

Check also No 49

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

DETERMINATION OF A DEVELOPMENT APPLICATION
PURSUANT TO SECTION 101

I, the Minister for Planning, in pursuance of Section 101 of the Environmental Planning and Assessment Act, 1979 ("the Act") determine the development application referred to below by granting consent to the application set out in Schedule A (File R90/00380/003)

The reason for the imposition of the conditions is to ensure the development proceeds in an environmentally acceptable manner and that impacts are monitored and managed.



Minister for Planning

dated this

32

day of

May

1994.

26 Oct 1995

Minute approved
26 Oct 1995

SCHEDULE "A"

APPLICATION MADE BY:

Skymill Pty Ltd

TO:

Randwick City Council

IN RESPECT OF
LAND BEING:

Lot 2, DP 815358, corner of Friendship and Charlotte Roads. Lot 3 DP 815358, corner of Friendship and Simblist Roads, Molineux Point, Port Botany.

FOR THE FOLLOWING
DEVELOPMENT:

Development of underground storage caverns for storing and distributing liquefied petroleum gas (LPG) together with associated excavation. (Randwick Council Application No. 463/93).

All references to:

(1) The Consent Authority means the Minister for Planning

NOTE: (1) to ascertain the date upon which the consent becomes effective, refer to Section 101(9) of the Act.

(2) to ascertain the date upon which the consent is liable to lapse, refer to Section 99 of the Act.

"IN PRINCIPLE"

This Consent shall not operate until the Applicant satisfies the Consent Authority by producing satisfactory evidence relating to the matters set out in Schedule "B".

Upon the Consent Authority being satisfied as to compliance with the matters set out in Schedule "B" this Consent shall become operative subject to the conditions in Schedule "C" and take effect from the date of notification under s.101(10) of the Environmental Planning and Assessment Act.

SCHEDULE "B"

Condition imposed pursuant to section 91AA of the Environmental Planning and Assessment Act 1979

Excavation Method

1. (a) This consent shall not operate unless the Applicant satisfies the Consent Authority that:
 - (i) the method of excavation of the access shafts and caverns can be carried out to avoid any adverse impact on nearby land uses and structures and in particular any further settlement of the foundations of ICI Australia Operations Pty Limited's three liquefied petroleum gas storage vessels at Molineux Point, Port Botany as a result of the proposed development; and
 - (ii) satisfactory procedures can be put in place to monitor the impact of the excavation;
- (b) The Applicant shall for the purposes of satisfying the Consent Authority on the matters set out in Condition 1(a) provide the following:
 - (i) a report prepared by a group of consultants jointly selected by the Applicant, ICI Australia Operations Pty Limited and the joint venture comprising ICI Australia Operations Pty Limited, Gogas (Australia) Pty Limited, Elgas Limited and Mobil Oil Australia Limited. The group of consultants shall be agreed to in writing by the consent authority. The above mentioned report must contain, but shall not be limited to recommendations on excavation techniques including safety, monitoring systems and remedial action in the event of any adverse impacts;
 - (ii) advice on safe methods of excavation; and
 - (iii) advice about the impact on nearby land uses and structures and satisfactory measures to be put in place to deal with any adverse impacts.
- (c) The report is to advise on guidelines for:

- (i) overpressure limits;
 - (ii) ground vibration; and
 - (iii) noise.
- (d) The report is to have regard to the submission to the Inquiry by ICI Australia Operations Pty Limited that any settlement of the three hydrocarbon storage tanks situated on ICI Australia Operations Pty Limited and joint venture leasehold land induced by external construction or excavation is not acceptable.
- (e) If it appears at any time after construction commences that there are impacts which are not satisfactorily dealt with by these provisions, the consent authority may serve a notice on the Applicant requiring the Applicant to forthwith cease all excavation. Should a notice be served on the Applicant, the Applicant shall comply with the notice and its terms. Excavation shall only recommence if the Consent Authority gives subsequent approval in writing.

