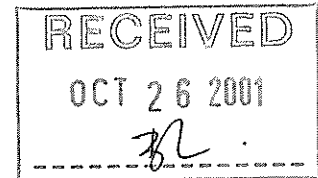


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October 22, 2001

RE: Canadian Zinc Corporation Land Use Permit Applications MV2001C0023 Underground Decline and Exploration Drilling, and MV2001L2-0003 Metallurgical Pilot Plant Program
MVEIRB File 01-002

Dear Mr. Azzolini,

Please accept this letter as comments of the Northwest Territories Chapter of the Canadian Parks and Wilderness Society (CPAWS-NWT) on the permit applications listed above. CPAWS is a national non-profit conservation organization, dedicated to protecting Canada's wilderness.

Context

In our submission in March 2001, CPAWS-NWT included a section which outlines the important conservation values of the globally significant wilderness area which surrounds the Prairie Creek mine. We include this section again to remind Board members of the ecological context in which the CZN application is made.

The Prairie Creek mine site is located in an area of globally significant wilderness values and natural features, which are recognized and protected by several national and international conservation designations. It is because of the wilderness values and designations of this area that CPAWS is opposing these land use permit applications. We believe mining activity from Prairie Creek (and other mining initiatives which may occur in the area) will put these values at risk, and therefore is not an appropriate land use in the area.

The conservation designations in the area are the Nahanni National Park Reserve (NNPR), which is also a UNESCO World Heritage Site; the South Nahanni river within the Park Reserve is a Canadian Heritage River, and the entire South Nahanni watershed is a candidate protected area, as it has been identified for protection by the Deh Cho First Nations.

National Park Reserve

National Parks are widely understood and acknowledged as places meant to protect Canada's natural heritage. The recently revised National Parks Act declares that the "maintenance of ecological integrity through the protection of natural resources shall be the first priority of the Minister in the consideration of park zoning and visitor use" (section 8(2)). This purpose of National Parks is echoed by the report of the Panel on the Ecological Integrity of Canada's National Parks, which stated that "conserving, restoring and maintaining ecological integrity is the core of Parks Canada's mandate" (page 1-2).

The South Nahanni Watershed (SNW) is a large wild area, approximately 33,000 km² in size, which contains the Nahanni National Park Reserve (NNPR) within its boundaries. In the case of NNPR, the area of immediate area of concern when protecting the ecological integrity of the Park Reserve, as identified by Parks Canada, is the entire South Nahanni watershed and a small portion of the Liard River basin adjacent to the confluence with the South Nahanni River. Parks Canada has named this area the Greater Nahanni Ecosystem. A submission by officials from the Nahanni National Park Reserve clearly state the role of the watershed in protecting the ecological integrity of the NNPR:

Among the most obvious examples of the importance of watershed protection to the ecological integrity of Nahanni National Park Reserve are water quality and woodland caribou. As the park covers only one-seventh of the South Nahanni watershed, the majority of the waters flowing through the park originate outside its borders, and any upstream activities do have the potential to impact water quality in the park" (Ecological Integrity [Buffer Zones], page 4).

Obviously then, the NNPR will be impacted by what occurs in the Greater Nahanni Ecosystem, whether or not it occurs within the current Park Reserve boundaries.

World Heritage Site

The NNPR is also internationally recognized as a United Nations Educational, Scientific and Cultural Organization natural World Heritage Site for its globally significant natural features and wilderness values on par with other Sites such as the Great Barrier Reef, the Galapagos Islands and the Grand Canyon. Nahanni was designated under two different criteria; as "an outstanding example representing significant ongoing ecological processes or biological evolution" and for its "superlative natural phenomena, formations or features or areas of outstanding natural beauty" (<http://www.unesco.org/whc/opgutoc.htm#debut>).

In the United States, Yellowstone National Park's World Heritage Site designation was recently put on the 'in danger' list because of a proposed gold mine immediately upstream from the park boundary (Parks – The international journal for protected area managers, Vol 7, No. 2, June 1997, pages 27-31). UNESCO has stated concerns about the environmental impacts of the Prairie Creek mine, as outlined in a front page article in the Edmonton Journal on July 12, 2001.

Canadian Heritage River

A Canadian Heritage River designation is meant to ensure that rivers of outstanding natural, historic or recreational value are recognized and managed in a manner which conserves their distinctive values, while allowing for public use and enjoyment of the rivers. The South Nahanni river was designated to recognize its natural and recreational resources, as the river "provides a wilderness river experience which is unique in Canada, in a setting of world-class, natural beauty" (http://www.chrs.ca/Rivers/SouthNahanni/SouthNahanni_e.htm).

