
**ALLIGATOR RIVERS REGION
ADVISORY COMMITTEE
Meeting 20**

Secretariat
GPO Box 461
DARWIN NT 0801
Ph: 08 8920 1110
Fax: 08 8920 1190
Ann.Thompson@ea.gov.au

Confirmed Draft Summary Record

Conference Room, DEH Facilities, Darwin NT

Tuesday, 9 December 2003

PRESENT

Charles Webb	Chair
Arthur Johnston	Supervising Scientist
Simon Prebble	Energy Resources of Australia Ltd – Ranger Mine
Brendan Lewis	Northern Land Council
Ron Matthews	Cameco Australia Ltd.
Shane Maraldo	Hanson Australia Ltd – representing Queensland Mine Pty Ltd. (QMPL)
George Koperski	Department of Health and Community Services
Barbara Singer	Department of Infrastructure, Planning and Environment
Alan Laird	Department of Industry, Tourism and Resources
Tony McGill	Department of Business, Industry and Resource Development
Alan Hughes	Department of Business, Industry and Resource Development
Andy Ralph	Gundjehmi Aboriginal Corporation
Justin O'Brien	Gundjehmi Aboriginal Corporation
Ann Thompson	ARRAC Secretariat

1 WELCOME

Charles Webb, Chair opened the meeting and welcomed attendees. Members, Deputies and Observers were asked to introduce themselves.

2 APOLOGIES AND OBSERVERS

Apologies

Tania Constable	Department of Industry, Tourism and Resources (represented by Alan Laird)
Xavier Schobben	Department of Health and Community Services (represented by George Koperski)
Peter Blake	Department of Business, Industry, and Resource Development (represented by Alan Hughes)
Mark Foy	Northern Land Council (represented by Brendan Lewis)
Peter Burns	Australian Radiation Protection and Nuclear Safety Agency
Mike Butler	Department of Infrastructure, Planning and Environment
Julian Barry	Parks Australia (representing Peter Cochrane) attending for PAN presentation only
Damien Ewington	Afmex
Position Vacant	Environment Centre NT Inc.

Absent

Bairbre Williams Jabiru Town Council

Deputies/Observers

Alex Zapantis, Office of the Supervising Scientist

Nathan Harris, Environmental Research Institute of the Supervising Scientist

Ian Loftus, Office of the Supervising Scientist

Peter Waggitt, Office of the Supervising Scientist

Elaine Glen, Northern Land Council

Chris Leiner, Energy Resources Australia - Ranger Mine

Other

Pierre Heeroma Afmex, has been transferred to France; Damien Ewington is nominated as the ARRAC Member for Afmex

ECNT A list of issues was submitted to the Secretariat to be discussed by ARRAC Members during the meeting.

Michael Lawton is nominated as the new DIPE Deputy Member to Barbara Singer

3 MINUTES OF PREVIOUS MEETING

The Final Draft Summary Record of meeting 19 held on 12 August 2003 was accepted.

4 BUSINESS ARISING FROM PREVIOUS MINUTES

It was agreed that there was no business arising from the previous minutes that would not be covered on this meeting's agenda.

5 SUPERVISING SCIENTIST SIX-MONTHLY REPORT

Alex Zapantis reported that there continues to be no evidence of any significant adverse impact in the Alligators River Region arising from uranium mining or milling activities.

RANGER

Ranger Macroinvertebrate Community Structure Monitoring

The annual monitoring data from samples collected at upstream/downstream sites during April-May of this year indicated mean dissimilarity values of approximately 0.3 at Burdulba, Gulungul, Nourlangie, and Magela Creeks. This year's macroinvertebrate monitoring values show no significant statistical difference from previous years or between control and exposed streams— there was no evidence of a mine-related effect on the macroinvertebrate community structure.

The monitoring data for fish community structure using multi-dimensional scale (MDS) ordination at Mudginberri and Sandy billabongs showed similarities in the fish community structure; and no evidence of mine effect.

Ranger On-site Developments

The steel process water lines in the mill and the steel lines in the Tailings Corridor are being replaced with HDPE pipe. NT DBIRD received the Ranger Mining Management Plan on 1 December 2003. Preliminary discussions have commenced regarding the development of detailed rehabilitation criteria for the eventual closure of Ranger mine.

Ranger Process Water Treatment

The processed water inventory at Ranger was reduced in comparison to the same time last year. A new water management strategy is being developed by ERA so the plan to construct the process water treatment plant has been deferred until 2006-2008.

Ranger Tailings Management

The tailings in Pit 1 are expected to reach Relative Level 0 (RL0) sometime in 2006. A workshop was held on 20 November 2003 to discuss the implications and management of the tailings reaching RL0. It's anticipated that ERA will submit an application in mid 2004 to vary the authorisation and allow the tailings level to exceed RL0 in Pit 1.