SCHEDULE "C"

2. General

The Applicant shall carry out the development generally in accordance with the Environmental Impact Statement dated October 1993 prepared by Dames and Moore Pty Limited as modified by the Applicant during the Commission of Inquiry and as further modified by the conditions set out in this consent.

3. Excavation: Blasting Use of Explosives

Any storage and use of explosives shall be carried out to the satisfaction of the WorkCover Authority and in accordance with the requirements of Parts 1 and 2 of Australian Standard 2187 (as in force from time to time).

4. Excavation: Vibration

If blasting is approved as a method of excavation it must be carried out in accordance with the Blasting Noise Control Guidelines set out by the Environment Protection Authority and detailed in the noise impact statement.

Blasting shall conform to such standards in relation to noise, overpressure limits and ground vibration as are agreed in writing by the Consent Authority. Such standards shall apply at the foundations of the nearest storage tanks and the boundary of the nearest industrial premises.

5. Excavation: Tender Documents

The Applicant shall consult with the WorkCover Authority during preparation of tender documents and prior to the publication of any tender document for excavation of the access shafts and caverns.

6. Excavation: Testing for Presence of Methane

The Applicant shall conduct testing for the presence of methane during excavation and use appropriate excavation methods to the requirements of the WorkCover Authority.

7. **Compliance Report**

The Applicant shall submit a periodic report on the implementation and effectiveness of the conditions contained in this consent. This report shall be submitted to the Director of Planning or such other person as she may nominate in writing. The report shall be submitted on the first anniversary of the date of consent and annually thereafter or such other period as the Director of Planning may subsequently nominate in writing.

In this report the Applicant shall bring to notice those matters which the Applicant considers may require further investigation. After considering any such report the Director of Planning or her nominee may require in writing action to address matters raised in the report. The Applicant shall carry out the requested action within such time as the Director of Planning or her nominee may require.

8. **Compliance with Requirements**

Where any condition requires an approval to be given before work may proceed in respect of a hazard related issue, the Director of Planning may require further matters to be addressed. The Applicant shall comply with all the reasonable requirements in respect of the implementation of any measures arising from such approvals within such time as the Director of Planning may agree. Such compliance shall be prior to the commencement of operations of the proposed development and shall bring to the Director of Planning's or nominee's notice, those matters which the Applicant considers may require further investigation. Upon the receipt of the Director of Planning's or nominee's reasonable instructions, the Applicant shall proceed to implement those instructions to the satisfaction of the Director of Planning or her nominee within such time as the Director of Planning or nominee may approve.

9. **Construction: Code of Practice**

Construction of the caverns shall be carried out to the satisfaction of the WorkCover Authority and in accordance with the WorkCover Authority's Code of Practice for Tunnels Under Construction.

10. **Erosion Control: Construction Stage**

During the construction stage erosion control and water pollution prevention measures shall be installed and maintained to the satisfaction of the Environment Protection Authority. Such measures may include diversion drains, filter fences, hay bales, sediment ponds and detention basins.

11. **Excavation: Fill**

The Applicant shall carry out the filling of Lots 2 and 3 to the satisfaction of the Environment Protection Authority and the Director of Planning. An erosion and sediment control plan shall be prepared in accordance with the Department of Conservation and Land Management's Urban Erosion and Sediment Control Manual and the Environment Protection Authority's Pollution Control Manual for Urban Stormwater.

The filling of Lot 1 or any other land shall be the subject of a separate development consent, if required.

12. Fire Water

Provision shall be made for retention and treatment of fire water on the site in a manner that is acceptable to the Environment Protection Authority, so that it is not directly discharged to stormwater drains unless permitted by the Environment Protection Authority.

13. Flare Height

If a flare is to be employed as part of the Gas Disposal Unit (GDU), then it shall be a low level flare ("ground flare"), of a height below 10 metres.

14. Groundwater: Basic Design Report

The Applicant shall not commence construction until the Department of Water Resources has approved a Basic Design Report. This report shall be:

- a) prepared following consultation with the Environment Protection Authority and the Department of Water Resources; and
- b) be submitted within 3 months of the development consent or such other period as is agreed by the Department of Water Resources in writing.

