

Red Dog Mine Draft Risk Assessment Meeting with Noatak IRA members April 21, 2005 (1:45 p.m. to about 2:45 p.m.)

Questions and comments raised by attending members of the Noatak IRA on April 21, 2005 held at the Noatak IRA building regarding a summary of the upcoming presentation on the findings of the risk assessment of the fugitive dust issue from the port to the mine by Jim Kulas.

IRA members present:

James Adams (Vice President); Enoch Mitchell, Frederica Schaeffer, Norman Monroe and Herbert Walton (Administrator)

Teck Cominco representative: Jim Kulas and Lucille Wright

Exponent presenter: Shock Shock

DEC attendees: Rich Sundet and Lindsay Smith

Kulas gave a brief overview of the risk assessment process and encouraged individuals to attend the upcoming slide presentation of the findings to be given by Shock later that day at the Noatak school.

Comment - I know Kivalina had a number of questions on the dust.

Response – Shock - Yes. The risk assessment looked at all of the plants, animals, and people that could be impacted, evaluated what the intake would be for those animals and plants, and then assessed the potential for effects on those animals, plants, and people.

Comment - With all of the information available, can this close the mine?

Response – Shock - When the National Park Service (NPS) did their study and found elevated metals in moss near the road, Teck Cominco hired Exponent to further define the extent and potential effects of the contamination. Also, the NPS did an additional study that showed that the metals concentrations decreased with distance away from the road.

Response – Kulas - Regarding your question on the NPS shutting down the mine, they probably don't have the authority to shut down the mine. However, EPA and DEC do have that authority.

Sundet then explained DEC's regulatory process of reviewing a risk assessment.

Shock then summarized the risk assessment findings, including noting that the harvesting and eating of subsistence foods is safe.

Comment - Did you take blood or other samples from caribou?

Response – Shock - We worked in cooperation with Fish & Game. Four (4) caribou were collected near the mine, and six (6) caribou were collected by the road, down toward the port. Samples of muscle and other tissues were analyzed for metals.

Response – Kulas - There was an earlier caribou study done in 1996. Fish and Game was the lead on that study because they did it in response to a large area-wide

Notes of comments and initial responses at Noatak meeting April 21, 2005, on Red Dog Mine draft risk assessment caribou die-off and wanted to know what caused that die-off. Teck Cominco had subsistence hunters take some caribou. The concern then was whether the die-off was due to the mine or Project Chariot.

Comment - What about blood testing of employees? I work there. Also, how is the long-term health for older employees as the dust is all over?

Response – Kulas - Yes we test the blood of employees. Problems primarily are with some drillers who smoke and maintenance workers who don't wash their hands. Our criteria is 10 points lower (more protective) than OSHA. The body will excrete metals so that they don't accumulate.

Response – Shock - [**Additional Note:** Department of Public Health has conducted two blood lead studies in Kivalina and Noatak (1990 and 2004). The blood lead studies are reviewed in the risk assessment document, Section 5.4.3.3, however, the risk assessment does not rely on the results of the blood lead testing.]

Comment - What about other metals?

Response – Kulas - Yes we test for cadmium as well, no elevated levels have occurred.

Comment - What about cadmium?

Response – Smith - There is more of an accumulation problem with cadmium than for lead, but cadmium still passes through a person. Mercury is the metal that is more likely to accumulate.

Response – Shock - [**Additional Note:** mercury concentrations have been quite low in various environmental samples, and was not identified as a particular problem metal in the risk assessment results.]

Comment - What about silica?

Response - Kulas - Yes silica is found at the mine. It does pose a problem with the lungs, so we require a half-mask respirator be used by all workers who are exposed to silica.

Comment – Kulas - Lead is found in the sulfide form at the mine and it is not as toxic in that form. It passes through the body as well. For example, at lead smelters, lead is a bigger problem since that form of lead can be much more available to the human body than the sulfide form found at the mine.

***Comment** - How often do you perform caribou studies because we are fish and caribou hunters?

Response – Kulas - It was about six (6) years between the two caribou studies, we want to keep doing this and will do an appropriate frequency of sampling. But these are tough studies to do because the caribou migrate over large areas. We have and will do more berry studies, especially by the port. So with the risk assessment, we looked at ptarmigan and voles because they don't move from area to area.

Response - Shock - If caribou spend many months by the mine area, the model indicates that there could be a problem with decreased growth, although this may not actually occur in reality. However, for the majority of the herd that migrates through,

Notes of comments and initial responses at Noatak meeting April 21, 2005, on Red Dog Mine draft risk assessment

there are no problems indicated by the assessment results. [**Additional Note:** It is important to point out that the risk assessment found that it is safe to continue harvesting all subsistence foods, including caribou that were harvested near the road or port, because that was the caribou data used in the assessment.]

***Comment** - There is a yellow discoloration in a stream just past the village of Kelly and usually this has been a creek that has had good spring water.

Response – Kulas - I don't know of this issue, but if you can get a sample from the stream we will arrange to have it analyzed.

***Comment** - I worked at the mine and was in Anchorage a little while ago because I was sick and had to go on heavy medication. I don't know whether I can go back to work at Red Dog Mine. I got hurt at the mine because I ate all of that different type of greasy food there and it affected my pancreas.

Response – Kulas - I will check on that.

The meeting ended at about 2:45 p.m. and Kulas encouraged individuals to attend the slide presentation at the Noatak school's gym which would begin at about 3:30 p.m. today.