EKATI DIAMOND MINE ICRP COMMENT /RESPONSE TABLE – SECTION 3

6.4 Processed Kimberlite Containment Areas
6.5 Dams, Dykes and Channels
6.6 Buildings and Infrastructure
Appendix D (Applicable to Sections 6.4 – 6.6 of Vol 1)

Green = Resolved Yellow = Resolved with a Commitment/Action or Recommendation
Orange = No representatives Present Blue = Deferred to Section 4 for further discussion
Red = Unresolved

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
Processed Kimberlite Containment Areas (LLCF and Phase 1)								
1	IEMA – 27	6.4.4.5	LLCF	The need for a fish barrier at the outlet of cell E has not been demonstrated, and is inconsistent with the stated reclamation goal. The *ICRP* should explain why a fish barrier is necessary.	- DFO has signed Fisheries Act authorizations (FAA) and Compensation Agreements with BHPB which establish that fish habitat lost through the project has been compensated for and is not a reclamation requirement. - FAA and Compensation Agreements were established through review of recommendations made by the EIARP. These recommendations also included comprehensive input from all interested and affected parties. - Because BHPB has already compensated for fish habitat loss, recommendations for fish habitat replacement in the LLCF goes beyond BHP Billiton's responsibilities of returning the EKATI Diamond Mine to a viable self-sustaining ecosystem, but to a more enhanced ecosystem, with more fish habitat than existed originally.	**Section 6.4.4.5** will be updated to include explanation of why a fish barrier will be constructed.	Unresolved	See discussion in attached letter under "Fish and the Reclamation Objective"
2	NSMA – 11	6.4.4.3	LLCF Wildlife	(*In regards to fish*) If the area is safe to use, then why would access be restricted? Access should only be restricted if the area is unsafe.	Please refer to Tracking # 1 for BHPB's response on fish access to the LLCF.	No Revision Proposed.	No Representatives	Verification Comments Received
3	NSMA – 13	6.4.4.5	LLCF Wildlife	If the area is safe to use, then why would access be restricted? Access should only be restricted if the area is unsafe.	Please refer to Tracking # 1 for BHPB's response on fish access to the LLCF.	No Revision Proposed.	No Representatives	Verification Comments Received
4	DFO – 1	6.4.4.2	LLCF Final Landscape	No processed kimberlite will ever be placed in Cell E. In addition, as stated on page 200 of the ICRP, the goal of operations and closure of the LLCF is to avoid depositing processed kimberlite into Cell D. DFO supports this position and feels that connectivity should be re-established if water quality criteria are met to allow fish to re-colonize the area (Cell D and Cell E), restoring it to a self-sustaining aquatic ecosystem. According to the ICRP, BHPB proposes to construct a fish barrier at the outlet of Cell E to prevent fish passage from Leslie Lake into Long Lake. BHPB and DFO are currently working together to reach resolution on the topic of fish barriers for the LLCF and the end pit lakes.	Please refer to Tracking # 1 for BHPB's response on fish access to the LLCF. Please also refer to the wording of the approved Reclamation Goal for EKATI. Note this is a reclamation plan, not restoration.	No Revision Proposed.	Unresolved	BHPB and DFO are currently in discussions to resolve this issue and will inform all parties once they have come to an agreement.
5	IEMA – 94	Table 46, Appx F. Wildlife 3	PKCA Reclamation Research	Item 3 proposes a fish barrier to prevent fish movement between Cell E and Leslie Lake. Since fish already live in Cell E, and since it will become part of the environment at closure, the need to prevent fish migration is not demonstrated, and not consistent with the overall reclamation goal.	Please refer to Tracking # 1 for BHPB's response on fish access to the LLCF.	No Revision Proposed.	Unresolved	See discussion in attached letter under "Fish and the Reclamation Objective"
6	IEMA – 53	Table 24. Wildlife 2	PKCA Closure Objectives & Criteria	The criterion is appropriate for the specified objective, but IEMA does not agree with the objective. Cell E, which now contains fish, should be linked with the downstream watershed for fish movement unless there is a demonstrated reason why it should not be.	Please refer to Tracking # 1 for BHPB's response on fish access to the LLCF.	No Revision Proposed.	Unresolved	See discussion in attached letter under "Fish and the Reclamation Objective"
7	IEMA – 28	6.4.7	LLCF	The introductory paragraph is incorrect in its entirety. First, the 2005 LLCF Evaluation did not re-examine the performance and design of the facility so that it integrates with the long-term post-closure landscape (*emphasis added)*. The 2005 exercise was done explicitly to resolve operational issues, and reclamation and closure issues were incorporated only to the extent that the options for operating the facility were compared relative to each other as to their implications for closure. Second, the statement that the *2007*	The first paragraph in Section 6.4.7 states that the "The review of the operations and revisions adopted in 2005 as Option 3A provides the opportunity to re-examine the performance and design of the facility so that it integrates with the long-term post closure landscape." This does not state the purpose of the review was for re-examination of closure, but for operations. Reclamation discussions played a key part of the 2005 LLCF review, and closure requirements were at the forefront of	No Revision Proposed.	Deferred to Section 4	IEMA's first point about the intent of the 2005 LLCF review still stands. While BHPB disagrees with our second comment about the WPKMP and the ICRP not demonstrating that progressive reclamation of

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				Waste Water and PK Management Plan 'seeks every practical opportunity to assist closure planning and maximize progressive reclamation strategies' is unfounded. Nowhere does that plan, nor the *ICRP*, demonstrate that progressive reclamation of the LLCF is planned, or even possible.	discussions where changes to the operations and infrastructure and final landscape were made. Reclamation discussions included vegetation and rock capping options, redirection of processed kimberlite to exhausted open pits, long term management of fine processed kimberlite by reducing tundra flow onto the Cells and creating ponds for fine kimberlite settlement in each of Cells B, C and D, as well as maintenance of long term water quality. Objectives for the 2005 review are outlined more specifically in Section 3.3. of the WPKMP. And the key objectives of Option 3a M are outlined in Section 3.4.2 of the same plan. BHPB disagrees with the IEMA's statement that the WPKMP and the ICRP do not demonstrate that progressive reclamation of the LLCF is planned, or even practicable. Progressive reclamation of the LLCF has been incorporated into Section 3.7 of the WPKMP where discussion is centered around operational activities that are intended to assist in constructing a long-term post closure landscape.			the LLCF is planned or even practicable, it provided no information to support this contention. The WPKMP Sec. 3.7 reference cursorily describes 5 features of the LLCF in terms of their closure implications, but says nothing about progressive reclamation. Please note, these are comments made to correct the record, not substantive ones about deficiencies in the closure planning.
8	IEMA – 29	6.4.7	LLCF	Six 'key opportunities' are listed as evidence (pg. 218) that the LLCF has been designed to assist closure of the facility. The list is misleading. The first three of these comprise necessary measures to improve efficiency of operating the facility, although the third one clearly has closure benefits as well. The fourth one is strictly an operational necessity, not a 'closure opportunity'. The last two relating to pilot programs to be carried out are not key opportunities where the LLCF has been designed to assist closure, since the LLCF has already been designed and these projects not yet implemented. The *ICRP* should provide an indication when these two pilot projects will be carried out.	The first 3 key opportunities do provide benefits for closure as well as evidence that the LLCF has been designed to assist with closure. Firstly, the original intent of the placement of PK in the cells was to maximize capacity so that the PK would be placed in the upper cells, allowing a larger area of water in Cells D and E to act as polishing ponds – the implications for this design was for long term sustainable water quality in the downstream receiving environment. To do this the company: 1. Made changes to the infrastructure to improve capacity use in the upper cells (egs. Cell B West Road and Cell A North Road). 2. Addressed discharge operations by rotating discharge through the spigots to ensure that PK deposition is shallow enough for ice entrainment thaw each summer in the approx 1.5m active layer. 3. Designed a system of external drainage channels to limit the fine PK carried through and into the lower end of the containment facility. 4. Designed internal channels and ponds to control erosion and encourage EFPK settlement within the facility (ponds). BHPB agrees that the last two bullets in Section 6.4.7 are not yet in place (similar to the external and internal drainage channels noted above), however they both are significant opportunities which will assist with closure. A pilot study both provides opportunities to test the reclamation plan and progressive reclamation. BHPB has committed to maximize deposition in the cell extremities to provide opportunities for progressive reclamation (WPKMP Section 3.4.6). Under the current operations plan it is estimated that a pilot study can commence in the LLCF by about 2013. The pilot study will address the last 2 bullet points in Section 6.4.7. This includes the methods for applying vegetation cover, continued research on metals uptake and risks to wildlife, as well as operations and equipment requirements for rock placement. A more definitive date and details for the pilot study are not available at this time and will be refined in future updates of the ICRP.	**Section 6.4.7** bullets will be reviewed to ensure that the opportunities provided effectively explain opportunities where the LLCF has been designed to assist closure. **Section 6.4.7** will be updated to include an overview of the proposed LLCF Pilot Study. The content of this additional section will be similar to that provided in BHPB's response.	Deferred to Section 4	IEMA's first point still stands, but it is relatively minor since it deals with correcting information in the text. The more important point about the ICRP providing an indication of when the two pilot studies referred to will be carried out remains unanswered. BHPB's response that 'a more definitive date and details for the pilot study are not available at this time and will be refined in future updates of the ICRP' is not acceptable. During the January 21 meeting, BHPB indicated that the next likely iteration of the ICRP would be about 2012-13. As indicated in 'Reclamation Research' section above, this is far too late in the game to be providing the details of a research project required for closure measures.
9	JW – 18	6.4.6.	PKCA	Table 58- Environmental Works: missing re-vegetation plans	Table 58. At this time no vegetation plans are in place for the	**Table 58** will be updated to:	Resolved	Recommend that the pond

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		Pg 217. Table 58 & 59.	Reclamation	and monitoring for wind erosion? Table 59- Before or during the period of monitoring will there be any pilot studies/activities? What data will be used to support weir designs?	Phase 1 Pond. Erosion monitoring is included in the Environmental Works, although wind erosion at the Phase 1 Pond is considered to be negligible, based on the size of the containment area, and the scale of the reclamation work. Table 59. Research projects have not been included in the Closure Activities tables. Planting of vegetation has been included under Engineering Works in Table 59 as this would be the commencement of progressive reclamation. This activity includes the work in the Pilot Study. The estimated date for commencement of the Pilot Study is approx, 2013 (as provided in the table under Start of Closure Activities). Pond level fluctuations in Cells B and C will be monitored during operations, and will assist in determining flow points for dyke weirs.	Control and monitor for erosion (water and wind) during rock cover construction period. **Section 6.4.4.5** will be updated to include 'Pond level fluctuations in Cells B and C will be monitored during operations, and will assist in determining flow points for dyke weirs'.		level and discharge data are collected with sufficient frequency, so that it is adequate for hydrologic design of weirs.
10	IEMA – 17	6.4.4.2	LLCF Final Landscape	No evidence is provided to support the statement that as deposited waste rock in the water interface zone settles through unfrozen kimberlite that the resulting surface will be 'more or less uniform mixture of rock and kimberlite'. BHPB should demonstrate the viability of placing and maintaining an effective rock cover in this zone.	BHPB agrees that this proposal should be demonstrated. To test the viability of placing and maintaining an effective rock cover a Pilot Study has been identified in Table 24 Appendix F Operations 1.	No Revision Proposed.	Deferred to Section 4	We agree with the proposed action in BHPB's response, but not the timing—this work should be commenced soon. The issue might be resolved in the review of the research program description that BHPB is undertaking for Section 4 review, if the work is to be initiated before the next ICRP iteration. The current version of the ICRP should be revised to discuss the uncertainties and issues associated with the placement of waste rock in the water interface zone.
11	IEMA – 10	6.4.3.2	LLCF Reclamation Research	The schedule set out in Table 55 indicates that PK will be deposited in Cells A and B until as late as 2015, leaving only 5 more years of operation where PK will be deposited into Cell D. The *ICRP* should explain how the various pilot projects described in the Reclamation Research Plan for researching closure options, which are to be conducted in 'available areas' within the LLCF, will be undertaken during this interval such that the results can be used in reclamation measures once production has terminated.	Please refer to Tracking # 8 for discussion on Pilot Study. In Section 2 Review BHPB agreed that clear linkages would be identified between the timing of progressive reclamation activities and associated research needs. These linkages would be provided through the use of a schedule that shows the proposed activity and the timing of research which answers how the reclamation work will be completed. Appendix D Table 27 currently has a Closure Planning and Reclamation Schedule. This schedule outlines the stages of closure planning for each of major mine components.	In Section 2 Review BHPB stated that it will review Appendix D Table 27 and update to ensure that linkages between the research identified in Appendix F have been linked to the reclamation schedule.	Deferred to Section 4	BHPB's review of the research program to be delivered in Section 4 review may largely resolve these issues, although the timing problem may remain. The ICRP should provide for a schedule that initiates these two proposed pilot projects sooner rather than later.
12	IEMA – 14	6.4.4.2	LLCF Reclamation Research	The description of placing the cover on the beach zones (pg. 208) does not provide an indication of the challenges facing equipment operators. These have been identified in the 2007 *Waste Water and PK Management Plan*—for example, 'Increasing fines, low effective shear strengths, entrained ice, and thaw effects, results in poor trafficability on the lower parts of FPK beaches farther from the spigots. The loose, high moisture FPK may liquefy when subjected to cyclic or vibrating loads, thereby limiting the extent of the beach that may be safely accessed during the summer construction months.' Further research on placement methods is referenced in the Research Summary Table 46, but the issues and methods for their resolution are not provided. The *ICRP* should be explicit about the engineering and environmental challenges that need to be addressed in closure planning for the LLCF.	BHPB agrees that the questions on how placement of cover material need to be addressed, and the research for this has been included in Table 46 Appendix F Operations 1 and 2.	No Revision Proposed.	Deferred to Section 4	While the inclusion of this issue in the research program is a positive response, the ICRP still needs to be revised to include a discussion of these very challenging closure issues—the document should not remain silent on these.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
13	INAC – 5	Figure 65	LLCF Reclamation Research	INAC feels the following issues should be address by BHPB as part of their research plan: • the effect of revegetation on the frozen tailings should also be assessed • the potential effect of pore water on the long term water quality should be assessed and monitored • the potential for the cultivars to escape and spread into the surrounding native vegetation should also be studied further and, if at all possible, native species should be used exclusively for revegetation	BHPB, in partnership with Carleton University, is conducting research on the impact of climate, snow cover and vegetation on the near-surface permafrost conditions in peat lands across the Slave Province. This project involves describing vegetation and snow cover, and measuring air, surface and ground temperatures at three sites across the Slave Province: the Ingraham Trail east of Yellowknife, Colomac, and EKATI Diamond Mine. BHPB is awaiting the results from the research from Carleton University. Once these are received they will be included in future updates of the Reclamation Research Plan. Please refer to Table 46 Appendix F Water 2 for research on pore water in the LLCF.	**Table 46 Appendix F** will be updated to include the current research from Carleton University. **Table 46 Appendix F Land 2** will be reviewed and updated for research on the use of native and native cultivars vegetation.	Resolved	During the working group meeting INAC-WRD expressed concern over the possibility that the work being done by Carleton University is meant to measure the effects of vegetation and snow depth on ground temperature in peat land environments across the Slave Province, and as such, may not provide the necessary information as identified in our previous comments for the LLCF. BHP commented that the work is part of a PhD thesis and as such may take some time to be finalized. To that end, INAC-WRD is interested in the original study design as well as any subsequent modifications. Provision of the study design will identify to INAC –WRD and other interested parties how this research will provide insight into issues associated with the functioning of the LLCF.
14	JW – 19	6.4.7. Pg 218 & 219	LLCF Reclamation Research	p. 218: Are there pilot studies for the progressive reclamation? Bullets 3 and 4 need to be better described. Bullet 5 mentions a pilot that was not discussed until now, what are they? p. 219: Figure 65. – For research column - what data collection is occurring for each bullet and what is status of each research topic (question to be deferred to Step 4)?	BHPB agrees that Pilot Studies assist in providing the information for designing for closure. Please refer to BHPB's response to Tracking # 8 for Pilot Studies. Please refer to Tracking # 8 for BHPB's response to a similar comment on bullets 3 and 4. Please refer to Tracking # 7 for additional discussion on Section 6.4.7. Please refer to Table 46 Appendix F for Research Methodology, Lessons Learned and Application of Results.	No Revision Proposed.	Resolved	The review and discussion of details for specific research and pilot studies will be conducted as part of Section 4; recommend that a distinction be made between on-going pilot studies and future pilot studies with reference (and prioritization) to the timing of closure and when the results of research and pilot studies would be available.
15	IEMA – 30	6.4.7	LLCF	The *2007 WPKMP* notes at pg. 39 that Fox pipe ores are still being investigated, and that initial results indicate that higher portions of EFPK (as a result of increased percentage of smectite) may result. Different reagents and flocculants may be required. The plan notes that investigation studies 'are at this time not adequately advanced to enable revised design or operation criteria to be established for the LLCF.' However, the *WPKMP* provides no further details on the issues being investigated, or what implications might be for operations and closure. Again, the *ICRP* is silent on this issue.	As the IEMA notes the approved 2006 WPKMP states that Fox pipe ores are still being investigated. Results at this time are not adequately advanced to enable revised design or operation criteria to be established. As soon as this information comes available it will be used to assist operations and closure planning.	No Revision Proposed	Deferred to Section 4	The ICRP needs to be revised to discuss the uncertainties surrounding Fox PK behaviour and its possible implications for closure. It should describe the studies currently underway to resolve some of these, and identify and further studies that may be required for issues not currently being addressed.
16	IEMA – 32	6.4.8	LLCF	The *ICRP* states (pg. 218) that 'no moderate or major level risks were identified for the LLCF'. IEMA, given evidence presented in other documents such as the *2007 Waste Water and PK Management Plan*, does not accept this conclusion. The long-term environmental stability of extra fine PK slurries in the LLCF is arguably the most challenging reclamation issue at the mine. The Agency recommends that BHPB present a clear research plan and rationale for this issue in	Moderate and Major risks are identified as those that have a moderate short-term effect on the natural environment but not effecting ecosystems (Moderate), or have serious medium-term environmental effects (Major) (Appendix E, Table 35). Environmental risk levels are determined by risk severity and probability, and are assessed based on controls and risk management processes already in place, or planned, to control the risk.	**Table 46 Appendix F** will be updated to include the following ongoing research study on EFPK: 1. Update to the projected volumes of EFPK. This includes findings from the Fox	Deferred to Section 4	These items deal with the EFPK issue. In Item 16 the company responds that this material is <u>not</u> a major risk to operations or closure, but this contention is not supported with any evidence. This is a surprising statement,

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				the *ICRP*.	In regards to EFPK, Option 3aM for the LLCF has identified that EFPK will likely increase with the processing of Fox kimberlite. This is expected to contribute more than the 35% by volume of the FPK currently discharged to the LLCF. The EFPK will settle on the beaches and/or settle at the base of ponds as an undulating low density mass. Permanent internal ponds in the LLCF will be established to provide water cover, limit erosion of the EFPK and provide settling. Armor rock will be placed in shoreline areas as necessary. Should an open pit be available to backfill FPK the volume of EFPK in the LLCF will also be reduced. BHPB has recognized in the WPKMP that studies will continue on the Fox pipe processed kimberlite. (The Fox Ore Trial Water Quality Assessment completed in 2006 was part of this study, and an update to this study is currently underway). The company does not agree that the addition of EFPK from Fox pipe and the stability of this material in the LLCF is a major risk to operations or closure. This material will settle in the larger Cell C and D ponds and will not be carried further into Cell E.	Ore Trial Water Quality Assessment Studies. The Reclamation Research Plan will include discussion on the application and use of the Fox Ore research for closure. 2. Research work will include bathymetric surveys of the settling ponds in the LLCF, and the application and use of the research for closure.		particularly since the issue was not identified or evaluated in the risk assessment the company described in Appendix E. EFPK is one of the main reasons why operations in the LLCF needed to be revised in 2005, and the many uncertainties associated with it have been identified in the 2007 WPKMP and other documents generated since the 1997 water licence hearings. There are serious challenges posed by this material for long-term stability, and they need to be acknowledged and addressed. The ICRP needs to include a substantive discussion of the issues, and demonstrate how they will be handled for closure planning purposes (see point 3 in the Agency's covering letter).
17	NSMA – 14	6.4.7	LLCF Water Management	Where is the information to support the claim that the mine is designed for closure? What about EFPK, and saline water?	Section 6.4.7 references the 2006 WPKMP for discussion on design for closure. As discussed in Tracking # 16 BHPB will continue to research the additions of EFPK from the Fox Pit. Saline water from the underground is also being researched. The results from the research will be used to update future ICRP's.	No Revision Proposed.	No Representatives Present	Verification Comments Received
18	IEMA – 18	6.4.4.2	LLCF Final Landscape	Reclamation plans for the ponds in the LLCF are provided in one paragraph. There is no discussion in this entire 6.4 section of the reclamation difficulties posed by extra fine processed kimberlite (EFPK), arguably the most challenging of all waste rock materials at Ekati for designing stable containment and reclamation strategies. This is a serious omission. The *2007 Waste Water and PK Management Plan* observed that a number of uncertainties (without identifying what they were) remained to be addressed (although specific research tasks were not identified and there is a need for a contingency plan) with respect to closure conditions and approaches for the LLCF. There is no indication in s. 6.4 that any outstanding closure issues with respect to the clay slurries (occupying some 35% of the space in the LLCF) remain.	Please refer to BHPB's response to Tracking # 16.	**Section 6.4.8** will be reviewed for contingency measures.	Deferred to Section 4	See explanation for Comment # 16
19	IEMA – 19	6.4.4.2	LLCF Final Landscape	The *2007 Waste Water and PK Management Plan* (but not the *ICRP*) indicates that the Cell C pond will be filled to its maximum with extra fine PK by 2014, and at that time 'most' of the EFPK will be transferred into Cell D. Despite the stated goal of attempting to avoid PK deposition in Cell D, this cell will apparently end up containing the bulk of the most problematic material to be handled at mine closure. The *ICRP* makes no reference to this issue.	Section 3.4.6 of the WPKMP: The statement "EFPK is expected to flow from Cells A and B into Cell D until approximately 2014" is a typo error and will be corrected. The statement should state that EFPK is expected to flow from Cells A and B into Cell C... Please refer to Tracking # 16 for discussion on EFPK. Note that the commitment in the WPKMP is to defer the deposition of PK into Cell D for as long as practical. The management plan does anticipate the deposition of PK into Cell D during the late stages of mining.	No Revision Proposed.	Deferred to Section 4	See explanation for Comment # 16
20	IEMA – 20	6.4.4.2	LLCF	The *ICRP* makes no mention of the option of relocating EFPK	Please refer to IEMA-19 for discussion on the final deposition of	No Revision Proposed.	Deferred to	See explanation for Comment