The report shall contain:

- i) a groundwater monitoring strategy that sets the standards for water levels and water quality and monitors impacts in all aquifers during the construction of the shafts, caverns and water curtains;
- ii) a remedial action plan detailing what cleanup and containment measures would be undertaken should migration of the product occur away from the cavern into the aquifer, or should there be a significant depressuring of the water levels in the Hawkesbury Sandstone. Technical and financial capacity for these measures is to be demonstrated;
- iii) a hydrogeological section addressing.
 - a preliminary water balance for the system during the construction phase. The positioning of, any water curtains, together with treatment and disposal/reinjection of seepage water all to be detailed.
 - the construction and specifications of the entry shaft through the Botany Sands and the grouting associated with the upper sandstone aquifer in the Hawkesbury Sandstone.
 - preliminary details on the restricted activity zone to protect the cavern development from nearby groundwater pumping.
 - the location, depth, construction and instrumentation of observation bores to be monitored during the construction phase.

15. Groundwater: Licensing

Prior to work commencing the Applicant shall obtain a license from the Department of Water Resources for each of the following:

- LPG cavern

- Water curtain
- All monitoring piezometers, with one licence required for the site before construction commences.

16. **Groundwater: Levels and Quality**

The Applicant shall maintain the natural water levels and the natural water quality (as determined by the pre-construction groundwater monitoring strategy contained within the groundwater basic design report) in the sandstone aquifer systems by artificial means (water curtains and reinjection bores). The quality of any water reinjected must be compatible with the natural groundwater quality.

17. **Groundwater: Chemical Analysis**

All chemical analyses of groundwater are to be undertaken at a water testing laboratory approved in writing by the Environment Protection Authority.

18. **Groundwater: Monitoring Report**

An interpreted report on the groundwater monitoring together with copies of all the raw data is to be submitted within 6 months of commencement of monitoring and thereafter annually to the Department of Water Resources and to the Environment Protection Authority.

19. **Groundwater: Monitoring Strategy**

Commissioning of the caverns shall not commence until the Department of Water Resources has approved a Groundwater Monitoring Strategy. This Strategy shall be prepared following consultation with the Environment Protection Authority and the Department of Water Resources and be submitted within 3 months of completion of the cavern and before commissioning. The Groundwater Monitoring Strategy shall monitor impacts in all aquifers (water level and water quality) during the operation of the shafts, caverns and water curtains. The minimum number of monitors for report purposes shall be approved in writing by the Department of Water Resources.

The Applicant shall revise the Groundwater Monitoring Strategy in accordance with the requirements of the Department of Water Resources should the Department of Water Resources notify in writing that the monitoring requires revision after considering the monitoring results.

20. **Groundwater: Monitoring System**

The Applicant shall install a groundwater monitoring system such that a comprehensive long term record may be maintained of the groundwater pressure and flow regime within the zone of influence of the cavern and associated underground facilities. The groundwater monitoring system shall comprise hydraulic, electric or pneumatic piezometers installed in such a way that they can be replaced where the minimum number of monitors for report purposes cannot be maintained in the event of equipment malfunction. Piezometers shall be placed in locations so as to monitor the possible desaturation of rock in pillars between caverns during construction.

21. **Groundwater: Control**

The caverns shall not be commissioned unless the Department of Water Resources has approved a remedial action plan which details measures to be implemented in the event that the groundwater monitoring system indicates dewatering of pillars or the development of a groundwater regime inappropriate for safe containment of the stored LPG. This may involve drilling bore holes from the surface to reinject the sandstone aquifers or such other measures as may be approved by the Department of Water Resources.

22. **Groundwater: Piezometers**

All monitoring piezometers are to be installed within 3 months of approval of the groundwater monitoring strategies for the construction and operational stages.

