

**DEPARTMENT
OF
ENVIRONMENT
AND
CONSERVATION
(NSW)**

**Department of Environment and
Conservation**

- **A new agency incorporating**
 - **Environment Protection Authority**
 - **National Parks & Wildlife Service**
 - **Royal Botanic Gardens & Domain Trust**
 - **Resource NSW**

**Environmental Protection and Regulation
Division**

- **4 NPWS Conservation Planning and Programs Divisions**
- **EPA Operations (with Waste, Forestry, Contaminated Sites)**
- **Radiation**
- **Regulatory Innovation**
- **SOE Reporting**

North West Region

- **Covers around 500,000 km2 with 5 officers**
- **includes**
 - **metalliferous mines**
 - **coal mines**
 - **quarries and**
 - **extractive industries**

Other activities

- **Not only mining and related activities but:**
 - **Power stations**
 - **Piggeries**
 - **Feedlots**
 - **Sewage treatment**
 - **Contaminated sites**
 - **Etc.**

My activities

- **Evaluated, approved and licensed over the past 20 years**
 - **90 % of metalliferous mines**
 - **25 % coal mines**
 - **10 % quarries**
 - **10 % extractive industries**
- **In New South Wales**

Benchmark mines

- Elura, Cobar – UG - lead and zinc
- Ranger Exploration, Cobar – gold - tailings retreatment - CIP/CIL
- Girilambone, Girilambone – OC - copper – heap leach
- Northparkes, Parkes – OC & UG – gold – CIP/CIL and now copper with gold credits

Benchmark mines (cont.)

- B_Y Project, Blayney – OC – gold (next to town)
- Peak Hill, Peak Hill – OC – gold – cyanide leach (next to town)
- Cadia, Orange – OC & UG – copper with gold credits
 - Largest mine in NSW
 - 3rd largest in Australia

Legislation

Although the EPA is now a part of the Department of Environment and Conservation, certain statutory functions and powers continue to be exercised in the name of the Environment Protection Authority (EPA).

Legislation (cont.)

- Contaminated Land Management Act 1997
- Environmental Trust Act 1998
- Environmentally Hazardous Chemicals Act 1985
- National Environment Protection Council (New South Wales) Act 1995
- Ozone Protection Act 1989

Legislation (cont.)

- Pesticides Act 1999
- Protection of the Environment Administration Act 1991
- Protection of the Environment Operations Act 1997 (POEO Act)
- Radiation Control Act 1990
- Recreation Vehicles Act 1983

Legislation (cont.)

- Road and Rail Transport (Dangerous Goods) Act 1997
- Waste Avoidance and Resource Recovery Act 2001
- and associated Regulations

Legislation with a major impact on mining

- Protection of the Environment Operations Act 1997 (PEEO Act)
- Contaminated Land Management Act 1997

Protection of the Environment Operations Act (PEEO Act)

- Provides for:
- Scheduled Activities
- Licensing of Scheduled Activities
- Range of Notices such as:
 - Clean Up
 - Provide information
 - Etc.
- Penalties

Penalties

- Up to
 - Tier 3 - \$3,000 for an on the spot fine
 - Tier 2 - \$120,000 for an individual and \$250,000 for a company
 - Tier 1 - \$250,000 and/or 7 years goal for an individual and \$1,000,000 for a company and/or 7 years goal for the directors
 - All persons from worker to director liable for prosecution

Licensing

- The major management strategy
- Relates to scheduled activities
- For mining type operations this includes:
 - Coal mines
 - Underground mines
 - Open cuts processing >500 tpd
 - Open cuts that disturb >4ha

Licensing (cont.)

- Crushing grind and milling works producing >150tpd or >30,000tpy
- Extractive industries >30,000m³/y
- Mineral processing works >150tpd or >30,000tpy etc.
- Mines disturb >4ha and are mines under the Mining Act
 - Disturb includes clearing, dams, roads, overburden, tailings, etc.

Licences

- A licence consists of a number of elements.
 - Information about the licence
 - Administrative conditions
 - Discharge to air, water and land points
 - Limit conditions
 - Operating conditions
 - Monitoring and recording conditions

Licences (cont.)

- Reporting conditions
- General conditions
- Pollution studies and reduction programs
- Special conditions
- Dictionary
- A licence is a permission to pollute or cause annoyance within the confines of the conditions of the licence.

Licences (cont.)

- A copy of the Cadia licence is provided
- The majority of conditions are common to every licence in NSW
- Those marked with a tick are standard industry conditions
- Those marked with a cross are site specific

Licences (cont.)

- All licences in NSW are on the Public Register
- The register also holds details of certain Notices and other information
- The Register may be accessed at:
 - <http://www.environment.nsw.gov.au/prpoeo/index.htm>

Licences (cont.)

- Pollution reduction programs which occur over a period usually 3 years
- Pollution studies that require certain studies to be carried out
- Annual Returns
- Load based licensing (not currently applicable to mining)
- Licences reviewed every 3 years

Licences (cont.)