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
			Final Landscape	to an exhausted pit at closure. Since the *ICRP* does not discuss how the reclamation proposed for the Cell C and D ponds will handle the clay slurries (EFPK), it is assumed that the management intent is to have these sequestered below a clear water layer and behind an impermeable dyke D, now to be left as a post-closure water containing structure. Water retaining dams have long-term maintenance and inspection demands, and are not a desirable closure option if they can be avoided. Dyke D would not have to be reclaimed as a water retaining structure if the EFPK were removed. Disposal and transfer of all EFPK to an exhausted open pit is an option that should be investigated as part of BHPB's closure planning, but there is no evidence that is being done.	EFPK in Cell C, and Table 55 in the ICRP which outlines the timing of overflow from Cells A and B into C. BHPB states in Section 6.1.6 and again in 6.4.3.2 that opportunities will be assessed for re-direction of processed kimberlite to available open pits (in place of Cell D). The final decision on the open pits processed kimberlite backfill will be based on feasibility of operations and safety concerns. Research to determine the feasibility of PK backfill has been identified in Table 24 Appendix F. Backfill of processed kimberlite to open pits includes all processed kimberlite (<0.5 mm). This includes EFPK. BHPB disagrees with the suggestion that the presence of EFPK in Cell D will necessitate the closure of Dyke D as a permanent water retention structure. The current approved management plan anticipates the deposition of PK (including EFPK) into Cell D and the closure of these cells with water cover over the EFPK.		Section 4	# 16
21	IEMA – 21	6.4.4.2	LLCF Reclamation Research	The *2007 Waste Water and PK Management Plan* notes that a number of issues relating to the operation of the LLCF are not yet resolved. At pg. 23 it states that "there are numerous unknowns currently with the processing of Fox ore and with the discharge of underground saline water." At pg. 24 it states "A number of studies are currently in progress regarding these issues and once completed the studies will be forwarded to the WLWB for review." The implications of these issues for closure, quite aside from operations, are nowhere discussed.	The application of the results from EFPK will be included in the Reclamation Research Plan. Please refer to Tracking # 16 for inclusion of EFPK studies in the ICRP. With respect to studies of the Fox ore, the WPKMP is referring to the Fox Ore Trial (FOT I) that was reported to the WLWB in January 2006 and to a follow up study (FOT II) that is currently underway. These studies assess the potential effects of the processing of Fox Ore on water quality in the LLCF.	No Revision Proposed	Deferred to Section 4	See explanation for Comment # 16
22	IEMA – 8	6.4.3.2	LLCF Reclamation Research	The *ICRP* notes (pg. 204) that 'modeling of the fines settlement rates' is required before BHPB can consider pit disposal of PK as an option. There is no indication that this work is being undertaken. It is not identified as a research item in the Reclamation Research Plan.	Please refer to Table 43 Appendix F Operations 2.	No Revision Proposed.	Deferred to Section 4	See explanation for Comment # 16
23	IEMA – 31	6.4.7	LLCF Reclamation Research	There remain significant uncertainties not only about closure strategies but, indeed, the future operation of the LLCF. The *2007 WPKMP* notes that future development of the LLCF 'must anticipate the volume of EFPK that will report to ponds and provide adequate pond volume in order to ensure deposition. Studies of the long-term consolidation characteristics and investigations of the nature, behaviour, management and operation requirements for the EFPK are on-going.' No further details of the research design of these studies, or the expected timelines for completion are provided. The implications for closure are not discussed in the *WPKMP*, and the issue is not even identified in the *ICRP*. BHPB should outline the research that it intends to undertake to manage the EFPK over the long term.	Please refer to Tracking # 21 and Tracking # 16 for BHPB's response related to EFPK studies.	No Revision Proposed.	Deferred to Section 4	See explanation for Comment # 16
24	IEMA – 7	6.4.3.2	LLCF Water Management	The *ICRP* describes (pg.204) that surface water up-gradient from Cell A will be diverted into a currently dry channel where it will flow into the Cell C pond. This is indicated in Fig. 63 as the 'Cell A East channel'. The figure also indicates that PK will be deposited in this area, including a zone up-gradient of the road alignment. This needs to be better explained. How will this water get to Cell C during operations, and what will the final post-closure landscape look like (surface drainage channel through the PK established, or culvert, as described for operations, under the tailings)? Fig. 64 also does not clarify this aspect of LLCF closure. Again, larger scale maps	During operations processed kimberlite will be deposited from discharge points currently located on the Cell A Road which runs along the north side of the cell, and later from a newer road that will run approximately parallel with the current road but at a higher elevation. Water from a small upland catchment above Cells A and C will be redirected to a small natural pond and into a currently dry natural channel where it will flow into the Cell C pond after the new Cell A Road is constructed. It is expected that the volume of water from this catchment will be small given that the Cell A Road will be located relatively close to the watershed divide north of Cell A. The deposition of PK above	**Section 6.4.3.2** will be updated to include discussion on the Cell A East Channel (in particular the section upstream of the Cell A Road). **Section 6.4.4.5** will be updated to include discussion on the Cell A East Channel at closure. **Figure 63** will be corrected to	Resolved	Partially resolved with research concerns deferred to Section 4. These items deal with water management at the LLCF. The Agency again urges the company to submit the LLCF water quality modeling work as soon as possible. The research and design of the internal drainage channels has not

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				for each cell of the LLCF would greatly aid interpretation of the plans described.	the Cell A Road is an error in Figure 63. No processed kimberlite will be deposited north of the Cell A Road. All culverts will be removed at closure. Preliminary designs of the external and internal channels for the LLCF are provided in Appendix D. More detail plans of the LLCF will be provided in future updates of the ICRP.	indicate that processed kimberlite will not be deposited north of the Cell A Road.		been developed at this point and is not identified in the current research tables.
25	IEMA – 11	6.4.3.2 (pg. 204)	LLCF Water Management	Show Pelzer Pond on either Fig. 63 or 64. The *ICRP* should describe what long-term maintenance (e.g. snow and debris clearing) may be required of the water diversion channels around and through the various cells.	No long term maintenance of snow or debris clearing will be required in the diversion channels. The channels will be designed and constructed to the surrounding natural stream channels.	**Section 6.4.** The location of Pelzer Pond will be provided.	Resolved	See explanation for Comment # 24
26	IEMA – 37	6.6.2.6 (pg. 254)	LLCF Water Management	The text describes how Fox Pit water is pumped into an "established location" in Cell D but there is no description of the quantities or quality of this water.	Because this is an operations question the reader is directed to the Environmental Agreement and Water Licenses Annual Report 2006, Tables 4.3, 4.5. for the volumes of minewater pumped from Fox pit to the LLCF. Fox minewater quality is not regulated under EKATI's water licenses. However, BHPB is currently finalizing the EKATI Diamond Mine Long Lake Containment Facility Water Quality Prediction Model Version 2.0 Report. This report describes the water and chemical loading balance for the LLCF.	No Revision Proposed.	Resolved	See explanation for Comment # 24
27	INAC – 1	6.4	LLCF Water Management	As the tailings begin to freeze from the top down, the freezing front will continue to release solutes in advance of the freezing front. A progressively higher concentration of solutes will be present in the pore water. Solutes may affect surface water quality. There is also a likelihood that the pore water will build up pressure as it is forced against bedrock or pre-existing permafrost. Increased pore water pressure can lead to the movement of solute-rich pore water into surface water and the deformation of the tailings. Due to these concerns, INAC believes that more information regarding the freezing of the fine tailings and associated water should be provided. Questions that should be addressed include: • What is the freeze point depression of the pore water? • What is the concentration of solutes (at 25 cm intervals) through the profile of unfrozen/frozen tailings to the freezing front? • What is the water quality, water pressure, and depth (distance from surface) of the pore water? • There is a clear, positive correlation between the height of vegetation, snow depth and ground temperature. Taller vegetation is associated with deeper snow, and increased ground temperatures. BHPB has indicated that it intends to revegetate the tailings; however, freezing is the chosen method of tailings containment. The potential rise in ground temperature as a result of revegetation should be further investigated. These questions are critical in determining the effect the pore water will have on the water quality of small, relatively shallow ponds that are expected to exist in Cells A and C which will ultimately drain into Cell E and the receiving environment. Reclamation research related to the Long Lake Containment Facility, identified in Figure 65 (p. 219), should also focus on the thermal evolution of the processed kimberlite tailings, including pore water expulsion, pore water pressure, and the establishment of permafrost.	Information about specific freezing point depression and solutes concentration in the pore water will likely not yield useful information for predicting water quality in the LLCF post closure. As indicated by INAC, a potential exists for the solute loads to report to the free water in the LLCF. The potential effects on surface water quality is a function of the total solute loads contained in the pore water and the time it would take for the solutes to transfer to the LLCF. Processed Kimberlite is pumped to the LLCF as a slurry containing approximately 37% PK solids by weight. The settled PK contains approximately 30% pore water or 70% solids (by weight). Therefore, approximately 75% of the process water and associated solutes loads report to the LLCF free water directly during operation. The remaining 25% remain in the tailings as pore water. Porewater analysis have shown that the quality of pore water in weathered (8 to 10 year old) tailings have similar solute concentrations as the process plant discharge and that it is in chemical equilibrium with the tailings solids. Therefore, considering an extreme scenario where the entire volume of pore water contained in the PK reported to the LLCF, the solute load contained in that pore water would constitute approximately 33% of the load that have already been accepted by the LLCF. As solutes are excluded from freezing PK (and therefore concentrated) the density of surrounding unfrozen pore water will increase and the solute-rich water will tend to sink. Where the subsurface is constrained by permafrost or competent bedrock, the pore water (given favorable pressures) may migrate to surface waters. However, the migration of solute rich pore water is governed by the hydraulic conductivity and groundwater head and will typically be very slow. Therefore, the rate that solute loads would report to the LLCF from pore water post closure will be far smaller compared to the current (operational) loadings.	**Table 46. Appendix F** will be updated to include research on permafrost growth within the LLCF, and the effects on permafrost growth and maintenance from vegetation cover. **Table 46 Appendix F** will be updated to include research on permafrost development in the LLCF.	Resolved	This issue is resolved pending updated information. Refer to comment below for further explanation. The main issue is the lack of information /modeling of the LLCF in regards to the sub surface pore water and its potential to affect the water quality of the ponds within the LLCF and consequently downstream environments. Our concern is that this aspect of the LLCF hasn't been measured or modeled in any way that would enable an accurate determination of possible effects. In speaking with BHP and their consultants, they have assured us that the information that we are asking for has been collected and will be incorporated into a document that will address our concerns. However, as no timeline for this document was put forward by BHP, can BHP indicate when such a document would be available.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					Because of the complexity of the pore water migration, field sampling programs and associated modeling estimates of solute loading rates would be highly uncertain. A better approach is to monitor the rate of decrease of solutes concentration in the LLCF post closure and rely on this empirical information to predict future water quality in the facility. The effect of vegetation cover on permafrost growth and maintenance will be included as part of the pilot study research for the LLCF. Please refer also to Tracking # 13 for discussion on current research. Table 46 Appendix F. Water 1 & 2 included long term water quality issues for the LLCF (including contributions from pore water).			
28	DFO – 2	6.4.4.2	LLCF Water Management	DFO supports the recommendation from INAC that BHPB conduct profile monitoring of the LLCF to determine how fast permafrost is aggrading in the processed kimberlite, and what the quality of pore water currently is and what it is expected to be once final closure is completed.	Information about permafrost development in the LLCF would be useful in terms of estimating the time-scale of permafrost formation and for predicting water quality – in conjunction with post closure monitoring data. Please refer to BHPB's response to Tracking # 27.	**Table 46. Appendix F** will be updated to include research on permafrost growth within the LLCF, and the effects on permafrost growth and maintenance from vegetation cover.	Resolved	DFO supports the recommendation from INAC that BHPB conduct profile monitoring of the LLCF to determine how fast permafrost is aggrading in the processed kimberlite, and what the quality of pore water currently is and what it is expected to be once final closure is completed. This issue is resolved on the understanding that pore water information has been collected and will be made available as part of a comprehensive document on the LLCF.
29	EC – 1	6.4	LLCF Water Management	EC supports INAC's recommendation for further studies of pore water issues in relation to the LLCF and the permafrost regime. EC is concerned with the negative effects that this may have on surface water quality at closure.	Please refer to BHPB's response to Tracking # 27.	**Table 46. Appendix F** will be updated to include research on permafrost growth within the LLCF, and the effects on permafrost growth and maintenance from vegetation cover.	Resolved	EC understands that this issues has been resolved by way of a commitment on behalf of BHP Billiton to collect further information on pore water to help determine further steps regarding the closure of the LLCF. It is also understood that the results of this information will be provided in a subsequent document on the LLCF.
30	JW – 14	6.4.4.4. Pg 209.	LLCF Water Management	States that PK will be well-drained - Where will the infiltrated water go as permafrost develops? How was the observation of permafrost development measured - with thermostats, test pits, etc? Pointed downward to what point? p.210: Is there any idea of the extent of the 'deep water' in the ponds? FPK stratigraphy may inhibit migration of water in certain directions (ie: proximal-distal faces are prograding during	The seasonal active layer will act as a conduit for water, which will flow down-gradient either as shallow groundwater flow or report to the surface water. During freeze-up there will be minimal or no flow of shallow groundwater. The permafrost will act as a near-impermeable barrier for the shallow groundwater flow. The migration of water is unlikely to be of concern during permafrost/talik formation because of the gradual and cyclical	**Section 6.4.4.4** will be updated based on the information provided in BHPB's response.	Resolved	BHPB will clarify the duration and physical conditions for developing a 300 to 400m thick zone of permafrost.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				filling) – would this be a concern during permafrost/talik development.	nature of permafrost development. The numerous freeze/thaw cycles that would occur over hundreds of years would gradually displace water or form karsts. Water infiltrating the LLCF from the external catchment areas will ultimately be directed to the south end of the facility where it will be discharged into Leslie Lake. This process will occur while permafrost is developing and will continue once permafrost development has stabilized. Except in those areas of the LLCF where taliks are expected, permafrost is expected to develop to an approximate thickness of 300-400 m, consistent with the natural permafrost regime at EKATI. Permafrost development has been measured in the LLCF with the use of ground temperature cables in Cells B and C. Site investigations have also been completed in the facility in 2001 and 2005. Areas of ponded water at end of mine life are shown in Figure 64; however the lateral extent of unfrozen water in winter has not been determined. The conceptual drainage plan for the LLCF accommodates surface drainage from catchment areas outside the LLCF. Processed kimberlite placement is not expected to inhibit water migration. As such, no issues with respect to permafrost development are anticipated.			
31	GNWT – ENR – 2		LLCF Water Management	Table 54 contains information about the historic tonnages and volumes and predicted amount of processed kimberlite that will be placed in the LLCF. In the review of BHP's Environmental Impact Review 2006 (EIR), it was noted that other waste products are deposited here as well, including treated sewage and hydrocarbons. ENR requests that a table similar to Table 54 (containing total deposition to date and predicted deposition at the end of the mine life) be provided, detailing all other products that will be placed in the LLCF. Further to this point, ENR asked in our review of the EIR that BHPB consider alternative methods for the disposal of extractable petroleum hydrocarbons. It was projected at the time of the EIR that up to 50 000kg of hydrocarbons would be placed in the LLCF over the mine life. Could the proponent provide an update to the status of this request?	BHPB will ensure that the 2006 EIR, the WPKMP and the ICRP provide consistent information on the waste products directed to the LLCF. The management of hydrocarbons is an operational issue according to the Hydrocarbon Impacted Materials Management Plan that has been approved by the WLWB. Total petroleum hydrocarbons are regulated at the outlet of the LLCF (Station 1616-30).	No Revision Proposed.	Resolved	
32	JW – 3	6.4.1.2. Pg 197. Table 53.	LLCF Water Management	"Values given are half the lowest detection limit to provide an assumed baseline" This does not seem to be an accurate representation. Why assume elements are present? -State what was known at the time; i.e., actual MDL's.	The use of half detection limits is standard practice. Values that are below detection limits are always bolded and therefore clearly indicated. With few exceptions, the practical difference (in terms of environmental effects) between parameter concentrations at half the detection limit and zero are negligible.	No Revision Proposed.	Resolved	
33	JW – 5	6.4.2.2. Pg 200.	LLCF Water Management	-Cells- Currently D acts as pre-polisher; if results of SNP/AEMP suggest any increasing trends of analyzed constituents, would it be possible to divide D into D1 and D2 for further pre-polishing? Although all below water quality criteria, are there any increasing trends? -Dykes- How does filter work and how does its efficiency change over time? -Dam- Spillway not shown on figure?	The purpose of the filter dyke between Cell C and Cell D is to remove suspended solids (processed kimberlite) from the water that report to Cell D. Concentrations of total suspended solids in Cell D are nearly always below detection limit (< 3.0 mg/L) or just above the detection limit (5 to 7 mg/L). Therefore, constructing a second dyke across Cell D would not result in improved water quality in the LLCF. As indicated, the filter dyke works very well (judging by the TSS concentrations in Cell D).	**Figure 62** will be updated to include the location of the reclaim barge.	Resolved	BHPB will explain contingencies related to reduced performance of dyke filters.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				-Water Pumps- Reclaim Water Barge not shown on figure. -When pumping from Cell C, is the water filtered? -Drainage Channels, Diversion Channels, and Diversion Berms- A & B- Where will they be - not shown on Figure 62? - Par. 2- What is meant by "avoid depositing PK into cell D for as long as possible?	The performance of the filter may change over time as the filter medium becomes clogged. However, the water in Cell C will also rise, which will activate fresh filtering medium. Figure 63 indicates the location of the proposed Spillway Dam. Figure 63 indicates the location of the drainage channels, diversion channels, diversion berms. Water pumped from Cell C is not filtered. Section 6.4.2.2 states that "A primary objective of the operation of the LLCF is to avoid depositing processed kimberlite into Cell D for as long as practicable in order to maintain water quality in Cell D." This means there would be a large area in the lower facility to work as a polishing pond.			
34	JW – 8	6.4.2.2. Pg 203.	LLCF Water Management	Why are other metals not included?	The parameters most likely to become issues were included in the water licence. The Water Board is responsible for issuing the licence and would be able to provide a technical information in support of the water licence.	No Revision Proposed.	Resolved	
35	JW – 15	6.4.4.5. Pg 210.	LLCF Water Management	The revised operational drainage plan summarized in Sec 6.4.2 is not very clear – at least in detail. Are all the permanent streambeds constructed? Nature, need and extent of diversions is a bit confusing. What is the meaning of internal, external systems and extra flow? How will the weirs be designed (sizes, elevations) – and what is basis for design? Explain term "filters blind off". Is there evidence today of this process? What is the basis for the 450 m elevation? Why will a fish barrier be constructed at Cell E?	The LLCF drainage plan is further detailed in Section 6.4.3. All drainage channels will be constructed. Internal channels are those located inside the LLCF. External channels are located outside the LLCF. The drainage system in the LLCF has been developed to a concept level. Weir design was not completed as part of this work. Over time processed kimberlite build up behind the filter dykes will reduce the permeability of the dykes, in essence "plugging" them. This is what is meant by "blinding off". Presently, water levels in Cell B are higher than levels in Cell C. Furthermore, a culvert is required in Dyke B as an overflow from Cell B to Cell C. The head difference between the two cells is larger than what would be expected if the dyke were filtering at full capacity. This suggests some plugging of the filter dyke as was expected in the design. The design water elevation was developed in the 2000 Abandonment and Restoration Plan, when it was envisioned that the Spillway Dam would be constructed in addition to the Outlet Dam. Additional details are available in the 2000 plan and in EBA's 1995 Tailings Dams Preliminary Design Report. Please refer to Tracking # 1 for BHPB's response on the LLCF fish barrier.	**Section 6.4.4.5** will be updated based on the information provided in BHPB's response. **Section 6.4.4.5** will be updated to include the following reference. EBA Engineering Consultants Ltd., 1995. Tailings Dams Preliminary Design Report, NWT Diamonds Project. Report Submitted to BHP Diamonds Inc., December, 1995.	Resolved	BHPB will include a description or reference to lessons learned regarding dyke performance and associated changes to design contingencies.
36	JW – 16	6.4.4.6. Pg 210.	LLCF Water Management	Since reference is to section 8.6, we assume that a review of water quality issues will be handled during Step 4.	That is correct.	No Revision Proposed	Resolved	
37	NSMA – 3	6.4	PKCA Water Management	CCME guidelines for protection of aquatic life and other sensitive organisms should be added to Table 53 (pg. 197). Water licence 200312-0008 requires a description of the post-closure treatment potentially required for any water discharge that is not consistent with CCME freshwater life guidelines.	The ICRP is being developed according to the Terms of Reference approved by the WLWB. Note that the Water Licence 2003L2-0008 applies to the Sable, Pigeon and Beartooth Project.	**Table 53** will be updated to include CCME Guidelines.	No Representatives Present	Verification Comments Received
38	IEMA – 1	6.4	LLCF Wildlife	At pg. 195 it is stated that revegetated kimberlite has been demonstrated to be safe for caribou access and travel. This	Caribou access and travel through the LLCF, including those areas at the north end of Cell B where revegetation has occurred	**Section 6.4** will be updated to include references to the	Unresolved and Deferred to	BHPB's response notes that caribou use of the LLCF 'has

