LETTERS TO THE EDITOR:

Human Health in Environmental Impact Assessment

Dear Editor:

The article by Noble and Bronson in the December 2005 issue of *Arctic* (Integrating Human Health into Environmental Impact Assessment: Case Studies of Canada's Northern Mining Resource Sector) addresses an important matter, and therefore is particularly appreciated. However, the case studies themselves appear sometimes to be too brief for analysis, and the "mixed methods approach" is without reference to numbers of key informants used, lists of documents reviewed, etc.

In the case of the Ekati Diamond Mine, it is important to draw attention to the 10-year gap between the time of the original assessment and the authors' review. For example, the only health informants identified for the Ekati segment were from the Yellowknife Health and Social Services Authority, a body that did not exist, as such, back when the mine was proposed and assessed. In fairness, the Ekati Mine was the first of a suite of industrial developments that subsequently came on line in the Northwest Territories, so that the assessment process was not yet quite tried and tested at that time.

Also, socio-political matters were very dynamic, with land claims being settled, new institutional models being proposed and tried (such as the Dogrib Community Services Board), and an array of interests under discussion. None of which suggests that health issues should have taken any back seat in environmental impact assessment (EIA), but ordinarily these would be factors one might expect to see described in a case study.

Perhaps more important yet, in defining case issues, is other background history of which the authors seem not to have been aware. An example is the unique role of territorial water boards, and of water boards (or land and water boards) related to land claims. The federal EIA carried out for the Ekati Mine did not, in itself, allow the mine to be built or to operate. The mine could only proceed when the EIA was provided to, and used by, the regulatory body that could license construction and operation (with conditions), and this body was the NWT Water Board.

And, in what I think was an early and laudable precedent, the federal government, when it passed the Northern Inland Waters Act in 1972, appointed a board under this Act that included a senior health professional, as it has done ever since. At the time of my own appointment, in 1988, I was also the chief medical officer for the Northwest Territories, and, by training, both a public health physician and a social scientist. Indeed, of all NWT Water Board appointments, mine was, and is, the only one without definite term. I believe that this speaks well for the federal government's determination to keep health a central focus of the Board.

But neither, in my view, should health scrutiny come only from "health professionals." Indeed I am happy to see Noble and Bronson using the comprehensive 1948 World Health Organization (WHO) definition of the term "health," rather than one of many subsequent revisions. The WHO definition clearly indicates that health is a product of multiple partners and conditions, and, in my experience with the licensing process of the NWT Water Board, all Board members have shared health-related concerns from various parties with each other.

It is not clear to me from Noble and Bronson's statements that "social and other health determinants have been either not considered at all, or limited to those aspects of health and well-being that the project proponent directly controlled." Nor can I tell whether they have actually seen the Canadian Environmental Assessment Agency (CEAA) questionnaire that the NWT Water Board requires to be satisfactorily completed prior to any processing of a water licence application.

I am also a little surprised that Noble and Bronson make no reference at all to the 2003 work by anthropologist Ellen Bielawski, entitled *Rogue Diamonds*. In her "insider's look at the discovery, the negotiations and the impact on the Dene of Canada's controversial and hugely wealthy northern diamond mines," Dr. Bielawski clearly draws attention to a spectrum of concerns affecting public health and well-being.

Another error worthy of note lies in the statement (p. 396) that "responsibility for EIA is shared between the federal government and each of the provinces and territories." As long ago as 1984, under the Inuvialuit Final Agreement, the Inuvialuit in the NWT became key partners in the assessment of their own lands and waters. The Agreement stated that no development could be approved or licensed until the provisions of the Environmental Impact Screening and Review Process, which included Inuvialuit participation, had been complied with. Similarily, the Gwich'in and Sahtu also share EIA responsibility in the Mackenzie Valley, as do the Tłı̨chǫ now in the area of the Ekati Mine.

Given the various layers of regulatory control, the weight given by Noble and Bronson to the CEAA Panel, established to review the Ekati proposal in 1994, appears excessive. Certainly, although their paper was apparently prepared in 2004, it is surprising that ten years after the events the authors seem to have relied on informants who were not clearly involved with the work done then, and have not reported the views of the Tłı̨chǫ self-government authority that has been established, and whose members were authors of the impact-benefit agreement with the Dogrib (Tłı̨chǫ) Nation and BHP at the time the mine was established.

