

Socio-economic peer review of BHP EAR

Introduction

I have studied BHP's April 2000 *Environmental Assessment Report for Sable, Pigeon and Beartooth Kimberlite Pipes*, focussing on the socio-economic dimensions of the report. In conjunction with this study, I read various related documents you have sent to me, including the *Terms of Reference* for the EAR, information requests to BHP from various parties, and BHP's responses.

The purpose of this review is to provide you and your Board with my perspective on the adequacy of the analysis of the socio-economic impacts of the proposed mine expansion. My criterion for judging adequacy is the degree to which the report is likely to help your Board "in understanding the environmental consequences of the proposed development" (Section 1.1, *Terms of Reference*), i.e., the degree to which the report attempts to predict the likely significant socio-economic effects of the mine expansion, and the degree to which the report provides information enabling the reader to assess the reasonableness of the predictions. Such understanding will help your Board make decisions on whether to recommend approval of the proposal, and under what conditions. It will also, as is noted in section 1.1 of the *Terms of Reference*, help BHP in its development planning and decision making.

I have looked particularly at how the EAR deals with impacts on the communities, i.e, the socio-cultural, health, and economic distribution impacts. My understanding is that you have engaged the services of an economist to review the report's analysis of impacts on the regional economy as a whole.

My assessment in summary

The EAR provides very limited information on the community level impacts of the EKATI mine, and offers few predictions about community level impacts of the proposed 3-pipe expansion.

For the NWT as a whole, we are given some information on social and economic conditions, and considerable information on the significant overall employment and business benefits of the existing mine. The argument that mining the three additional pipes will permit these benefits to continue for another three years is clearly presented. However, we are told little about the ways in which the EKATI mine is already affecting life in the communities, and few predictions are offered on how mine expansion/continuance (mining the three pipes) will affect community life in the future. In other words, in terms of its treatments of social impacts, the EAR is inadequate.

The EAR's approach

Rather than telling the reader about the mine's current and likely future community impacts, BHP tells us that it is committed to working with the mine's neighbouring communities through the

Impact and Benefit Agreements, and with GNWT through the Socio-Economic Agreement, to enhance the benefits of the mine for Aboriginal and other Northern people, and to mitigate negative impacts. BHP says that the reason it takes this approach to the EAR is that the confidentiality terms of the IBAs, and respect for the privacy of employees and contractors, requires it. This reason is explicitly given in BHP's response to a GNWT Aug. 3 request for information on the range of socio-economic Impacts.

I am not in a position to judge this reasoning, but I can say that the result is that the EAR does not fully meet the purpose assigned to it in the Terms of Reference: to assist the Board and BHP understand the environmental consequences of the proposed development, consequences which include socio-economic consequences, according to the Terms of Reference definitions.

The Board may want to consider the implications of confidentiality when designing future environmental impact reviews.

What concerns me most about the EAR is the virtual lack of impactees' voices in its pages. With the exception of the article on Patrick Charlo, I could find nothing in the EAR that presented what the potentially impacted people have to say about the current mine and its proposed expansion. Nor are there indirect presentations of those words in the forms of survey results or meeting synopses.

Possible alternative approach

Notwithstanding BHP's claims about the constraints posed by confidentiality considerations, it seems to me that preparation of the EAR might have included some research on community impacts after the first full year of operation. This research would have provided an empirical basis on which to make some predictions about the community impacts of expanding the mine to the three subject pipes. The incremental social impacts of the mine expansion, i.e., incremental to the current approved mine, are likely to be small (even though the cumulative impacts of the existing mine, its expansion, and the other mining projects may be large) and thus it is understandable that the proponent is loath to make a major investment in impact research. But the research could conceivably be modest, and could conceivably be respectful of confidentiality.

For example, an independent researcher could have been contracted to interview confidentially a small sample of current Ekati employees, randomly or even self-selected, about their views of the 2-week rotational schedule and other aspects of mine work. (In fact, the EAR provides evidence from one such employee through a short journal article, but we have no way of knowing whether this person's views are representative.)