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				conclusion is premature. Revegetated kimberlite may be safe for caribou 'access and travel', but there are no data or studies presented to support this. During the period that the trial revegetation plots were monitored, they were fenced and inaccessible to caribou. Moreover, vegetation growing on kimberlite has not yet been shown to be safe as caribou food. Consideration should also be given to the safety of revegetated areas for waterfowl and for the quality of remaining water. BHPB has undertaken to revise the toxicity work be redone to properly determine whether metal uptake by revegetated species will or will not be a concern for grazers.	through natural colonization from the tundra (mostly since 2005 to present day) has been documented for the past number of years. Please also refer to BHPB response in Tracking # 39.	WEMP monitoring and results for caribou use of the LLCF.	Section 4	been documented for the past number of years.' Although caribou may have crossed through the dry portions of cell B, no details are provided about possible crossings through the EFPK or interface zones. The ICRP needs to be revised to include a summary or brief discussion of the documented information collected, not simply provide a reference to source documents. The reclamation research plan should specifically deal with cover design and safety (human and wildlife) considerations.
39	IEMA – 13	6.4.4.2	LLCF Wildlife	The *ICRP* does not indicate whether the LLCF closure plan is at the 'prefeasibility' stage. If so, closure measures should be demonstrably viable. BHPB should explain why large areas of the LLCF are being proposed for revegetation when the metal uptake potential from kimberlite into plants has not been properly characterized and shown to be a non-issue.	BHP Billiton is conducting a risk assessment of metals uptake by caribou grazing on the LLCF and by humans consuming caribou and goose that graze on the LLCF. Initial results from this research are provided in Table 46 Appendix F, Wildlife 2. Because the land use scenario under which this wildlife risk assessment was based does not exist at this time, re-evaluating the conservative assumptions may not increase the certainty in the risk assessment. Therefore, Billiton will wait until a larger area of the LLCF is revegetated (e.g. Pilot study), and caribou have access to vegetation, before moving forward with a Tier 2 risk assessment. With a larger area of revegetation there will be an increase in the certainty of the assumptions which are the drivers of the potential risks predicted.	No Revision Proposed.	Unresolved and Deferred to Section 4	The ICRP needs to be revised to include a discussion of the work being undertaken, results to date, 6 implications for closure, etc. Again, the delay in initiating the risk assessment until an area of the LLCF is revegetated is not, in our view, acceptable (see point 1 in the Agency's covering letter).
40	IEMA – 24	6.4.4.2	LLCF Wildlife	BHPB points out that one concern for the LLCF is its potential use as a salt (mineral) lick by caribou (other species may also be attracted). A vegetation cover is proposed to stabilize the surface of the central zone. It also appears that several ponds will remain once the closure of the LLCF is completed (pg. 208). BHPB should address whether the water or shores of these ponds, or the vegetated central zones, will act as mineral licks for caribou, and whether ingestion of the water or adjacent soils pose a threat to caribou.	Research results from vegetation studies on the LLCF indicate that a vegetation cover reduces the transportation of salts to the surface of the PK. Plants growing on PK draw water (including saline water) to the root zone, and increased evapo-transpiration by the plants reduces direct evaporation from the soil and therefore less salts are drawn to the surface of the soil. With a vegetation cover these salts would remain within the soil, at the root zone, and unavailable to grazers. Water discharged from the LLCF currently meets the Water License discharge criteria. Water quality monitoring will continue during operations. The water will be safe for wildlife for closure of the LLCF.	No Revision Proposed.	Unresolved and Deferred to Section 4	The ICRP needs to include a discussion of the information presented in the response. There remains a concern about the direct ingestion of soils by ungulates, regardless of the vegetation cover. This should be discussed. This may be addressed through a properly designed research program but there are no details in the current summary tables.
41	IEMA – 25	6.4.4.3	LLCF Wildlife	It is proposed to use native-grass cultivars for revegetating the central and water interface zones of the LLCF. It is not stated whether these will be food for caribou. It is not described whether these will uptake any of the potential contaminants in the underlying PK. The wildlife closure objective for the LLCF is 'safety' which assumes that wildlife will move into and use the area. There are important questions relating to risk to animals from being trapped in the ponds or eating contaminated soils and vegetation that have not been addressed. The Agency has not yet taken a position as to whether the LLCF at closure should either attract or detract wildlife because of the outstanding research and the need for further community consultation. If it turned out to be important to deter wildlife as a result of predicted risk, then the proposed cover strategy for the central and water	BHPB agrees that the vegetation cover for the LLCF should not pose a major risk for wildlife using the area at closure. For discussion on the risk assessment for metals uptake please refer to Tracking # 39. For BHPB's response to pond water see Tracking # 40. BHPB involved regulatory agencies, the IEMA and communities on closure options discussions in 2006 with the update of this ICRP. Refer to Appendix B for Community Consultation Summary. Further discussion on closure options will take place with future updates of the ICRP.	No Revision Proposed.	Unresolved and Deferred to Section 4	This is an issue which should be addressed now, not in the next revision of the ICRP in 2013 or so. Again, the timing of the toxicity study proposed is problematic, since this would not even get started by the time of the next iteration of the ICRP according to BHPB's proposed schedule. The Agency does not share BHPB's view that there were adequate opportunities for collaborative evaluation of closure options evaluation but

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				interface zones ought to be re-evaluated. We suggest that there should be some discussion of the available options and a clear research strategy to obtain the information needed to make more informed decisions.				encourages the company to carry out further consultations.
42	IEMA – 26	6.4.4.3	LLCF Wildlife	The *ICRP* states (in s. 8.6.1, pg. 298) that 'beach areas will be capped with waste rock to limit wildlife access to the facility'. This objective seems inconsistent with the objective of making access to the facility 'safe'. It also seems inconsistent with the plan to revegetate with native plant species, possibly edible by native wildlife, which would encourage animals to use the facility. BHPB should design its research so as to best determine how to close the LLCF in a safe manner that does not adversely affect wildlife and people.	The statement that 'beach areas will be capped with waste rock to limit wildlife access to the facility' is incorrect and will be corrected. Beach areas (or Upper Zones) will be capped because 'this area will be difficult to vegetate due to the good drainage of the coarser sand FPK and will be susceptible to water erosion' (Section 6.4.4.2). Rather than the area constructed to limit wildlife access it will be constructed to be safe for wildlife access. For discussion on the risk assessment for metals uptake please refer to Tracking # 39.	**Section 8.6.1** will be corrected to be consistent with Section 6.4.4.2.	Unresolved and Deferred to Section 4	See Comments under Tracking #38
43	IEMA – 51	Table 24. Wildlife 1 (a)	LLCF Wildlife	'No surface hazards observed' is not an appropriate criterion. The beach areas and the pond represent potential hazards for wildlife and will always be 'observed'.	BHPB believes that this is an appropriate criterion. The LLCF will be designed to ensure wildlife safety at closure – which includes the removal or mitigation of surface hazards. In addition wildlife safety, mortalities and incidents will be monitored as part of the WEMP at closure (Table 52 Appendix G Wildlife 1) to ensure there are no hazards for wildlife.	No Revision Proposed.	Unresolved and Deferred to Section 4	For these tracking items, and others relating to BHPB's proposed reclamation criteria, the Agency is not satisfied with the use of non-measurable criteria such as 'no identified risk' or 'no surface hazards observed'. While we appreciate the responses from BHPB that in some cases further define some of the criteria, there was a general approach of not committing to change the ICRP to include these revisions. BHPB should simply add the explanations provided to the ICRP. Where BHPB cannot specify clear measurable criteria, there needs to be linkages to the reclamation research plan to show how such criteria will be developed.
44	IEMA – 52	Table 24. Wildlife 1 (b)	LLCF Wildlife	'No identified risk' is not a criterion. Criteria could be 'only plant species that have demonstrated no metal uptake and no attraction to herbivores will be applied' and 'post-closure monitoring demonstrates non-use of vegetation by wildlife'	BHPB disagrees with the proposed criterion that only plant species with no metal uptake, and no attraction to herbivores is used. All plants absorb metals – the level of accumulation differs. As well grazers may be attracted to plants which pose no harm from ingestion or bioaccumulation. BHPB proposes that the current criteria remain in place.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
45	NSMA – 1	6.4	LLCF Wildlife	NSMA is not aware of any studies which prove that revegetated kimberlite is "safe" for all wildlife, including caribou, waterfowl, rabbits, and ptarmigan. The water which will inevitably pond, and the vegetation which will inevitably grow, needs to be shown to be safe for at least a reasonable cross section of species to ingest. The definition of "safety" is not just a very low risk of traumatic accidents, but should also include freedom from chronic and sub-lethal negative effects. The studies needed to answer these questions should be well underway. In the 1995 EIS, BHP committed to covering the beach and slurry with a layer of waste rock, and coarse tailings, trucked from the plant.	BHPB agrees that the LLCF should be reclaimed to a level that is a low risk to people and wildlife. For BHPB's response on metals uptake risk assessment please refer to Tracking # 39, and to Tracking # 40 for pond water. The proposed vegetative cover was the result of consultation conducted through the development of this ICRP. Please refer to Appendix B.	No Revision Proposed.	No Representatives Present	Verification Comments Received
46	NSMA – 9	6.4.4.2	LLCF Wildlife	Where are the studies to investigate the risks in case the LLCF is used as a salt (mineral) lick by wildlife, either by	Please refer to BHPB's response to Tracking # 40 for discussion on salt uptake by wildlife using the LLCF.	No Revision Proposed.	No Representatives	Verification Comments Received

