

# **Yakabindie nickel project**

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**Dominion Resources Pty Ltd**

**Proposed change to environmental conditions**

**Report and recommendations  
of the Environmental Protection Authority**

**Environmental Protection Authority  
Perth, Western Australia  
Bulletin 781  
June 1995**

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#### THE PURPOSE OF THIS REPORT

This report contains the Environmental Protection Authority's environmental assessment and recommendations to the Minister for the Environment on the environmental acceptability of the proposal.

Immediately following the release of the report there is a 14-day period when anyone may appeal to the Minister against the Environmental Protection Authority's report.

After the appeal period, and determination of any appeals, the Minister consults with the other relevant ministers and agencies and then issues his decision about whether the proposal may or may not proceed. The Minister also announces the legally binding environmental conditions which might apply to any approval.

#### APPEALS

If you disagree with any of the contents of the assessment report or recommendations you may appeal in writing to the Minister for the Environment outlining the environmental reasons for your concern and enclosing the appeal fee of \$10.

It is important that you clearly indicate the part of the report you disagree with and the reasons for your concern so that the grounds of your appeal can be properly considered by the Minister for the Environment.

#### ADDRESS

Hon Minister for the Environment  
12th Floor, Dumas House  
2 Havelock Street  
WEST PERTH WA 6005

#### CLOSING DATE

Your appeal (with the \$10 fee) must reach the Minister's office no later than 5.00 pm on 16 June, 1995.

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## Summary

The Environmental Protection Authority (EPA) herein reports on the environmental implications of the proposed modification of one condition from the Minister for the Environment's 1990 statement of approval for the Yakabindie Nickel Project.

The Yakabindie Nickel Project was originally assessed by the EPA in 1990. The EPA subsequently assessed additional project expansions and modifications for the mining project. Since initial approval, substantial commencement of the project has not occurred mainly due to falling nickel prices.

Current nickel prices, improved commercial and other operational factors are reasons put forward by Dominion Resources Pty Ltd (the proponent) to indicate that project development in the near future is now likely. One of the commercial factors supporting this is the possible involvement of North Ltd in the project, upon which project go ahead could occur in December 1995. However, the joint venture arrangements between Dominion Resources Pty Ltd and North Ltd are not yet finalised and project commencement is influenced by the outcome of those arrangements.

Current conditions set by the Minister for the Environment on the project include a time limit of approval of five years, which would lapse in November 1995. The proponent has therefore requested a three year extension of approval to commence the project whilst the joint venture arrangements with North Ltd are finalised.

The EPA considers the extension of project approval for three years has no significant environmental implications and recommends that environmental approval be granted for a further three years.

Since 1991, there have been improvements in the way in which conditions are worded and structured, to make procedures, requirements and responsibilities clearer. Without changing the intent or effect of the conditions, the EPA recommends that these improvements should be implemented in the new environmental statement.

<b>Recommendation No.</b>	<b>Summary of recommendations</b>
1	Environmental approval be granted for three years from the date of the new statement.
2	Consolidate, restructure and reword current conditions.

## **1. Introduction and background**

The Environmental Protection Authority (EPA) has been requested by the Minister for the Environment, under Section 46 of the *Environmental Protection Act 1986*, to report on proposed changes to the Yakabindie Nickel Project.

Dominion Resources Pty Ltd (the proponent) submitted a Consultative Environmental Review for the Yakabindie Nickel Project in April 1990 (Soil and Rock Engineering Pty Ltd, 1990). Following environmental impact assessment of the project by the EPA (EPA, 1990), the Minister for the Environment approved the project on 29 November 1990, subject to environmental conditions (Appendix 1a).

The EPA subsequently assessed modifications to the project including the relocation of the concentrator, tailings dam and waste dumps (EPA, 1991) and incorporation of a new open pit and associated waste dump area, and an expansion of the Six Mile Pit (EPA, 1992). These modifications were approved by the Minister for the Environment in May 1991 and February 1993 respectively (Appendices 1(b) and 1(c)).

To date, Dominion Resources Pty Ltd (Dominion) has not substantially commenced the project.