Ranger Radiological Monitoring of Workers

ERA have reported the raw data for dust/radon/gamma ray exposure, but were unable to report the effective doses for designated workers for last two quarters due to a problem with ERAs computer database for radiation monitoring data. As the raw monitoring data is consistent with previous

quarters, it's expected that the effective doses will also be similar to previous quarters. A new radiation-monitoring database is currently being developed by ERA.

Radon progeny and long-lived alpha activity monitoring data reported by ERA and the Supervising Scientist Division were in good agreement. All levels were low with radon progeny at Jabiru East being slightly higher as expected, due to its closer proximity to the mine site.

A worker exposure incident was promptly reported by ERA in October 2003 when two contractors were potentially exposed to product dust while making repairs to a valve in the product packing area. The radiation effective dose limit is not expected to be approached in this instance. SSD is awaiting the final report.

JABILUKA

Jabiluka Macroinvertebrate Community Structure Monitoring

The annual monitoring data from samples collected at upstream/downstream sites during the wet season of this year indicated the mean dissimilarity values of about 0.2 - 0.3 and remain relatively constant over time.

Attention was drawn to the relatively high dissimilarity values for Ngarradj Creek at the end of the 1998-99, 2000-01, and 2001-02 wet seasons. The explanation given for this was that the habitat from which macroinvertebrates are sampled is naturally sparse at the upstream site, particularly by the end of the wet season. Therefore, macroinvertebrate species abundance and diversity at the upstream site becomes reduced compared to the downstream site causing an increase in dissimilarity between the two sites. Also, the upstream site has become progressively and naturally scoured and eroded over the past several years, to the extent that the sampling habitat has almost been eliminated. As a result, the Ngarradj Creek upstream monitoring site has been moved to a new location further upstream for the 2003-04 monitoring season. There is no indication of a mine effect.

The fish community structure at Jabiluka is observed at upstream and downstream sites during the wet season in each year. At Ngarradj Creek there were only two or three species present at the upstream and downstream sites. Attention was drawn to the marked decline in dissimilarity recorded during the first observations of the 2002/03 Wet season. It was noted that there were only 2 or 3 species present at both the upstream and downstream sites when these observations were made resulting in a greater similarity between the two sites than is typically observed. The reason for the reduced species diversity at both sites is thought to be due to the observations being undertaken very early in the wet season (compared to other years) when recruitment of fish from the floodplain back upstream in the creek has not been completed.

Jabiluka Development

Jabiluka is now in a long-term care and maintenance phase.

Jabiluka Radiological Monitoring

A new radiological management plan has been developed by ERA and is now in effect. The quarterly reporting requirement was removed from the Authorisation, consistent with the absence of radiological hazard under the Long Term Care and Maintenance conditions. Radiological data for Jabiluka will be reported in next year's annual report.

Jabiluka Radiological Monitoring – Public

Very low readings were recorded that are attributed to natural background radiation.

NABARLEK

The criteria for a final closure plan for Nabarlek is currently under development. The Nabarlek MTC convened on 8 December 2003 and a Draft Issues Paper was tabled. The paper, when complete, will provide a snapshot of the status of the site in relation to rehabilitation issues and provide a resource for the ongoing development of the final closure plan. Also discussed at the MTC meeting was the rehabilitation bond. The MTC agreed that when the rehabilitation bond is reviewed in 2004, the OSS and NLC would be consulted as part of the process.

There are relatively high concentrations of radionuclides detected in 0.4-hectare portion of the site, identified now as the Radiologically Anomalous Area. The area is also the dominant source of radon for the Nabarlek site and the dominant source of radionuclides in surface runoff from the site. From examination of aerial photographs from 1989 show that the area had been used as a non-ore stockpile. It was suggested that the material in the pile had been scraped up from an evaporation pond, and was later placed in the mine pit. The MTC is discussing how to characterise the site and identify rehabilitation options for this area.

SUPERVISING SCIENTIST DEVELOPMENTS

- The OSS is reviewing the Routine Periodic Inspections format and has trialled a more formalised report.
- A review of the Water Quality Triggers is underway with a final report due for completion by July 2004. The current triggers remain in place for 2003/04 Wet season.
- Working Arrangements between the Australian and Northern Territory Governments is proceeding. DITR have provided comment, and the document will be provided to DBIRD for input. Its hopeful that the Working Arrangements document can be completed this fiscal year.
- A review of the Unplanned Events system is under review to determine whether there remains a requirement to continue reporting minor events on a weekly basis. Reporting very minor incidents in an aggregated format on a monthly basis is being considered.

ARRTC

The Key Knowledge Needs document continues to be developed by SSD and EWLS. *eriss* presented a thematic structured workplan based on the key knowledge needs at the last meeting of ARRTC; committee members seemed impressed with the approach and the broad direction of the *eriss* 2003-04 workplan was endorsed. The committee toured the key areas of the Nabarlek site and were pleased that a number of TOs were present for the tour. The independent members of ARRTC concluded that although Queensland Mine Propriety Ltd. (QMPL) has done some good work, particularly with the planting of trees in islands, more revegetation and rehabilitation is required.

