grossly understated. We find that the DEIS relies on a spurious modelling exercise conducted by a vested-interest contractor for Donlin Gold that determined that "the increase in mercury concentrations would be a maximum of 2.5 percent over existing background levels, and would not exceed regulatory guidelines." This is an unsupportable conclusion based on incomplete analyses of mercury releases, atmospheric conditions, and deposition zones where the methylation of mercury will occur. Impacts are likely not to be confined to the Crooked Creek watershed and may result in elevated levels in the fish of the broader Kuskokwim watershed. Certain species of fish in the Kuskokwim River (including pike and burbot) already have elevated levels of mercury that necessitate fish consumption advisories. Any additional input of mercury to the system may warrant further fish consumption restrictions. It is necessary for a scientifically credible, independent third party to conduct a thorough analysis of the quantities, sources, distribution, areas of deposition and methylation of mercury, increases in volatilization with climate warming, and effects of mercury on subsistence fish, wildlife, and human health.

Section 3.22 of the DEIS, the Human Health Section, fails to fully analyze the health implications associated with mercury releases from the proposed mine and consequences of human exposures. Any increase of mercury concentrations in the fish and other traditional foods may result in higher human exposures and have significant adverse effects on the neurodevelopment of children. Mercury has long been known to be a potent neurotoxicant, especially in vulnerable populations such as developing infants and children. Data from recent studies "add to the growing body of evidence indicating that prenatal methylmercury exposure from environmental sources is teratogenic, and indicate that it is associated with clinically meaningful impairment in overall cognitive function at levels of exposure within the range found in the general U.S. population." Early-life exposure to mercury is associated with neurodevelopmental deficits, including reduced newborn cerebellum size, adverse behavioral outcomes, central nervous system damage, poor psychomotor development, cognitive developmental delays, and later-life effects, including increased diabetes susceptibility. Mercury crosses the placenta and also accumulates within the placenta, where methylmercury concentrations can be double those of

¹https://iaspub.epa.gov/triexplorer/release_fac?p_view=USFA&trilib=TRIQ1&sort=_VIEW_&sort_fmt=1&state=02&county=All+counties&zipcode=&epa_region=&chemical=007439976&industry=ALL&YEAR=2014&tab_rpt=1&FLD=RELLBY &FLD=TSFDSP

² Jacobson et al. 2015. Relation of Prenatal Methylmercury Exposure from Environmental Sources to Childhood IQ. Environmental Health Perspectives 123(8):827-833.

maternal blood.³ The DEIS also fails to consider the health effects of mercury exposure to mine workers. Generally, we find the analysis of impacts to human health to be highly subjective and incomplete with inadequate baseline measures. It is significant that the Yukon-Kuskokwim Health Corporation, the entity that provides health services to the people of the region, opposes the development and operation of the Donlin Creek Gold Mine "due to the extreme hazards and excessive risks it would pose to the health and welfare of the people of the Yukon-Kuskokwim Delta Region (Resolution 16-04-04, 2016)." Their opposition is based in part on concerns about releases of hazardous chemicals such as cyanide and mercury, as well as the potential for failures of safety measures that would "devastate the fisheries along the Kuskokwim River and its tributaries, thus negatively impacting the health of the people of the region."

The DEIS shows a poor understanding of the meaning of food security for the Alaska Native people of the region. A more comprehensive definition and analysis is necessary because of the significant threat to the health and safety of traditional foods. The Inuit Circumpolar Council defines food security as follows: "Alaskan Inuit food security is the natural right of all Inuit to be part of the ecosystem, to access food and to care-take, protect and respect all of life, land, water and air. It allows for all Inuit to obtain, process, store and consume sufficient amounts of healthy and nutritious preferred food – foods physically and spiritually craved and needed from the land, air and water, which provide for families and future generations through the practice of Inuit customs and spirituality, languages, knowledge, policies, management practices and self-governance. It includes the responsibility and ability to pass on knowledge to younger generations, the taste of traditional foods rooted in place and season, knowledge of how to safely obtain and prepare traditional foods for medicinal use, clothing, housing, nutrients and, overall, how to be within one's environment. It means understanding that food is a lifeline and a connection between the past and today's self and cultural identity. Inuit food security is characterized by environmental health and is made up of six interconnecting dimensions: 1) Availability, 2) Inuit Culture, 3) Decision-Making Power and Management, 4) Health and Wellness, 5) Stability and 6) Accessibility. This definition holds the understanding that without food sovereignty, food security will not exist."

Based on the concerns expressed in this letter as well as those detailed in the Earthjustice comment letter, we reiterate our opposition to the proposed project and conclude that the Corps should **select the No Action Alternative** and reject the proposed Donlin Gold Project on the basis that it represents an unacceptable long-term risk to the region that would inevitably and irrevocably damage traditional subsistence life, food sovereignty and security, environmental and community health.

Sincerely,

Pamela Miller

Executive Director

Panela K. Miller

Alaska Community Action on Toxics

³ Maccani et al. 2015. Placental DNA Methylation Related to Both Infant Toenail Mercury and Adverse Neurobehavioral Outcomes. Environmental Health Perspectives 123(7):723-729.