Candidate Protected Area

Another aspect of the unique context of this application is that the South Nahanni watershed is the subject of negotiations for interim land withdrawals between the Deh Cho First Nations and the Government of Canada, through the Deh Cho Process.

It is recognized that interim protection measures are not limited to land withdrawals, they can be used within the land use permitting process in order to protect the cultural and ecological values

of an area. The Panel on the Ecological Integrity of Canada's National Parks recommends that Parks Canada:

reach agreement with the provinces, territories and other federal departments to use their legislative powers to withdraw candidate national park sites from development as early as possible to preserve their ecological integrity during the planning process. For example, with respect to the boreal forest, ***urge the responsible governments not to issue timber or other development permits in candidate park sites on federal lands*** (as recommended by the Senate Subcommittee on the Boreal Forest in *Competing Realities: The Boreal Forest at Risk, 1999*) (Unimpaired for Future Generations?, page 8-9) emphasis added.

Context Summary

It is within this context of globally significant ecological values and protective designations which an assessment of this application must be based. The importance of protecting the world class ecological values of the watershed and NNPR, as well as the status of the South Nahanni watershed as a proposed protected area, are the reasons why CPAWS-NWT is opposing these land use permit applications. Section 117 (2) (e) allows the Board to take the unique natural context in which this application is set into consideration when making a recommendation to the Minister.

Given the surrounding natural environment, CPAWS-NWT respectfully submits that the Board use the Precautionary Principle when making their decision. Simply put, the precautionary principle means err on the side of caution. If there are outstanding concerns or a lack of information, or two contrasting opinions with no definitive evidence of which is correct, we urge the Board to make the decision which will result in the least amount of potential harm to the natural environment.

We also respectfully urge the Board to make any suggestions to mitigate environmental impacts explicit conditions of permit approval. In the Board's decision on the 6-7 hole drill program (May 5, 2001), the Board supported the suggestion that RWED participate in a preliminary reconnaissance before the start of operations to assist in the evaluation of wildlife presence and response to disturbance. The Board added that RWED also consider including vegetation and plant communities potentially impacted by the proposed activities. However, the Board did not make this, and other suggestions, an explicit recommendation. As a result, the MVLWB then did not make the Board's suggestion a condition of permit approval. The preliminary wildlife reconnaissance did eventually take place during the regulatory authorities site visit to the mine in late August, although well after the drilling program had begun.

In the sections below we outline our specific concerns related to the current CZN land use and water license permit applications.

Existing Infrastructure and Activities

As Canadian Zinc (CZN) has pointed out in their submissions, they enjoy the benefits of the existing mine infrastructure put in place in the early 1980s. This infrastructure will be used to support and carry out the activities described in the current permit applications. Specifically, the Pilot Plant activities would require use of the fuel storage area, the mill building and the tailings pond. Just as Canadian Zinc enjoys the benefits of the existing infrastructure, so to do they inherit the responsibility to mitigate the ongoing environmental risks associated with that same

infrastructure. This is critical to minimizing the potential for cumulative environmental impacts at the mine site.

Cumulative Effects

In the May 5, 2001 decision on the CZN 6-7 drill program land use permit application, the Board noted that “CZN’s cumulative effects assessment could have been significantly bolstered” (page 22). CPAWS-NWT submits that by not including environmental impacts from past and current activities, CZN’s cumulative effects assessment is still in need of significant bolstering. The assessment is severely lacking in scope and depth of information, to the extent that significant cumulative environmental impacts could be occurring to the water quality of Prairie Creek as a result of CZN’s overall activities at the mine site. The company should not receive a permit until a full identification and assessment of cumulative impacts has been completed, and appropriate mitigative conditions imposed.

Section 117 (2) (a) of the MVRMA states that every environmental assessment shall include consideration of “the impact of malfunctions or accidents that may occur in connection with the development and any cumulative impact that is likely to result from the development in combination with other developments”.

The ongoing activities at the mine site (often referred to in the CZN submissions as ongoing care and maintenance), are clearly ‘in connection’ with the proposed developments, as they use the same infrastructure, and have impacts on the same area of land and water. They are interlinked and cannot be artificially separated from one another, as their impacts have the possibility of combining and accumulating to result in significant environmental impacts.

Since the existing infrastructure would be used for the activities proposed under the current applications, the existing risks – including from malfunctions and accidents - should be mitigated prior to undertaking any new activities.

The Nahanni National Park Reserve (October 18, 2001) and DIAND (September 7, 2001) have made excellent submissions relating to these applications, specifically with regard to water quality and the tailings pond. CPAWS-NWT will not cover all the same points, but wishes to echo the concerns, and support the recommendations submitted by NNPR and DIAND.