SENATE INQUIRY

The Senate Inquiry Report of the Regulation of Ranger, Jabiluka, Beverly, and Honeymoon Uranium Mine was tabled in Parliament on 14 October 2003. The report consisted of a Majority Report and a Government Members Minority Report.

The Majority Report regarding uranium mining in the NT concluded that:

- The regulatory system is complex and ineffective
- There is a lack of transparency
- DBIRD has actual/perceived conflicts of interest
- There are questions regarding the Supervising Scientist's research program and the independence of Supervising Scientist
- Traditional Owners (TOs) are disempowered

The Majority Report made a total of 15 Recommendations that included:

- Clarifying the role of DBIRD and SSD in law
- Introducing stricter water quality limits
- Providing more water quality triggers
- Increased environmental monitoring
- Establishing a Forum for TOs to enable independent research

The Government Members Minority Report regarding uranium mining in the NT concluded that:

- Regulatory systems are adequate
- There is no evidence of detrimental environmental impact outside leases
- There are opportunities for improving communication especially with Aboriginal People
- There is concern that the Majority Report is biased in favour of critical submissions/evidence.

The Government Members Minority Report made the following 3 Recommendations:

- Reassessment of the relocation of *eriss* to Darwin if deficiencies in monitoring/research are identified
- Expand involvement of TOs in sample collection (bush foods etc)
- Reporting of mine events be reviewed to ensure all stakeholders have an accurate understanding of the nature of the event to avoid undue concern.

The process for responding to the Senate Inquiry Report is that the Department of the Prime Minister and Cabinet (PM&C) will nominate a Department to coordinate the development of the Government Response. To date, the OSS was not aware of the PM&C initiating the process.

Questions and Comments:

Senate Inquiry Report

Alan Laird reported that the Department of Industry, Tourism and Resources had not been requested to coordinate the Government response either.

Justin O'Brien, GAC expressed hope that the NT and Australian Governments wouldn't wait for instruction from the Commonwealth Government before responding to the recommendations from the Senate Inquiry.

Alan Hughes, DBIRD advised that the NT Government is already implementing some of the recommendations such as the working arrangements that are already in progress. He also referred to critical recommendations of the Lea Review that had been awaiting the Report from the Senate Inquiry to capture any synergies in the two reports. He reported that implementation of the recommendations of the Lea Report are also now in progress.

Justin O'Brien pointed out that there are many recommendations and that there is a need for a process to move through the recommendations.

Arthur Johnston, SSD advised that SSD cannot implement the recommendations until the Government responds to the report.

Justin O'Brien asked when Government was expected to respond to a Senate Inquiry

Arthur Johnston advised that there is a Senate rule requiring a response within 3 months of the tabling of the report.

Justin O'Brien suggested that perhaps a local, less formal approach could be taken in progressing the implementation of the recommendations.

Arthur Johnston advised that one Commonwealth Department (DEH or DITR) will be asked to lead the Government's response; and that the response will come from the Government and not from the divisional level.

Relative Level 0

Charles Webb, Chair asked on behalf on the ECNT, whether SSD could provide more detail on the status of ERA's application to deposit tailings above RL0.

Alex Zapantis informed the Chair that this information would likely be forthcoming during ERA's report to the committee.

Nabarlek Bond Reduction

Justin O'Brien, GAC asked about the announcement made by NT DBIRD at the last ARRTC meeting that the rehabilitation bond for Nabarlek had been reduced and 9.5 million dollars had been returned to Pioneer (QMPL) when the rehabilitation plan has not yet been finalised. Arthur Johnston advised that he wrote to the Commonwealth Minister for Resources voicing his concern regarding the process that was used in reducing the bond.

Tony McGill, DBIRD advised that no money has changed hands. The company is required to provide a security deposit of the agreed amount in an approved manner. A revised proforma of disturbance type was used by NT DBIRD to assess the cost estimates for rehabilitation of the area. This is an annual costing exercise that is undertaken at all minesites. DBIRD reviewed what further rehabilitation is required and estimated the costing to carry out the work within +/- 10%.

Tony McGill noted that the original amount of \$10,000,000 was calculated before the major rehabilitation earthworks had been undertaken. The current rehabilitation bond is \$400,000.

Arthur Johnston noted that as previously reported by Alex Zapantis, the Nabarlek Minesite Technical Committee had discussed the issue and agreed that when the rehabilitation bond is reviewed in 2004, the OSS and NLC would be consulted as part of the process.

Justin O'Brien asked why this was done before the final close-out plan was finalised.

Tony McGill reported that no cost assessment has been made regarding the final close out of the mine; the security bond relates to the earthworks exercise only.

Justin O'Brien asked what parties were involved in this decision, the NLC, for example. Tony McGill advised that only the company and DBIRD were involved in this decision.

