



International Indian Treaty Council
Consejo Internacional de Tratados Indios

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RE: Call for submissions “Mercury, artisanal and small- scale gold mining and human rights”

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“We are calling on the governments of the world to take action to eliminate mercury pollution from mining, coal combustion, military, and other sources that continue to contaminate our traditional foods and harm our health and well-being without our consent. Due to special vulnerability of our Arctic communities, we emphasize the necessity of total elimination of mercury and other toxic chemicals that are harming us. I respectfully urge policymakers to take action to protect our health and well-being, the health of our future generations, our lands and territories globally.”

–Erika Apatiki, Yupik, Sivuqaq (St. Lawrence Island), Community Health Researcher, Alaska Community Action on Toxics

INTRODUCTION

The International Indian Treaty Council (IITC) is an organization of Indigenous Peoples from North, Central, South America, the Caribbean and the Pacific working for the Sovereignty and Self Determination of Indigenous Peoples and the recognition and protection of Indigenous Rights, Treaties, Traditional Cultures and Sacred Lands. In 1977 IITC became the first Indigenous Peoples' organization to be recognized as a Non-Governmental Organization (NGO)

*Working for the Rights and Recognition of Indigenous Peoples
Trabajando por el reconocimiento y los derechos de los Pueblos Indígenas*

with Consultative Status to the United Nations Economic and Social Council. In 2011, IITC was the first Indigenous organization to be upgraded to General Consultation Status in recognition of its active role in a wide range of international bodies and processes to ensure that the right of Indigenous Peoples are recognized, respected and upheld.

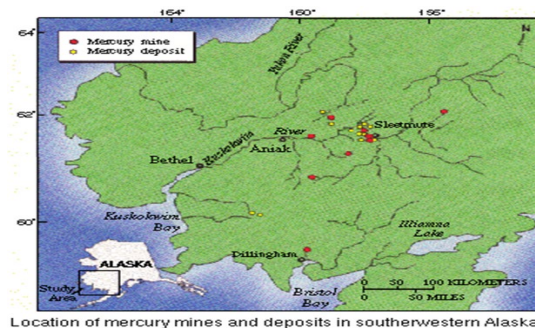
The International Indian Treaty Council (IITC) believes that the exposure of unborn children to mercury, a heavy metal known to be a highly toxic neurotoxin with especially devastating impacts on developing fetus and babies, constitutes environmental violence against Indigenous women, children, unborn generations. However in California, Alaska, and South Dakota USA, legacy mines and runoff sites have not been cleaned up or reclaimed, and additional mines are now seeking and being granted permits by government bodies as the rising price of gold rises and new technologies make renewed extraction at previously closed mine sites profitable.

IITC considers it vital that Indigenous Peoples engaged in or facing the introduction of what is called “Artisanal” or “Small Scale” mining fully hear about the long-term persistent effects facing Indigenous Peoples still calling for cleanup of contaminated mine sites decades after active mining using mercury was banned in countries such as in the United States. We also challenge the concept of “Small Scale” mining. All levels of mercury contamination are of great concern to exposed Indigenous communities facing often irreversible and devastating impacts on reproductive and intergenerational health and children’s development. In addition, gold extracted in this way, causing direct exposure of Indigenous community members including pregnant and nursing mothers and other women of childbearing age, is mainly sold to large-scale and multi-national gold companies. There is nothing truly “small scale” about this nefarious practice.

MERCURY CONTAMINATION: IN THE ARCTIC REGION

Historical Mining of Mercury in the Kuskokwim Watershed Continues to Contaminate the Lands and Waters

Evidence from the US Geological Survey and other published studies shows that there are elevated levels of mercury in water, sediments and fish (such as pike and burbot) downstream from the former mercury mines that operated from the 1930s until the early 1970s. Many of the mercury mines such as the Red Devil Mine, have not been properly remediated and continue to be a source of mercury to the watershed. Fish of the Kuskokwim are essential for the Yupik and Athabascan people of the region as part of their traditional diet and culture.



Location of mercury mines and deposits in southwestern Alaska

Current Large Scale Metals Mining is a Major Source of Mercury in Alaska

- According to the EPA Toxics Release Inventory (TRI), metals mines in Alaska generated more than 450,000 pounds of mercury in 2018 and more than 435,000 pounds in 2020. These emissions are unregulated. The TRI likely underestimates emissions because the data base is made up of industry self-reported data.
- Red Dog Mine, located in northwest Alaska and the world's largest lead-zinc mine, released 424,980 pounds of mercury alone in 2020.
- The proposed Donlin Creek Mine in the Kuskokwim River watershed would be a significant source of mercury in a region that has elevated levels of mercury from past mercury mining, resulting in a 40% increase in mercury deposition to surface waters near the mine.