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				ingesting salty water, soil, or vegetation? How is Traditional Knowledge incorporated?	Table 24 Appendix C includes the following Closure Objective: "Community land use expectations and Traditional Knowledge have been considered in the closure planning." The company will continue to look for opportunities for TK incorporation into closure planning for the LLCF.		Present	
47	GNWT – ENR – 1	6.4.4.3	LLCF Wildlife	BHPB proposes a combination rock and vegetation cover of the Long Lake Containment Facility (LLCF) rather than an engineered cap. Currently, revegetation trials demonstrate that many native grasses will colonize and persist in the fine grained tailings of the LLCF. Grasses provide forage for many herbivores and may attract wildlife to the site potentially exposing them to elevated metals and other constituents present in the processed kimberlite. While the bioaccumulation of these constituents may not be an issue due to low exposure times, attracting wildlife to a site that has many hazards (i.e. waste rock piles, pit lakes, etc.) is not desirable. ENR recommends that the site (post closure) should provide a neutral landscape; neither attracting not deterring wildlife and designed to be as hazard free as possible. In this regard, ENR staff request that BHP Billiton continue research in this area specifically focusing on: A comparison between a rock/vegetative cover vs. and engineered cap in the following areas: 1. Comparison of the risk associated with exposure to metals and other constituents of the processed kimberlite by herbivores as opposed to no exposure due to capping of the LLCF. (This should consider those elements omitted from the Wildlife LLCF Risk Assessment March 2004 such as: barium, selenium and magnesium) 2. Those plant species least palatable to herbivores and those least likely to bioaccumulate metals and other elements that may be toxic or in toxic quantities 3. Risk of attraction of wildlife and subsequent exposure to onsite hazards post closure 4. Timeframe over which stability and security of containment is achieved and how well it withstands over time (i.e. vegetation takes time to establish and therefore containment is not immediate) 5. Dust generation	1. BHPB believes that the results from a risk assessment (Tier 1 and possibly Tier 2) of metals uptake in vegetation should be used to determine the feasibility of the current proposed reclamation plan for the LLCF, since a partial or full rock cap should have no significant difference to wildlife safety on the facility. Please refer to Tracking # 39 for BHPB's response to the risk assessment for metals uptake at the LLCF. The EKATI Diamond Mine Tier 1 Risk Assessment for Metals has included the assessment of barium, selenium and magnesium. 2. The above noted Tier 1 Risk Assessment was based on the conservative assumption that the LLCF will provide adequate vegetation for caribou dietary requirements (i.e., all vegetation on the LLCF is palatable and preferred). This assumption was made because the company has not been able to disseminate the preferred plants used by grazers. A study on this, to assist a Tier 2 Risk Assessment, would be more feasible with a larger area of vegetation, outside a fenced enclosure, and would be included as part of the future proposed Pilot Study. 3. As part of the ICRP development BHPB met and discussed with the communities concerns regarding human and wildlife safety when the EKATI mine site closes. The 2 most important concerns BHPB heard from the communities was wildlife safety and water quality. To reduce the risk of injury to wildlife BHPB has proposed flooding open pits rather than reclaiming by natural fill. Flooding pits considerably reduces the exposure time of wildlife to large open pits. BHPB also heard from communities concerns about wildlife access and egress from WRSA. To reduce the risk of wildlife injury while accessing the WRSA's BHPB has included wildlife access/egress ramps on all WRSA's at the mine site. Closure Objectives and Criteria for water quality are in place to ensure that water quality is maintained through and after mine closure. 4. A Pilot Study proposed by BHPB will be used to determine how well a rock and vegetation cover on the LLCF will help stabilize the facility. 5. Dust generation from the LLCF during operations has not been identified as a significant concern since the continuous revolving of discharge from spigots around the facility will not enable the drying out of beach areas, and hence the availability of fines for wind transport. Dust generation during the reclamation period will be reduced since most of the rock cap hauling will take place over winter months when the facility is more safely accessible. Monitoring of fugitive dust has been included as part of the Closure Objectives and Criteria for the LLCF (Table 24 Appendix F) as a proactive approach in case some hauling is conducted in the summer months.	No Revision Proposed.	Resolved	BHPB is committed to undertake future risk assessments to determine potential risks to caribou foraging on re-vegetated tailings in the LLCF. BHPB will determine the effectiveness of a rock cover versus a vegetated cover (or a combination thereof) (in terms of risks to caribou and other herbivores) based on the risk assessment. A pilot study will [be done by BHPB to] determine the effectiveness of the proposed rock and vegetation cover in stabilizing the contents of the LLCF. BHPB will undertake monitoring of fugitive dust (and an adaptive management plan for dust) is included in Closure Objectives and Criteria for the LLCF.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
48	IEMA – 42	Air 1	LLCF Final Landscape	BHPB should explain (in the *ICRP* text) why fugitive dust levels are expected to be a concern for the post-closure period. Is fugitive dust a concern now? If not, is it likely to be after the LLCF is reclaimed and covered with rock and/or vegetation? IEMA's principal concern with fugitive dust has less to do with ambient air quality than it does with habitat contamination for wildlife, especially contamination of lichens foraged by caribou. If fugitive dust from the LLCF is going to be a concern at closure, then closure objectives and criteria should be focused on ground contamination, not ambient air quality conditions. This comment applies also to Tables 25 and 26.	Please refer to Tracking # 47 for BHPB's response on monitoring of fugitive dust on the LLCF.	No Revision Proposed.	Resolved	Resolved partially. BHPB needs to provide further details on fugitive dust monitoring and develop clear criteria for adaptive management.
49	IEMA – 43	Table 24. Air 1	LLCF Final Landscape	The PKCA Research Summary (Table 46, Appendix F) indicates no research for fugitive dust, implying that there are no further information needs with respect to fugitive dust. The fact that objectives and criteria have been provided, and a monitoring program indicated, suggests that there is, or is expected by BHPB to be, an issue. The *ICRP* should predict whether or not there is an issue expected with respect to fugitive dust from the LLCF, and support this with data.	Please refer to Tracking # 47 for BHPB's response on monitoring of fugitive dust on the LLCF. BHPB has included fugitive dust monitoring as a proactive approach. However, at this time the company does not anticipate that fugitive dust will be an issue for closure or that the level of dust generation during closure is significant enough to establish a research study.	No Revision Proposed.	Resolved	Resolved partially. BHPB needs to provide further details on fugitive dust monitoring and develop clear criteria for adaptive management.
50	IEMA – 49	Table 24. Land 6	LLCF Final Landscape	BHPB's 2007 *Wastewater & Processed Kimberlite Management Plan* notes that fine PK weathers when exposed to air, and that particle size reduces over time, which has two implications for revegetation—first, that moisture retention capacity is increased; and, second, reduced resistance to wind and water erosion. The first observation indicates that revegetating the upper zone of LLCF may be more feasible as weathering progresses. The second indicates that windblown transport of fine particulate matter could increase with time as weathering of the LLCF surface progresses. This observation should be tied to the research item noted above with respect to fugitive dust from the LLCF following mine closure.	BHPB agrees that the weathering of processed kimberlite may affect long term water quality and sustainability of vegetation cover, and has included this research in Table 24 Appendix F, Land 4. If the results from this research indicate a high risk of fugitive dust generation in the long term then the company will look at ways to minimize and control fugitive dust in the facility.	No Revision Proposed.	Unresolved and Deferred to Section 4	Information provided in the response should be included in the ICRP. The updated research program description should include details of the proposed PK weathering study.
51	NSMA – 5	6.4.2.2. Figure 63.	LLCF Final Landscape	It is unclear what the East dam and spillway dam are for?	The East Dam and Spillway Dam are required to provide containment in Cell D, if processed kimberlite deposition occurs in this cell.	**Section 6.4.2.2** will be updated to provide the reasoning behind the proposed East Dam and Spillway Dam.	No Representative Present	Verification Received
52	NSMA – 8	6.4.4.1	LLCF Final Landscape	Where is the information on reclamation of the extra fine PK, and the saline mine water? Will every cell of the LLCF be safe for people and wildlife? Will the ponds have dark coloured saline water that magnifies the effects of climate change? How deep will the water be? Will permafrost be affected?	Studies focused on reclamation of saline ground water are currently ongoing. Permafrost and talik formation is a function of lake area and depth. Simple models can be used to estimate the future extent of talik/permafrost based on the final dimensions of the flooded part of the Cell. Please refer to Tracking # 27 for BHPB's response on permafrost.	No Revision Proposed.	No Representative Present	Verification Received
53	NSMA – 10	6.4.4.3	LLCF Final Landscape	There needs to be significant efforts to consult Aboriginal People and incorporate TK before adopting this closure objective, and there needs to be much more detail provided. BHP has committed to return affective areas to a state where negative effects on the use of the land is minimised, considering aesthetics, economics, ecosystem productivity, and use. (Environmental Agreement). Also, in the 1995 EIS, BHP committed to re-establish pre-existing productive conditions of land.	Please refer to Appendix B – Community Consultation Summary, for an outline of BHPB's consultation with communities during the development of the 2007 Draft ICRP.	No Revision Proposed.	No Representative Present	Verification Received
54	GNWT – ENR – 3		LLCF Final Landscape	One of the objectives in having an interim closure plan should be to provide sufficient detail to allow for an independent agency to carry out closure activities, if required. To this end,	The objective of the Interim Closure Plan is to provide a conceptual level of detail for reclamation, except for those areas where reclamation will be initiated or completed prior to the	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				could the proponent provide further information in the ICRP on how drainage of the PK occurs, the timing of this process – specifically the criteria for determining when the cover materials should be placed on top to ensure the cover does not sink in to the processed kimberlite slurry? A discussion of the expected performance of the covering during extreme climatic events such as freshet should also be included.	submission of the following updated Closure Plan. As noted in Table 59 closure activities for the LLCF start in 2013. The detail requested by ENR will be provided in future updates of the Closure Plan, and will be based on results from the research studies. In addition the purpose of the Reclamation Research Plan is to identify and answer questions on how the facility will be closed. Questions on drainage channels construction and operation, as well as placement of cover materials on the PK have been identified and included in Table 46. Appendix F. Operations 1 and 2.			
55	JW – 4	6.4.2.1. Pg 199.	LLCF Final Landscape	- What is the meaning of "occasional remedial work"? -"Lake bottom sediment and rock" are comprised of what constituents and what concentrations? -Are there analyses of the treated sewage effluent and other constituents in the pond? - Figure 62. – Is there a map/plan of this facility with dimensions and annotations?	Occasional remedial work means upgrades to the facility. These include construction of a toe berm in 1994, the division of the pond into north and south ponds in 1995, and the installation of a liner in the south pond in 1997. The exact proportional amounts of lake bottom sediments and rock placed in the north pond are unknown at this time. The lake bottom sediments came from Panda lake. When this material was removed from Panda waste rock was used to access the lake sediments (to provide ground support for excavation). This meant that the lake sediments stockpiled at the Panda Lake Sediment Pile are a mixture of not only glacial till and lake sediment but also waste rock. The north pond is also capped with waste rock. Discharge water from Phase 1 was analyzed from 1999 to 2003. A record of the water analysis will be provided.	**Section 6.4.2.1** will be updated to include a reference for lake sediment concentrations. Section 6.4.2.1 will be updated to say "This remediation work included....." at the beginning of the 2nd sentence in the first paragraph. **Section 6.4.2.1**. will be updated to include: a) A record of Phase 1 discharge water quality analysis. b) A plan of the facility.	Resolved	
56	JW – 11	6.4.3.2. Pg 206. Fig 63.	LLCF Final Landscape	Show future and current watershed boundaries. Show in stages, i.e.: pre and post cell D filling? Use 2006 photo?	The watershed boundaries for the LLCF will not change.	**Section 6.4.3.2** will include a diagram of the LLCF drainage basin area.	Resolved	
57	JW – 12	6.4.4.1. Pg 207.	LLCF Final Landscape	-What are elemental concentrations of facilities constituents? When will revised engineering plans be completed? LLCF: -Will there be any need to re-grade surfaces of Cells to enhance drainage (prevent or encourage ponding)? -Re-vegetation is proposed for mid-slope section, what about upper section? p. 208: Upper Zone- 100% rock (1.0 meter thick) What will be minimum size of cover – will it be crushed and sorted prior to placement? Graded during placement? What are anticipated surface gradients? Central Zone- How will the waste rock be selected? What is meant by irregular pattern and how achieved? What is the objective? Are band widths sufficient to minimize wind erosion? From Table 56, the rock cover footprint area is assumed to be 30% of the total (or 700,000 of 3,000,000 m^3), but based on band width only 10-20% (i.e., 10/50 to 10/100). Water Interface Zone- What is 50m zone width based on - height difference of seasonal water fluctuations – if so, how determined? It is not clear at 'final condition' that there will be stability from wind and water erosion – what is expected re-vegetation rate? Ponds- Is the final water surface area at max, min or mean (how much variation is expected)? How will overflow structures be designed to preclude the need to conduct maintenance to keep pond heights within expected ranges?	An exact date for completion of revised engineered plans is unknown at this time. BHPB is working toward completion of plans by early spring 2008. There is no intention of surface re-grading. Ponding from runoff from the PK discharge will occur at the lower end of Cells B and C. Smaller and intermittent pond areas (from snow accumulation) may occur in the Central Zone where there will be a combination of rock and vegetation cover. Discussion on the cover type for the Upper Zone is provided in Section 6.4.4.2 (top of page 208). This will be a 100% rock cover. The cover material for the LLCF Upper, Central and Water Interface Zones will be designed so that the following conditions are met: • Long term stabilization of processed kimberlite • Safety for people and wildlife. The ICRP provides a conceptual design for waste rock capping of the LLCF. The Pilot Study proposed in 2013 will be used to assist the operational questions of access, placement and rock size. These questions have been identified in Table 46 Appendix F Operations 1 and 2. Width of zones has been determined by visual observations and	**Section 6.4.2.1** will include a reference for elemental concentrations in the Phase 1 pond. **Section 6.4.4.2** will be updated to provide reasoning for rock cover dimensions. Please refer to Tracking # 8 for Pilot Study addition in Section 6.4.7.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				p. 209: Table 56. –What is the basis for determined design thicknesses?	results from vegetation studies. This includes water interface zones and pond level fluctuations. The horizontal placement of rock cannot be determined exactly at this time, since PK discharge is ongoing and pond dimensions are continuously changing. Refinement of area of rock cover will be included in future ICRP updates. Revegetation research on PK have indicated that a grass cover can be established within 1 year of planting, and maintenance applications of fertilizer will be required in the 1st ten years to establish a self-sustaining plant cover. Please reference Harvey Martens reports 2000-2005. Weirs will be constructed in dykes to maintain pond surface levels. As discussed in Section 6.4.4.5 weirs and or culverts will allow spring freshet runoff to move through the cells. The final design and location of weirs and culverts will be determined as the facility nears final closure. Please refer to JW-18 for ICRP update on pond level monitoring for weir construction. The design thickness for Upper Zone and Water Interface Zones is to provide a cover to protect against wind/water erosion. Design thickness for the Central Zone is arbitrarily based on designing the surface so that it will assist with snow capture and protecting and sustaining plant cover.			
58	JW – 13	6.4.4.3. Pg 209.	LLCF Final Landscape	In the first 10 years to establish a self-sustaining plant cover. How much of the first ten years will be conducted in the absence of fertilizers and enhancements? Are the expectations of the effects of random rock placement based on any experiences? What is the expected timeframe to achieve the goals described in second paragraph? What monitoring and maintenance will be required?	Section 6.4.4.3 states that an initial fertilizer application will be required, followed by several maintenance applications. The exact number of applications is unknown at this time, however, based on LLCF revegetation research at the Cell B plots, it is anticipated that fertilizer in the first 10 years will be applied at the time of the initial seeding followed by maintenance applications at the beginning of the third and eighth growing season. Actual timing of maintenance fertilization will be determined by the vigor and abundance of live plant cover. Expectations of the effects of random rock placement are based upon scientific literature, results of the rock pile shelter study established in Cell B in 2002 (which provided valuable lessons regarding design and placement) and observations of plant colonization in sheltered areas (e.g., adjacent to large boulders) on progressive reclamation sites at the Ekati minesite. Plant colonization: The expected timeframe of plant colonization is somewhat of an unknown because of the lack of experience in revegetation of processed kimberlite in a low tundra environment. However, monitoring of the Cell B revegetation research plots indicates that natural colonization of species commonly found in the native plant community is already occurring. Numerous dwarf birch seedlings were found establishing under the protective grass mulch cover in the eighth growing season following initial revegetation. Assuming colonization will continue at similar pace to that observed on other disturbed surfaces in the area, succession to a mature plant cover should be well underway after approximately 2 decades. The establishment of this secondary plant cover is likely to occur more quickly within the mid- and lower-slope positions of the LLCF where soil moisture is more readily available. Vegetation monitoring has been included in Tables 52 and 58.	**Section 6.4.4.3** will be reviewed and updated as appropriate, from BHPB's responses.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					Maintenance will be outlined in future updates of the ICRP.			
59	IEMA – 22	6.4.4.2	LLCF Reclamation Research	While the *ICRP* does not discuss the issue, the *2007 Waste Water and PK Management Plan* raises the issue of the depth of water cover required to immobilize the EFPK at closure. The *WPKMP* states (pg. 30) that 'water covers (shallow lakes) would serve to prevent erosion' and then, on pg. 32, that 'EFPK will be stabilized by utilizing a deep water cover.'(*emphasis added)* It would appear that one of the research needs is to determine the depth of water that would be required to contain the EFPK under expected surface conditions over the long-term. It is a critical issue for closure planning, and yet is not identified in the *ICRP,* the LLCF Research Study Plan (Fig. 65), or the Reclamation Research Summary (Table 46). Some consideration will be required of the potential for permafrost degradation and the effects of solar radiation.	IEMA's comment was raised during the WPKMP review. The response provided by BHPB was: The approach to operation of the LLCF is established, and this includes establishing water cover over the EFPK. EKATI has 10-years of operating experience that demonstrates that there have been no negative effects on operation of the facility related to the EFPK. The approach of establishing water cover over EFPK was an outcome of the 2004/05 Five-Year Review of the LLCF and is an integral part of the approved WPKMP. BHPB will continue monitoring water covers to verify that the depth of water cover is appropriate. If in the future changes to water depth are required, then these will be included in the WPKMP.	No Revision Proposed.	Unresolved and Deferred to Section 4	The ICRP should be revised to include a discussion of available data about the effectiveness of the clear water layer at securing the EFPK slurries, and how thick the layer needs to be to prevent slurry mobilization. More importantly, it should demonstrate how the required clear water thickness will be maintained in the post-closure condition based on the research and monitoring that company had done and intends to continue. The issue of what extreme conditions the LLCF could withstand and maintain the EFPK inside the LLCF is an important matter.
60	IEMA – 23	6.4.4.2 (pg. 207 paragraph 3)	LLCF Reclamation Research	This research should be described, and it should be explained if further research is required to make conclusive findings.	A summary of the research is provided in Table 46 Appendix F, Land 2 and 3. A reference has been included for Harvey Marten's 2004 report which provides the reader more detailed information on the vegetation studies. Further research has been identified in Table 46 Appendix F Land 2 and 3 (ie. Pilot Study).	No Revision Proposed.	Unresolved and Deferred to Section 4	These items relate generally to scheduling and content of research activities, and our comments made above under 'Reclamation Research' are relevant here (see the first point in the Agency's covering letter).
61	IEMA – 81	Table 46, Appendix F General Comment	PKCA Reclamation Research	General Comment about Table 46: Details about how and when the identified reclamation tasks in Table 46 are to be undertaken are notably missing—in almost all cases additional substantive information about how the research is to be done and how it fits into the reclamation plan is required. Additionally, there are a number of items included in this table which are properly 'planning' tasks rather than 'research' tasks (*example given by IEMA through phone conversation with Tony Pearce was Wildlife 1*), and could be deleted here. Planning tasks should be described in the *ICRP* text. Additional information should, one expects, be obtained through reclamation research, which should be described in the ICRP. A decision tree may be a helpful way to set out the timing and relationship of various planning and research tasks.	In Section 2 Review BHPB agreed that clear linkages would be identified between the timing of progressive reclamation activities and associated research needs. These linkages would be provided through the use of a schedule that shows the proposed activity and the timing of research which answers how the reclamation work will be completed. BHPB has proposed a conceptual design for rock cover on the LLCF at closure (Section 6.4.4.2). Further research has been identified to determine how the cover will be constructed to ensure safety for humans and wildlife use (Table 46 Appendix F Wildlife 1). (Egs might include size of rock material, final surface features, rock band widths, dimensions of rock islands). An opportunity for this research will be possible with the Pilot Study discussed in Tracking # 8.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
62	IEMA – 82	Table 46, Appx F Land 1	PKCA Reclamation Research	Item 1 proposes a 'pilot test' to be carried out when 'a portion of the LLCF is available' in order to determine how waste rock is going to be placed on the wet zone of the impoundment. 'Constructability' of waste rock covers was identified as an unresolved issue during the LLCF operational review. This table, and the Reclamation Research Plan, are purely conceptual—the details of how, where and **when** this pilot test is going to be conducted needs to be provided. This closure strategy is not yet at the 'pre-feasibility' stage of planning.	Please refer to Tracking # 8 for discussion on Pilot Study.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
63	IEMA – 83	Table 46. Appx F. Land 2	PKCA Reclamation Research	Item 2 assumes that revegetation of the impoundment is an acceptable strategy, even though it is not clear whether wildlife (i.e., grazers) ought to be encouraged or discouraged from using the impoundment. Toxicity issues related to metal uptake in the various plant species identified has not been satisfactorily resolved. Safe use of the wet zone by large animals is not demonstrated. BHPB should provide the necessary information and analysis to demonstrate that use of the wet zone is a preferred alternative to a rock cover.	Please refer to Tracking # 40 for discussion on metals risk assessment related to vegetation research. BHPB has listed the 4 zones of the LLCF at closure as the Upper Zone, Central Zone, Water Interface Zone and Ponds. (Section 6.4.4.2). The moisture conditions, and the cover type have been described for each. The Water Interface Zone has been designed so that the rock cover (intermixed with vegetation between the rock spaces) will have a stable surface for wildlife as well as withstanding wave action. The Central zone will provide sufficient soil moisture for vegetation establishment (and results from research indicate that vegetation is likely to be sustainable – refer to Harvey Martens Report 2004). Soil moisture conditions in the Central Zone are not expected to be hazardous to wildlife travel.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
64	IEMA – 84	Table 46. Appx F. Land 2	PKCA Reclamation Research	Item 2 also notes that 'results will be applied to a pilot study', although it is not clear what results are being referred to, and what the pilot study is intended to do, or how it will be carried out. The research plan should also indicate when the study needs to be completed, and when a portion of the LLCF will become available to conduct the study.	Please refer to Tracking # 8 for discussion on Pilot Study.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
65	IEMA – 85	Table 46. Appx F. Land 3	PKCA Reclamation Research	Item 3 indicates that the methods to be used for revegetating the central and wet zones of the LLCF are still unresolved. It notes that the wetter slopes 'appear' to be well-suited to revegetation, although no data are provided. How this can be done is unknown. This item notes only that the next step of the research will be 'a larger pilot study at the LLCF'. No further details are provided, and should be.	A summary of Lessons Learned has been provided in Table 46 Appendix F Land 3, and the reviewer has been referred the appropriate studies for additional discussion, and data.	**Table 46 Appendix F.** BHPB will review Land 3 and ensure that the appropriate information on revegetation of the Central Zone is provided.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
66	IEMA – 86	Table 46. Appx F. Land 3	PKCA Reclamation Research	Item 3 notes that 'progressive reclamation will be important early in the LLCF closure process to determine long-term sustainability of vegetation cover. This is inconsistent with a vaguely defined future pilot study in the LLCF. Timelines for all research activities need to be provided as part of the plan.	BHPB has committed to progressive reclamation at EKATI. As identified in the WPKMP PK discharge will be varied "to achieve maximum deposition from the extremities of the cells during the summer discharges, to allow the maximum period of beach thaw before covering the remainder of the beach. This will result in filling of the western end of the Cell A and northern end of Cell B early; and thereby providing opportunities for progressive reclamation." (Section 3.4.6 WPKMP, 2007)	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
67	IEMA – 87	Table 46. Appx F. Land 4	PKCA Reclamation Research	Item 4 reveals that uncertainties about the long-term stability of kimberlite as a physical and chemical substrate for revegetation remain. It is therefore not yet demonstrated that revegetation can be successfully applied to the LLCF. A detailed research plan needs to be identified. The implications of kimberlite weathering for dust and deposition on vegetation is not mentioned.	Further reclamation research on revegetation and kimberlite weathering have been identified in Table 46 Appendix F Land 2 and 4.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
68	IEMA – 88	Table 46. Appx F. Land 4	PKCA Reclamation Research	Item 4 states that the results of the as-yet undefined weathering study 'will determine types of vegetation best suited for planting'. Rather than just the types of vegetation, another key output of this research surely will be to demonstrate that kimberlite substrate will (or will not) be physically and chemically stable in the long-term.	BHPB agrees that the study on PK weathering should include possible changes to trafficability. The research on chemical changes to PK due to weathering has been included under downstream water quality.	**Table 46 Appendix F Land 3** will be updated to include research on trafficability due to PK weathering.	Resolved	Pending further information that addresses research on trafficability PK weathering
69	IEMA – 89	Table 46. Appx F. Land 5	PKCA Reclamation Research	Item 5 proposes a pilot study to determine the palatability and grazing resistance of various plant species to wildlife. Again, it is not clear whether we should be encouraging wildlife to graze on revegetated zones of the LLCF. The objective regarding wildlife use should be clarified before this pilot study is established. As with preceding comments, the proposed pilot study is completely undefined and needs to be accompanied with details as to how, when, and where the	Please refer to Tracking # 8 for discussion on Pilot Study.	No Revision Proposed.	Unresolved and Deferred to Section 4	These items relate generally to scheduling and content of research activities, and our comments made above under 'Reclamation Research' are relevant here (see the first point in the Agency's covering letter).