6 DBIRD REPORT

Alan Hughes summarised the layout of the Ranger mine, emphasising water bodies, statutory monitoring points, and bores that DBIRD take samples from. He stressed that the monitoring points are downstream of mining activities to ensure early warning of any mine effects. He noted that during this reporting period, there were no issues and no impacts on the environment due to mining activities.

Magela Creek Uranium

There was not much flow in Magela Creek during the reporting period. A graph showed very little variation in uranium values in the Magela, and there were no significant mine effects detected.

Ranger RP1

Retention Pond 1 (RP1) weir is the major part of the sediment control zone in the area north of the tailings dam. A graph showed the levels in solutes in RP1, which overflows each wet season into Coonjimba creek, dating back to before there was stockpile activity in the upper catchment. The seasonal increases in uranium concentration were associated with that stockpiling activity and evapo-concentration that occurs in the dry season. Since ERA undertook some work to improve seepage collection from the upper catchment of RP1, the spike in uranium concentration due to import of uranium has not occurred.

The uranium load levels in RP1 remain relatively constant, but the uranium concentration is raised due to the evapo-concentration that occurs during the dry season.

Ranger RP2 / Pit 3

RP2 is the retention pond for the plant area and is a primary source of make-up water for the milling and mining operations. Pit 3 provides for excess pond water retention during the wet season and the first part of the dry season – after the wet season, water is transferred to RP2.

A gradual increase in the concentration of solutes in RP2 water can be seen because of the dry season concentration, however, the load level hasn't changed significantly.

Ranger Process Water Inventory - Tailings Dam / Pit 1

The tailings dam contains excess process water and is used as an evaporation pond. Pit 1 contains tailings and allows for excess process water retention. A reversal in the trend of increasing process water inventories can be seen over the last two seasons following lower than average wet season rainfalls. This change in trend may also be accredited to improved water management, especially reducing unnecessary intake of rainfall and similar clean water to the system.

JABILUKA

Jabiluka is now in a long-term care and maintenance phase. The removal of all infrastructure from the site is nearly complete.

Swift Creek Uranium

The upstream and downstream chemistry in Swift Creek shows no significant effects on the environment as a consequence of mining.

Interim Water Management Pond (IWMP)

The IWMP was used during construction of the decline as the source of make-up water for mining operations and as the repository for dewatering output from underground. The IWMP remains on site. ERA has removed all water from the pond during this Dry season. The removal of sediment in the pond required a considerable effort in the clean up.

Jabiluka Ground Water

Shallow bores near the turkey nest (next to the IWMP) showed an increase in solute concentrations connected to the overflow of the turkey's nest last September. The concentrations have since returned to background levels. This issue has no environmental significance.

NABARLEK

DBIRD now undertakes all water monitoring on-site, both upstream and downstream. QMPL undertakes rehabilitation works and monitoring of revegetation. DBIRD has the only water chemistry program.

Surface Water – Sulphate

Background sulphate levels for surface water remained constant at Cooper and Kadjirrikamarnda Creeks.

Groundwater

Some effects from the mid 80's on the ground water can still be seen in former forest irrigation area boreholes, especially lowered pH. Other parameters are showing a clear trend towards resumption of background values. The recovery of pH is a little slower at SP29. Baseline conditions are returning at OB25 bore after the effects of mining and rehabilitation in the early to mid 1990s.

Questions

Retention Pond 2

Charles Webb, Chair queried whether the trend in RP2 for uranium load and concentration shouldn't be described as a slight upwards trend, instead of a downward trend.

Alan Hughes agreed that there was an overall upward trend in load between 2000 and 2002 but indicated that there was more recently a slight downward trend evidenced by a lower peak load for 2003 than that for 2002. It was noted that an improvement is expected in any year when there is less water transferred out of Pit 3. It is anticipated that higher concentrations observed would decrease due to dilution with the commencement of the Wet season.

Bore Impact

Justin O'Brien, GAC asked which bores at Nabarlek were affected in the Forest Irrigation Program. Indicating the bores on a map, Alan Hughes showed that the former Forest Irrigation Area was beside the road to the left of the airstrip.

Interim Water Management Pond

Justin O'Brien, GAC asked for confirmation that the Jabiluka IWMP was not a part of the RRZ. Alan Hughes advised that the IWMP has not been excised from the RRZ in the approvals process. However, he reported that once the pond is completely cleaned, it would be removed from the RRZ.

Justin O'Brien asked whether the IWMP could receive processed water under the current MMP and Authorisation.

Simon Prebble explained that it would not be possible under the current MMP, but it could in principle be used if required.

Brendan Lewis, NLC asked whether the IWMP seepage from the ore stockpile seepage collector was still being transferred to the IWMP. Simon Prebble responded that there is no stockpile left to generate seepage; and that the seepage collector system has been closed off.

7 ISSUES RAISED BY ENVIRONMENTAL NGOS

Gill Ainsworth, Office Coordinator submitted a list of issues to the Secretariat to be discussed by ARRAC members during the meeting. The Chair managed the following issues as each issue was raised during the course of the meeting.