## **2. Summary description of proposal**

In its letter of 3 March 1995 to the Minister for the Environment, Dominion advised that the Yakabindie project was temporarily put on hold in 1992 after a fall in nickel prices. Since that time a number of factors have changed, indicating a likelihood of project development in the near future. However, before the project commences, Dominion is awaiting a joint venture arrangement with North Ltd to be exercised. Due to condition 8 of the Minister for the Environment's statement of November 1990, which incorporates a 'sunset clause' on project commencement, environmental approval could lapse before the joint venture arrangements are in place.

Condition 8 states:

*"If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void..."*

The existing wording in condition 8 means that project approval would lapse on 29 November 1995. The potential for a lapse in project approval creates uncertainty for Dominion and the arrangements it is seeking to put in place with North Ltd.

Dominion has therefore written to the Minister for the Environment requesting that condition 8 in the Minister's statement of November 1990 be amended to allow environmental approval to be extended for a further three years.

## **3. Environmental impact assessment process**

The assessment process employed by the EPA was to consider the environmental implications of the proposed extension of environmental approval for a further three years. In conducting its assessment, the EPA takes the opportunity to update the Minister's statement in view of modern methods of structuring statements, wording environmental conditions and assigning auditing responsibility.

## 4. Evaluation

### 4.1 Environmental implications of extension

In its letter of 3 March 1995, to the Minister for the Environment, Dominion advised that the existing environment at Yakabindie remains the same as that previously assessed by the EPA. The EPA has also received advice from the Water Authority of WA, the Department of Conservation and Land Management, the National Parks and Nature Conservation Authority, the Department of Minerals and Energy and the Department of Resources Development. These agencies did not identify any issues regarding the proposed extension of environmental approval. It is the Department of Environmental Protection's view that, if implemented, the change sought will not change the environment at the Yakabindie Nickel project site.

#### Limitation

This evaluation has used information currently available, which has been provided by the proponent in the proposal document (letter of 3 March 1995), by DEP officers using their expertise and reference material, by the use of expertise and comments from other state government agencies and the public, and by contributions from EPA members.

The EPA considers that Dominion's request for a time limit of approval of three years from the date of the new statement arising from this assessment is reasonable and should be approved. The EPA believes that any approval based on this assessment should be limited to three years. Accordingly, if the proposal has not been substantially commenced within three years of the date of the new statement, then environmental approval should lapse. After that time, further consideration of the proposal should occur only following a new referral to the EPA. (Condition 8, Section 6, reflects this conclusion)

#### **Recommendation 1**

**Environmental approval for the proposal should be for three years from the date of the new statement.**

### 4.2 Review of environmental conditions

The Yakabindie Nickel Project is currently subject to environmental conditions and commitments set as a result of previous environmental impact assessments (Table 1).

**Table 1. Summary of proposals assessed for the Yakabindie Nickel Project**

Proposal	EPA Bulletin No.	EPA Assessment No.	Date of Minister for the Environment's Statement	EPA Statement No.
Yakabindie Nickel Project [original proposal]	444	352	29 Nov 1990	117
Yakabindie Nickel Project - change of condition due to modification to location of facilities [Sec 46]	509	352-A	28 May 1991	142
Yakabindie Nickel Project [change of condition to incorporate new open pit, waste dump area and expand Six Mile Pit (Sec 46)]	668	765	2 Feb 1993	302

## Objective

The objective of reviewing current conditions and commitments is to achieve one environmental statement and one list of proponent commitments that provides for adequate protection of the environment and for efficient and effective environmental auditing of the project. It is also considered that this objective will assist the public, the proponent and relevant agencies to more easily identify environmental requirements associated with the Yakabindie Nickel Project.

### 4.2.1 Changes to environmental conditions

The EPA has taken this opportunity to recommend the review, revision and consolidation of existing environmental conditions. Recommended changes are summarised in Table 2 which should be examined in conjunction with Table 1 above, and the original environmental conditions in Appendices 1(a) to 1(c). The recommended environmental conditions arising from this assessment appear in Section 6 of this report. There are no changes to the proponent's commitments, which are included with Appendix 1(a).