23. **Hazard Audit**

Twelve months after the commencement of operations or within such further period as the Director of Planning may agree in writing, the Applicant shall carry out a comprehensive hazard audit of the development and submit a report on the audit to the Director of Planning. This audit is to be carried out at the Applicant's expense by a qualified independent person or team, to be approved in writing prior to the audit by the Director of Planning. Further audits shall be provided every three years or as may be requested by the Director of Planning. Hazard audits shall be carried out according to the Department's Hazardous Industry Planning Advisory Paper No. 5, Hazard Audit Guidelines.

24. **Hazard Studies: Prior to Operation**

At least two months prior to commencing operations or within such further period as the Director of Planning may agree in writing before the operation commences, the Applicant shall prepare and submit for the approval of the Director of Planning:

a) **Emergency Plan**

A comprehensive emergency plan and detailed emergency procedures for the proposed development. This plan should include detailed procedures for the safety of people in areas outside the development. The plan should be in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1, Industry Emergency Planning Guidelines.

b) **Safety Management System**

A comprehensive Safety Management System, covering all operations on-site and associated transport activities involving hazardous materials. The system should clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures. Records must be kept on-site and should be available for inspection by the Director of Planning and the nominees of Randwick City Council and Botany Council upon request.

The safety management system shall include a comprehensive monitoring program covering all safety and environment related parameters. It should indicate clearly the parameters to be monitored, the reasons for such monitoring, the method of monitoring, the method and frequency of reading and recording, the

acceptable ranges for the parameters and the action to be taken in the event of deviations from those ranges. The safety management systems shall be prepared in accordance with the draft guidelines for the development of safety management systems prepared by the National Taskforce for Hazardous Industries and Land Use Safety Planning.

c) **Maintenance Program and Records**

A maintenance program shall be prepared for the proposed development, covering the nature and frequency of all safety related maintenance. After commencement of operations the Operator shall keep records of maintenance and provide copies of these to the Director of Planning when requested.

d) **Operations Procedures Manual**

An Operations Procedures Manual shall be prepared prior to operations commencing and to the satisfaction of the WorkCover Authority and Environment Protection Authority. All staff shall be trained in procedures as appropriate and necessary to their jobs.

25. **Hazard Studies: Prior to Construction**

At least one month prior to the commencement of substantial construction of the proposed development, or within such further period as the Director of Planning or her nominee may agree in writing, the Applicant shall prepare at its own expense and submit for the Director of Planning's approval the following studies:

a) **Construction Safety Study**

A Construction Safety Study prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 7 Construction Safety Study Guidelines. The construction safety study shall specifically consider the method of cavern construction and the impact of cavern excavation on surrounding land uses.

The study shall consider measures of rock reinforcement for the support of caverns and associated underground structures.

The commissioning section of the study should include details of the testing of the caverns and associated equipment including the means for independent verification of the test. The commissioning report shall be submitted not later than two months prior to the expected date of commissioning.

b) **Hazard and Operability Study**

A Hazard and Operability study (HAZOP) for the proposed development, chaired by an independent qualified person approved in writing by the Director of Planning.

c) **Final Hazard Analysis**

A hazard analysis and risk assessment of the detailed design layout of the proposed development shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, Guidelines for Hazardous Analysis. In addition to these specifications the Final Hazard Analysis should address the following issues:

- i) The seismic design of the underground and aboveground facilities in terms of earthquake risk and ground liquefaction.

- ii) Risk management measures such as monitoring of LPG transfer activities, including the use of gas detectors, automatic shutdown of pumps and isolation of key inventories, and warning and safety interlock systems to minimise the impact of human error;
- iii) The integrity of automatic gas and fire detection and emergency shutdown and isolation systems; and
- iv) The Applicant shall provide copies of the Final Hazard Analysis report to Botany and Randwick City Councils at the same time it is provided to the Department of Planning.

d) Fire Safety Study

Construction of aboveground facilities may not commence until the study has been approved by the Director of Planning and the New South Wales Fire Brigades. A fire safety study for the proposed development shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 2, Fire Safety Study Guidelines.