- ARRAC members' responses to the recommendations of the October 2003 Senate Inquiry, Regulating the Ranger, Jabiluka, Beverley and Honeymoon uranium mines;
- Further detail on the criteria and process used by DBIRD for the recent return of Nabarlek rehabilitation bond money to Pioneer;
- Detail on the status of ERA's application to deposit tailings above Relative Level 0 in pit #1 at the Ranger mine;
- Status of rehabilitation plans, works and funding re South Alligator mines; and
- What action the Commonwealth has taken to advance its commitment to the World Heritage Committee re the inclusion of the Koongarra mineral lease into Kakadu National Park

8 SENATE INQUIRY

Refer to Summary Record Number 5 - Supervising Scientist Report where this agenda item was discussed at the meeting.

9 ENERGY RESOURCES OF AUSTRALIA (ERA) DEVELOPMENTS

Chris Leiner presented the operational aspects of the ERA report that included Ranger civil earthworks, water management projects, radiation and the data management project, and Simon Prebble presented the corporate information regarding the company's activities which included the Ranger Management Team & ESH structure, the Jabiluka long-term care and maintenance project, and ISO 14001 implementation

RANGER

Ranger Civil Earthworks

Chris Leiner outlined a list of earthworks that had been conducted since the last meeting of ARRAC. He specified where construction has occurred and showed pictures of some of the work that has been completed on the minesite.

Water Management Projects

A feasibility study for a 1,000ML per year process water treatment plant has been completed; the project to construct a new water treatment plant has been deferred. An alternative water treatment strategy has been developed. The strategy emphasises reducing inputs to the process water system and involves treatment of poorer quality inputs to the pond water system. These treatment technologies are being piloted during this Wet season.

Relative Level 0

The technical investigations are progressing, including the geophysics follow-up from fieldwork, design criteria for Pit 1 and water quality criteria to ensure protection of the environment.

Process Water Return Line

A process water return line has been constructed from Pit 1 to the process plant. HDPE line replaces steel line.

Radiation Data Management Project

Dose information was not included in recent quarterly radiation reports due to a problem with part of the RMCS computer program. ERA intends to implement a radiation data management system that will fully automate the data into effective dose rates. The new radiation monitoring data management system is expected to be fully operational by the first quarter of 2004.

Ranger Structure

Simon Prebble outlined changes to the Ranger Management Team including the appointment of Harry Kenyon-Slaney who, in January 2004, replaces outgoing CEO Bob Cleary. ERA head office is relocating to Darwin from Sydney in the New Year. A new Chief Financial Officer will also be based in Darwin.

A new role was established with Dayle Kenny as the Development Manager who will integrate the long-term plan of resources together with the life-of-the-mine plan. All production responsibilities have now been combined and are the responsibility of Malcolm Keag, Production Manager.

Positions in the Environment, Safety and Health Department were reviewed. Simon noted that the vacant Environmental Support position has been a challenge in trying to fill. The position of Environmental Officer was filled recently with Andrew Speechly. The OH&S Manager position remains vacant as does the Occupational Hygienist position.

JABILUKA

The long-term care and maintenance project is nearing practical completion. It was planned that the contractors would be finished at the site on 5 December 2003.

Simon showed pictures of the very labour intensive clean-up of the IWMP, the portal backfilled with waste rock and concrete, dismantling the maintenance shed, and the fuel tank being transported from the site.

The Restricted Release Zone has now been excised and catchment works are currently in progress to implement the recommendations of a Sediment and Erosion Control Plan.

ISO 14001

Simon Prebble reported that environmental management systems (EMS) continued to be developed in all areas of ERA. NCS International Pty Ltd (NCSI) conducted the ISO14001 certification audit during 1-5 December 2003. The audit found that ERA complies with ISO14001 and ERA is being recommended for third party certification. Once the peer review is complete, ISO14001 Certification will be issued to ERA.

Questions

Radiation Safety Officer

George Koperski, H&CS commented that the Radiation Safety Officer (RSO) does not have appropriate assistance or backup and he reiterated the importance of capturing corporate knowledge and experience.

Simon agreed that acquiring this information is important, and that the completion of the data management system will be helpful in this regard, and temporary assistance has been engaged to provide cover during this exercise. He also noted that the occupational hygienist, when filled, would provide support and backup for the RSO.

Backfilling the Decline

George Koperski, H&CS asked how much of the decline has been backfilled.

Simon Prebble reported that the entire project was completed - the whole decline, portal, and box cut had been backfilled.

Radiation Monitoring

George Koperski asked whether the dust data would be included in the new radiation monitoring computer system.

Chris Leiner explained that all the radiation monitoring data would be managed by the new automated monitoring database.

Justin O'Brien, GAC asked when did the RMC computer system go down.

Chris Leiner reported that the system failed in the first quarter of this year.

Justin O'Brien asked if all monitoring data was lost.

