Date:

July 25, 2001

From:

Chuck Blyth, Nahanni National Park Reserve, Parks Canada Agency

Phone:

(867) 695-3151 (867) 695-2446

Fax: Email:

chuck blyth@pch.gc.ca

Subject:

Wastewater Quality

Objective:

To permit a thorough assessment of the procedures and mitigation to be implemented by CZN to ensure that the quality of wastewater discharged to sumps and/or to Harrison Creek does not result in the contamination of Harrison Creek, Prairie Creek and cause significant adverse effects to the ecological integrity of the South Nahanni River and Nahanni National Park

Reserve.

Time Limits: Information is required as soon as possible to permit review by Parks Canada and other review agencies

Preamble:

The Environment Assessment Report submitted by Canadian Zinc on June 21, 2001 Underground Decline Development and Exploration Drilling (Land Use Permit Application MV2001C0023) states that a sump to act as a finishing pond for mine water prior to release to Harrison Creek will be constructed.

Requests:

Parks Canada requests information on the following water quality issues:

- Canadian Zinc is asked to provide descriptions of their procedures for establishing and locating the sump including the capacity of the sump, location, measures to prevent flooding and overflowing.
- CZN is requested to describe the monitoring program for the sump (responsible staff, frequency, aspects to be monitored) and include information respecting the water quality sampling program, acceptable levels for various parameters, frequency of discharge and decommissioning activities for the sump.

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Subject:

Cumulative Effects of Infrastructure Use

Objective:

To permit a thorough assessment of the cumulative effects of increasing number of staff using the same facilities for acccomodation, and the use of ancillary facilities including the landing strip.

Time Limits: Information is required as soon as possible to permit review by Parks Canada and other review agencies

Preamble:

The Environment Assessment Report submitted by Canadian Zinc on June 21, 2001 Underground Decline Development and Exploration Drilling (Land Use Permit Application MV2001C0023) states on page 11 that the underground decline development will require 15 persons. The exploration drilling program will involve 14 persons, the operation of the pilot plant will require up to 9 additional staff and the fully operational mine will employ 170 staff plus 60 contractors. There is a lack of consideration in the environmental assessment report of the requirement to use the same infrastructure at the Prairie Creek Mine site. There are other deficiencies in the environmental assessment report with respect to the provision of accommodation at the mine site including solid waste management, human/wildlife interactions and hunting/poaching activity. There is also no discussion in relation to increase air traffic and the use of the airstrip in the section on cumulative effects. CZN has not indicated in the environmental assessment report whether the airstrip is adequate to meet increased use, or if upgrades will be required. If fuel is to be stored at the airstrip, details of storage methods, volumes, etc. should be provided.

In the discussion of water quality in the section "Analysis of Potential Cumulative Impacts, there is a discussion of the water quality assessment program of the South Nahanni River. However, the report fails to mention that the Cantung mine was placed into care and maintenance in 1986.

In the section of cumulative impacts, there is no information on predicted air emissions from the project. There are several sources of atmospheric emissions - diesel power generation will operate the process equipment; an incinerator will be used for solid waste; equipment will be operated; and dust will be generated from various activities.

In addition to the Prairie Creek mine, the Cantung mines and the Howard's Pass development, there are several other developments including

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mineral exploration/development and oil and gas exploration that are planned on the boundaries of Nahanni NPR. There is no discussion in the report on how these developments will impact on the ecological integrity of the Nahanni National Park Reserve, on the impact to the wilderness experience of the visitor, and on the status of Nahanni as a World Heritage Site considering the level of industrial development around the park.

Requests: Parks Canada requests information on the following fuel storage issues:

- CNZ is asked to provide an indication that the wastewater facilities meet current environmental standards.
- ◆ CZN is requested to provide a description of solid waste management practices, including need for storage and nuisance animal control.
- CZN should provide a of human/wildlife interactions, particularly with increasing numbers of staff on site, as well as increased hunting/poaching opportunities, and the mitigation that will be applied.
- Canadian Zinc is requested to provide an estimate of air traffic volume using the airstrip and to describe any impact that this activity may have on wildlife and on the wilderness experience of visitors to Nahanni National Park Reserve.
- CZN is requested to provide a description of any upgrading, if required, to the airstrip and to describe fuel storage methods, volumes, and associated mitigation measures.
- ◆ Canadian Zinc should provide an estimate of the loading to the South Nahanni watershed from the combined operations of the Cantung mine, the Prairie Creek mine and the Howard's Pass prospect. Since the information gathered on the water quality of the South Nahanni River provides good baseline information for any future inputs that could adversely affect water quality in the future, CZN should describe the monitoring program that they will implement to ensure that the

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water quality of the South Nahanni River is not adversely impacted by the operation of its mine.

- ◆ CZN is requested to discuss mitigation measures for the control of atmospheric emissions from multiple sources.
- ◆ CZN is asked to include a discussion of the cumulative impact from increased industrial development to the ecological integrity of Nahanni NPR and to the status of Nahanni NPR as a World Heritage Site.

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Subject:

Accidental Releases and Malfunctions

Objective:

To permit a thorough assessment of the procedures and mitigation to be implemented by CZN to ensure that the accidental release of petroleum products does not result in the contamination of Prairie Creek and significant adverse effects to the ecological integrity of the South Nahanni River and Nahanni National Park Reserve.

Time Limits: Information is required as soon as possible to permit review by Parks Canada and other review agencies

Preamble:

The Environment Assessment Report submitted by Canadian Zinc on June 21, 2001 Underground Decline Development and Exploration Drilling (Land Use Permit Application MV2001C0023) states on page 15 that there is a low to medium risk of diesel spill at the exploration site. However, the supply of diesel fuel for operations at the site is the tank farm at the Prairie Creek site. According to the site map for the Prairie Creek site, there are four tanks with a total of 42,800 BBL of fuel oil storage (6,805,200 Litres), 2 tanks with a total of 700 BBL of gasoline (111,300 Litres) and a buried boiler fuel tank of 1000 imperial gallons (4550 Litres). The proponent states that the "fully bermed fuel farm storage area" meet current regulatory requirements for petroleum product storage. Our past records also state that the fuel storage facilities were not equipped with a dyked impervious area complete with an integral recovery pumping system. Of particular concern is the fact that aerial photos of the bermed area show water accumulation inside the berm.

Requests:

Parks Canada requests information on the following fuel storage issues:

CNZ is asked to provide an indication as to whether or not these tanks comply with existing regulations for the storage of petroleum products both above-ground and below-ground. This is of particular concern to Nahanni NPR since our records indicate that inadequate fuel storage tanks were used in the past and resulted in the accidental release of 24,000 gallons of diesel fuel. The tanks in use were 15-year old bolted style fuel tanks which would not meet current approvals.

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- ◆ The proponent is asked to provide information on the existing volume of petroleum product in each of the storage tanks (both above and below ground).
- ◆ CZN is asked to provide evidence that the berm around the fuel farm meets existing regulatory requirements for petroleum product storage (including confirmation of impermeability, a fully functional recovery pumping system and containment sump).
- ◆ Although Canadian Zinc currently has a fuel contingency plan, the items contained in the spill kit would be totally inadequate in the event of the accidental release of one of the larger tanks. CZN is asked to provide evidence of immediate response capability in the event of a significant release of petroleum product.