In addition to these specifications, the fire safety study shall address the following:

- i) An outline of all fire prevention, protection and fire fighting measures and appliances;
- ii) Details of the type, capacity and proposed location upon the site of all appliances and the reason for their suitability as proposed;
- iii) Details of availability of fire fighting water, location of connections, and rates of application supported by full hydraulic calculations;
- iv) Provisions of any other fire prevention, protection and fire fighting measures and methods;
- v) The need for any automatic/remotely operated deluge systems in critical areas such as the ship to shore unloading arm, cavern shafts and the road tanker loading bays;
- vi) Containment and disposal of contaminated firewater.

e) Transport of Hazardous Materials Study

A study shall be prepared for the Director of Planning's approval detailing arrangements for the transport of hazardous materials, including details of routes to be used for the movement of trucks. Route selection shall be in accordance with the Department of Planning's draft Route Selection Guidelines. The applicant shall consult with the Department of Planning and Botany, Randwick City, Rockdale and South Sydney Councils in determining the extent and scope of the route selection study. The study should cover the full length of routes through the Botany and Randwick Council areas.

26. Hazard: Detail Design and Operational Features

The detailed design and operation and safety management systems of the facility shall incorporate:

- a) A detailed maintenance and testing program for the marine loading arms which should be included in the site safety manual and other relevant manuals;
- b) Provision for isolation valves which need to be operated in an emergency to have the capability of remote operation from a safe distance in the event of a localised failure;
- c) An emergency shutdown system which should give particular attention to achieving fast detection and isolation of potentially high volume leaks, such as at the marine loading arm and the cavern shafts;
- d) High integrity systems for cavern seepage water control and LPG level indication, normal level control and alarm initiation to minimise the likelihood of failure; and
- e) Measures such as dry-break couplings to ensure that fugitive losses of LPG from road tanker loading facilities are minimised.

27. Hazard: Operational Controls

The following operational controls shall be applied and incorporated into the site's safety management system:

- a) Of the two new marine loading arms, dedicated to propane and butane respectively, only one shall be in operation at any one time;
- b) There shall be a detailed documented and audited procedure to cover situations in which a ship's contents are greater than the available capacity in the cavern. At least two independent metering systems (one on land and one on board) shall be monitored during a part unloading operation;
- c) Deliveries to the caverns shall only be by ship;
- d) All dispatches from site shall be via road tankers or pipeline;
- e) Loading of non-odourised product into road tankers shall only be made in a bay adequately equipped with leak detection and other safety systems;
- f) Shore to ship loading shall not be undertaken;

28. Impacts of Construction

During construction earthmoving activities on the site, appropriate measures shall be used to minimise and prevent emission of dust from the site as well as to prevent erosion and pollution of waters to the satisfaction of the Environment Protection Authority. Exposed surfaces should be kept to a minimum and regenerated as soon as practicable. Any stockpiles of soil or other material likely to be subject to water erosion or dust emissions shall be similarly treated. If regeneration is likely to be delayed for more than several weeks, then some alternative stabilisation method should be employed in the meanwhile.

29. Incident Reporting

Within 24 hours of any incident with actual or potential significant off-site impacts on people or the biophysical environment, a report shall be supplied to the Department of Planning and Maritime Services Board-Sydney Ports Authority outlining the basic facts.

A further detailed report shall be prepared and submitted following investigations of the causes and identification of necessary additional preventative measures.

30. **Landscaping**

The Applicant shall within six (6) months of the date of this consent, or such further period as the Randwick City Council may agree, prepare and submit for the approval of Randwick City Council in consultation with the Maritime Services Board a landscaping design and management plan which shall include the following:

- a) Planting of mature trees and shrubs;
- b) Landscaping strips along the road frontages of the sites;
- c) Identification of the names, both common and botanical, and the location and size, of any proposed shrubs and trees; and
- d) Maintenance of all landscaping to the satisfaction of Randwick City Council.