**Table 2. Summary and evaluation of changes to environmental conditions**

State- ment No.	Original Condition No.	Intent of original condition	Evaluation	New Condition Number
117	1	Adhere to commitments	Carried over and modified to conform with current style.	1
	2	Adhere to proposal	Carried over and modified to conform with current style.	2
	3	Prepare and implement a drainage management programme	Carried over and modified to conform with current style. The part of this condition (3-1) that requires a plan to be prepared has been met to the satisfaction of the Minister for the Environment on 30/12/91.	3-1 3-2
	4	Diversion of Jones Creek	Carried over and modified to conform with current style. The part of this condition (4-1) that requires a design to be prepared has been met to the satisfaction of the Minister for the Environment on 30/12/91.	4-1 4-2
	5	Prepare and implement rehabilitation plans	Carried over and modified to conform with current style.	5-1 5-2
	6	Decommissioning	Carried over and modified to conform with current style.	6-1 6-2 6-3
	7	Transfer of ownership	Carried over and modified to conform with current style.	7
	8	Time limit on approval	Extended by three years. Evaluation of this issue is provided in Section 4.1 of this report.	8
142 (Sec 46)	1	Adhere to commitments	Carried over and modified to conform with current style.	1
302 (Sec 46)	1A	Adhere to commitments	Carried over and modified to conform with current style.	1
	1B	Adhere to proposal	Carried over and modified to conform with current style.	2
	9-1	Compliance auditing	Carried over and modified to conform with current style.	9

## **Recommendation 2**

The new statement issued from this assessment should be structured to reflect the changes to the conditions summarised in Table 2.

## **5. Conclusions**

The EPA concludes that there are no environmental implications associated with extending project approval for a three year period from the date of the new statement. The EPA also concludes that the conditions for the project should be updated in line with current best practice, by the consolidation of the environmental statements for the proposal of 29 November 1990, 28 May 1991 and 2 February 1993 and other minor improvements in wording and layout.

## **6. Recommended environmental conditions**

The following recommended environmental conditions would amend the Minister for the Environment's previous Statements for the Yakabindie Nickel Project as reported in Environmental Protection Authority Bulletins 444, 509 and 668 (Appendices 1(a) to 1(c)), and modify conditions to reflect the recommendations in this report.

### **STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL (PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE ENVIRONMENTAL PROTECTION ACT 1986)**

PROPOSAL:	YAKABINDIE NICKEL PROJECT, LEONORA (ASSESS. NOs. 352, 352-A, 765, 957)
CURRENT PROPONENT:	DOMINION RESOURCES PTY LTD
CONDITIONS SET ON:	29 NOVEMBER 1990
CONDITIONS AMENDED ON:	24 MAY 1991, 2 FEBRUARY 1993

The implementation of this proposal is now subject to the following conditions which replace all previous conditions:

#### **Proponent Commitments**

The proponent has made a number of environmental management commitments in order to protect the environment.

- 1 In implementing the proposal as reported on in Environmental Protection Authority Bulletin 444 and subsequently modified and reported on in Environmental Protection Authority Bulletins 509 and 668, the proponent shall fulfil the relevant commitments, provided that the commitments are not inconsistent with the conditions or procedures contained in this statement.

A copy of the environmental management commitments to be audited by the Department of Environmental Protection is attached.

#### **Implementation**

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.



- 2 Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

### **Drainage Management Programme**

Detailed plans for the management of drainage are required.

- 3-1 Prior to the commencement of productive mining, the proponent shall prepare a Drainage Management Programme to include drainage of the waste dumps, ore stockpiles, processing plant and the tailings dam, to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection in consultation with the pastoral lessee. This programme shall ensure that drainage does not unacceptably affect vegetation on the site and environs or the quality of water in Jones' Creek.
- 3-2 The proponent shall implement the Drainage Management Programme required by condition 3-1.

### **Jones' Creek Diversion**

Diversion of Jones' Creek should be designed to ensure that downstream water flows are maintained in the long term.

- 4-1 Prior to undertaking work for the diversion of Jones' Creek, the proponent shall design the diversion to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection and the Department of Minerals and Energy. The design shall be prepared in consultation with the pastoral lessee giving regard to historical information on local flood heights of Jones' Creek.
- 4-2 The proponent shall implement the design required by condition 4-1.

### **Rehabilitation**

In addition to waste dumps, ore stockpiles and tailings dams other project areas will need to be properly rehabilitated.

- 5-1 Within six months following project commissioning, the proponent shall prepare on-going rehabilitation plans to the requirements of the Department of Environmental Protection on advice of the Department of Minerals and Energy.
- 5-2 The proponent shall implement the rehabilitation plans required by condition 5-1.