Chris Leiner explained that all the raw data has been captured, however the raw data wasn't analysed and converted into effective dose levels.

Southern Stockpile Seepage Sump

Brendan Lewis, NLC asked about the improved performance of the southern stockpile seepage sump.

Chris Leiner explained that the 300mm laterite layer should reduce seepage.

Organizational Structure

Brendan Lewis asked if there was a requirement in the Mining Management Act for the company to have a Mine Manager.

Tony McGill said that it is not a statutory position in the Mining Management Act.

Brendan Lewis asked if this could be considered problematic.

Tony McGill explained that the onus is now on the company to ensure competent mine personnel are engaged.

Justin O'Brien, NLC asked whether ERA still has an Environmental Superintendent

Simon Prebble explained that the title has changed to a Senior Environmental Scientist and recruitment to the position is continuing.

RL0 Tailings

Charles Webb, Chair asked when the application to exceed RL0 would be submitted.

Chris Leiner explained that investigations must be completed before any applications are undertaken.

Nabarlek

George Koperski, H&CS asked whether there is any concern about elevated radon emission from the irrigation areas at Nabarlek.

Alex Zapantis, OSS reported that the levels would be a concern if someone proposed to build a house on the radiologically anomalous area, but that it was otherwise not a concern.

10 QUEENSLAND MINE PROPRIETY LTD. (QMPL) DEVELOPMENT – NABARLEK

Shane Maraldo reported that the weed management, erosion, feral animal and fire control programs are being maintained. A final draft of the weed management plan will be submitted at the next Nabarlek MTC.

11 OSS AUDITS AND REVIEWS

Ranger Uranium Mine

Peter Waggitt reported that the Ranger Audit Review was carried out on 17 November 2003 by the OSS, DBIRD and the NLC. The aim of the inspection was primarily verification of:

- Aspects of the operation's activities and processes
- Close out on conditional issues
- Development and implementation of procedures
- Effectiveness of the operation

Key areas visited included

- Corridor Creek catchment and associated structures

- Tailings dam and surrounding areas
- Stockpile areas and associated water management structures
- Pit Number 1
- Jabiru East

The outcome of the audit review found no areas of non-conformances in either Category 1 or Category 2. The gate on the RP1 weir, noted during the annual Audit in May as a conditional issue, (it was in ERA documentation but had not yet been installed at that time) has now been installed.

Three observations were made by the team

1. Housekeeping inspections are no longer sole responsibility of the Environment Departments. Each department is responsible for their own housekeeping with the Environment Department providing quality control assessments.
2. Latest version of the water management system operations manual (WMSOM) was lodged with NT DBIRD on 17 November 2003
3. Old water management system (WMS) component drawings are available to selected staff and a new software package to better facilitate this, (Dataview), is due to be installed in late November 2003

General Observations Included

- Some confusion found in one action plan outcome - difference of interpretation by two departments
- Communication issues are improving between departments
- Tailings deposition was sub-aerial at time of inspection
- Extremely satisfied with overall performance

Questions

Action Plan

Justin O'Brien, GAC asked what was the confusion regarding the action plan.

Peter Waggitt explained that it was a procedural issue between two departments regarding how departmental tickets indicate completion of a job; a difference of interpretation.

Jabiluka Environmental Audit

Peter Waggitt reported that the Ranger Audit Review was carried out on 17 November 2003 by the OSS, DBIRD and the NLC. The aim of the inspection was primarily verification of:

- Aspects of the operation's activities and processes
- Compliance with statutory requirements
- Development and implementation of procedures
- Effectiveness of the Environmental Management Plan (EMP)

Key areas visited

- Interim Water Management Pond (IWMP)
- Hardstand and former irrigation areas
- Workshop and fuel storage areas

–Potable water bores

–Vent raise #1 outlet

The outcome of the audit review found no areas of non-conformances in either Category 1 or Category 2. The single conditional issue from the May Audit related to the completion of post-wet season fauna surveys by PAN is resolved satisfactorily.

Eight other observations were made by the team:

1. There remains no documentation on wash-down for incoming/outgoing vehicles; however, wash-down is included in the site induction
2. Site wide weed maps have been produced, although none were seen exhibited on site
3. Dried weed specimens were observed in site office
4. Approximately 50% of all staff has completed flora and fauna training module and a new weed management plan exists
5. No reports of cane toads on site
6. Bunded oils/chemical storage area is being decommissioned
7. Revegetation planned only for remnant stockpile
8. All dangerous goods due to be removed from site before wet season

General Observations Included

The new wildlife escape route constructed of tires appears to work well and provide substantial assistance to wildlife attempting to exit the pond.

Questions

RL24

Andy Ralph, GAC asked what is the evaporation rate in the pond.

Peter Waggitt explained that the pond is empty and it has its own catchment area; so evaporation will exceed rainfall inputs. He pointed out that the issue would be to keep enough water in the pond so there is no problem with wind lifting the liner and damaging it.