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				research will be conducted.				
70	IEMA – 90	Table 46. Appx F. Water 1	PKCA Reclamation Research	Long-term water quality in LLCF has yet to be predicted. Item 1 does not specify when this work will be completed. Water quality predictions should be presented in the revised plan, and any mitigation measures potentially required should be identified.	Water quality modeling studies and remediation plans are currently underway. These studies will be completed in 2008.	**Table 46 Appendix F Water 1** will be updated to state when the study will be completed.	Resolved	
71	IEMA – 91	Table 46. Appx F. Water 2	PKCA Reclamation Research	Item 2 states that pore water expulsion from deposited PK will be monitored, but no details of the monitoring program are provided. If areas of porewater expulsion are detected in LLCF, how will these affect the reclamation activity?	The method for monitoring pore water expulsion will be a combination of field monitoring and water quality modeling. The LLCF water quality model can be used, along with surface water quality data, to estimate the total loads of solutes that reports to the LLCF from PK pore water. Estimates of parameter loads that report from pore water to the surface water in the LLCF can be obtained by adjusting assumed pore water loads while fitting the results of the water quality model to observed concentrations in the LLCF post closure. As mentioned in Tracking # 28 monitoring of permafrost formation would be useful. See Tracking # 27 and 71 for discussions regarding the effect of pore water on surface water quality.	**Table 52 Appendix G Water 2** will be reviewed to ensure water quality monitoring encompasses pore water expulsion.	Unresolved and Deferred to Section 4	See Comments from Tracking #61
72	IEMA – 92	Table 46. Appx F. Wildlife 1	PKCA Reclamation Research	Item 1 proposes a pilot test for a portion of the LLCF 'when it is available,' the results then being used for progressive reclamation. Timelines for this study should be specified.	Please refer to Tracking # 8 for discussion on Pilot Study.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #61
73	IEMA – 93	Table 46. Appx F. Wildlife 2	PKCA Reclamation Research	Item 2 proposes to delay further toxicological risk assessment 'until a larger area of the LLCF is revegetated (pilot study), and caribou have access to vegetation, before moving forward with a Tier 2 risk assessment.' No timelines are specified, and need to be. The Agency disagrees with postponing the risk assessment. The task posited by BHPB ('re-evaluating the conservative assumptions') does not capture the range of the work required to properly redo the ecological risk assessment. This work needs to be done before some of the other research specified (e.g. see Land 2, 3 and 4)	The principle uncertainties identified in the toxicological risk assessment (actual extent of vegetation, caribou access, extent of feeding, etc.) would limit the reliability of the conclusions of a Tier 2 risk assessment.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #61
74	IEMA – 95	Table 46. Appx F. Operations 1	PKCA Reclamation Research	Item 1 proposes a pilot test 'when a portion of the LLCF is available for research', the results of which will then be used for progressive reclamation. There is no indication when a portion of the LLCF might become available. Operational plans for the facility indicate that Cells A and B are to be filled in alternating sequence using all spigots. It is reasonable to assume that no portion of the LLCF will become available until near the end of the operational life of the LLCF. Thus, BHPB will be implementing a number of pilot studies to investigate effective closure strategies at that same time that reclamation needs to be implemented. This scenario is not proper reclamation planning. BHPB needs to find a way of investigating these research tasks now, not at some undefined point in the future.	Please refer to Tracking # 8 for discussion on Pilot Study, and to IEMA-86 on progressive reclamation of the LLCF.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #61
75	IEMA – 96	Table 46, Appx F. Operations 2	PKCA Reclamation Research	Item 2 proposes 'early design and testing' of drainage channels to 'assist' BHP in constructing effective internal drainage channels. The uncertainty here is not identified, and therefore the inclusion of this item in the research plan is not clear. Is there any aspect of the design of these channels which at this point is uncertain? If so, what research needs to be undertaken to address the uncertainty? The implications of sloughing, ice and debris blockage needs to be considered.	The drainage channels have been developed at concept level. At this point there is no uncertainty with respect to the design concept. However, the eventual design and construction of these channels will require field observation to evaluate their effectiveness and identify areas where design adjustments may be warranted to improve long-term sustainability. Sloughing, blockage and overall stability will be considered in the design of these channels.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #61
76	INAC – 4	6.4.7	LLCF Operations	Page 218 refers to the rotation of processed kimberlite discharge spigots to reduce the incorporation of ice lenses	Section 6.4.3.2 (pg. 204) indicates that the discharge line along Cell B will be installed with "valves allowing discharge to be	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				and further maximize the holding capacity of the upper cells. INAC understands that the spigots are not rotated in the winter; however, it is during the winter that the majority of ice lenses form due to extreme weather conditions. How will BHPB minimize the formation of ice lenses in winter?	directed from any spigot simply by opening or closing the appropriate valves". Furthermore, this section indicates that processed kimberlite placed during winter will not be placed thicker than the anticipated active layer, thus allowing any ice lenses which develop over winter to thaw. Deposition in Cell A and Cell B is currently following this methodology which does involve cycling spigot locations in winter.			
77	JW – 2	6.4.1.2. Pg 196. Table 52.	LLCF Operations	How was Max. Depth and Mean Depth surveyed? (with respect to total volume available to fill) -How was the Average Discharge determined? (how has this changed during operations and what will it be at closure?)	The physical characteristics of Long Lake and the methodology used to determine them are documented in the 1995 EIS. Discharge during operation has been controlled by pumping over the Outlet Dam and as such, has been periodic. At closure, Outlet Dam will be breached and regular flow to Leslie Lake restored. The catchment area reporting to the Long Lake discharge will be similar to the pre-construction catchment; however, the lake surface area will be reduced from the original area. This may contribute to a reduction in evaporation losses in the Long Lake catchment area and a slight increase in the annual discharge when compared to pre-construction values.	**Section 6.4.1.2 and Table 52** will be reviewed and updated to ensure consistency with the 1995 EIS.	Resolved	BHPB will ensure consistencies with 1995 EIS and note any revisions and improvements to initial studies.
78	JW – 6	6.4.2.2. Pg 201. Table 54.	LLCF Operations	Update data through current conditions. From figure appears like there's much more capacity still left in Cell C – how was 79.8% determined? Also, data would be more instructive if filling volumes were shown by year and not just cumulative totals?	The data used to calculate these volumes was current at the time of report preparation. The volume associated with this percentage represents a struck level volume with Dyke C at an elevation of 454 m (elevation at time of report preparation). This processed kimberlite profile is consistent with the original deposition plan. Option 3aM includes placing processed kimberlite above the design pond elevation which will increase the available storage in Cell C.	**Section 6.4.2.2 and Table 54** will be reviewed to ensure information provided on filling capacity.	Resolved	
79	JW – 7	6.4.2.2. Pg 202. Fig 62.	LLCF Operations	Why no Dyke A?, How are cells A and C separated?	There is no physical separation between Cells A and C. The 1995 EIS identified a dyke separating the two cells but this was later eliminated by BHPB from the processed kimberlite management plan when it was observed that the flocculation of the processed kimberlite had positive results in settling fines.		Resolved	
80	JW – 10	6.4.3.2. Pg 203.	LLCF Operations	-How can the MAA have been completed in 2004 and incorporate LLCF performance in 2005? -DFO not in attendance during options development? -"Aim of this option is to delay placement of FPK into Cell D" - okay, but why at all? What is the meaning of Accounts Analysis? p. 204: -Not sure what is meant by "will be discharged to maximum height of expected active layer? -As lake volume decreases, its capacity to dilute and polish will also decrease – would it advantageous to allow tundra runoff into LLCF, rather than divert along east side of B and C? What are drainage basin boundaries for these diversions? Not clear how water will be routed during all stages of development through closure. -Pelzer Pond location not shown.	DFO was in attendance through the LLCF review. Section 6.4.3.2 states that Regulators attended the LLCF review meetings. Section 6.4.3.2 states that "The aim of this option (3aM) is to delay the placement of FPK into Cell D for as long as possible to maintain water quality downstream". Further discussion on how water quality is maintained through this option is provided in the following paragraphs in this section. The Multiple Accounts Analysis (MAA) decision framework that was used in the LLCF 5-Year Review consultation process is one of a number of similar decision-focused consultation methods. These methods are often called Structured Decision Processes and are based on the field of decision analysis. An MAA is a framework for alternatives evaluation. It provides a forum in which stakeholders can express their concerns and communicate and defend their assessments of the positive and negative impacts of a specific alternative and subsequently compare that, or any, alternative against others. The general objective of an MAA is to provide the means by which evaluators can select the most suitable, or advantageous, alternative from a list of alternatives by weighing the relative benefits and costs of each.	**Section 6.4.3.2** will be updated to the following: A 5 year review of the performance of the LLCF was undertaken by BHPB in 2004 and 2005. Results from the review were incorporated into the optimized operation and development plans for the LLCF. The review included an evaluation of alternative plans for optimizing the system through a Multiple Accounts Analysis (MAA). **Section 6.4.3.2** will include a reference for MAA definition. **Section 6.4.3.2** will be updated to explain meaning of 'maximum height of expected active layer'.	Resolved	BHPB to provide reference for Multiple Accounts Analysis with respect to LLCF 5-year review.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					The Ekati LLCF 5-Year Review Process was the first time a mining company in Canada had used such a process to involve its stakeholders in a decision process regarding its mining activities. Sedimentation ponds have been designed into the final landscape of the LLCF to work as polishing and settling ponds for EFPK. Tundra drainage will be diverted from the facility to reduce overland flow over PK which has the potential for erosion and transport of fines into ponds and lower watershed. Water management and flow for the LLCF has been described in Section 6.4.3.2, and 6.4.4.5 and provided in Figure 63. Please refer to Tracking # 56 for watershed area, and Tracking # 25 for Pelzer Pond.			
81	IEMA – 41	Table 24, Appendix C – Closure Objectives and Criteria	PKCA	BHPB should determine whether special criteria, measures, research and monitoring may be required for each of the PKCAs and related infrastructure. Contingency measures should also be described.	At this time BHPB does not see an advantage for creating separate objectives and criteria tables for the two PKCAs. BHPB has noted and will review contingency measures (Please refer to Tracking # 18).	No Revision Proposed.	Resolved	
82	IEMA – 44	Table 24. Land 1	PKCA Closure Objectives & Criteria	"No significant slumping" in item 1 is not a specific criterion—how do we know when the threshold of 'significance' has been crossed? This criterion needs refinement.	The degree of significant slumping or erosion that may take place on the surface of the LLCF at closure is unknown at this time, but is not expected to be catastrophic. This however is something which will be researched to assist with future predictions and refined criteria (Refer to Table 46 Appendix F Land 1 for identified research). The conceptual measurement of 'significant' in the closure criteria at this time is based on the definition of significant meaning 'something that merits attention, or deviates from what we might expect to occur'. Significant in engineering standards and related to the LLCF would be any major slumping or integral failure of the LLCF final surface, drainage channels, and breach locations. Significant surface erosion would be any erosion that results in sediment transport exceeding water discharge criteria. Significant PK surface subsidence would be any settlement that negatively impacts surface drainage through the area or causes unintentional ponding of water. This may in turn lead to further permafrost degradation and PK subsidence. However significant in the view of communities might mean wildlife death. Significant from a health and safety point of view would mean fatality to a human (This is measured with the BHPB Health, Safety, Environment and Community risk assessment). Until a more appropriate level of significance is agreed upon BHP Billiton has used significant as an interim criteria measure.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
83	IEMA – 45	Table 24. Land 3	PKCA Closure Objectives & Criteria	As above for item 1. 'No significant' slumping or erosion for item 3 is not a usable criterion.	Please refer to Tracking # 82 for BHPB's response to this comment.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
84	IEMA – 46	Table 24. Land 4	PKCA Closure Objectives & Criteria	BHPB should reference the GNWT's Environmental Guideline for the Remediation of Contaminated Sites.	As outlined in Tracking # 33 of the Section 2 Review - BHPB agrees that the GNWT-ENR Environmental Guideline for Contaminated Site Remediation 2003 is a useful reference for remediation of contaminated sites at EKATI. This is a territorial guideline, the federal equivalent is called the "Canadian Soil Quality Guidelines for Protection of Environment & Human Health" by the CCME (Canadian Council of Ministers of the Environment) http://www.ccme.ca/publications/cegg_rcge.html?category_id=124 Either of these guidelines can be used.	The NWT Environmental Guideline for Contaminated Site Remediation, 2003 (GNWT-ENR), and the Canadian Soil Quality Guidelines for Protection of Environmental and Human Health by the CCME, will be included in the Reference List.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
85	IEMA – 47	Table 24. Land 5	PKCA Closure Objectives & Criteria	The objective is to avoid unpredicted or undesirable consequences through the use of indigenous species. A record of species used for revegetation is not a closure criterion; it belongs in the Actions/Measurements column. The measure of success is whether the revegetation efforts result in a self-sustaining cover that is not detrimental to wildlife.	BHPB has made the commitment to use indigenous vegetation for reclamation, and regards this as a measurable objective. However if reviewers agree that indigenous vegetation is not an objective it will be removed and more appropriately covered under wildlife safety.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
86	IEMA – 48	Table 24. Land 6	PKCA Closure Objectives & Criteria	Specific target for % cover needs to be identified or else a reclamation research program to determine this should be described.	The type of, location and percentage cover on the LLCF will be refined through future research (Please refer to Appendix F, Table 46, Land 2 & 3). Please also refer to Section 6.4.4.3 LLCF Vegetation for discussion on revegetation of Water Interface and Central Zones.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
87	IEMA – 50	Table 24. Water 2	PKCA Closure Objectives & Criteria	Specific criteria which related to environmental safety (e.g., CCME guidelines for aquatic life) will need to be proposed for all water bodies that become part of the receiving environment at closure. These will need to be incorporated into the closure water licence.	Agreed that specific criteria will be proposed for the closure water license.	No Revision Proposed.	Unresolved and Deferred to Section 4	BHPB should not wait until the final closure water licence to propose specific water quality criteria. This should be the subject of ongoing reclamation research and Pit Lakes Studies but there should be target dates set for the development of these criteria.
88	IEMA – 54	Table 24. Health & Safety 1	PKCA Closure Objectives & Criteria	The beach areas and ponds of the PKCA will remain hazards under the current reclamation plan—therefore 'no surface hazards' is not a usable criterion. It is not evident that the specified objective is achievable.	BHPB does not agree that there will be remaining hazards on the surface of the LLCF in the proposed reclamation plan, and the company would not intentionally submit a closure plan that did not address or remove these hazards. However the company does agree that the closure criteria for Health & Safety can be determined on a risk basis.	Table 24 Health & Safety 1 will be changed to Surface hazards are negligible as outlined in the EWRM Rating Table (Table 35, Appendix E).	Unresolved and Deferred to Section 4	See Comments under Tracking #43
89	IEMA – 55	Table 24. Health & Safety 3	PKCA Closure Objectives & Criteria	The criterion 'does not significantly compromise' is not usable as a criterion. 'Routine monitoring' is proposed to verify this, but what (and how) will be monitored? What will the thresholds be for taking action?	In the context of BHPB's Health, Safety, Environment and Community Reporting Manual significant is measured as 'Single fatality and/or severe irreversible disability or impairment (>30%) to one or more persons.'	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
90	IEMA – 56	Table 24. Community 1	PKCA Closure Objectives & Criteria	No criterion is specified in the table to measure community engagement. BHPB should specify measurable criteria.	The criteria in place for the incorporation of TK are at the conceptual level. The purpose of the objective and criteria for community is to measure engagement, and will be refined with future updates of the ICRP.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
91	IEMA – 57	Table 24. Community 2	PKCA Closure Objectives & Criteria	Should be removed from this table—not relevant to LLCF closure	Transition plans are integral to mine closure and are relevant to all aspects of closure.	No Revision Proposed.	Resolved	
92	IEMA – 58	Table 24. Operations	PKCA Closure Objectives & Criteria	Should be removed from this table—these are internal BHPB issues.	As previously discussed the ICRP will be used by communities, regulatory and BHP Billiton for closure scheduling and planning. Operations objectives are key components of this plan and will remain in the ICRP. BHP Billiton does not agree with the existence of multiple closure plans for one minesite.	No Revision Proposed.	Resolved	
93	INAC – 2	Table 57	PKCA Closure Objectives & Criteria	The criterion listed in the original table (p. 215), indicates that the goal is for permafrost to aggrade into the processed kimberlite. Although INAC believes that this single criterion is inadequate on its own, the revised table makes no reference to permafrost or any criteria for ensuring permafrost has successfully aggraded. Additionally, there is a need to consider pore water development and its constituents, due to its potential impact on surface water quality as outlined in our previous comment.	As mentioned in Tracking # 28 monitoring of permafrost formation would be useful. See Tracking # 27 and 71 for discussions regarding the effect of pore water on surface water quality.	No Revision Proposed.	Resolved	See Comments under Tracking #27
94	JW – 17	6.4.5 Pg 212. Table 57	PKCA Closure Objectives and Criteria	p. 212: How long will routine monitoring last? p. 213: Physical Stability: AIR - how does the air criteria incorporate gusts or wind entrainment of LLCF fines with only annual and	Table 57 on Page 212 has been updated. The updated Tables for PKCA Closure Objectives and Criteria, and Closure Monitoring (which includes monitoring schedule) was submitted to the WLWB Oct 19, 2007.	Closure Criteria associated with Engineered structures will be updated to state: Remaining operational engineered structures are	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				24 hour concentrations? LAND – how will “no significant wind or water erosion” be measured or defined? Would appear that objective and quantifiable criteria are necessary to avoid subjectivity or ambiguity. This concept is applicable for all closure criteria. Chemical Stability Criteria Water- does water management structures mean “reclaimed” dams, dykes and diversions? p. 214: Biological Stability- How is functional defined? Establish quantitative criteria and Landuse - how is suitable for land use determined? p.215: Physical Stability- What happens if greater than 1:100 occurs and inflicts “damage” during monitoring period? Establish objective quantifiable criteria for stability of structures. Biological Stability- How will self sustaining be demonstrated?	TSP concentrations have been monitored consistently through high volume samplers since startup of mining operations. The Air Monitoring Program is reviewed on a regular basis and should there be a change in fugitive dust monitoring methods these will be incorporated into the ICRP Closure Criteria. Please refer to Tracking # 82 for BHPB’s response to questions on the use of significant, and to Table 52 Appendix G Land 3 for Monitoring of slope/surface stability. 1:100 - The standard of design for engineered structures will be reviewed through the Dams Safety Guidelines, and risk assessment prior to reclamation of the mine component (or construction in the case of the Panda Spillway).	signed off by a professional engineer, and constructed to standards as applied to the Canadian Dam Association Guidelines and/or as determined by risk assessment.		
95	IEMA – 108	Table 52. Appx G. Air 1	PKCA Closure Monitoring	Monitoring TSP is not useful; monitoring should comprise dust fall-out on vegetation. Exceedances of standards are not an ideal threshold as there should be some early warning through analysis of increases through trends.	Please refer to Tracking # 47 for discussion on dust monitoring. An Adaptive Management Plan would be necessary at closure. This plan will include triggers and thresholds for exceedences. BHPB has provided an interim and conceptual measure for response thresholds until an Adaptive Management plan is in place that provides a standardized method for measuring triggers and thresholds. BHPB has developed a Watershed Adaptive Management Plan as per the MV2003L2-0013 Water License requirement, and submitted it to the WLWB in November 2007. Once this plan is approved the ICRP will be updated to include an Adaptive Management Plan for closure which builds on the operations plan.	No Revision Proposed.	Resolved	
96	IEMA – 109	Table 52. Appx G. Air 1	PKCA Closure Monitoring	Will the two air quality stations (Grizzly Lake and Cell B) be adequate to measure fugitive dust from all of the cells?	Please refer to Tracking # 47 for discussion on dust monitoring.	No Revision Proposed.	Resolved	
97	IEMA – 110	Table 52. Appx G. Land 1	PKCA Closure Monitoring	‘Evidence of significant channel movement and/or potential interbench failure, or channel bank slumping’ is not a threshold. Threshold should be discrete and measurable. Specified locations (channel banks, dyke weirs, outlet dam channels) are not components of the PKCA. Locations in the PKCA to be monitored should be illustrated on a map of suitable scale.	Please refer to Tracking # 82 for BHPB’s response to questions on the use of significant, and to Table 52 Appendix G Land 3 for Monitoring of slope/surface stability. Please refer to Tracking # 95 for BHPB’s response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
98	IEMA – 111	Table 52. Appx G. Land 2	PKCA Closure Monitoring	The identified response threshold not appropriate. Threshold should be the target % vegetation cover criterion, below which management action should be taken until target is achieved.	BHPB does not agree that an increasing trend toward loss of vegetation cover is not an appropriate threshold. Measured trends which indicate a decline or negative change from a desired point should be used to trigger an adaptive management response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
99	IEMA – 112	Table 52. Appx G. Water 2	PKCA Closure Monitoring	Response threshold of ‘increasing trends’ will need further definition. Water licence criteria in the closure water licence should provide for protection of aquatic life. Monitoring locations should be in all ponded water in the PKCA, not just at the outlet.	Please refer to Tracking # 95 for BHPB’s response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G. Monitoring locations for the PKCA will be determined in the Final Closure Plan for these mine components.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
100	IEMA – 113	Table 52. Appx G. Wildlife 1	PKCA Closure Monitoring	The stated parameters for wildlife monitoring seem ambitious and beyond the scope of concern for the PKCA. Monitoring for wildlife safety should be much more focused, and with more detail provided. The stated response threshold is not usable.	As discussed in the Section 2 Review (Tracking # 252) BHPB proposes to replace the individual mine component wildlife monitoring as outlined in the Closure Objectives and Criteria Table 21 (Wildlife 1), with a WEMP program similar to the one currently used for operations. As discussed in Appendix G Section 7.1 this program is currently operationally based and there are regular review and updates to the program. The	Wildlife 1 will be removed from Table 21, in Appendix C. This would be replaced by an overall Closure WEMP. Appendix G Section 7.1 will be updated to discuss the Closure WEMP. Appendix G, Table	Resolved	While the Agency appreciates the commitment by BHPB to continue wildlife monitoring after closure through a special WEMP, specific triggers or thresholds for adaptive management need