The Military in Alaska is also a Significant Source of Mercury and Other Contaminants

Alaska is a place of great strategic importance to the US military. Alaska has more than 700 former and currently used defense sites that are contaminating the lands, waters, and traditional foods of Indigenous peoples.

Our community-based research (see references for our publications) on Sivuqaq shows elevated levels of mercury in the fish downstream from the formerly used defense site at Northeast Cape (NEC). Mercury contamination of fish at NEC is documented in a recent paper (Jordan-Ward et al. 2022). The Yupik people suffer health disparities associated with the military contamination that also includes PCBs, PAHs, pesticides, and other heavy metals, including cancers, thyroid disease, diabetes, heart disease, birth defects, low birthweight babies, premature births, stillbirths, miscarriages and other reproductive health problems, developmental and learning disabilities.

Here is a selection of articles about our community-based research:

- 1) <https://www.nytimes.com/2015/08/04/us/native-alaskans-study-and-clean-up-a-legacy-of-pollution.html>
- 2) <https://www.ehn.org/military-site-polluting-yupik-people-2513528278.html>
- 3) <https://www.niehs.nih.gov/research/supported/translational/community/acat/index.cfm>

Coal Combustion is Another Major Source of Mercury Contamination in Alaska

- Coal mined in Alaska and much of it exported to Asia, although there are several coal-fired power plants in Alaska that are significant sources of mercury and other hazardous air pollutant
- Air pollution travels from Asia to Alaska on prevailing atmospheric currents. The “Brown Cloud” carries mercury and other air pollutants.
- Mercury builds up in the food web.

- Indigenous peoples are exposed to mercury in contaminated fish and other traditional foods such as marine mammals.

Arctic Warming is Causing Massive Releases of Mercury from Permafrost

- The Arctic is warming three times as fast as the rest of the world. Melting of Arctic ice, glaciers, and permafrost is releasing sequestered chemicals, including mercury and other persistent and toxic chemicals.
- With current emissions levels of greenhouse gases, permafrost could shrink by between 30 and 99 percent by 2100.
- Permafrost contains massive quantities of mercury that are released with permafrost melting. Permafrost soils are the largest reservoir of mercury on the planet, storing nearly twice as much mercury as all other soils, the ocean and the atmosphere combined.
- A recent study found approximately 793 gigagrams, or more than 15 million gallons, of mercury is frozen in northern permafrost soil. That is roughly 10 times the amount of all human-caused mercury emissions over the last 30 years, based on emissions estimates from 2016. Reference: Schuster, P. F. et al. (2018). Permafrost stores a globally significant amount of mercury. *Geophysical Research Letters*, 45, 1463–1471.

*Please see the “References of Community-Based Research—Published Papers” found at the end of this document.

MERCURY CONTAMINATION: USE OF MERCURY IN INDIGENOUS COMMUNITIES OF THE COCO RIVER (WANGKI) IN NICARAGUA

The Nicaraguan government has ratified the Minamata Convention and as of 2021 has begun cleaning up mercury in traditionally mining areas. However, Indigenous communities located on the banks of the Rio Coco or Wangki, have experienced in recent years an increase in mining exploitation both in previously abandoned mining sites or with little productivity and on the banks of the river in the dry season months. The gold is sold in Honduras and Nicaragua, mainly as exchange for food products.

The organized women of the communities conducted research in 2018 and identified health impacts, such as bone pain, abdominal pain, respiratory problems, eye problems, and digestive system problems. They have also identified an increase in cases of abortions. Other problems are the increase in alcohol and drug consumption, since "they exchange gold for drugs with Hondurans."

The situation has impacted on community cultural life and the reduction of community and territorial traditional governance practices. The women recommend strengthening community governance standards, expansion of mercury-contaminated cleanup measures, and promotion of mercury-free artisanal gold mining techniques.

CONCLUSION

Indigenous Peoples cannot separate the causes and impacts of mercury contamination from their rights to reproductive and intergenerational health, FPIC, subsistence and right to healthy food,

cultural heritage, rights of women and children, and the productive capacity of their environments. Articles 20, 22, 24, 29, 31, and 32 of U.N. Declaration shows that contamination free environments are paramount to ensure that the recognized rights of Indigenous Peoples are upheld and until mercury sites that result from mining or otherwise are remediated, the Articles stated previously cannot be upheld. Further, Indigenous Peoples are not informed about the impacts of mercury exposure on their health and the development of their unborn generations. Indigenous Peoples are also not included in international policy decisions that directly impact Indigenous Peoples including addressing the urgent need for clean up of contaminated sites and halting current contaminating activities including “artisanal” or “small scale” mining.