Pond Maintenance

Arthur Johnston, SSD asked if there was any damage to the lining from the rehabilitation work.

Simon Prebble, ERA explained that there were a number of small punctures, but the punctures had been patched.

Arthur Johnston asked how much water would be maintained in the pond.

Simon Pebble reported that the MMP states that .5m be maintained in the pond at all times, and its likely there will be a need for top-up to occur periodically.

Barb Singer, NT DE&H asked if the pond was left for economic reasons.

Simon Prebble stated that it was more cost effective to leave the pond on-site and it posed no harm to the environment; and it could ultimately provide a contingency pond if it was ever required.

Infrastructure

Justin O'Brien asked if the site office remained

Simon Prebble reported that the site office was gone along with the weed specimens.

Peter Waggitt suggested that weeds management would likely become an important consideration on the site.

Revegetation

Brendan Lewis, NLC asked if any revegetation was being carried out on the site
Chris Leiner, ERA advised that the pond outer walls would continue to have vegetation, and the remainder of the site would receive ongoing review. Before the wet, ERA would shape the site for erosion sediment control.

Brendan Lewis asked if there was any seed stock to be planted this wet.
Chris Leiner explained that nothing would be planted this wet; ERA would first see what could be harnessed from the topsoil.

Brendan Lewis asked about the use of native seed stock.
Chris Leiner said native seed stock would be used for revegetation purposes. He explained that due to the degree of soil compaction, revegetation would not be successful this season

Arthur Johnston, SSD advised that OSS and *eriss* are considering the need for revegetation at Jabiluka in the context of erosion control and management. Monitoring will occur downstream.

Brendan Lewis expressed concern that weeds would populate the site in the absence of native revegetation.

Nabarlek MMP Compliance Audit

Peter Waggitt reported that QMPL, DBIRD, NLC and OSS conducted the MMP Audit on 4 November 2003. The aim of the inspection was primarily verification of:

- Aspects of operation's activities and processes
- Compliance with statutory requirements
- Development and implementation of procedures

Key areas visited included:

- Former mill area
- Former pit area
- Former waste rock dump
- Former ponds area
- Former camp area

The outcome of the audit of the MMP found no areas of non-conformances in either Category 1 or Category 2. There were no conditional issue identified.

Twelve Observations were made by the team:

1. The use of local contractors seems to have been very effective for 3 wet seasons now
2. OH&S policy remains unchanged but details of DEMED workers induction unclear
3. The environmental policy remains unchanged
4. There is some evidence of leaf build-up on firebreak; QMPL may wish to introduce changes to fire management system e.g. inspections later in the dry season
5. No evidence of cane toads seen or reported
6. Some yellowing of trees seen on site
7. Trees seen in several locations flowering and seeding, mostly planted by QMPL in 1996
8. Authorisation was reviewed by NTDBIRD and QMPL in September 2003

9. Wet season work is based on fly in / fly out system
10. The culvert near main gate is badly eroded
11. QMPL has no plans to change present monitoring regime
12. The team saw the camp and landfill site but did not inspect Kadjirrikamarnda or Cooper Creeks

Peter Waggitt reported that there was a definite improvement of the site. A natural species, Turkey Bush, was observed to have colonised a former irrigation plot beside the airstrip, and the islands of trees have been particularly successful.

Questions

Conditional Issues

Barb Singer, NT DE&H queried why the site contamination survey was not listed as a conditional issue.

Peter Waggitt/Shane Maraldo explained that the report was completed 24 November 2003 and that the samples were now in Brisbane; therefore the issues is considered resolved.

Revegetation

Andy Ralph, GAC inquired how many staff is employed to carry out revegetation.

Shane Maraldo advised that the CDEP has a floating crew of six plus a supervisor.

Infrastructure

Charles Webb, Chair asked what are the plans for the remaining standing infrastructure.

Peter Waggitt advised that the NLC and QMPL are meeting in the future to discuss the infrastructure. The white and green tanks are owned by the TOs.

Brendan Lewis, NLC explained that the tanks may be salvageable and the NLC may have some funds available for the site. NLC hopes to enter into discussions with QMPL on this issue in 2004.

12 EXPLORATION

Peter Waggitt presented Cameco's uranium exploration activity inspection program conducted by OSS, NLC, and DBIRD. The inspection program concluded:

- That work continues with good Environmental Management
- Impacts on the sites have been minimised
- The sites are clean and tidy
- Waste management is good
- Hydrocarbon management is good
- Rehabilitation is good

Peter Waggitt reported that the team revisited a 3 year-old drilling site in response to previously stated ARRAC Members interest in a longer-term observation of an inspection site. After a prolonged search, the team found the site, and the former drilling area is now indistinguishable from the natural surrounding area.

Questions

Unclean Site

Andy Ralph, GAC ask about the owner of a site approximately 10 km east of Ranger that still exhibited four large trenches and had a number of drills lying around.

None of the committee members were able to identify the owner, but Peter Waggitt indicated that he'd try to determine ownership of the site.