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					program is also expected to be adapted to suit the changing requirements during closure. The WEMP is based on a series of monitoring objectives and scientific studies which were designed, with community input, to determine whether or not mine activities have an impact on wildlife and/or wildlife habitat (with primary focus on VECs). More information on the WEMP can be obtained from annual WEMP reports. The Closure WEMP would commence in 2020, at the completion of mining operations, continue through the period of most intense closure activity (decommissioning), and continue for 10 years to 2030. This plan, similar to the present program, would monitor wildlife in the claim block, and would have specific focus in areas of concentrated infrastructure and closure activities. Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	52, Wildlife 1 will remain the same, but Table 58 in the same Appendix, will have the monitoring WEMP monitoring expanded to 10 years.		to be identified.
101	IEMA – 114	Table 52. Appx G. Monitoring Frequency	PKCA Closure Monitoring	Monitoring for 5 years post-reclamation, as proposed, for these components seems questionable. Surface stability issues for the PKCA will necessarily be a long-term concern. Revegetation monitoring necessarily must be sufficient to determine long-term sustainability. **The key principle for all post-closure monitoring is that monitoring should continue for a period sufficient to demonstrate that the closure criteria have been achieved and are sustainable.**	Monitoring periods (as discussed in Appendix G, Section 7.2) of 5 and 10 years have been based on reasonable and currently used time periods that are sufficient in duration to detect any trends or changes in monitoring parameters. If it is determined that the monitoring periods should be shortened or extended changes to the monitoring schedules can be made in future updates of the Closure Plan.	No Revision Proposed.	Partially Resolved and Deferred to Section 4	At the working group meeting, we understood that BHPB would change its post-closure monitoring program duration to state that the completion of monitoring would be based on achievement of the closure criteria over a reasonable period of time to ensure sustainability.
102	JW – 20	6.4.10. Pg 220.	PKCA Closure Monitoring	p.220: Suggest re-wording to indicate that the proposed 10-year post-closure monitoring be modified – duration reduced or increased (for specific aspects) to reflect trends and results. p. 221: Table 60- Response triggers need to be as objective and quantifiable as possible.	Agree	**Section 6.4.10** will be modified to state A 10 year post closure monitoring program is summarized in Table 60, and details of the monitoring program are included in Appendix G. The period of monitoring may be modified by duration (reduced or increased) dependent on reflected trends and results.	Resolved	
103	IEMA – 2	6.4	LLCF Formatting	The illustrations throughout (for example Fig. 59 on pg. 195) are generally at too small a scale to be useful—these should all be at better resolution in the final *ICRP* document. Image enhancement to emphasize delineation of vegetation cover and rock would also be helpful. Image orientation is confusing in some cases—north arrows should be provided, bar scales should be used and photos should be dated (see Fig. 66 for how this can be done). Instead of simply providing a circle to indicate location of mine component, the dotted outline of the component footprint could be illustrated (e.g., Fig. 59). Drainage connection between lakes (e.g., Fig. 60) should be highlighted to clearly depict directions of water flow.	Noted.	All figures in Section 6.4 will be review for formatting and information provided.	Resolved	
104	IEMA – 3	6.4	LLCF Formatting	A third column in Table 53 (pg. 197) showing CCME guidelines for protection of aquatic life would be very helpful to readers to understand the baseline relative to environmental protection concentrations.	Please also refer to Tracking # 37 for BHPB's response on additional column in Table 53.	**Table 53** will be updated to include CCME Guidelines.	Resolved	
105	IEMA – 6	6.4.2.2 (PG. 201)	LLCF Formatting	Table 54 should contain some information about the processed kimberlite fractions (i.e. FPK, EFPK, water). Future deposition into the LLCF could be added to this table so the reader can see how the LLCF will fill up by the end of mine life (Table 55, pg. 204 can then be deleted). This will	Agree	**Table 55** will be removed and replaced by additional information in **Table 54** of the breakdown of expected PK fractions and water, when this	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				provide the reader with some sense of the remaining challenges and opportunities.		information is available.		
106	IEMA – 15	6.4.4.2 Figure 64.	LLCF Formatting	Fig. 64 is too small a scale to provide a good indication of the post-closure landscape on the LLCF. A larger map is recommended for the revised plan. The central zone landscape pattern could be better depicted on a larger scale map.	Figure 64 has been provided as a conceptual closure plan for the LLCF, depicting the 4 zones (Upper, Central, Water Interface and Ponds). More detail and larger scale will be provided in future updates of the ICRP to better depict landscape patterns.	No Revision Proposed.	Resolved	
107	IEMA – 16	6.4.4.2	LLCF Formatting	The referenced transects for Fig. 64 are not depicted on this figure, although they are depicted on Fig. 13 in Appendix D.	Noted.	**Figure 64 in Section 6.4** will be updated to include Transects A and B.	Resolved	
108	NSMA – 2	6.4	PKCA Formatting	Before and after aerial photography or high resolution satellite imagery should be used, and should include overlaid outlines, north arrows, scale bars, and descriptive legends. The images should clearly illustrate the boundaries of vegetation, rock, water (including direction of flow) and mine component footprints.	Noted.	All figures in Section 6.4 will be review for formatting and information provided.	No Representatives Present	Verification Comments Received
109	IEMA – 4	6.4.2.1	Phase 1 Formatting	Fig. 61 depicts the airstrip adjacent to Leslie Lake—this cannot be correct. Again, a direction arrow would help orientate the reader.	Noted.	**Figure 61** will be corrected to Little Lake.	Resolved	
110	IEMA – 5	6.4.2.1	Phase 1 Containment Facility	Use of this facility stopped in 2002. No data are provided for chemical characterization of Phase 1 tailings pond—mineralogy of solids, weathering characteristics, pore water quality, sediment characteristics, etc. This information should be provided and evaluated to ensure that closure is properly planned, and, especially, for any lessons that might be useful for reclamation of the LLCF.	This information will be included in the final closure plan for the Phase 1.	**Section 6.4.4.1** will be updated to state that a separate document will be provided for the final closure plan for the LLCF, for approval by the WLWB. This document will be an addendum of the next update of the ICRP.	Resolved	
111	IEMA – 12	6.4.4.1	Phase 1	The *ICRP* notes that, although a 'preliminary plan' for reclamation was prepared in 2005, a 'revised engineered construction plan and project budget is expected to be developed in 2007. Closure work is expected to start in 2008.' Will the ICRP contain final closure options for this facility or will there be a separate process and document? Reclamation and closure of Phase 1 facility should not commence until a proper plan which characterizes the material to be reclaimed, and demonstrates viable closure measures, has been submitted to the WLWB for approval. The information presented in the *ICRP* is inadequate for this purpose.	Noted.	**Section 6.4.4.1** will be updated to state that a separate document will be provided for the final closure plan for the LLCF, for approval by the WLWB. This document will be an addendum of the next update of the ICRP.	Resolved	
112	NSMA – 6	6.4.4.1	Phase 1 Containment Facility	If closure of this mine component is scheduled for 2008, there should be much more information included in this plan.	Noted.	**Section 6.4.4.1** will be updated to state that a separate document will be provided for the final closure plan for the LLCF, for approval by the WLWB. This document will be an addendum of the next update of the ICRP.	No Representatives Present	Verification Comments Received
113	NSMA – 7	6.4.4.1	Phase 1 Containment Facility	Where is the research that confirms these plans are feasible and effective?	Please refer to IEMA-12 for final closure of the Phase 1.	No Revision Proposed.	No Representatives Present	Verification Comments Received
114	INAC – 3	Table 58	Phase 1 Containment Facility	BHPB indicates that closure of Phase 1 Pond is scheduled for 2008 and will include post closure activity monitoring. Will ground temperature profiles be part of the monitoring program to determine the effect of the coarse rock cover on the ground temperatures? Will this monitoring extend into the pore water and will pore water monitoring occur?	Once the final closure plan for the Phase 1 Pond is in place BHPB will assess the need to thermistors and/or monitoring points for pore water.	No Revision Proposed.	Resolved	
115	JW – 1	6.4.1.1. Pg 195. Fig	Phase 1 Containment	Pre-disturbance conditions are shown, but not existing - where is the facility?	An image of the present facility is provided in Figure 61.	No Revision Proposed.	Resolved	BHPB will produce a plan map with scaled dimensions

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		59.	Facility					of Phase 1 facility.
116	JW – 9	6.4.3.1. Pg 203.	Phase 1 Containment Facility	When will facility be reclaimed?	Please refer to Section 6.4.4.1 on reclamation of the facility. A revised engineered construction plan and project budget is expected to be developed in 2007. Closure work is expected to start in 2008. Please also refer to IEMA-12 for approval of the final closure plan.	No Revision Proposed.	Resolved	
117	NSMA – 4	6.4.2.1	Phase 1 Reclamation Research	What research and monitoring is being done on this mine component, and how is the information being used to inform the closure plan?	Water quality monitoring for the Phase 1 was conducted from 1994 until 2003 while the facility was in operation. As stated in Section 6.4.4.1 a revised engineered construction plan and project budget is expected to be developed in 2007. Closure work is expected to start in 2008.	No Revision Proposed.	No Representatives Present	Verification Comments Received
118	IEMA – 9	6.4.3.2	Open Pits	The same paragraph (pg. 204) also identifies other factors (safety, infrastructure development, accessibility, scheduling) that need to be considered before a decision on pit disposal of PK can be made. IEMA has consistently highlighted the importance of using pits for PK disposal to avoid deposition into Cell D if it can be done safely, and BHPB states a similar goal here. However, the *ICRP* needs to go beyond stating a preference and present a timeline which illustrates when the issues identified will be resolved, such that a decision to consider pit disposal can be made. Any further research required to resolve uncertainties should also be described and incorporated into the Reclamation Research Plan.	At the time of the 2007 ICRP development BHPB had noted in Section 6.1.6 that Beartooth and Panda Pits were candidates for processed kimberlite backfill. However the strategy, infrastructure, accessibility and scheduling requirements will need to be resolved, along with the fines settlement rates before BHPB can move forward with this closure option. BHPB has identified research for PK backfill in Table 43 Appendix F (Open Pits) which include: water quality and operations. As discussed timing of open pit availability will be dependent on mining operations and Life of Mine scheduling.	No Revision Proposed.	Resolved	
Dams, Dykes and Channels								
119	JW – 55	4.2.5 Appx D.	Dams, Dykes and Channels Panda Diversion Dam	Can low heads be assured or is spillway only means of maintaining low head?	Low heads cannot be assured, particularly during freshet, when the Panda Diversion Channel may be partially or totally blocked. The spillway is therefore required.	No Revision Proposed	Resolved	
120	IEMA – 34	6.5.4.1 (pg. 234)	Dams, Dykes and Channels Panda Diversion Dam	What are the long-term plans for this structure and what are the consequences of failure?	The Panda Diversion Dam will remain in place as discussed in Section 4.2 and Appendix D. Construction of an emergency spillway on the west side of the dam will maintain a low head against the dam and protect it from being overtopped.	No Revision Proposed	Resolved	
121	JW – 53	4.2. Appx D	Dams, Dykes and Channels PDC	How has the "functioning well as fish habitat" been determined?	Noted.	**Section 4.2 Appendix D** will be updated to include reference to Panda Diversion Channel Annual Reports.	Resolved	BHPB will also reference relevant DFO authorization.
122	JW – 54	4.2.1 Appx D.	Dams, Dykes and Channels PDC	By eliminating any practical means – is channel reconstruction/re-alignment not a possibility? When Panda Pit is full, what happens to contingency to spill to the Panda Pit? Will a flow reversal occur at any time? What will be expected long-term stability of a concrete weir in a non-maintained environment? Success of concept of spillway seems tenuous. Spillway blockage by snow/ice seems just as possible – how has this been considered? Are there any negatives (e.g., to habitat development) if channel is not flushed – or will this occur as soon as ice/snow are gone?	The natural topography downstream of the diversion channel origin rises significantly. Any alternate channel alignment would require significant cut, similar to the existing channel. Furthermore, the channel contains several habitat enhancements that would preclude its relocation. Once full, Panda Pit will drain into Koala Pit and follow the pre-construction drainage path. See Section 6.1.4 and Appendix D for further details. Concrete was selected as a preliminary material for weir construction. Further evaluation is required to assess its long-term sustainability. Alternate materials or blasting a rock ledge will be considered to construct the weir. Snow accumulation in the spillway was considered during concept development. To reduce snow buildup flattened side slopes (6H:1V) have been provided for the spillway. Experience	No Revision Proposed	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					at EKATI indicates slopes at this angle discourage snow accumulation. There are no negatives associated with spring freshet flows being diverted around the spillway as opposed to the Panda Diversion Channel.			
123	IEMA – 35	6.5.4.3 (pg. 235)	Settling Facilities	The ICRP does not provide details on how Two Rock Lake be reclaimed (e.g. rock cover, revegetation) or where the sediments from King Pond will go. Such details should be provided now.	Noted. It is unknown at this time whether or not sediments will be removed from the King Pond Settling Facility. Should they be removed a future location will be determined in consultation with DFO. One proposed location would be the bottom of Misery Open Pit. Please also refer to Tracking # 130 for discussion on King Pond Settling Facility Closure.	**Section 6.5.4.3** will be reviewed to ensure inclusion of final closure for Two Rock Sedimentation Pond.	Resolved	
124	INAC – 6	6.5.3.3	Dams, Dykes and Channels Water Management	What are the contingencies should the water quality at the Two Rock Settling Facility not meet discharge criteria to the receiving environment?	Contingencies would depend on which parameter was found to exceed the discharge criteria. In-situ treatment would be possible for ammonia and nitrate. Exceedence of chloride is very unlikely since the Sable Pit would be developed entirely within the confinement of permafrost. Control of suspended solids by means of a filter dyke across Two Rock Pond would effectively control metals concentrations. The ultimate contingency would be to treat water at the outflow of Two Rock pond (outflow is pumped and therefore controlled).	No Revision Proposed.	Resolved	
125	JW – 22	6.5.1.4. Pg 227.	Dams, Dykes and Channels Water Management	What is the frequency of water level monitoring for Grizzly Lake? Will the outflow not allow levels higher than 468.1m? What is the volume of water used as a % of the total lake volume?	This question is related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to the question can be provided to the reviewer outside of the ICRP Working Group Review.	No Revision Proposed.	Resolved	Although BHBP asserts that a large database exists (from operations, water license compliance and on-going studies) it is not clear whether site-specific data has been or will be collected for various areas and/or facilities that will be adequate to support the development of closure criteria or specific design features. Recommend that during the Section 4 review, BHBP provide references to or a compilation of pertinent data that will be used as the basis for supporting the closure and/or design of specific facilities. In this way, data gaps can be identified as a part of the development of research and/or pilot study programs.
126	JW – 26	6.5.2.3. Pg 230.	Dams, Dykes and Channels Water Management	Which Figure is Desperation Pond shown on? Where does the pond discharge to now? Or is it a zero Q facility? What is the volume - water balance for the King Pond Settling Facility? Are there any water quality trends identified? Is the Grizzly Lake storage facility a pond or tank? What is the proportion of flow consumed? What will flow be in PDC at closure?	During operations Desperation Pond is pumped into King Pond Settling Facility. The volume, water balance and water quality for King Pond, and Grizzly Lake is operations related and outside the intended purpose of the ICRP. Information related to the question can be provided to the reviewer outside of the ICRP Working Group Review. The estimated flow from Grizzly has not been calculated for this ICRP but would be included in the final CRP.	**Section 6.5.2 Development Status** will be updated to include the 2006 Satellite image of the Misery site which includes the major mining components for Misery (including Desperation Pond).	Resolved	See Comments under Tracking #125