***References of Community-Based Research—Published Papers**

- Carpenter, David O. Anthony P. DeCaprio, David O. Hehir, Farooq Akhtar, Glenn Johnson, Ronald J. Scudato, Lucy Apatiki, Jane Kava, Jesse Gologergen, Pamela K. Miller, Lorraine Eckstein. 2005. Polychlorinated Biphenyls in Serum of the Siberian Yupik People from St. Lawrence Island, Alaska. *International Journal of Circumpolar Health* 64:4.
- Welfinger-Smith, Gretchen. Judith L. Minholz, Sam Byrne, Vi Waghiyi, Jesse Gologergen, Jane Kava, Morgan Apatiki, Eddie Ungott, Pamela K. Miller, John G. Arnason, David O. Carpenter. 2011. Organochlorine and Metal Contaminants in Traditional Foods from St. Lawrence Island, Alaska. *Journal of Toxicology and Environmental Health, Part A*.74:1195-1214
- Hoover, Elizabeth. Katsi Cook, Ron Plain, Kathy Sanchez, Vi Waghiyi, Pamela Miller, Renee Dufault, Caitlin Sislin, David O. Carpenter. Indigenous Peoples of North America: Environmental Exposures and Reproductive Justice. 2012. *Environmental Health Perspectives* 120(12):1645-1649.
- Scudato, Ronald J. J.R.Chiarenzelli, P.K. Miller, C.R. Alexander, J. Arnason, K. Zamzow, K. Zweifel, J. Kava, V. Waghiyi, D.O. Carpenter. 2012. Contaminants at Arctic formerly used defense sites. *Journal of Local and Global Health Sciences*, Vol. 2012, 2.
- Miller, Pamela K. Viola Waghiyi, Gretchen Welfinger-Smith, Samuel Carter Byrne, Jane Kava, Jesse Gologergen, Lorraine Eckstein, Ronald Scudato, Jeff Chiarenzelli, David O. Carpenter, Samarys Seguinot-Medina. 2013. Community-based participatory research projects and policy engagement to Protect Environmental Health on St. Lawrence Island, Alaska. *International Journal of Circumpolar Health; Circumpolar Health Supplement* 72: 21656
- Byrne, Samuel. Pamela Miller, Viola Waghiyi, C. Loren Buck, Frank A. von Hippel, David O. Carpenter. 2015. Persistent Organochlorine Pesticide Exposure Related to a Formerly Used Defense Site on St. Lawrence Island, Alaska: Data from Sentinel Fish and Human Sera, *Journal of Toxicology and Environmental Health, Part A*: 78:15, 976-992.

- Byrne, S. S Seguinot-Medina, P Miller, V Waghiyi, FA von Hippel, CL Buck, DO Carpenter. 2017. Exposure to polybrominated diphenyl ethers and perfluoroalkyl substances in a remote population of Alaska Natives. *Environ Pollut* 2017 Aug 14;231(Pt 1) 387-395.
- Byrne, SC, PK Miller, S Seguinot-Medina, V. Waghiyi, CL Buck, FA von Hippel, DO Carpenter. 2017. Associations between serum polybrominated diphenyl ethers and thyroid hormones in a remote Alaska Native population. *Environmental Pollution* 231 (2017) 387-305.
- von Hippel FA, PK Miller, DO Carpenter, D Dillon, L Smayda, I Katsiadaki, T Titus, P Batzel, JH Postlethwait, CL Buck. 2018. Endocrine disruption and differential gene expression in sentinel fish on St. Lawrence Island, Alaska: health implications for indigenous residents. *Environ Pollut.* 2018 Mar;234:279-287.
- Byrne, S et al. 2018 Exposure to perfluoroalkyl substances and associations with serum thyroid hormones in a remote population of Alaska natives. *Scientific Reports* 8:2198-2207.
- Zheng, Guomao. Pamela K. Miller, Frank von Hippel, C. Loren Buck, David O. Carpenter, Amina Salamova. 2020. Legacy and emerging semi-volatile organic compounds in sentinel fish from an Arctic formerly used defense site in Alaska. *Environmental Pollution* 259: 113872.
- Byrne, Samuel, Samarys Seguinot-Medina, Vi Waghiyi, Erika Apatiki, Tiffany Immingan, Pamela Miller, C. Loren Buck, Frank A. von Hippel, David O. Carpenter. 2022. PFAS in traditional foods of the Yupik people of Sivuqaq. In review, *Env. Poll.*
- Renee Jordan-Ward, Frank A. von Hippel, Guomao Zheng, Amina Salamova, Danielle Dillon, Jesse Gologergen, Tiffany Immingan, Elliott Dominguez, Pamela Miller, David Carpenter, John H. Postlethwait, Samuel Byrne and C. Loren Buck. 2022. Elevated mercury and PCB concentrations in Dolly Varden (*Salvelinus malma*) collected near a formerly used defense site on Sivuqaq, Alaska. *Science of the Total Environment* (accepted).