Note: The plans required by condition 5-1 will be made available for review by the Department of Environmental Protection.

### **Decommissioning**

- 6-1 The proponent shall satisfactorily decommission the project, remove the plant and installations, and achieve the final rehabilitation of the site and its environs.
- 6-2 At least twelve months prior to decommissioning, the proponent shall prepare a decommissioning and final rehabilitation plan to achieve the objectives of condition 6-1. This plan shall ensure the stability of the site in the long term with particular reference to drainage.

- 6-3 The proponent shall implement the decommissioning and final rehabilitation plan required by condition 6-2.

**Proponent**

These conditions legally apply to the nominated proponent.

- 7 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

**Time Limit on Approval**

The environmental approval for the proposal is limited.

- 8 If the proponent has not substantially commenced the project within three years of the date of this statement, then the approval to implement the proposal as granted in the statement of 29 November 1990 shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced.

Any application to extend the period of three years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the three year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority.)

**Compliance Auditing**

To help determine environmental performance, periodic reports on progress in implementation of the proposal are required.

- 9 The proponent shall submit periodic Progress and Compliance Reports, in accordance with an audit programme prepared by the Department of Environmental Protection in consultation with the proponent.

**Procedure**

- 1 Unless otherwise specified, the Department of Environmental Protection is responsible for assessing compliance with the conditions contained in this statement and for issuing formal clearance of conditions.
- 2 Where compliance with any condition is in dispute, the matter will be determined by the Minister for the Environment.

List of proponent commitments are as attached to Appendix 1(a).

## 7. References

Environmental Protection Authority 1990, *Yakabindie Nickel Project*, Report and Recommendations of the Environmental Protection Authority, Bulletin 444, August 1990, Perth, Western Australia.

- Environmental Protection Authority 1991, *Yakabindie Nickel Project - change of condition due to modification to location of facilities*, Report and Recommendations of the Environmental Protection Authority, Bulletin 509, March 1991, Perth, Western Australia.
- Environmental Protection Authority 1992, *Yakabindie Nickel Project*, [Proposed change to environmental conditions], Report and Recommendations of the Environmental Protection Authority, Bulletin 668, December 1992, Perth, Western Australia.
- Soil and Rock Engineering Pty Ltd 1990, *Yakabindie Nickel Project Feasibility Study Consultative Environmental Review*, Dominion Mining Limited, Perth, Western Australia.

# **Appendix 1**

## **Environmental conditions for the Yakabindie Nickel Project**

- Appendix 1(a): Yakabindie Nickel Project at Leonora 29 November 1990
- Appendix 1(b): Yakabindie Nickel Project 28 May 1991  
[Report under Section 46 of the Environmental Protection Act]
- Appendix 1(c) Yakabindie Nickel Project, Leonora (352 / 352-1 / 765) 2 February 1993  
[Report under Section 46 of the Environmental Protection Act]



WESTERN AUSTRALIA  
MINISTER FOR THE ENVIRONMENT

Appendix 1(a)

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED  
(PURSUANT TO THE PROVISIONS OF THE ENVIRONMENTAL PROTECTION ACT 1986)

**YAKABINDIE NICKEL PROJECT AT LEONORA**

This proposal may be implemented subject to the following conditions:

1. In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the Consultative Environmental Review and in Appendix 1 of the Environmental Protection Authority Bulletin 444 which consolidates responses to issues during the assessment. (A copy of the commitments is attached).
2. Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.
3. Prior to the commencement of productive mining, the proponent shall prepare and implement a drainage management programme to include drainage of the waste dumps, ore stockpiles, processing plant and the tailings dam, to the satisfaction of the Minister for the Environment on the advice of the Environmental Protection Authority in consultation with the pastoral lessee. This programme shall ensure that drainage does not unacceptably affect vegetation of the site and its environs or the quality of water in Jones Creek.
4. Prior to undertaking work for the diversion of Jones Creek, the proponent shall propose a design for the diversion to the satisfaction of the Minister for the Environment on the advice of the Environmental Protection Authority and the Department of Mines. The design shall be prepared in consultation with the pastoral lessee regarding historical information on local flood heights of Jones Creek. The proponent shall subsequently implement the design to the satisfaction of the Environmental Protection Authority and the Department of Mines.
5. Within six months following project commissioning, the proponent shall prepare and implement ongoing rehabilitation plans to the satisfaction of the Environmental Protection Authority upon advice from the Department of Mines. These plans shall be made available for review by the Environmental Protection Authority.
6. The proponent shall be responsible for decommissioning and removal of the plant and installations and rehabilitating the site and its environs to the satisfaction of the Environmental Protection Authority. At least twelve months prior to decommissioning, the proponent shall prepare and subsequently implement a decommissioning and rehabilitation plan to the satisfaction of the Environmental Protection Authority upon advice from the Department of Mines. This plan shall ensure the stability of the site in the long term with particular reference to drainage.