Recommendations

CPAWS-NWT recommends the following actions be completed prior to, or as conditions of, any issued permits:

- Tailings pond assessed by qualified independent examiner, and upgraded as recommended;
- The flood potential for Prairie Creek be reassessed using all available data;
- Fuel storage tanks assessed by qualified independent examiner, brought up to 1994 standards set out in the CCME;
- Stored PCBs, reagents and other stored chemicals removed from the site;
- A water quality testing regime implemented for all water from mine portals, the catchment pond and the fuel storage berm area prior to discharge to either the tailings pond or the receiving environment;

- A No Hunting zone be established around the mine site;
- A security deposit obtained from CZN;
- A preliminary site reconnaissance be completed prior to commencement of the 60 hole drill program to assist in evaluation of wildlife presence and response to disturbance, and vegetation and plant communities potentially impacted by the proposed development;
- The cumulative impact of proposed and past drilling on migratory birds be assessed, given the concerns expressed by NNPR in their March 9, 2001 submission to the Board;
- Noise dampening equipment used to decrease potential disturbance to wildlife;
- Drilling pads and road extensions be reclaimed on an ongoing basis to prevent and mitigate cumulative environmental impacts.

Tailings Pond

CZN states that if they are required to upgrade the tailings pond to undertake the proposed activities, they will not use the tailings pond, but release the water, once treated, to the receiving environment. CPAWS-NWT submits that any releases to the environment should contain zero emissions, as per section 36 (3) of the Fisheries Act, which NNPR outlined in their October 2001 submission.

CZN argue (Sept 21, 2001 submission) that they do “not believe that discharge limits to the tailings pond, an engineered containment facility, are necessary or appropriate.” However, unless NNPR and DIAND concerns relating to the security of the tailings ponds are definitively answered, and the CZN claims that the facility is not leaking are assured, any releases to the tailings pond must be treated in the same manner as releases directly to the environment.

If these assurances cannot be gained, the tailings pond should be brought up to the standards of the BGC report prior to having toxins or pollutants introduced into it. CZN argue that upgrading is not warranted for the proposed developments, but do not address the fact that the facility has not yet been used to store effluent which would contain substances harmful to the environment. Since the proposed activities have the possibility of introducing 70,000 m³ of water to the tailings pond, upgrading the pond after introducing deleterious substances into it may be difficult. Although 70,000 m³ is a worst case scenario, it should be planned for, rather than assuming a best case scenario and having to deal with a worst case scenario in the future. Upgrading the tailings pond prior to use is the best way to avoid any unforeseen problems.

Flood Potential

CPAWS-NWT is concerned about the flood potential of Prairie Creek, and the completeness and quality of the data used to calculate the Potential Maximum Flood. Prior to using the tailings pond to store waste products, the PMF should be recalculated using all available data.

Fuel Storage Tanks

CZN has stated that their fuel storage tanks are not up to the current CCME code of practice (1994) or National Fire Code standards, but have been grandfathered in legislation and therefore meet legal requirements. CZN also seem to suggest that because the tanks are part of the existing infrastructure, they should not be required to upgrade them as a condition of the proposed activities. However, the tanks are necessary for use in the proposed activities, and therefore should be considered under the application.

At a minimum, because the tanks would not meet CCME standards if constructed today, have been in place for around 20 years, and hydrocarbon staining is clearly visible around their circumference, the tanks should be independently inspected to ensure they are secure.

If the security of the tanks is at all in question, CPAWS-NWT recommends that upgrading of the fuel storage tanks to ensure their safety should be made a condition of the permit. In their current state they may present a significant environmental risk.

Berm Water Disposal

During the site tour on August 30, hydrocarbon stains were observed around the entire circumference of at least one fuel tank. Hydrocarbon stains were also observed in the area of the 45 gallon drums of oil stored in the berm with the fuel storage tanks. CZN claims these are old stains and are not a sign of current leakage.

However, water from the fuel storage bermed area is decanted directly into Harrison Creek. This may be a significant environmental risk, and a contravention of the Fisheries Act. CZN stated during the August 30 site visit that they do not test this water prior to transferring it directly into the creek. The rationale seems to be that hydrocarbons float, so that any hydrocarbons in the water will not be removed from the bermed area. However, not all hydrocarbons float, some enter into the lower portion of the water column and would likely be released into the environment during decanting. Hydrocarbons also have the ability to build up in creek bed sediments.

If hydrocarbons are visible and measurable in a body of water, this constitutes a deposit of a deleterious substance under the Fisheries Act. CPAWS-NWT submits that not only should water testing prior to decanting be made a condition of any permit, but that sediment samples be taken in Harrison Creek immediately downstream of where the berm water has been released, to determine if there has been a violation of the Fisheries Act.