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
127	JW – 24	6.5.2.1. Pg 229.	Dams, Dykes and Channels Water Management	What is "a water up? And the meaning of " without significant discharge"? What is the defined maximum temperature? Bearclaw Dam: how many vertical cables? p. 229: King Pond Dam- holds mine water - is this unique from other dams? Is there more than one cell in Cujo Lake? What water quality constituents require one year of retention? Waste Rock Dam – has water been discharged to receiving environment? Eat West Coffer Dams- has there been seepage?	'a water up' is a typo and will be corrected. Please refer to Tracking # 134 for discussion on dam containment. The dams have been designed to maintain a maximum foundation temperature of -2°C There are 3 vertical ground temperature cables in Bearclaw Dam. The questions on King Pond Dam, Cujo Lake, Waste Rock Dam and East and West Coffer Dams are related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to these questions can be provided to the reviewer outside of the ICRP Working Group Review.	**Section 6.5.2.1** will be updated to state that 'Five water retention dams have been constructed to date at EKATI. Each is capable of sustaining a head of water against the dam with significant discharge.....	Resolved	See Comments under Tracking #125
128	JW – 28	6.5.3.2. Pg 232 & 233.	Dams, Dykes and Channels Water Management	p.232: How will the design parameters be determined for the Pigeon Stream Diversion? How has the 2:1 replacement ratio will or has been achieved? p. 233: Why is the channel not functioning as compared to the natural streams in the area? What are the negative effects if snow and ice were slow to clear and nothing was done at closure?	The questions on the Pigeon Stream Diversion, fish compensation for the PDC are related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to these questions can be provided to the reviewer outside of the ICRP Working Group Review. BHPB has not stated that the PDC is not functioning as compared to natural streams in the area. During operations the company ensures that snow is removed from the channel in the spring to reduce the risk of bank overflow and water flow into the active mine operations in the Panda and Koala underground (through the open pits). Negative effects of significant bank overflow would be similar to other streams in the area, that is thermokarst erosion and sediment transport.	No Revision Proposed.	Resolved	See Comments under Tracking #125 Recommend BHPB explain or clarify why snow removal will not be required at closure.
129	JW – 32	6.5.4.2. Pg 234.	Dams, Dykes and Channels Water Management	What is the reason for the fish barrier in the Pigeon Stream Diversion? Where is the Bearclaw jetty located and what are the dimensions? What happens if trends indicate volume capacity reached prior to achieving WQC (ie: like Colomac)? Will conveyance capacity be maintained after rip-rap is placed in the Panda Diversion Channel?	The fish barrier would be located at the fork where Pigeon stream (located on the downstream from Pigeon Pit Lake) reconnects with the Pigeon Diversion Stream. Fish habitat will be constructed in the Pigeon Diversion Stream, and at closure stream flow and fish migration and use of Pigeon Diversion Stream will continue. However, since BHPB has compensation agreements in place with DFO for fish habitat loss in Pigeon pond and the segments of stream which will connect Pigeon pond to the Pigeon Diversion Stream fish barriers will be used to prevent fish access to these locations. Please refer to Tracking # 1 for further discussion on fish barriers. Dimensions of the Jetty are related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to this question can be provided to the reviewer outside of the ICRP Working Group Review. Section 6.5.4.2 states that the Bearclaw pipeline will be removed only when Beartooth Pit Lake meets effluent criteria. Flow from the North Panda Lake will continue to flow through the PDC.	**Section 6.5.4.2** will be updated to give a better explanation of the fish barrier to prevent fish from entering Pigeon Pit Lake. A figure will also be included which outlines the major mine components for the proposed Pigeon site. **Section 6.5.4.2** will be updated to include a figure outlining Bearclaw Lake and Jetty.	Resolved	See Comments under Tracking #125 BHBP to provide references to DFO authorization(s) that explain the closure conditions for Bearclaw jetty.
130	JW – 33	6.5.4.3. Pg 235	Dams, Dykes and Channels Water Management	What are the plausible methods being considered to achieve stability of sediments in the Two Rock Settling Facility? What does "These" refer to in the first sentence of the King Pond Settling Facility? Does the "migration corridor" refer to fish?	The methods for sediments stability in the Two Rock Settling Facility are related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to this question can be provided to the reviewer outside of the ICRP Working Group Review.	**Section 6.5.4.3** will be corrected. The following sentence was mistakenly removed from this paragraph. "A Fisheries Compensation	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
						Agreement with the Department of Fisheries and Oceans requires a number of steps for closure that will be undertaken in the future." **Section 6.5.4.3** will be updated to include 'fish' migration corridor.		
131	JW – 30	6.5.3.4. Pg 233.	Dams, Dykes and Channels Operations	Assume 0.45 m^3/day – what is average annual consumption? Does the population peak mean near camp capacity?	Noted.	**Section 6.5.3.4** will be updated to state that the average water use per person has been calculated at 0.45 m^3/day, and a reference will be provided for annual consumption. The section will also updated to replace 'population peak' with 'camp capacity'.	Resolved	
132	JW – 35	6.5.6. Pg 241. Tables 63 - 68	Dams, Dykes and Channels Operations	Table 63- What is the max slope criteria for breaches? What is the slope protection criteria? Removing instruments: Will any instruments need to be maintained as part of the monitoring program. Table 64- What are some of the lessons learned so far (i.e., construct to avoid steep banks, establish bank stability criteria, prevent snow build-up, create channel sinuosity to enhance habitat development) Environmental works – Why no erosion monitoring and re-vegetation? Table 65- Is it acceptable to bury the pipeline? What is the slope stability criteria for bullet 5? Environmental works – Why no slope stability and erosion monitoring, and re-vegetation? Table 66- Environmental works – Why no erosion monitoring and re-vegetation? Table 67- same comments as table 66 Table 68- How will deleterious sediments be characterized prior to removal? What is the meaning of migration corridor? Expand on the meaning of "enhance bathymetry", this is too vague.	Dam breaching was developed at a concept level without specific application to any one structure. Detailed design will be required for each structure, which will include side slope angles and erosion protection design, and will be provided in the final CRP. Instrumentation maintenance will not be required as part of the monitoring program. The construction of the Pigeon Stream Diversion is related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to this question can be provided to the reviewer outside of the ICRP Working Group Review. Erosion monitoring and revegetation will be an operational activity (if required). Detailed design for side slopes will be required for each structure, which will include sideslope angles and erosion protection design. Side slope monitoring has been provided in Table 53 Appendix G, Land 1. Sediment removal will be based on the discussions with DFO and in accordance with Fisheries Authorization SC00028 which requires BHPB to 'Remove sediments accumulated within King Pond that degrade the quality of or interfere with the enhancement of fish habitat.' Please refer to Fisheries Authorization SC00028 for discussion on "enhance bathymetry".	**Table 65** will be corrected to state that the Beartooth pipeline will be landfilled or salvaged. **Table 68** will be updated to include 'fish migration corridor', and a reference to the Fisheries Authorization SC00028.	Resolved	
133	JW – 27	6.5.3.1. Pg 232.	LLCF & Dams, Dykes and Channels Water Management	Is the semi-pervious filter dyke different than the LLCF dykes? How will the design parameters be determined for the weir constructed for the Misery Dams?	The semi-pervious filter dyke is the same as the LLCF dykes.	**Section 6.5.3.1** will be updated to state that the weirs for the Waste Rock Dam and the East and West Coffer Dams will be designed to prevent fish from migrating upstream.	Resolved	Recommend that BHPB state also that weirs will be designed for conveying peak flows.
134	JW – 23	6.5.2. Pg 227 &	Dams, Dykes and Channels	p. 227: What is meant by "effective" containment (no leakage)? What	"Effective Containment" refers to no leakage. Active layer depths are available in the annual geotechnical report.	**Section 6.5.2.1** will be updated to state -	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		228.	Final Landscape	are the current depths of active zones for each dam and what will they be after thermosiphons are removed?) p.228: Will criteria to meet design specifications change upon closure?	The active layer thicknesses following thermosyphon removal have not been calculated; however, they are expected to increase slightly after thermosyphon removal. If dams are no longer operational and decommissioned at closure they will not have specification criteria of operations.	Thermosyphon removal will not impact on dam performance at closure. With the exception of the Panda Diversion Dam, all dams at EKATI will be breached at closure. All of the structures will be thaw stable and not be required to be maintained in a frozen condition.		
135	JW – 25	6.5.2.2. Pg 229 & 230.	Dams, Dykes and Channels Final Landscape	Panda Diversion Channel- Is a photo record of PDC development available that demonstrates bank and bed conditions, degree of stability, development of habitat diversity, re-vegetation and seasonal fluctuations of flow/snow cover, across various reaches, etc? p. 230: Is stage/discharge monitored/measured?	The channel has been photo documented on several occasions, and an annual report is prepared to document the monitoring program that is conducted according to the Fisheries Authorization.	**Section 6.5.2.2** will be updated to provide a reference to the PDC annual report.	Resolved	Recommend that BHPB clarify how the recent (2006) "100-year" precipitation event was conveyed in PDC (ie; design flows were not exceeded).
136	INAC – 7	6.5.4.1	Dams and Dykes and Channels Final Landscape	This section describes a potential worst case scenario of global warming combined with the failure of the thermosyphons. It is stated that it would be hundreds of years before there would be appreciable thaw within either the core of the dam or foundation soils. BHPB should also explore the possible effects of extreme storm events (i.e. 1 in 100 or 1 in 200 year storms) both separately and in conjunction with the presented scenarios.	Both extreme events (warm and cold years) and global warming have already been considered as part of the dam design.	No Revision Proposed.	Resolved	
137	INAC – 8	Table 62	Dams, Dykes and Channels Final Landscape	BHPB should take the steps necessary and develop criteria to ensure that revegetated areas do not contribute to permafrost degradation. It is generally known that vegetation structure is positively correlated with snow depths, and that a thicker snow cover inhibits heat loss from the ground surface, leading to warmer ground temperatures.	Vegetated areas are not expected to develop significantly more vegetation than the surrounding tundra. Furthermore, much of the LLFC for example, is in open terrain which does not provide sheltered areas for snow to accumulate. Permafrost degradation as a result of increased vegetative cover is not anticipated.	No Revision Proposed.	Resolved	It is INAC-WRD's understanding that BHP is collecting ground temperature data related to the vegetation plots in the LLCF and that the information will be included in the report(s) referred to in Tracking Number's 13 and 27.
138	NSMA – 16	6.5.4.1	Dams, Dykes and Channels Final Landscape	What are the long-term plans for Two Rock Lake, and King Pond sediments?	Please refer to Tracking # 123 for Two Rock and King Pond sediments at closure.	No Revision Proposed.	No Representatives Present	Verification Comments Received
139	NSMA – 17	6.5.4.3	Dams, Dykes and Channels Final Landscape	What are the long-term plans for Two Rock Lake, and King Pond sediments?	Currently the long term plans for Two Rock Settling Facility and King Pond Settling Facility sediments is for them to remain in place. If it is determined that sediments are in need of stabilization or relocated at closure this will be included in the final CRP. Please refer to Table 47 Appendix F Water 1 for King Pond Settling Facility Sediments Research.	No Revision Proposed.	No Representatives Present	Verification Comments Received
140	JW – 29	6.5.3.3. Pg 233.	Dams, Dykes and Channels Final Landscape	What happens to the King Pond Settling Facility during closure? Will the Desperation Pond become permafrost?	Closure for the King Pond Settling Facility is covered in Section 6.5.4.3. It is likely that the permafrost will aggrade into the Desperation Pond area when the Misery WRSA is extended over this site.	No Revision Proposed.	Resolved	
141	JW – 31	6.5.4.1. Pg 233 & 234	Dams, Dykes and Channels Final Landscape	Are the slopes stabilized with riprap the only means of ensuring stability? What will be thermal effect on stability? Is natural colonization expected on the riprap? p. 234: What is current condition of thermosiphons compared to when installation? What is basis for assuming they will last in excess of 20 years? Will cooling trend be expected to reach equilibrium	The slopes will be constructed to thaw stable slope angles. The intent is to over excavate the channel and then construct to the design slope using materials that prevent erosion. Additional erosion protection may be required in the channel bottom where it is in direct contact with channel flow. Colonization is not expected on the riprap.	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				temperature? What is the depth of the active layer? Will this change if thermosiphons fail?	The thermosyphons are in good condition. Case studies for thermosyphons installed on the Alaska Pipeline and Ross River School (Yukon) suggest a life expectancy in this order of magnitude. The cooling trend will reach equilibrium. Ground temperature readings taken subsequent to ICRP preparation show the cooling trend is stabilizing. The active layer depth is documented in the annual geotechnical report. If the thermosypons stop working, then there would likely be a slight increase in the active layer thickness; however, this would not impact on dam performance. The thermosyphons were installed in Panda Dam to freeze a talik located below the original ground surface along the natural channel alignment. They were not required to assist with freezeback of the core. The thermosyphons have significantly cooled the core but are not required to maintain it in a frozen condition.			
142	IEMA – 97	Table 47, Appx F Land 2	Dams, Dykes and Channels Reclamation Research	Again, it is not clear why this item is part of the reclamation research plan. Appropriate species have already been identified, and application methods demonstrated in the PDC and other locations. It would appear that what is required is detailed site assessment for each component to be revegetated so that locations for replanting can be mapped and undertaken.	Land 2 states that the research from the PDC will be continued in the Pigeon Stream Diversion. Land 2 also includes research on site assessment (location identification).	No Revision Proposed.	Resolved	
143	IEMA – 98	Table 47. Appx F. Water 1	Dams, Dykes and Channels Reclamation Research	This section is unclear whether King Pond sediments are to be relocated or not, although some research needs are identified. Presumably characterization of the sediments would be important information to make this determination, although this research is not identified. No timeline is provided for the studies to be undertaken. More details are needed here. There is no mention of what is to be done with the Two Rock Lake sediments.	Currently the long term plans for Two Rock Settling Facility and King Pond Settling Facility sediments is for them to remain in place. If it is determined that sediments are in need of stabilization or relocated at closure this will be included in the final CRP. Sediment removal will be based on the discussions with DFO and in accordance with Fisheries Authorization SC00028 which requires BHPB to 'Remove sediments accumulated within King Pond that degrade the quality of or interfere with the enhancement of fish habitat.'	No Revision Proposed.	Resolved	
144	IEMA – 99	Table 47. Appx F. Wildlife 1	Dams, Dykes and Channels Reclamation Research	No timelines are provided for the work proposed. Not typo in objective column "Setting".	In Section 2 Review BHPB agreed that clear linkages would be identified between the timing of progressive reclamation activities and associated research needs. These linkages would be provided through the use of a schedule that shows the proposed activity and the timing of research which answers how the reclamation work will be completed.	Table 47 Appendix F Wildlife 1 will be corrected to 'Settling'.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
145	IEMA – 100	Table 47. Appx F. Wildlife 3	Dams, Dykes and Channels Reclamation Research	Item 3 proposes the establishment of fish migration between Cujo Lake and King Pond, implying that King Pond will become part of the receiving environment at closure. Why is this concept not adopted for Long Lake containment facility and the pit lakes?	Please refer to Tracking # 1 for BHPB response to fish barriers. Please also refer to Authorization for the Harmful Alteration, Disruption or Destruction of Fish Habitat SC00028; King Pond & the associated King-Cujo streams.	No Revision Proposed.	Unresolved	See discussion in attached letter under "Fish and the Reclamation Objective"
146	JW – 37	6.5.8. Pg 245. Table 71.	Dams, Dykes and Channels Reclamation Research	Identified Research concepts are vague, expect that these will be better developed during Step 4 so that specific tasks can be better understood.	Noted.	No Revision Proposed.	Resolved	
147	IEMA – 59	Table 25, Appendix C – Closure Objectives and Criteria	Dams , Dykes and Channels. Closure Objectives & Criteria	BHPB should determine whether special criteria, measures, research and monitoring may be required for each of the dams, dykes and channels. Contingency measures should also be described.	At this time BHPB does not see the need for specific or separate closure objectives and criteria for each of the dams, dykes and channels. BHPB has noted and will review contingency measures.	**Section 6.5.7** will be reviewed for contingency measures.	Resolved	
148	IEMA – 60	Table 25.	Dams , Dykes	See comments for table 24 above (IEMA-43)	Please refer to Tracking # 47 for BHPB's response on	No Revision Proposed.	Resolved	Resolved partially. BHPB

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		Air 1	and Channels. Closure Objectives & Criteria		monitoring of fugitive dust on the LLCF.			needs to provide further details on fugitive dust monitoring and develop clear criteria for adaptive management.
149	IEMA – 61	Table 25. Land 1, 2	Dams , Dykes and Channels. Closure Objectives & Criteria	Criteria for items 1 and 2 not appropriate; these need to be more specific (i.e., measurable). BHPB should specify the required maintenance, snow and debris clearing that may be needed to keep the PDC functioning.	Please refer to Tracking # 82 for BHPB use of the term significant. Section 6.5.4.2 (Volume 1) and Section 4.2.1 in Appendix D provides discussion on how the PDC will be designed to assure no long term maintenance at closure.	No Revisions Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
150	IEMA – 62	Table 25. Land 4	Dams , Dykes and Channels. Closure Objectives & Criteria	There should be some evidence presented on the appropriateness of the 1:100 storm event criterion for engineered structures.	Noted.	**Section 6.5.2.1** will be updated to state that the dams at EKATI have been designed in accordance with Canadian Dam Association Guidelines.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
151	IEMA – 63	Table 25. Land 6	Dams , Dykes and Channels. Closure Objectives & Criteria	See comments for table 24 above (IEMA-47)	Please refer to Tracking # 85.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
152	IEMA – 64	Table 25. Land 7	Dams , Dykes and Channels. Closure Objectives & Criteria	Non-specific--% vegetation cover needs to be specified, along with a timeline for achieving criterion.	The type of vegetation, location and percentage cover will be refined through future research.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
153	IEMA – 65	Table 25. Wildlife 1	Dams , Dykes and Channels. Closure Objectives & Criteria	Criterion might be acceptable, but definition of 'surface hazards' required in this case.	A surface hazard would be the condition of the surface of the facility that would cause severe injury or death to wildlife.	Table 24 Appendix C Wildlife 1 will be updated to include definition surface hazard.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
154	IEMA – 66	Table 25. Health & Safety 1	Dams , Dykes and Channels. Closure Objectives & Criteria	"Significantly" needs to be detailed to allow for measurable criteria.	Please refer to Tracking # 82 for BHPB use of the term significant.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
155	IEMA – 67	Table 25. Community 1	Dams , Dykes and Channels. Closure Objectives & Criteria	See comments for table 24 above	Please refer to Tracking # 90.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
156	IEMA – 68	Table 25. Community 2	Dams , Dykes and Channels. Closure Objectives & Criteria	It is not clear how BHPB will measure "negligible effects".	Noted.	**Tables 21 through 26 Appendix C** will be updated to reference the EKATI Diamond Mine Environmental Impact Report 2006 for discussion on negligible residual effects on archaeological sites.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
157	JW – 34	6.5.4.3. Pg 235 & 237. Table 62.	Dams, Dykes and Channels Closure Objectives and Criteria	p. 237: Table 62- Physical Stability - LAND: What is the meaning of "beds and banks restored close to original flow" ? Need to establish quantifiable criteria for "restoration" No permafrost degradation - outside of natural forces? Biological Stability – Vegetation: need objective/quantifiable criteria to measure recovery. p.238: How is "no major surface erosion" defined? Needs to be more explicit and measureable. What compensation requirements are stipulated in the Fish authorization?	Revised Closure Objectives and Criteria Tables have been provided to the Working Group for Appendix C. Dams, Dykes and Channels.	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				p. 239: The designed parameters for the Engineered structures will be based on what database? Criteria is vague – need to provide specifics for re-establishing hydraulic flow to ensure Biological Stability.				
158	IEMA – 115	Table 53, Appx G. General	Dams, Dykes and Channels Closure Monitoring	General Comment: Comments above for PKCA monitoring also apply, where relevant, to dams, dykes, channels and buildings and other infrastructure. All monitoring programs need better definition and more focused thinking to ensure that the relevant parameters are being monitored, the proper indicators identified, and that implementable thresholds are defined for taking action. The programs outlined in this table are too conceptual at this stage of closure planning.	BHPB has provided a comprehensive monitoring plan for the EKATI Minesite which outlines the parameters, methods, monitoring locations, method of evaluation and response thresholds. This monitoring plan is the first proposed for the EKATI ICRP, and is at a conceptual level of detail, with the intent of update as more information is available. BHPB agrees and has stated that an Adaptive Management Plan would be necessary at closure. This plan will include triggers and thresholds for exceedences. BHP Billiton has provided an interim and conceptual measure for response thresholds in the monitoring tables until an Adaptive Management plan is in place that provides a standardized method for measuring triggers and thresholds. BHP Billiton has developed an Adaptive Management Plan as per the MV2003L2-0013 Water License requirement, and submitted it to the WLWB in November 2007. Once this plan is approved the ICRP will be updated to include an Adaptive Management Plan for closure, which builds on the operations plan.	No Revision Proposed.	Unresolved and Deferred to Section 4	This is a general comment about the adequacy of the description of the proposed monitoring programs. Our comment still stands on the need for improvement, and we hope that BHPB in revising the ICRP will invest more effort in putting some flesh on these bones.
159	IEMA – 116	Table 53, Appx G. Air 1	Dams, Dykes and Channels Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 47 and 95.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
160	IEMA – 117	Table 53, Appx G. Land 1	Dams, Dykes and Channels Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 82 for BHPB's response to questions on the use of significant, and to Table 52 Appendix G Land 3 for Monitoring of slope/surface stability. Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
161	IEMA – 118	Table 53, Appx G. Land 2	Dams, Dykes and Channels Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 98 for BHPB's response to comments on Table 53 Appendix G, Land 2.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
162	IEMA – 119	Table 53, Appx G. Water 1	Dams, Dykes and Channels Closure Monitoring	Response threshold of 'negative trend' will need further definition.	Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
163	IEMA – 120	Table 53, Appx G. Water 2	Dams, Dykes and Channels Closure Monitoring	Response threshold of 'negative trend' will need further definition.	Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
164	IEMA – 121	Table 53, Appx G. Wildlife 1	Dams, Dykes and Channels Closure Monitoring	The stated parameters for wildlife monitoring seem ambitious and beyond the scope of concern for this mine component group. Monitoring for wildlife safety should be much more focused, and with more detail provided. The stated response threshold is not usable.	Please refer to Tracking # 100 for BHPBs response to wildlife monitoring.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
165	IEMA – 122	Table 53, Appx G. Wildlife 2	Dams, Dykes and Channels Closure Monitoring	Commitments to continued PDC monitoring not clear and thresholds for responses should be specified.	The monitoring of the PDC will be reviewed and if necessary modified during operations at the completion of the 10 monitoring program. Any changes to the monitoring will be reflected in future updates of the ICRP. Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					54 Appendix G.			
166	IEMA – 123	Table 53, Appx G. Monitoring Frequency	Dams, Dykes and Channels Closure Monitoring	Monitoring for 5 years post-reclamation, as proposed, for these components seems questionable. Revegetation monitoring necessarily must be sufficient to determine long term sustainability. **The key principle for all post-closure monitoring is that monitoring should continue for a period sufficient to demonstrate that the closure criteria have been achieved and are sustainable.**	Please refer to Tracking # 165 for BHPB's response on monitoring period.	No Revision Proposed.	Partially Resolved and Deferred to Section 4	At the working group meeting, we understood that BHPB would change its post-closure monitoring program duration to state that the completion of monitoring would be based on achievement of the closure criteria over a reasonable period of time to ensure sustainability.
167	JW – 38	6.5.9. Pg 246.	Dams, Dykes and Channels Closure Monitoring	Perhaps five years will not be sufficient to demonstrate long-term stability or that criteria are met. Providing a minimum "additional time" of monitoring after criteria are initially achieved is suggested.	Please refer to Tracking # 165 for BHPB's response on monitoring period.	No Revision Proposed.	Resolved	Recommend that wording be re-phrased wherever a post-closure monitoring period is described, such that the total monitoring duration could be reduced or increased (for specific aspects) to reflect actual trends and results, while at the same time providing a minimum "additional time" of monitoring after criteria are initially achieved.
168	IEMA – 36	6.5.5.2 (pg. 231)	Dams, Dykes and Channels Formatting	Labels for the dams, dykes and channels on Fig. 70 would be helpful.	Noted.	**Figure 70** will be updated to include labels for major components.	Resolved	We understand that BHPB has committed to making these changes as part of the final version of this ICRP.
169	JW – 36	6.5.7. Pg 244.	Dams, Dykes and Channels Risks and Contingencies	Will the sediment curtains remain in place?	Sediment curtains will be removed or cut to ground level once monitoring indicates that sediment transport is no longer a concern.	No Revision Proposed.	Resolved	
Buildings and Infrastructure								
170	IEMA – 38	6.6.4.1 (pg. 259)	Buildings and Infrastructure Landfills	The *ICRP* should identify potential landfill locations now with information on how much of the demolition material will be salvaged or recycled or backhauled. The *ICRP* should identify any potential for reuse of some buildings by communities. The same may apply for bridges and culverts (6.6.4.10, pg. 263).	The ICRP states that the location for the landfill will be finalized closer to final closure. The options for storage or inert demolition material included the WRSA and exhausted open pits. The estimated volume of inert landfill material in 2006 was approximately 2.4 Mm^3. This volume is currently under review and will be provided in future updates of the ICRP. The estimated volume of salvageable materials will be included in the final CRP.	No Revision Proposed.	Resolved	The Agency would like to see a little more detail regarding the volumes and types of the waste to be landfilled as well as the possible locations.
171	NSMA – 18	6.6.4.1	Buildings and Infrastructure Landfills	NSMA would like to know in detail all potential landfill locations, sizes, and contents. We should be consulted regarding opportunities for re-use and recycling. BHP is required to return affective areas to a state where negative effects on the use of the land is minimised, considering aesthetics, economics, ecosystem productivity, and use (Environmental Agreement).	Please refer to Sections 6.3.2.7, 6.3.2.9, and 6.6.4.1, as well as Figures 46 and 49 for location of landfills.	No Revision Proposed.	No Representatives Present	Verification Comments Received
172	NSMA – 12	6.6.2.4	Buildings and Infrastructure Exploration Sites	Mark's camp, culvert camp, and boxcar camp have been closed, so NSMA would like to see before and after pictures, and aerial photos.	Please refer to BHPB's response to Tracking # 172.	**Sections 6.6.2.4 and 6.6.4** will be updated with pre-disturbance and after closure images, if these are available.	No Representatives Present	Verification Comments Received
173	JW – 41	6.6.2.4. Pg 253.	Buildings and Infrastructure Exploration Sites	Are there photo records available for the Mark's Camp, Culvert Camp and Boxcar Camp? How have these sites changed since the reclamation (ie: status of re-colonization etc…)? Are there any remedial measures undertaken (e.g. PHC clean-up) for any of the camps in this section? What is current condition of the airstrip at Norma's Camp?	The reclamation and closure of Exploration Camps are covered under Land Use Permit MV2002C0040 and are the jurisdiction of the DIAND Inspector. Reclamation requirements for these sites are listed in detail in the LUP. The time of the 2007 ICRP submission to the WLWB reclamation requirements for Marks Camp, Culvert Camp and Boxcar had been completed by BHPB. Please refer to Section 6.6.2.4 where BHPB has stated that all	**Sections 6.6.2.4 and 6.6.4** will be updated with pre-disturbance and after closure images, if these are available.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					three camps are no longer in use and have been closed and successfully reclaimed. The Norm's Camp airstrip was closed to all air traffic in 2001, and markers are in place to indicate the airstrip is no longer operational.			
174	JW – 45	6.6.4.4	Buildings and Infrastructure Exploration Site	Will only the highly erosive areas be re-vegetated?	Yes. The area will be monitored and before and during closure. If sites are identified which need site stabilization because there have potential for high erosion they will be stabilized.	No Revision Proposed.	Resolved	
175	JW – 46	6.6.4.6 Pg 260 & 261.	Buildings and Infrastructure Quarry Sites	What does "especially where excavation has been temporarily delayed" mean? What is the criteria stabilizing slopes for these sites? p. 261: Have additional measures been identified to increase survivability? What further work will be required in this area?	Please refer to Table 26 Appendix C Land 9 for criteria on site stabilization.	**Section 6.6.4.6** will be updated to remove "especially where excavation has been temporarily delayed". **Section 6.6.4.6** will also be updated to reference revegetation research reports on the remediation work at Fred's Channel.	Resolved	
176	JW – 44	6.6.4.1 Pg 259.	Buildings and Infrastructure ESA	Will the Environmental Site Assessment be conducted across the entire site or just at specific facilities? Will it be done in phases or all at once?	BHPB is committed to progressive reclamation. And as such ESAs will be completed progressively with specific site closure. At the end of the mine life if decommissioning operations require that additional ESAs are completed this work will be assessed at that time.	No Revision Proposed.	Resolved	
177	JW – 47	6.6.4.7 Pg 261.	Buildings and Infrastructure Lay-down and Camp Pads	What is meant by the "as-built conditions" – no change to pad geometry?	Noted.	The term 'As-built drawings' has been included in Appendix A. It will be expanded on for 'As-built'.	Resolved	
178	JW – 48	6.6.4.8 Pg 262.	Buildings and Infrastructure Ore Storage Pads	Is the vegetation density or productivity measured and monitored over time as it is expected to establish slowly?	Yes to both questions.	No Revision Proposed.	Resolved	
179	JW – 50	6.6.4.10 Pg 263.	Buildings and Infrastructure Bridges and Culverts	Will the stabilization with riprap have bank slope criteria to meet?	Noted.	**Table 26 Appendix C Land 8** will be updated to include slope stabilization after culverts and bridges are removed.	Resolved	
180	NSMA – 19	6.6.4.9	Buildings and Infrastructure Roads	NSMA should be consulted on the best way to reclaim each specific segment of road, and TK should be incorporated. The EA (2000) states that roads will be left in asbuilt condition, except that the berms will be knocked down, recontoured, and covered with rip-rap to prevent erosion. Negative effects on the use of the land must be minimised, considering aesthetics, economics, ecosystem productivity, and use (Environmental Agreement). According to the EA (2000) BHP must re-establish land use and protect water resources. Re-establish pre-existing productive conditions of land (EIS 1995).	Please refer to Table 26 Appendix C Community 1 for consultation with Aboriginal Communities for reclamation of the Buildings and Infrastructure.	**Table 26 Appendix C Community 1** – typo has been corrected to Buildings and Infrastructure.	No Representatives Present	Verification Comments Received
181	IEMA – 39	6.6.4.9 (pg. 262)	Buildings and Infrastructure Roads	The ICRP should provide a map or list of roads with timing for decommissioning activities for other mine components and for the reclamation of the roads themselves.	This map may be included in the Final CRP.	No Revision Proposed.	Resolved	We understand that BHPB has committed to making these changes as part of the final version of this ICRP.
182	IEMA – 40	6.6.4.9	Buildings and Infrastructure Roads	One of the objectives of the Buildings and Infrastructure is "1. Remaining surface areas are safe for wildlife use.". The ICRP states "Roads not required during closure and monitoring are expected to be reclaimed by scarifying the surface, removal of culverts and safety berms….. Except in those sections of road considered hazardous to wildlife,	BHPB will consider this in future updates of the ICRP.	No Revision Proposed.	Unresolved	This issue should be discussed in the current version of the ICRP, not in future updates.