Published on

4 DEC 1990

7. No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.
8. If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority).



Bob Pearce, MLA  
MINISTER FOR THE ENVIRONMENT

29 NOV 1990

**Appendix 1**  
**Yakabindie Nickel Project**  
**Summary of proponent's commitments**

## **1.0 Introduction**

Reference should be made to the Consultative Environmental Review document for a detailed understanding of project and the environmental monitoring and management programmes planned by the proponents.

## **2.0 Commitments**

Dominion undertakes to fulfil the following commitments to protect the environment and public during the life of the Yakabindie Project from commitment to proceed with the project to decommissioning following the completion of mining, and while ever Dominion holds the leases on which project activities have been undertaken.

### **2.1 Government acts and regulations**

- Comply with the requirements of all applicable Acts and Regulations.

### **2.2 Environmental Officer**

- Appoint a Project Environmental Officer prior to the commencement of construction whose duties include:
  - (i) environmental impact assessment and monitoring of project activities;
  - (ii) design and implementation of the progressive rehabilitation programmes including research activities associated;
  - (iii) establish fauna monitoring programmes in consultation with CALM;
  - (iv) establish feral animal eradication programmes in consultation with CALM and the APB;
  - (v) liaise and report to Government Departments as required in relation to environmental matters;
  - (vi) act as an honorary warden for the Wanjarri Nature Reserve;
  - (vii) Set up an educational programme as part of the site induction of employees for the protection of the Wanjarri Nature Reserve and areas surrounding the project;
  - (viii) obtain the appropriate licence from CALM for seed collection activities associated with rehabilitation.

### **2.3 Environmental management programme**

#### **2.3.1 Baseline studies**

- Carry out a baseline survey of Jones Creek aquatic biology and water quality as soon as possible prior to commencement of construction;
- Carry out a baseline groundwater quality survey as soon as possible prior to the commencement of construction downstream of the tailings dam and in the borefield areas.

### 2.3.2 Monitoring and inspection programmes

- Monitor groundwater levels and groundwater quality immediately downstream of the tailings dam on a regular weekly basis;
- Carry out daily inspections of the tailings dam;
- Monitor water quality of Jones Creek during the life of the project;
- Monitor groundwater resources (water quality and water levels) in the borefields and pastoral wells at Miranda, Paddy's Knob, Townsend and Henry Wells and pit dewatering, and evaluate extent and depth of drawdowns;
- Carry out regular inspections of the water pipeline from the borefields;
- Monitor noise levels to ensure compliance with Government Acts and Regulations.

### 2.3.3 Operational management procedures

#### 2.3.3.1 Dust Control

- Establish dust suppression programmes to comply with Mines Department Regulations and minimise dust pollution of the project area and adjacent nature reserve through the following procedures:
  - (i) minimise clearing of land by staging clearing works and keeping clearing to the minimum for essential use consistent with safe and efficient operations;
  - (ii) fencing off areas not to be disturbed by the project;
  - (iii) limiting development of tracks and roads to essential requirements;
  - (iv) damping haul roads and plant roads with low salinity water when available;
  - (v) carry out trails with dust suppressant materials (enzymes) mixed with water to assist with dust suppression;
  - (vi) progressive rehabilitation of tailings dam and waste dumps;
  - (vii) cover the side slopes and upper surfaces of the tailings dam and waste dumps with rock to prevent wind erosion and dust formation.
  - (viii) - Dominion will control dust on roads to the tip face using water carts (similar to elsewhere on the lease)
  - The northern and easterly faces of each dump lift will be rehabilitated early in the life of the Eastern Waste dump, and paddock dumping will occur in a southerly direction to reduce the chance of dust impact further.