Stored Contaminants

The Draft Reclamation report submitted by CZN (October 11, 2001) notes that PCBs and reagents (which CPAWS-NWT understands to be cyanide) are currently stored at the mine site. These materials are an example of the risks CZN inherited at the mine site. The storage of these on site has potential environmental impacts, should they accidentally be released into the environment. It appears that they are not stored in a bermed area, and therefore any spill would likely result in contamination the surrounding environment. In order to reduce potential for accidents, and associated cumulative environmental impacts, these materials should be removed from the site as a condition of any land use permit. Any increase in activity at the mine site increases the potential for accidental release of these stored materials.

The Draft Reclamation report assumes the chemicals would be removed by air. CZN's desire to remove the chemicals by road only would leave these materials in place for a substantially longer period of time.

Water Quality Testing

All discharges from CZN activities have the potential to combine and cumulatively impact the water quality of Prairie Creek. Water from the portals, catchment pond, and the fuel storage area all need to be tested, and if necessary mitigated, prior to release to either the tailings pond or the receiving environment. This testing should be a condition of any permit.

No Hunting Zone

CPAWS-NWT is concerned about reports that a Dall Sheep was shot on the airstrip at the mine site. Apparently an outfitter's client shot a sheep and left a gut pile on the runway. We realize that CZN posts No Hunting signs, however despite warning signs, increased access to an area often results in increased hunting pressure, possibly creating significant impacts on the local wildlife populations. We submit that a legally designated No Hunting or Fishing zone should be established around the Prairie Creek mine site. This would discourage further incidents as the one described above, and allow for prosecution of any offenders. This should be done prior to any significant increase in personnel at the site.

Security Deposit

In their September 21, 2001 submission CZN argues that "that A&R considerations, and any associated financial security, in respect of the current applications should focus on the developments in question and not on the property as a whole, including the extensive existing infrastructure." This argument basically states that CZN should be able to enjoy the benefits of using the existing infrastructure without having to accept any of the costs and risks associated with using that same infrastructure.

However, the developments in question are proposing to do work similar to operating the mine (in the Pilot Plant proposal), are over and above care and maintenance activities, and should therefore require a security deposit. The impacts of the proposed activities have the potential of combining with impacts from past and current activity which has taken place on the property as a whole. Any security deposit must take into account all of these potential impacts.

The Draft Reclamation report strongly implies that CZN has not posted a security deposit. CPAWS-NWT submits that CZN occupying the mine site, which contains stored PCBs and other chemicals, has a fuel storage area and a tailings pond of questionable quality, without having posted a security deposit is likely to be a cause of public concern. That the company would be able to obtain new permits to increase activity at the site, including first time use of the tailings pond, and generate concentrates high in mercury content, without requiring a security deposit would likely increase the level of concern. CPAWS-NWT recommends that a security deposit be made a condition of any permit.

Unanswered Information Requests

CPAWS-NWT submitted three IR to DIAND and CZN which have not yet been formally accepted by the Board or answered. CPAWS-NWT believes this information is relevant to the current applications, and must be obtained and included in the Board's assessment of the applications.

Mineral Exploration Drilling Program

CZN has indicated (March 5, 2001) that there have been around 250 diamond drill holes completed at the Prairie Creek site since 1981. During the site visit on August 30, 2001, CZN was drilling the fourth of 6 or 7 planned holes, and are now proposing to drill an additional 50 - 60 holes.

This amount of drilling has the potential to generate significant cumulative impacts to vegetation (through road extensions, habitat loss and erosion) and wildlife behaviour (through roads and noise). Since the mine site has already been impacted, it is likely more susceptible to increased impacts, and therefore mitigation and restoration of old drill sites and associated road extensions should be completed on an ongoing basis.

CPAWS-NWT submits that the following conditions be placed on the diamond drilling permit:

- A preliminary site reconnaissance be completed prior to commencement of the 60 hole drill program to assist in evaluation of wildlife presence and response to disturbance, and vegetation and plant communities potentially impacted by the proposed development;
- The cumulative impact of proposed and past drilling on migratory birds be assessed, given the concerns expressed by NNPR in their March 9, 2001 submission to the Board;
- Noise dampening equipment used to decrease potential disturbance to wildlife;
- Drilling pads and road extensions be reclaimed on an ongoing basis to prevent and mitigate cumulative environmental impacts.

Conclusion

Due to the ecological context in which the mine site is located, and potential for significant cumulative environmental impacts from the proposed activities in combination with impacts from past and present activities, CPAWS-NWT submits that all of the above noted recommendations should be required by the Board as conditions of any permit approvals.