General Questions

Ron Matthews, Cameco reported that cane toads had been observed on Cameco's exploration site.

Brendan Lewis, NLC congratulated ERA for being very close to successfully completing the large undertaking of ISO 14001 Certification.

Brendan Lewis further congratulated on Cameco and QMPL their well-conducted work.

SOUTH ALLIGATOR VALLEY MINE REHABILITATION

Julian Barry presented the Gunlom Land Trust Area uranium mine rehabilitation project. Part A of the project concerns the sites that are non- radiologically contaminated, and Part B of the project concerns radiologically contaminated sites.

Part A of the Gunlom Land Trust (GLT) Rehabilitation Plan.

- The final draft of Part A was completed in April 2003, with inclusion of cultural context provided by the NLC. PAN is now awaiting written final approval from the NLC.
- A few minor questions raised by ARPANSA have been resolved.
- There has also been positive feedback from ARRTC.
- Environmental assessment of proposed works is well advanced.
- Substantial funding for Part A works will be required.
- Part B of the Gunlom Land Trust (GLT) Rehabilitation Plan. The EWLS consultants have completed a draft paper entitled 'Desk Top Review – Potential Containment Sites for Radiologically Contaminated Material, Gunlom Land Trust, Kakadu'. The paper includes a desk top review of potential containment sites within the GLT area, concluding a couple of sites may be suitable for further consideration and assessment.
- The next step is consultation with TO's about further investigation of these sites to determine their potential suitability for a containment facility.

The last Risk Management Action to be completed is to construct a monument at the three 1991 containments which may contain radiologically contaminated materials. .

There are ongoing regular inspections of the Gunlom residues site and storage facility.

Questions

Level of Contamination

Justin O'Brien, NLC asked the quantity of contaminated materials at Gunlom.

Julian Barry reported that the current estimate is approximately 8,000 m³

Justin O'Brien asked if the Desktop paper was a public document.

Julian Barry explained that it is not, but if GAC were willing to treat the paper confidentially and as a draft, PAN would make the paper available for their information.

Justin O'Brien enquired if El Sherana was in Part A or Part B

Julian Barry reported that El Sherana is largely Part A, except for the core shed and the containment created in 1991.

Funding

Charles Webb, Chair inquired about the rehabilitation funding.

Julian Barry advised that approximately 2 million dollars would be required for rehabilitation of Part A and that efforts are being made to try and secure funding for this, as the Kakadu budget does not have provisions for such funds

General Questions

Charles Webb, Chair inquired on behalf of ECNT what action the Commonwealth has taken to advance its commitment to the World Heritage Committee re the inclusion of the Koongarra mineral lease into Kakadu National Park

Julian Barry explained that this was not a PAN issue and he had no knowledge of the matter.

Arthur Johnston, SSD suggested that, whichever department is responsible for this item, has not progressed the issue; otherwise others would be aware of the change.

13. MEMBERS REPORT

Department of Health and Community Services

George Koperski summarised the DHCS written report of 17 November 2003 that was submitted for inclusion into ARRAC 20 documentation.

Revision of NT Radiation (Safety Control) Act

The draft of the *Radiation Protection Bill* 2003 is complete. Cabinet approval to introduce the Bill into the NT Legislative Assembly will be sought during the first quarter of 2004. The new legislation will deal with radiation protection related to both ionising and for the first time, non-ionising radiation.

National Directory for Radiation Protection

ARPANSA is expected to release the second Draft of the NDRP for public comment. The Directory will provide a "template" of radiation protection legislation for use by states and territories when amending or redrafting their radiation protection legislation. The completion and approval of the NDRP is expected by end of 2004.

DHCS and Power & Water Corporation Analyses of Drinking Water Supplies in Remote Communities

DHCS and PWC have been conducting analyses of drinking water supplies, in urban centres and major Aboriginal communities, characterised by elevated levels of chemical and radiological contaminants. The elevated contaminants are not widespread. Where contaminants are found, communities are consulted and management plans are prepared. It's intended to extend the program to include outstations, pending further consultation with ATSI/ATSIC.

Questions

General Comments

Justin O'Brien, GAC advised the committee that the NNP Safeguard Bill was recently passed in the Senate. The GAC put forward a submission in anticipation of broadening the definition of "nuclear activities". GAC will continue to seek clarification on the definition.

George Koperski referred to the OH&S Environmental Radiation Protection Systems and asked whether Ranger still had a similar OH&S rating System.

Simon Prebble reported that Ranger no longer has a 5-star rating system, but ERA does have a safety management system. He noted that aspects of the environmental management system have about 60% commonality with ISO14001.

14. OTHER BUSINESS

None.

The Chair thanked the presenters for their concise presentations, the committee members for their input, and the Supervising Scientist Division for support provided to the committee.

15. NEXT MEETING

The next meeting is tentatively scheduled for 11 August 2004 at the Jabiru Field Station in Jabiru. The date will be confirmed in June 2004.