#### 2.3.3.2 Noise

- Where possible, minimise blast noise impact by scheduling blasting during optimal meteorological conditions.

#### 2.3.3.3 Rehabilitation and decommissioning

- Carry out progressive rehabilitation of the waste dumps and tailings dam embankments and rehabilitate the project area to the level of the existing land use in accordance with the rehabilitation programme. This programme will be planned and carefully implemented from the commencement of mining to ensure it becomes part of the operational procedures of the project ensuring its cost effectiveness. Developments in rehabilitation techniques will be incorporated into the rehabilitation programme as appropriate.



- (i) Vegetation and topsoil salvage
- in areas to be disturbed, all vegetation litter and topsoil (where present) will be salvaged by progressive removal in front of advancing waste dumps and immediately redeployed, where possible, to conform to natural thickness.
  - Where redeployment is not possible, material will be stockpiled in areas specifically reserved for this purpose adjacent to redeployment areas for short term storage, these stockpiles will be surface ripped, seeded and fertilised.
- (ii) Waste dumps
- are designed and will be constructed to blend into the existing topography such that visual impact from the main roads is minimised.
  - will be constructed with overall 20 degrees overall slopes, in 10 metre high lifts, with a 5 metre wide berm for rehabilitation access separating each lift, with dumping to commence from the outside of the dumps and each lift built to full height before dumping in the centre is commenced.
  - Tops of the dumps will be sloped towards the centre of the dump, ripped on completion of construction and windrows constructed at the edge of each terrace.
  - Outer faces will be moonscaped and covered with fresh rock.
- (iii) Open Pit
- On completion of mining the pit will be left in accordance with the details as laid out in the Department of Mines interim guidelines on safety bund walls around abandoned open pits.
- (iv) Tailings Dam
- Will be constructed and operated to maximise water return and tailings density, by collection of water through the central decant and upstream toe drain, with return water being re-used in processing.
  - Will be constructed with 20 degrees overall slopes in 10 metre high lifts with a 5 metre wide berm for rehabilitation access separating each lift.
  - The tailings dam will be covered with a layer of waste rock on completion of mining.
  - Outer slopes will be moonscaped and covered with fresh rock.
  - The tailings lines will be located on the rebated upstream side of the embankment, and a downstream bund will be constructed to contain spills from water return lines which will be fitted with pressure transducers for automatic shut off and one way valves to limit drainage of these lines.
  - Bunds will be constructed between the plant and downstream toe drain to contain any pipeline breakages between the plant and tailings dam.
  - Decant systems will be left open on completion of mining to assist drainage, with any toxic leachates neutralised by passive methods or directed by pipeline into the abandoned open pit.
  - In the event of adverse groundwater quality changes detected by groundwater monitoring a recovery bore or seepage trench system will be installed alternative tailings disposal techniques investigated or an alternative tailings disposal site will be considered.
- (v) Support facilities
- establishment and re-introduction of local native flora will be carried out and coordinated by the environmental officer in the village area.

- sewage disposal will be carried out in a purpose built treatment plant for the main village and by septic tank and leach drain as appropriate for the houses and main offices. 4
- all domestic waste will be buried within the waste dump.
- to minimise clearing requirements powerlines, water lines and associated access roads will be constructed in one corridor.
- on completion of mining all buildings and equipment including water pipelines and power transmission lines will be removed. All pipes and boreholes will be capped, costeans backfilled and the ground ripped and seeded. All sites will be left clean and tidy.

#### 2.3.3.4 Surface water

- Install silt traps to collect run-off from roads, waste dumps and tailings dam and prevent sediment from entering the drainage channels in accordance with the management plan for drainage to be provided to the Mines Department prior to commencement of construction;
- Disruption of overland water flow will be minimised by placing the maintenance road adjacent to the pipeline on the same level as the existing ground and raising the pipeline as appropriate to the topography and at least every 50 metres to permit free passage of run-off.
- In the unlikely event that the existing design of the eastern waste dump has not fully obviated the chance of ponding of water during an extraordinary rainfall event leading to flooding of part of the southern areas of the reserve, further suitable earthworks would be performed at that time to overcome such a problem.