BHP could also have offered to contract an independent researcher to work with the impacted communities, at arms length from BHP, to undertake local studies of the mine's impacts. A

useful checklist of possible impacts to consider would be the list of possible health impacts identified in the 1995 EIS (as reported in the section on health in the current EAR). This list, and the implied research questions, could be augmented through impact scoping sessions in the communities (to reveal potential problems such as social and economic decline caused by migration of the most skilled out of the smaller communities into Yellowknife), through reference to existing literature on northern communities, and through consideration of emerging theoretical literature on such crucial concepts as "social capital" and "determinants of health."

The research designs could range from questionnaires or in-depth interviews, to focus groups or community meetings. The selection of research designs would be dependent on the views of each community's leadership about such design variables as imposition on members' time, individual privacy, needs for various types of information in community planning and external negotiations, etc. Principles of participatory action research, now well developed in social science, could inform the research from beginning to end. PAR would, by definition, draw on traditional knowledge, knowledge not just of isolated ecological sub-systems such as particular fish habitats, but of whole cultural-economic-ecological systems and what makes ways of life healthy or ill. The costs could be modest relative to the probably costs of the biophysical research that underlies this EAR and similar reports.

Some or all communities might refuse to take up an offer of such research assistance, for a variety of reasonings including the IBAs, but some might see such research as helpful to them, to their negotiations with BHP, and to the impact monitoring and project vetting work of agencies such as MVEIRB. (Perhaps such research was discussed by BHP and the communities, perhaps even undertaken, but not reported because of IBA confidentiality. Regardless, the lack of findings from such research in the EAR prevents it from fully meeting its purpose.)

Information supplementary to the EAR

It is possible that the notes from the community meetings held throughout the year, as listed in Section 6.2 of the EAR, could provide some information on the social impacts of the mine. Apparently these notes are "on file at the MVEIRB." It is not clear to me if these notes are confidential, and if so why. If not, they could have been analyzed in the EAR. In any event, they might still provide a potential information source on community impacts if MVEIRB staff were to analyze them.

Conclusion

The question I was left with after reading the report was: why bother trying to incorporate attention to social, cultural, and health impacts in the EAR if they cannot be addressed at all because of the confidentiality requirements cited by BHP? Perhaps, I thought, it would be better to restrict EARs on future projects in the Mackenzie Valley region to statements of a) bio-

physical impacts and b) regional economic costs and benefits, including implications for government servicing, employment, business, and diversification. Socio-cultural matters (traditions, health, economic distributions, social relations, etc.) which are less quantifiable and which involve values, interpretations, confidentialities, high levels of complexity in terms of cumulative effects (i.e., in determining which project, if any, is causing any given social problem), and high potentials for mitigation (because human impactees can speak and plan for themselves) should perhaps be left to ongoing monitoring and collaborative planning processes.

Perhaps the inherent difficulties of social impact assessment everywhere are so magnified in the Mackenzie Valley by land claims, and the confidentiality nature of private contracts (IBAs of one kind or another), that socio-cultural impact assessment should be excluded from EARs and assigned rather to adaptive management processes designed especially for the socio-cultural realm (including that realm's connections to the bio-physical and macro-economic realms). To some degree, such processes may be in place through the IBAs and the Socio-Economic Agreement. But it may be desirable in the future for socio-economic adaptive management processes to be mandated, controlled and perhaps even designed, managed, and facilitated by a public agency that has the resources to ensure a level playing field between project proponents/operators and impacted people in smaller communities.

On the other hand, I have finally concluded, while publicly mandated and controlled socio-cultural adaptive management processes might be necessary for negative impacts to be minimized and positive impacts maximized, they would not be sufficient. In order to make good project go/no-go decisions and to set appropriate conditions, approval agencies require as complete information on project effects, including social-cultural information, as is reasonable to produce for a given sized project. Such information is generated through impact assessment processes and reported in documents like an environmental assessment report for the benefit not only of decision-makers and advisers, but also for the public and, as the 3-pipes Terms of Reference note, for the proponent itself.

EARs enhance governmental accountability and transparency, and social learning. They permit application of the precautionary principle-- a principle as relevant to socio-cultural change and system intrusions presented by major projects, especially in the context of the North, as it is relevant to bio-physical ecological change.

Thus, it is my view that BHP's 3-pipes EAR should have attempted harder to predict the socio-cultural consequences of mining the three pipes, and should have provided information that would allow others to assess the reasonableness of its predictions. In essence, it did neither.

