

**E.2 Community Organization Perspectives on
ARD / ML Permitting Processes**

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Public Perspectives on Participating in Pollution Prevention...

- ✓ Brenda Mine Surveillance Committee
- ✓ Sullivan Mine Reclamation Committee
- ✓ Ekati Mine EA and Water Licensing
- ✓ Mt. Nansen EA and Water Licensing

Defining Responsible Mining

"...if a mine cannot afford the full cost of state of the art systems, then it should not be developed. There is no trade off. No mine developed has the right to impose on an ecosystem damage from ARD just for the sake of economic activity, returns to investors, jobs and other benefits...there is no room for compromise in environmental protection..."

John Wilson, Placer Dome Inc..

Key Questions about Citizen Experience in Processes

- ✓ What was your role in the process for dealing with metals contamination concerns?
- ✓ What were the key challenges raised in the process?
- ✓ Were there adequate resources (time, expertise) available to address your concerns?
- ✓ Was there consistent follow through on data and operational requirements?
- ✓ How would you like to see the process improved?

About Citizen Participants...

- ✓ People who stay after the mine is closed
- ✓ People who live and/or work downstream
- ✓ Taxpayers, parents
- ✓ Often unpaid participants volunteering 100s of hours to attend meetings and review documents
- ✓ Intelligent lay people who have questions arising from witnessing impacts and hearing too many confident technical predictions and promises fail

Ekati Water License

- ✓ AMD potential identified but not addressed in EA stage
- ✓ Water Board license hearing interveners revealed non-representative sampling, inadequate waste management plan resulting from use of static testing only
- ✓ Conditions set in permit for further ARD geochemical characterization study for waste rock and tailings management with monitoring and reporting requirements
- ✓ Inadequate enforcement of waste rock geochemical testing program for permit conditions not completed for first year
- ✓ Depressed pH at toe of waste rock dump discovered after inspection order testing

Ekati cont'd

- ✓ Source of metals inconclusive plan for future control still uncertain
- ✓ Inadequate data set available resulting from failure to comply with testing regime requirements
- ✓ Proposal to make ongoing operational geochemical testing discretionary
- ✓ Community groups recommend mandatory testing regime

Ekati Observations

- ✓ Limited in-house government capacity initially limited 'independent' review. Lack of corporate memory and expertise was a serious obstacle
- ✓ Role of Native organization intervention recognized as critical in setting waste monitoring and handling conditions
- ✓ Lack of intervener funding limited ability to have public concerns dealt with effectively
- ✓ Lack of commitment/resources for follow-up on monitoring and enforcement erodes public trust encourages costly legal/political avenues
- ✓ Uncertainty of predictions and mitigation measures need to be dealt with more candidly in risk assessment
- ✓ See 'Independent Review of BHP Diamond Mine Process' - Canadian Institute for Resource Law (N. Banks et al) June 1997

Sullivan Reclamation Committee

- ✓ Public Liaison Committee provides ongoing oversight of reclamation plan implementation
- ✓ AMD/ML data reported in annual reclamation report - accessible upon request
- ✓ Treatment/communication of technical questions at committee level often too limited in time and scope (e.g.,... Discussion of water testing results and methods)
- ✓ Better interagency coordination of information and reclamation initiatives required for integrated solutions
- ✓ Company management of information and issues response is generally open, prompt and adequately resourced

Sullivan Observations

- ✓ Problems have consistently been more complex, larger/more expensive than predicted - spill clean-ups, surface water diversions, dewatering waste dumps
- ✓ Levels of complexity and uncertainty in prediction and prevention strategies need to be explicitly addressed in planning stage - and better communicated to public stakeholders

Brenda Surveillance Committee

- ✓ 1984 community protest over mine effluent discharges to Peachland watershed from 'zero-discharge' facility. Public Committee formed in 1990 to review reclamation issues
- ✓ Two spills subsequently occurred - reporting procedures considered unsatisfactory
- ✓ ongoing public concerns over elevated molybdenum levels in Trepannier Creek and vegetation uptake (deer, moose, cattle)
- ✓ Effluent discharge permit appealed 1997/8 - decision appealed to Environmental Appeal Board
- ✓ Settlement reached on lower molybdenum limits

Brenda Mine Observations

- ✓ Current feeling that metals problems have significantly improved but strong public desire for ongoing full monitoring and testing regime
- ✓ Concerns about lack of follow-up on sludge management planning requirements
- ✓ Significant errors in water balance model predictions (pit in-fill rates) have not inspired confidence in future
- ✓ Inadequate information sharing and by government and industry led to political and legal recourse - could have been avoided

Brenda Cont'd

- ▼ Committee has served an important role, but could be restructured to better integrate and communicate technical committee information and allow for stakeholder input
- ▼ Need for more independent process facilitation and better disclosure and reporting protocols to improve public trust
- ▼ In-house government expertise and corporate memory is extremely important to residents who are concerned about the longevity of the existing technology and the accuracy of current geochemical and hydrological predictions

Mt. Nansen Mine

- ▼ AMD issues not addressed during EA phase
- ▼ Water Board licensing process set conditions for additional waste characterization work and submission of waste handling plan.
- ▼ Inconsistent monitoring, inadequate sampling work led to various problems - operations in unauthorized high sulphide strata below sampled materials, highly reactive tailings exposed in impoundments due to poor dispersal techniques, poor geological modeling and mining led to excessive cyanide use and failure of cyanide destruction technology
- ▼ Company operated for 2.5 years with 25 compliance orders had been issued under Waters Act. No 'stop work' orders. Declared bankruptcy
- ▼ Charged with not submitting monitoring reports, unauthorized effluent discharge, contravention of water license standards and falsifying monitoring records. No fines paid.

Mt. Nansen Cont'd

- ▼ DIAND spent ~ \$1M on seepage collection dam and estimates \$6-\$8M for clean-up - (Major Mine Guidelines now in draft)
- ▼ Ongoing concerns about arsenic mobility, elevated copper levels at bottom of the main pit, long term tailings dams stability, incomplete flooding of reactive tailings
- ▼ Need for more regularized mandatory waste characterization protocols, monthly reporting of monitoring of tailings, mechanisms to enforce operational quality controls
- ▼ Better coordination between on-site planning and operations controls, and off-site regulations that are only triggered by spills - more proactive
- ▼ Need mechanism for periodic review of permit assumptions and conditions