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
				shoulder berms will be knocked down and contoured to provide access for wildlife." Although they may be used for insect relief and as travel corridors by caribou, roads also serve as semi-permeable barriers, even with no traffic. This may be especially true where the road slope height is steep. To better "contour" the road to the landscape, BHPB should consider knocking down portions of roads (not just berms) that are built up high above the natural lay of the land. IEMA recommends this.				
183	JW – 49	6.6.4.9 Pg 262.	Buildings and Infrastructure Roads	What techniques are used to enhance the process of natural colonization?	Noted.	**Table 48 Appendix F Land 3 and 4** will be reviewed to ensure that 'techniques to enhance natural colonization are better explained".	Resolved	
184	JW – 43	6.6.2.11. Pg 257.	Buildings and Infrastructure Roads and Airstrip	How will the required crossings be maintained at closure? What are other widths of the Misery Road (range of widths), as opposed to only "mostly" 21m? How is the Norma-Nero Bridge constructed - similar to the Paul Lake Bridge?	Crossings are constructed on smaller sized waste rock and will not require maintenance at closure. The superstructure for both bridges comprise steel girders supporting steel floor stringers and a steel grid deck. The abutments for Nero-Nema bridge are constructed of concrete on bedrock. Rock anchors are installed for lateral stability. The abutments for the Paul Lake bridge are constructed on engineered fill. Piling is included on one abutment to provide lateral stability.	**Section 6.6.2.11** will be corrected to state that the Misery Road has an average width of 21m.	Resolved	
185	JW – 51	6.6.4.11 Pg 263.	Buildings and Infrastructure Airstrip	Is all material to be landfilled assumed to be inert? At what rate is the re-colonization occurring?	Yes all landfill material is inert.	**Section 6.6.4.11.** Reference to more recent revegetation reports will be included to provide reference to results from vegetation monitoring at the EKATI Airstrip.	Resolved	
186	JW – 42	6.6.2.8. Pg 255.	Buildings and Infrastructure Water Management	Will positive drainage be maintained at closure?	Yes.	No Revision Proposed.	Resolved	
187	JW – 39	6.6.2.1. Pg 250.	Buildings and Infrastructure Operations	Was oil and sludge in vacuum truck removed offsite?	The oil is collected in an absorbent boom and incinerated, and the sludge is taken to the Landfarm. Please note that this is an operations question. Further detail can be discussed in a separate meeting outside of the ICRP Working Group.	No Revision Proposed.	Resolved	
188	JW – 40	6.6.2.3.	Buildings and Infrastructure Operations	Are there plans to upgrade the prototype of Land Treatment and Atomization System?	This question is related to the operations of the minesite and outside the intended purpose of the ICRP. Information related to the question can be provided to the reviewer outside of the ICRP Working Group Review.	No Revision Proposed.	Resolved	
189	IEMA – 102	Table 48. Appx F. Land 1	Buildings and Infrastructure Reclamation Research	This item does not need to be part of reclamation research. There appears to be no unanswered questions that need to be researched. Tracking spill locations and planning spill remediation are standard operating procedure	Agree	Table 48 Appendix F Land 1 will be removed.	Resolved	
190	IEMA – 103	Table 48. Appx F. Land 2	Buildings and Infrastructure Reclamation Research	Item 2 identifies 'further research' is needed on the combustion treatment of hydrocarbon contaminated materials and that this will be done during operations. This appears to be a matter of fine-tuning operation procedures (such as adjusting temperature settings) rather than substantive research for determining the best method of remediation. This item could be deleted as a 'research' project, and simply described in the text of the *ICRP*.	Agree	Table 48 Appendix F Land 2 will be removed.	Resolved	
191	IEMA – 104	Table 48. Appx F.	Buildings and Infrastructure	None of this is 'research', and could be deleted from this table. It is conventional reclamation planning with known	Disagree – Reclamation objectives and criteria are required for stabilization of the minesite. This includes PKCA, stream banks	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		Land 3	Reclamation Research	procedures, and could simply be described in the *ICRP* text without relegating it to a research task.	and pads. At this time BHPB is not aware of closure objectives and criteria for other minesites (under government or industry responsibility for closure) that is required to meet closure criteria and as such no research has been completed in this area to see how criteria will be met. Research on camp pad stabilization will remain in Table 48 Appendix F.			
192	IEMA – 105	Table 48. Appx F. Land 4	Buildings and Infrastructure Reclamation Research	Since viable vegetation species have identified through previous research, the need for further research is not obvious here—this item could be deleted from the research table, and relegated to a discussion in the main text of the *ICRP* as to how revegetation of the infrastructure sites will be undertaken.	Disagree – Land 4 will remain as identified research on what types of vegetation will be able to establish on camp pads, road and airstrip surfaces, and quarry sites. The intent of the Reclamation Research Plan is to outline the research needed for closure.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
193	IEMA – 106	Table 48. Appx F. Community 1	Buildings and Infrastructure Reclamation Research	BHPB should indicate whether and how they will seek input into potential reuse of site infrastructure for community use through backhauling or other means. This is not a research issue but a planning matter.	Disagree – The use of salvageable material is a question that will have to be researched and will remain in Research Plan.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
194	IEMA – 107	Table 48. Appx F. Operations 1	Buildings and Infrastructure Reclamation Research	This is a planning task, not a research task but should also include examination of opportunities for salvage and backhauling. There is no need to include it in a reclamation research program.	Disagree, the methods managing hazardous, inert and salvageable waste should continually researched and improved upon. BHPB is committed to this as a responsible corporate citizen.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
195	IEMA – 69	Table 26.	Buildings and Infrastructures Closure Objectives and Criteria	Same comments where applicable as for table 24 and 25.	Please see BHPB response to comments above.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
196	IEMA – 70	Table 26. Air 1	Buildings and Infrastructures Closure Objectives & Criteria	See comments for Table 24 above. (IEMA-43)	Please refer to Tracking # 47 for BHPB's response on monitoring of fugitive dust on the LLCF.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
197	IEMA – 71	Table 26. Land 1, 2	Buildings and Infrastructures Closure Objectives & Criteria	The objective here is likely related to providing safe areas for future land uses (human and wildlife habitat) and the two objectives specified are options	Agree	**Table 26 Appendix C Land 1 and 2** will be removed and replaced in Wildlife 1.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
198	IEMA – 72	Table 26. Land 4	Buildings and Infrastructures Closure Objectives & Criteria	BHPB should reference the GNWT's Environmental Guideline for the Remediation of Contaminated Sites.	Please refer to Tracking # 84 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
199	IEMA – 73	Table 26. Land 6	Buildings and Infrastructures Closure Objectives & Criteria	See comments for Table 24 above. (IEMA-47)	Please refer to Tracking # 85 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
200	IEMA – 74	Table 26. Land 7	Buildings and Infrastructures Closure Objectives & Criteria	See comments for Table 24 above. (IEMA-48)	Please refer to Tracking # 86 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
201	IEMA – 75	Table 26. Land 8, 9	Buildings and Infrastructures Closure Objectives & Criteria	"Significantly" needs to be detailed to allow for measurable criteria.	Please refer to Tracking # 82 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
202	IEMA – 76	Table 26. Water 2	Buildings and Infrastructures Closure Objectives &	See comments for Table 24 above. (IEMA-50)	Agree	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
			Criteria					
203	IEMA - 77	Table 26. Wildlife 1 (c)	Buildings and Infrastructures Closure Objectives & Criteria	BHPB should specify which berms will be removed and when. This criterion seems to conflict with "Health and Safety" 1(c) closure criteria where it is stated "Roads have been bermed…".	Specific berm removal will be included in the final CRP. A road berm to restrict vehicle access would be across the road at a major point of entry onto the minesite and not along edges of roads.	**Section 6.6.4.9** will be reviewed to ensure there is no confusion on berm purpose.	Resolved	
204	IEMA – 78	Table 26. Health & Safety 1	Buildings and Infrastructures Closure Objectives & Criteria	See comments for Table 25. (IEMA-66)	Please refer to Tracking # 82 for BHPB use of the term significant.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
205	IEMA – 79	Table 26. Community 1	Buildings and Infrastructures Closure Objectives & Criteria	See comments for Table 24. Note error in using wrong mine component "Dams, Dykes and Channels". (IEMA-56)	Error has been noted and corrected.	**Table 26 Appendix C Community 1** – typo has been corrected to Buildings and Infrastructure.	Resolved	
206	IEMA – 80	Table 26. Community 2	Buildings and Infrastructures Closure Objectives & Criteria	It is not clear how BHPB will measure "negligible effects".		**Tables 21 through 26 Appendix C** will be updated to reference the EKATI Diamond Mine Environmental Impact Report 2006 for discussion on negligible residual effects on archaeological sites.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
207	JW – 52	6.6.5 Pg 265 & 268.	Buildings and Infrastructure Closure Objectives and Criteria	p. 265: Is there a Peak or Maximum TSP concentration? p. 268: Criteria for Physical Stability - How are design parameters determined for engineered structures?	There is no Canada Ambient Air Quality Objective for maximum instantaneous or 1-hour TSP. The 24 hour averaging period is the shortest period specified. Table 72 has been updated. The updated Tables for Buildings and Infrastructure Closure Objectives and Criteria, and Closure Monitoring (which includes monitoring schedule) were submitted to the WLWB Oct 19, 2007.	No Revision Proposed.	Resolved	
208	IEMA – 124	Table 54, Appx G. General	Buildings and Infrastructure Closure Monitoring	General Comment: Comments above for PKCA monitoring also apply, where relevant, to dams, dykes, channels and buildings and other infrastructure. All monitoring programs need better definition and more focused thinking to ensure that the relevant parameters are being monitored, the proper indicators identified, and that implementable thresholds are defined for taking action. The programs outlined in this table are too conceptual at this stage of closure planning.	Please refer to BHPB's response to similar comment in Tracking # 158.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments for Tracking #158
209	IEMA – 125	Table 54, Appx G. Air 1	Buildings and Infrastructure Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 47 and 95 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
210	IEMA – 126	Table 54, Appx G. Land 1, 2	Buildings and Infrastructure Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 82 for BHPB's response to questions on the use of significant, and to Table 52 Appendix G Land 3 for Monitoring of slope/surface stability. Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
211	IEMA – 127	Table 54, Appx G. Land 3	Buildings and Infrastructure Closure Monitoring	See comments for Table 52 above.	Please refer to Tracking # 98 for BHPB's response.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
212	IEMA – 128	Table 54, Appx G.	Buildings and Infrastructure	Response thresholds will need further definition.	Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and	No Revision Proposed.	Unresolved and Deferred to	See Comments under Tracking #43

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
		Water 1	Closure Monitoring		54 Appendix G.		Section 4	
213	IEMA – 129	Table 54, Appx G. Wildlife 1	Buildings and Infrastructure Closure Monitoring	The stated parameters for wildlife monitoring seem ambitious and beyond the scope of concern for PKCA. Monitoring for wildlife safety should be much more focused, and with more detail provided. The stated response threshold is not usable.	Please refer to Tracking # 100 for BHPBs response to wildlife monitoring. Please refer to Tracking # 95 for BHPB's response to questions on the refinement of Response Thresholds for Tables 52, 53 and 54 Appendix G.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments under Tracking #43
214	IEMA – 130	Table 54, Appx G. Monitoring Frequency	Buildings and Infrastructure Closure Monitoring	Monitoring for 5 years post-reclamation, as proposed, for these components seems questionable. Revegetation monitoring necessarily must be sufficient to determine long-term sustainability. **The key principle for all post-closure monitoring is that monitoring should continue for a period sufficient to demonstrate that the closure criteria have been achieved and are sustainable.**	From Section 2 Review - Monitoring periods (as discussed in Appendix G, Section 7.2) of 5 and 10 years have been based on reasonable and currently used time periods that are sufficient in duration to detect any trends or changes in monitoring parameters. Should ongoing research indicate that the monitoring period for vegetation be lengthened it will be adjusted in future updates of the ICRP.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments for Tracking #158
General Topics								
215	IEMA – 101	Tables, 46, 47 & 48. Appx F. Community	Reclamation Research General	At three locations in Tables 46, 47 and 28 this item is identified as a need to research methods for obtaining community involvement in closure planning. It is not clear why community consultation processes are part of a research program. What is the uncertainty here that requires research? What is the research process that will be utilized for this task? Timelines? Having to do research on this topic suggests that community consultation will not be undertaken in a time for the results to be incorporated into the *ICRP*.	The ICRP details a number of areas where the company currently assists communities with skill development and training programs related to mining operations in Section 3.3. BHPB has identified that more research is needed to ensure that skills development also assists communities during and after the EKATI Minesite closes. Some of the research areas that BHPB will pursue include how Traditional Knowledge can be incorporated into reclamation (Section 3.2.4), focus of Workplace Learning (Section 3.4) and capacity building (Section 3.5.4) on skills required when the mine closes. These and other identified areas will be developed through consultation and research.	No Revision Proposed.	Unresolved and Deferred to Section 4	See Comments from Tracking #60
216	INAC – 9	General Comments	Closure Objectives and Criteria	INAC has issue with the objectivity of the term "significant", the vagueness of "vegetation cover (%)" and the implied reference to current water licence effluent criteria as part of closure criteria. It is understood that BHP will be revising the plan and will be better suited to provide additional criteria as research on these items progress. However, without defined closure criteria it is extremely difficult to provide sign-off on any potential progressive reclamation, which is necessary to release the securities associated with particular mine components. Note BHPB has indicated it plans to reclaim the Phase 1 Pond as early as 2008.	BHPB agrees that specific criteria are needed for signoff, and research is required to refine to measurable criteria. However, in some cases specific and measurable criteria are not available at this time. In such cases BHPB has identified the conceptual criteria with the intention of refinement through research, and updates to future ICRP's. The following is a discussion on the identified conceptual criteria in the 2007 ICRP. The degree of significant slumping or erosion that may take place on the surface of the LLCF at closure is unknown at this time, but is not expected to be catastrophic. This however is something which will be researched to assist with future predictions and refined criteria (Refer to Table 46 Appendix F Land 1 for identified research). The conceptual measurement of 'significant' in the closure criteria at this time is based on the definition of significant meaning 'something that merits attention, or deviates from what we might expect to occur'. Significant in engineering standards and related to the LLCF would be any major slumping or integral failure of the LLCF final surface, drainage channels, and breach locations. Significant surface erosion would be any erosion that results in sediment transport exceeding water discharge criteria. Significant PK surface subsidence would be any settlement that negatively impacts surface drainage through the area or causes unintentional ponding of water. This may in turn lead to further permafrost degradation and PK subsidence. However significant in the view of communities might mean wildlife death. Significant from a health and safety point of view would mean fatality to a human (This is measured with the BHPB Health, Safety, Environment and Community risk assessment). Until a more appropriate level	No Revision Proposed.	Resolved	

Tracking #	Comment ID	ICRP Section	Topic	Review Comment	BHP Billiton Response	BHP Billiton Proposed Revision	Resolved ? (yes or no)	Action Item (if applicable)
					of significance is agreed upon BHP Billiton has used significant as an interim criteria measure. The water quality criteria will be reviewed with subsequent water license renewals. Please refer to the MVLWB Reasons for Decision (WL Renewal MV2003L2-0013) regards Term of the License. The Closure Objectives and Criteria, Water 1 uses the current discharge criteria in the MV2003L2-0013 WL. This may change with future renewals of the license. The measurable criterion for vegetation cover has been proposed as percentage cover, and the percentage value will be determined through ongoing research.			
217	NSMA – 15	App. E.	Risk Assessment	This risk assessment is biased towards BHPB's interests, incomplete, misleading, and was not done in consultation with the land owners - the aboriginal peoples. It must be redone, incorporating .TK and community values for the risks and contingencies, and the adaptive management plan.	BHPB disagrees with the statement that the risk assessment was biased and misleading. The social, human, and wildlife risks associated with Project were reviewed as part of the 1995 EIS. The risks related to closure options for open pits were discussed at the Closure Options Workshop in July 2006. NSMA representatives attended the workshop and would be a good source within the community to provide discussion on the pros and cons of open pit reclamation that were discussed at the workshop. Appendix B should also be referenced for community discussions on Pros and Cons related to the various options review at the July 2006 Closure Options Workshop.	No Revision Proposed.	No Representatives Present	Verification Comments Received
218	IEMA – 33	6.5.1	Formatting General	It would be helpful here, as well as other relevant locations in the ICRP, to have the pre-disturbance figures juxtaposed alongside the post-disturbance figures, so that actual footprints of the various mine components can be compared to pre-mining conditions. Again, photo bases should be enlarged and treated to enhance distinction between vegetation cover and rock.	BHPB will review the formatting of the ICRP for discussion on pre-disturbance, current development, and final landscape for the next update of the ICRP.	No Revision Proposed.	Resolved	We understand that BHPB has committed to making these changes as part of the final version of this ICRP.
219	IEMA-131	6.3.4	WRSA Final Landscape	The ICRP text does not explain why there will be 5m-deep cover of waste rock over the existing landfill, but only 2m-deep waste rock cover over demolished material from buildings and storage tanks (Table 76) Why should these two waste types be treated differently?	This was an error. All landfills at closure will have a 5m waste rock cap.	**Section 6.3.4** will be reviewed to ensure a 5m waste rock cap for landfills.	Resolved	