- Auditing of performance against the licence by:
 - Internal audits
 - External audits
 - DEC unannounced audits
 - These are extremely rigorous

Approval process and life of mine a DEC perspective

- The generic approval process has the following elements:
 - Planning focus meeting
 - Directors requirements
 - Evaluation of the EIS
 - General terms of approval
 - Licensing
 - Rehabilitation and mine closure

Planning focus meetings (PFM)

- Beginning of the integrated development approval (IDA) approach
- These may include the public but always includes public and local government authorities
- They may be preceded with discussions
- Mini PFMs may be held to refine a whole of government approach

Planning focus meetings (cont.)

- Prior to the PFM the attendees are provided with a précis of the proposal
- The proponent or consultant provides the details of the proposal
- A site inspection is carried out
- The relevant agencies provide a verbal overview of requirements
- Request for Director's requirements

Directors requirements

- Within 14 days of a written request, DR must be provided to the consent authority
- If later, to the proponent
- The DEC's DR consist of requirements that need to be addressed for an EIS
- A copy is provided

Directors requirements (cont.)

- The elements are:
 - An executive summary
 - Proposal details
 - Details of the location
 - Identification of the issues
 - Environmental issues
 - Support information

Environmental impact statement

- Submission of a draft EIS
 - Allows issues to be addressed in a non-conflict environment
 - Permits a consolidated whole of government approach
 - Allows for variations before the final public document

Environmental impact statement (cont.)

- The final EIS is evaluated and the DEC has two choices
 - 1st is to allow it to proceed to the next stage
 - 2nd is to stop the clock and request more information
 - 25 days from receipt to stop the clock
 - The clock may be stopped more

Environmental impact statement (cont.)

- The clock is restarted if the information is adequate
- The DEC receives copies of public submissions for review in terms of the EIS
- DEC decides either:
 - it can issue a development licence and general terms of approval (GTAs), or

Environmental impact statement (cont.)

- It cannot issue a development licence and the consent authority cannot then give consent to the proposal
- If the DEC does not advise within 21 days of receipt of submissions then there is deemed DEC agreement and the consent authority can give its consent

Environmental impact statement (cont.)

- If a stop the clock is still in force and public submissions are received, the DEC automatically rejects the proposal
- If the proposal is rejected, the DEC will advise the information required to reassess the proposal
- A fee of \$250 is paid for assessment for the EIS and post rejection information

Environmental impact statement (cont.)

- If the proposal gets consent, then an application for a development licence must be made and the fee paid
- The licence must reflect the GTA's
- In general the licence cannot be changed until the next review after 3 years

General terms of approval (GTAs)

- A copy of a generic GTA is provided
- The elements follow licence conditions
 - Administrative conditions
 - Limit conditions
 - Operating conditions
 - Monitoring and recording conditions

General terms of approval (GTAs) (cont.)

- Reporting conditions
- General conditions
- Mandatory licence conditions
- A licence application consists of:
 - A completed information form and
 - A fee
- If an application is not processed within 60 days it is a deemed refusal

Criteria

- Tailings storage facilities and other ponds containing contaminants must:
 - Have a capacity to contain a 1 in 200 year; 72 hour storm
 - Impervious liner >1x10⁻⁹ m/s of 1 m of clay or equivalent
 - Sediment basins a 1 in 50 year; 24 hr storm capacity

Criteria (cont.)

- Protection of surface and ground waters
- Air and noise emissions based on public amenity
- Wastes
 - Waste rock, tailings stored on the lease not considered wastes
- All the disturbed site is a contaminated site

Criteria (cont.)

- Chemical and fuel storages
 - to be bunded to 110% of the largest tank
 - Drained to a pump sump
 - No pipework through walls
 - Splash guards around tanks
 - External fill points hardstands and drained to sump

Criteria (cont.)

- Nil discharge sites
- Process plant and facility area to have primary, secondary and tertiary bunding
- No pipework through tailings and contaminated storage walls
- Diversion of uncontaminated stormwater

Criteria (cont.)

- Noise
 - Construction in accordance with the Environmental Noise Control Manual – BG + 5 (LA90,15 min +5dB(A))
 - Operation in accordance with the Industrial Noise Policy – BG +5 (LA,eq +5dB(A))

Criteria (cont.)

- Blasting:
 - The overpressure level must not:
 - exceed 115 dB(L) for more than 5% of the time or exceed 120 dB(L) at any time
 - The ground vibration peak particle velocity must not:
 - exceed 5mm/second for more than 5% of the time or exceed 10 mm/second at any time

Criteria (cont.)

- **Dust off site must not exceed:**
 - 4 g/m²/mth total on an annual basis, and
 - 2 g/m²/mth increase on an annual basis
 - TSP - 90 ug/m³ annual basis
 - PM10 – 50 ug/m³ 24 hours

Criteria (cont.)

- **Progressive rehabilitation to a prescribed state**
- **Address contaminated site issues**
 - AMD
 - Heavy metals
 - Sediment control
 - Dust management
- **Sign off by authorities**

Criteria (cont.)

- **Mine closure**
 - **For existing mines**
 - To be environmentally and physically stable for 100 years
 - **For new mines**
 - To be environmentally and physically stable for 1000 to 2000 years

Contacts DEC

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THANK YOU FOR YOUR ATTENTION

ANY QUESTIONS?