



Health Professionals & Scientists Concerned About Health Impacts of PolyMet's Mine Plan

October 20, 2014

Governor Mark Dayton
Office of the Governor and Lt Governor
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Commissioner Tom Landwehr
Minnesota Department of Natural Resources
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St. Paul, MN 55155-4040

Commissioner Dr. Edward Ehlinger
Minnesota Department of Health
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Commissioner John Linc Stine
Minnesota Pollution Control Agency
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RE: PolyMet NorthMet Sulfide Mining - Assessment of Health Effects

Dear Governor Dayton, Commissioners:

This letter is submitted on behalf of the undersigned Minnesota health professionals, scientists and groups. We write in support of the request of nearly four dozen doctors and nurses, many of whom practice in Northern Minnesota, who commented on the PolyMet NorthMet Supplemental Draft Environmental Impact Statement ("PolyMet SDEIS") in March of this year and requested a comprehensive analysis of the health risks and public health impacts of the PolyMet sulfide mine project.

We are concerned that the proposed PolyMet copper-nickel mine project could have significant adverse impacts on human health as a result of pollutants released to air, surface water and drinking water. We believe that analysis performed thus far is insufficient to assess important risks to human health and public health impacts of the pollutants that would be released from the PolyMet project.

Mercury contamination of fish and impacts on neurotoxicity in the developing fetus as well as in infants, children and adults is a significant public health concern in Minnesota. The Minnesota Health Department found 1 out of 10 infants in Minnesota's

Lake Superior Region are born with unsafe levels of mercury in their blood. The percentage of infants thus at risk for neurologic impairment was higher than in the Lake Superior Region of Wisconsin or Michigan. We are aware that many of the bodies of water downstream of the proposed PolyMet mine and plant are legally classified as impaired due to mercury in fish tissue. The lower reaches of the St. Louis River, including the St. Louis River estuary, are known to contain particularly high levels of mercury.

An international mercury expert, Dr. Brian Branfireun, concluded that the PolyMet SDEIS analysis of mercury and mercury bioaccumulation was not adequate and that the PolyMet project had the potential to increase methylmercury downstream of the project, including in the St. Louis River, as a result of changes in hydrology as well as pollution releases. The U.S. Environmental Protection Agency also concluded that the PolyMet SDEIS mercury modeling was insufficient and recommended additional consideration of mercury bioaccumulation impacts.

In addition, we believe that the PolyMet SDEIS provided an insufficient analysis of the individual and synergistic human health risks of other pollutants, such as neurologic morbidity resulting from manganese and lead release; and carcinogenic effects of air emissions of crystalline and asbestos-like fibers, nickel and other particulates, and of arsenic and other metals and contaminants released to water. Health risks to workers who would work on-site at the PolyMet mine or plant must be assessed, along with impacts of polluted wastewater and groundwater seepage on nearby residential populations.

The adverse effects of air pollution from coal combustion on cardiovascular health, asthma and other pulmonary disease are well recognized. Health effects of additional air emissions resulting from fossil fuel electricity generation to serve the needs of the PolyMet mine and processing facility must also be assessed. Finally, assessment should be done of the exposures to vulnerable populations, such as infants, children, the elderly and persons who rely for subsistence on fish, wild rice or game species, where pollutants are known to bioaccumulate.

As health professionals and scientists, we believe that decisions as significant as whether to permit Minnesota's first copper-nickel mine, how to control its pollution and how to financially assure its risks, must also include an assessment of the public health impacts of the proposed project. Both the Minnesota Nurses' Association and Commissioner Ehlinger have suggested that a Health Impacts Assessment be conducted to analyze the public health implications and costs of the PolyMet sulfide mine project.

We request, Governor Dayton, that you direct that your Commissioners to take the following important actions to ensure protection of human health:

1. Conduct a rigorous and scientific analysis of pollutant releases and emissions from the PolyMet sulfide mine project to address gaps in environmental review,

to provide a thorough analysis of polluted seepage at the mine and tailings sites, and to provide sufficient reliable data to enable modeling of both mercury releases and mercury bioaccumulation.

2. Prepare a Health Risk Assessment under the guidance of the Department of Health, with lead agencies requiring that the PolyMet project proposer bear any costs as part of environmental review. Complete at least the following tasks:
 - Assess cumulative mercury risks, including hazard levels in bodies of water that are already impaired for mercury in fish and risks posed by mercury concentration downstream in the St. Louis River.
 - Assess potential health impacts due to drinking water contaminants in residential wells and Hoyt Lakes municipal drinking water.
 - Assess cancer and non-cancer risks to on-site workers at both the PolyMet mine and plant, due to metals dust, particulates and other emissions.
 - Assess health risks resulting from fossil fuel combustion, including impacts of burning coal to meet mine energy demands.
 - Assess cumulative risks of multiple chemicals and exposure routes on vulnerable populations, including infants, children, the elderly and populations who have higher rates of consumption of affected foods, such as fish and wild rice.
3. Engage the community in a Health Impact Assessment process initiated by the Department of Health in partnership with local scientists and health professionals to ensure that impacts of the PolyMet project on public health are analyzed and considered prior to any public decisions.

Across the country, the track record of hardrock mining in sulfide-bearing rock has been very poor. Minnesota has no experience with this type of mining. We believe that potential health impacts must be assessed before Minnesota's first proposed sulfide mine, the PolyMet project, reaches the permitting stage in order to put the long-term health and well-being of Minnesota residents at the forefront.

Thank you for considering the concerns of Minnesota health professionals and scientists as you continue to evaluate the PolyMet mine project. We hope that you share our commitment to using careful assessment and rigorous science to understand potential health risks and to protect the health of the next generation and generations to come throughout Minnesota.

Sincerely yours,

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Food & Water Watch, Midwest Region - Safe and Sustainable Food, Water and Fish

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