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MINERAL RESOURCES DEVELOPMENT ACT 1990

APPROVED WORK PLAN VARIATION
(SECTION 69(2)*(a)(iv)*)
MINING LICENCE NO. 5004

NAME(S) OF LICENSEE(S):	HAZELWOOD POWER CORPORATION
ADDRESS(ES) OF LICENSEE(S):	PO BOX 195, MORWELL, VIC, 3840
AREA OF WORK:	2678 Ha
LOCATION OF WORK PLAN AREA:	PARISH OF HAZELWOOD, SHIRE OF LATROBE, SEE "MOE" MAPSHEET
DATE WORK PLAN APPROVED:	5 May, 1997
STRATUM OF LAND:	N/A

Date of Registration

07/ 05/ 1997

Time of Registration

9 : 51 am/~~pm~~

Kim Ricketts

MINING REGISTRAR
MRDA 1990

F7585

HAZELWOOD
POWER

18 April, 1997

Mr Ken Gardner
Manager, Minerals And Petroleum
PO Box 41
East Melbourne
Vic 3002

07/05/1997
951
Kmi Ricketts

Dear Ken

VARIATION TO APPROVED WORK PLAN - HAZELWOOD MINE (MIN5004)

Regarding your letter 14 February 1997 concerning our proposal to extract Kaolin from the base of Hazelwood Mine, please find attached our submission of a `variation to our approved work plan`.

In preparing our submission we have consulted with the Regional Mining Engineer (Mr Greg Sleziak) and the Regional Environmental Officer (Mr Tony Wissenden). We have incorporated their suggested changes to our work plan.

We believe that the plan meets all statutory, engineering and environmental requirements - the variation is submitted for your approval.

Yours faithfully

Plan Approved
5/5/97
Signed pursuant to
Instrument of
Delegation dated

David Eves
COMPLIANCE AND SAFETY MANAGER - HAZELWOOD MINE

~~No WP~~
No bond variation required
No rehab plan variation required
5/1/97

PO Box 195 Morwell, Victoria, 3840, Australia Phone: 03 5135 5000

MIN5004 VARIATION TO APPROVED WORK PLAN

1. **General description of geological information, including when available or requested, estimates of ore resources and reserves.**

   The kaolin clays that are proposed to be mined form a significant part of the underburden between the Morwell 1 and Morwell 2 coal seams. This seam of kaolin varies in depth from 10 to 20 metres and is of widely varying quality. The clay extends for the width of the coal reserves and is estimated at several million tonnes, however only a very small percentage will be suitable for the application. Due to this variation no precise measure of economic reserves can be made.

   The high quality kaolin clay is suitable for use as a ball clay and has predominantly been used in the manufacture of cast ceramics. It is expected that the market for the product is approximately 2000 tonnes per annum.

   The area to be mined is contained within the existing mining boundaries assigned to Hazelwood Power.

2. **A general location plan. Scale of 1:100,000 or 1:50,000.**

   Refer MIN5004

3. **A regional plan at scale 1:2500 showing the extent of crown lands, private lands, private land allotments for the proposed work plan area, and, where possible parks and reserves within 2 km of the site.**

   Refer MIN5004

4. **A site plan at 1:1000, 1:2500 or other appropriate scale, including cross sections, showing and describing existing surface contours, etc., and also including -**
   a) **proposed buildings and surface facilities; and**
   b) **anticipated extent of open cut extraction, with proposed bench height, berm details and working batters; and**
   c) **sequencing of open cut extraction; and**
   d) **location of topsoil dumps, and waste dumps or stockpiles; and**
   e) **proposals for landscaping of site including buffer zones; and**
   f) **access roads; and**
   g) **if underground mining is proposed, a schematic drawing showing underground development and proposed extent of stoping.**

   Refer MIN5004

5. **Description of the metallurgical and mineral recovery methods to be used.**

   It is proposed that the mining be carried out by the use of hydraulic excavator and trucks operating from the floor of the mine (not within the excavation). Due to the adoption of this method personnel and machinery will not be exposed to the danger of excavation collapse. Further safety measures include the adoption of safe batter angles and limiting the depth of the excavation to 5 metres.

Due to issues of quality it will be necessary to strip a layer of overburden from the clay prior to mining. This layer should not be greater than one metre of material. It is proposed that this material will be back filled into the excavation as required.

The clay would then be transported to a site located at grass level by truck utilising existing haul roads as per the attached diagram.

The material would be stored at the old solar coal drying site on the southern side of the mine. Here the clay would be stored outside in piles, left to dry naturally and then moved under cover. No further treatment or refining will be carried out on site.

The internal overburden dump will cover the kaolin extraction slots and the weight of the overburden will far exceed the mass of the kaolin extracted thus mine floor stability is not considered an issue.

6. **Details as to any proposals for disposal of tailings, mine waters, drainage and erosion control.**

The extraction site will be free draining into the existing containment systems where it will be subject to treatment prior to any discharge.

Run off from the solar coal drying site is contained in an existing catchment pond and then pumped to the Transfer Point 7 settlement pond. Excess from this is then treated and discharged via a licensed EPA discharge point.

Overburden and poor quality clays will be returned to the pit as soon as room permits.

7. **Proposals for suppression of noise and dust.**

Hazelwood Power has an ongoing program to ensure that dust does not become a nuisance to the immediate environment. During summer and autumn particularly, haul roads are watered regularly by mobile tankers. Local rotating sprays can be utilised to wet down any areas as necessary. Meteorology weather forecasts are received daily at the Fire Service Office and reviewed for conditions likely to cause dust.

Noise will be a issue only for those working on site due to the containment of the mining area within an existing mine. It is expected that the impact of noise on the surrounding environment will be insignificant.

As the kaolin drys it must be turned to expose more surface area. This is done by the use of a front end loader, again as per the existing contractor. When drying is complete (approximately 2 weeks) the material is moved under cover. A shed exists on site that can be used for this purpose. Based on the experience of the previous contractor who also stored and dried kaolin in this manner no problems with dust are expected.

8. **A rehabilitation plan which addresses-**
   a) **concepts for the end utilisation of the site; and**
   b) **proposal for progressive rehabilitation and stabilisation of extraction areas, road cuttings and waste dumps including species types; and**
   c) **any proposals for the end use of the site, including final security of the site and removal of plant and equipment.**

The mining site forms part of the base of the existing open cut. Thus rehabilitation of this site is linked to the long term rehabilitation of the open cut mine. The initial site for the mining of kaolin will be covered by overburden when the internal dump system is implemented within two years. Thus it is not envisioned that a separate rehabilitation plan is required for the kaolin mining.

9. **An environmental monitoring program which shall describe methods proposed for the monitoring of noise and dust emissions, progressive rehabilitation and where relevant proposals for the monitoring of-**
    a) **seepages from tailings dams;**
    b) **quality of surface or mine waters discharged from the licence area;**
    c) **effects on the groundwater environment.**

    As mentioned previously kaolin mining is to occur inside the existing boundaries of the Hazelwood Power Mine. Thus the kaolin mining will be subject to the same environmental monitoring program already established for the open cut coal mine.