While the socio-cultural impacts of this particular proposed mine expansion are probably small in the context of all industrial projects in the North, not to mention other forces affecting community life (leadership, formal education, television, etc.), the project could have some

socio-cultural impacts. Many of these impacts could be mitigable; some might not be. The Board has asked for information to help it understand all this. It is a matter of principle that the proponent should comply, if for no other reason, for the sake of the integrity of the process.

The IBAs and other perhaps other political and institutional realities pose some difficulties to BHP in meeting the Board's requirements for information on socio-cultural impacts, (e.g., the requirement set forth in the health impacts section of the Terms of Reference) and in responding to similar follow-up requests for information from GNWT. But those difficulties do not seem to me to be insurmountable.

The EAR does not say that confidentiality requirements are so extensive and so stringent that BHP cannot undertake or contract research useful to socio-cultural impact prediction. Unless the confidentiality requirements are so stringent that they do not even allow BHP to divulge the full nature of those requirements themselves-- in which case there is a generic major obstacle to EIA in the Mackenzie Valley-- then, I conclude, BHP should have, and could have, invested some modest resources in the kinds of research outlined above. If it had, the EAR would be a much more complete documentation and assessment of the environmental consequences of the proposed 3-pipe expansion.

ADDENDUM

I would like to address a number of questions and concerns raised, but not fully dealt with, during our conference call of September 22. If appropriate, please append this message to my peer review of the BHP EAR which I submitted to you by e-mail on September 18.

A. EMPLOYMENT BENEFITS

(i) TYPES of jobs provided by the EKATI mine to Aboriginal people and other

Northerners:

Section 4.7 of the report addresses, satisfactorily in my view, the question of the kinds of jobs that Aboriginal and other Northern people have had, and are likely to have, at the mine. Table 4.7-12 (p.4-189) provides data on the distribution of "professional," "skilled," and semi- and unskilled jobs (measured by person years) held during the mine operation in 1999. Aboriginal people held 10% of the professional and 16% of the skilled positions; Northerners (presumably other than Aboriginal) held 69% of the professional and 37% of the skilled positions; "Others" held 21% of professional and 47% of skilled places.

Table 4.7-11 (p. 4-188) shows that 1995 EAR expectations for the percentage of professional and skilled placements going to Aboriginal people and other Northerners, (as well as the percentage of total placements), were exceeded in 1999 operations. For example, Aboriginals and other Northerners received 79% of actual professional placements versus the 64% expected. I did not see a definition of "professional" and "skilled"; it could be useful to have that. Nor did I see any information on the distribution of jobs during the construction period to August 1998.

Section 4.7.8.1 "Employment by Skills Category," addresses future distributions of job types by predicting that as education and training are accessed by Aboriginal people their numbers will increase from present levels in all job categories. Also, the IBAs "contain provisions to create a skilled aboriginal workforce."

(ii) NUMBERS and STABILITY of jobs provided over time:

Section 4.7.8.1 also says: "Given that the proposed development will not create any additional employment demand, it is expected that the NWT labour force will continue to have the capacity to meet EKATI requirements at the 18000 t/d production level. This conclusion is supported by the success of BHP's work training initiatives and the fact that targets are being met and

turnover is low."

The question of numbers of jobs to be expected in the future as a result of EKATI's proposed expansion to the three new pipes is also addressed in BHP's response to the August 8 request for information on "aircraft traffic" from Robert Mulders (GNWT RWED). BHP responds: "In [the EAR]..., it was stated that the inclusion of the pipes did not 'change the pace or scale of the current or planned operations at the mine.' Therefore, the support logistical requirements (number of workers... etc.) for mine operations would remain similar to those identified in the existing 1995 EIS and subsequent approval for the EKATI mine."

I interpret these statements to mean that the Northerners can expect to have the same level of employment at the mine as they do now, and that the addition of the three pipes will extend those employment benefits to 18 rather than 15 years. This interpretation might be checked with BHP.