#### 2.3.5 Groundwater

- A groundwater management programme will be adopted to balance project requirements from the borefields with the quantities of water recovered from the tailings dam and mine dewatering;
- Pipelines from the borefields will be fitted with a series of one way valves at strategic locations to limit draining of pipes in the event of pipeline failure or for maintenance requirements.

#### 2.3.3.6 Hazardous substances

- Transportation, storage and handling of hazardous substances will be in accordance with the appropriate regulations.
- Waste oils will be combined with fuel for the power station. Waste grease will be collected and transported off site for recycling.

#### 2.3.3.7 Nature Reserve

- Provide new access to the Wanjarri Nature Reserve complete with gate and appropriate fencing.
- Institute education programmes as part of the site induction of employees for the Wanjarri Nature Reserve.

#### 2.3.3.8 Pastoral activities

- Erect fencing as agreed with relevant parties around some or all parts of the development.

- Provide additional stock watering points where wells are affected by project dewatering.

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#### **2.3.3.9 Fire control**

- Maintain strict fire control procedures.

#### **2.3.3.10 Access to the project**

- Restrict human and non avian faunal access to potentially hazardous areas by fencing if required.
- Signs, fences and gates will be installed where necessary to prohibit public access to the mine site and village.

#### **2.3.3.11 Aboriginal interests**

- Submit an application to the WA Museum for Aboriginal artefact sites which are to be disturbed.

#### **2.3.3.12 Conditions of employment**

- Recreational activities such as off road driving, hunting, etc, will not be permitted by employees.
- Keeping of domestic animals (dog, cats, etc) will be prohibited on the project.

### **2.4 Environmental management reports**

- Submit an annual report of environmental management and monitoring programmes to an agreed format and content with State Authorities.



WESTERN AUSTRALIA  
MINISTER FOR THE ENVIRONMENT

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL  
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)

PROPOSAL : YAKABINDIE NICKEL PROJECT

CONDITIONS SET ON : 4 DECEMBER 1990

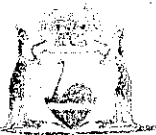
Condition 1 has been amended to read as follows:

In implementing the proposal (including the documented modifications of 20 February 1991) the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the Consultative Environmental Review and in Appendix 1 of the Environmental Protection Authority Bulletin 444 which consolidates responses to issues during the assessment.

Bob Pearce, MLA  
MINISTER FOR THE ENVIRONMENT

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Published on  
28 MAY 1991



WESTERN AUSTRALIA  
MINISTER FOR THE ENVIRONMENT

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL  
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE  
ENVIRONMENTAL PROTECTION ACT 1986)**

PROPOSAL: YAKABINDIE NICKEL PROJECT, LEONORA  
(352 / 352-1 / 765)  
CURRENT PROPONENT: DOMINION MINING LIMITED  
CONDITIONS SET ON: 29 NOVEMBER 1990  
AMENDED ON: 24 MAY 1991

Condition 1 is amended to read as follows:

**1A Proponent Commitments**

In implementing the proposal (including the documented modifications of 20 February 1991 and 15 October 1992) the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made in the Consultative Environmental Review and in Appendix 1 of Environmental Protection Authority Bulletin 444 which consolidates responses to issues raised during the assessment. (A copy of the commitments is attached.)

**1B Implementation**

Subject to the conditions in this amended statement, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where, in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

The following condition and procedure are inserted following condition 8:

**9 Compliance Auditing**

In order to ensure that environmental conditions and commitments are met, an audit system is required.

- 9-1 The proponent shall prepare periodic "Progress and Compliance Reports", to help verify the environmental performance of this project, in consultation with the Environmental Protection Authority.

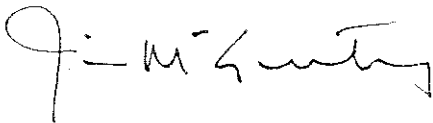
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## Procedure

The Environmental Protection Authority is responsible for verifying compliance with the conditions contained in this statement, with the exception of conditions stating that the proponent shall meet the requirements of either the Minister for the Environment or any other government agency.

If the Environmental Protection Authority, other government agency or proponent is in dispute concerning compliance with the conditions contained in this statement, that dispute will be determined by the Minister for the Environment.

A handwritten signature in cursive script, appearing to read "Jim McGinty".

Jim McGinty, MLA  
MINISTER FOR THE ENVIRONMENT

- 2 FEB 1993