Perhaps if the authors had spelled out in greater detail how they arrived at the views that they express, the paper would be more useful. However, they state simply that "we interviewed 24 EIA and health professionals," without any indication of how many were EIA experts and how many

health professionals, and without clarity about which geographic areas these experts represented, which documents were consulted, or which of the cases was represented in the data. Would it not have been key, too, to consult extensively with land-claim governments, and not just "EIA and health professionals"? This lack of detail regrettably diminishes the impact of their work.

I say it is regrettable because, in fact, I very much concur with Noble and Bronson that human health does need to be better integrated into environmental impact assessments (although I also think that it has been a lot better done than they have grasped).

The NWT Water Board started off significantly in 1972 with human health as a clear focus of water management and protection across the northern territories, and it has maintained that focus right up until the present. However, this focus was not clearly replicated in the spin-off water (and land and water) boards (Nunavut, Gwich'in, Sahtu, Mackenzie Valley, and Tłı̨chǫ). (Note that there is no such body as an "NWT Land and Water Board," which Noble and Bronson refer to. The NWT Water Board is strictly a water and waste board.)

Yes, EIA should indeed emphasize human health considerations. However, concern for human health should not diminish in other elements of sociopolitical structure. Impacts on human health result from any kind of industrial activity. The follow-up and measurement of these impacts surely are critical responsibilities of all levels of government and social organization, and perhaps without them, EIA refinement is meaningless.

In their concluding paragraph, Noble and Bronson cite a Yellowknife Health and Social Services Authority spokesperson who expresses uncertainty about whether "companies" are truly advancing health issues. Is it not also the role of regulatory bodies (such as that Authority, the monitoring agency, the Department of Health and Social Services, Indian Affairs and Northern Development, the Tłı̨chǫ government, et al.) to measure and to be able to provide answers themselves, along with the original proponent?

I thank Noble and Bronson for bringing this subject to attention.

Sincerely,
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Dear Editor:

We are glad to read that Dr. Gilchrist found our article in the December 2005 *Arctic* interesting, and that the issue itself has sparked some debate. I will attempt to clarify a couple of points raised by Dr. Gilchrist, and I hope to address his concerns.

First, I appreciate the concern over the brevity of the case studies, but our objective was to provide a cross section of a number of different cases and to present readers with a snapshot of health within the context of environmental impact assessment (EIA). Thus, we were unable to report in detail on regulatory instruments, impact benefit agreements, and land-claim issues.

Second, we do recognize the importance of Ekati in Canadian northern EIA, and I regret that we could not have paid more attention to this case in particular. However, Kwiatkowski and Ooi (2003) describe a number of Ekati's initiatives regarding health impact management, and we did not feel it was necessary to repeat these findings in this paper. I have, in previous research, consulted with members of the Independent Environmental Monitoring Agency regarding social and heath impact assessment at Ekati, particularly within the context of follow-up and monitoring programs and the nature and effectiveness of such programs (see Storey and Noble, 2004). Thus, I am aware of the various licensing and permitting requirements, including the water licensing process, and a former graduate student of mine completed her thesis on monitoring and follow-up regulations at Ekati. We have a similar checklist/questionnaire approach to approvals in Saskatchewan with regard to water licensing and screening for intensive agricultural operations, as well as for southern gas applications. This very same approach is also the topic of much controversy about its sufficiency as an impact assessment process. Some argue that such an approach is a means to bypass "real" impact assessment predictions, particularly with regard to social impacts, while others note the value of such approaches for monitoring and follow-up facilitation. I have also read Bielawski's *Rogue Diamonds*, and one of my former graduate students had spoken with Dr. Bielawski concerning the social impacts and other impact-related issues at Ekati. Again, the Ekati case deserves a paper of its own to address in sufficient detail the project's approach and outcomes concerning both physical and social health and the relevant scoping, prediction, mitigation, and monitoring of impact assessment processes. We appreciate Dr. Gilchrist's concerns. We also apologize for our oversight concerning the use of "NWT Land and Water Board," as opposed to "NWT Water Board."

Third, concerning our reference to EIA responsibility on page 396 of the manuscript, Dr. Gilchrist notes an error in our statement that "Responsibility for EIA is shared between the federal government and each of the provinces and territories." This is in fact the case. However, please note that we go on in that paragraph to identify the very same exceptions that Dr. Gilchrist points out in his letter,