(iii) GEOGRAPHIC DISTRIBUTION of jobs:

Information on the distribution of current or predicted mine jobs among the designated "impact communities" is not provided in the EAR. BHP explains why in a response to the August 3 request for information on "Socio-economic Impact Prediction and Certainty" from Juanita Robinson (GNWT RWED). She asks for "actual 1999 employment by community of residence." BHP replies: "Data reported to the [GNWT] on an annual basis is provided pursuant to the Socio-Economic Agreement. Any information in addition to what is already being reported is outside of the agreement and in violation of the IBA's and confidentiality of our employees."

There are data provided in Section 3.9.2.4 on 1996 and 1999 "employment rates" and "unemployment rates" in the impact communities. It is interesting that the unemployment rate has increased in six of the First Nation communities from 1996 to 1999 and that the "employment rate" is down in four of the communities. Of course, without the mine, the situation could have been worse in the communities which had lower employment rates in 1999 than in 1996; it is also possible that residents of these communities did not get many of the mine jobs, or that they had to move to Yellowknife to get them.

(I should note here that the definitions of "employment rate" and "unemployment rate" are not provided in this section. I raise this because usually these rates are understood as adding to 100% of the total labour force, with "unemployment" defined as looking for a job. While the percentages given for employment and unemployment in Kugluktuk do add to 100%, the employment and unemployment rate percentages given for each of the First Nations communities

and for Yellowknife do not add to 100%, even though the source of data for all communities, including Kugluktuk, is given as the 1999 NWT Labour Force survey.)I saw no information on numbers of jobs currently held, or expected to be held, at the mine by GNWT residents outside the designated "impacted communities."

B. SOCIAL COSTS

To get the full picture of socio-economic impacts, the likely social costs attending the employment (and business) benefits must be considered. These social costs could relate to the effects of the 2-week work rotation cycle, the possible loss of skilled community workers to the mine, to a range of possible health issues raised in the 1995 EIS, etc. Unfortunately, the EAR gives us little understanding of the social costs. Section 3.9 provides many facts about social conditions in the NWT as a whole, and in a largely unsystematic way provides some facts for each community, but none of these facts are discussed in relation to the impacts of the mine, and few of them (the facts on employment rates being a possible exception, as discussed above) could be useful for anyone trying to think about present and future mine impacts on social conditions. The section adds to the bulk of the EAR but does little to help the Board do its work.

Section 6.3 of the report, which deals with what has been learned from the consultations, hardly addresses socio-economic impacts at all. Four biophysical issues are identified, but socio-economic considerations are limited to the following statement at the end of the section. "The communities of Rae-Edzo and Dettah raised concerns about specific issues covered under the IBAs. BHP listened to the concerns and indicated that issues should be referred to their IBA representative, who would convey them to BHP... Meetings will take place under the issue resolution parameters defined in the IBA." Again, this section does not help the Board do its work, and to me, seems contrary to the Terms of Reference for the EAR which Section 6.3 purports to address.

An August 3 request from Juanita Robinson (GNWT) asks for information on "Range of Potential Socio-economic Impacts" and lists "several potential impacts discussed in Volume IV of the 1995 EIS [which] were not found in the current EAR," such as impacts on rates of assault and drug trafficking, value changes, etc. BHP's response references various sub-sections in Section 3.9 which "provide an update on the human health in the NWT, including] impacted First Nation communities." As I note above, Section 3.9 does not seem germane to a discussion of mine impacts.

BHP's response continues: "BHP concurs with the the GNWT that it is too soon to measure trends that suggest residual effects of EKATI employment on community health and well being." It is not clear to me with what GNWT statement BHP is concurring, since it appears to me that Ms. Robinson's request implies it is not too soon to attempt to determine how EKATI employment is affecting community health and well being.

BHP goes on to express again its desire to take what we may call an adaptive management approach to socio-economic impacts. "As stated in the April 2000 EAR, BHP acknowledges that the Employee Attitude Survey can be expected to provide helpful information for communities to better understand and address their community wellness issues and needs... The existing mitigation, i.e. training, Aboriginal liaison, and employment supports (EAP) identified in the 2000 EAR table 4.7-13 will continue throughout the life of the mine (including the operation of... [the 3] pipes) to offset residual effects as they are identified by the communities." As I said in my report sent September 18, such an adaptive management approach is laudable in its own right, but should not take the place of identifying and predicting socio-economic impacts in the EAR.