31. **Lighting Glare**

Lighting on the site shall be designed and installed to the satisfaction of Randwick City Council in consultation with the Maritime Service Board-Sydney Ports Authority so as not to cause nuisance by glare to either the surrounding area or to aircraft.

32. **Noise Construction Hours**

During the construction phase the Applicant shall implement noise controls which are consistent with the guidelines of the Environment Protection Authority's Environmental Noise Control Manual.

Construction activities on site may only be carried out such that the background noise levels determined in the noise impact assessment are not exceeded at any adjacent industrial boundaries.

Heavy or noisy machinery shall only be operated from 0700 hours to 1800 hours Monday to Friday, 0800 hours to 1500 hours on Saturday, and 0900 hours to 1300 hours on Sunday. If any construction activities on site are inaudible and do not cause vibration in excess of 5 millimetre per second peak particle velocity (PPV) at the nearest residential neighbour these hours may be varied with the approval of the Environment Protection Authority.

The use of hydraulic rock breakers, pile drivers and similar equipment producing intermittent noise peaks, may only be used between 0900 hours to 1600 hours daily, unless they cannot be heard at the boundary of the nearest neighbour.

33. **Noise Impact Assessment**

The Applicant shall submit a detailed noise impact assessment, including any blasting and vibration impacts, to the satisfaction of the Environment Protection Authority prior to the commencement of any construction on-site.

Documentation of the noise impact assessment endorsed by the Environment Protection Authority shall be provided to Randwick City and Botany Councils.

34. **Section 27 Requirement: Water Board**

The Applicant shall obtain a Section 27 Certificate from the Water Board prior to the commencement of operations in relation to the provision, adjustment, or amplification of the Board's water, sewerage or stormwater systems as required.

35. Security

The Applicant shall ensure the overall site is manned at all times by a person who is familiar with the site installations and operation and is adequately trained in safety, emergency and security procedures.

36. Ship/Shore Safety Study

The Applicant shall within one (1) year of the date of this consent in liaison with the Department of Planning, the Maritime Services Board and the WorkCover Authority, prepare and submit for the approval of the Director of Planning, a Safety Study of the ship/shore interface at the Bulk Liquids Berth. The content of the study shall be as notified in writing by the Department of Planning, the Maritime Services Board and the WorkCover Authority. Further the Applicant shall comply with any requirements of the Director of Planning, the WorkCover Authority or the Maritime Services Board in respect of the implementation of the safety measures arising from the Safety Study, within such time as may be required by the Director of Planning, the WorkCover Authority or the Maritime Services Board.

37. Stormwater Discharge

The Applicant shall obtain the approval in writing of Randwick City Council's Chief Engineer with respect to the details of all stormwater collection and disposal from the site. Only uncontaminated stormwater may be discharged directly from the site.

38. Tankers Parked On Site

No laden road tankers are to be parked on the site unless approved by the Director of Planning and determined by the Final Hazard Analysis. The maximum number of full and empty LPG road tankers to be parked on the site at any one time shall be agreed in writing by the Director of Planning and determined as a consequence of the Final Hazard Analysis prior to the facility becoming operational. The Applicant shall minimise the number of full tankers onsite by ensuring that as far as is practicable, tankers shall be dispatched for delivery immediately on completion of loading. Any future proposal to increase the maximum number of trucks parked onsite shall first be submitted to the Director of Planning for approval accompanied by a hazard analysis which shall demonstrate that there is no adverse risk impact.

39. Traffic and Parking

The Applicant shall:

- a) Erect a sign at the point of egress from the site directing drivers to use the routes determined by the Transport of Hazardous Materials Study;
- b) Design all access driveways to accommodate the turning path of the largest vehicle likely to use the facility;
- c) Provide on-site parking for all vehicles associated with the construction of the proposed development; and
- d) Provide a total of fifteen (15) off-street parking spaces, the dimensions of which are to conform to Randwick City Council's parking policy.

40. **Transport: Movements**

The laden movement of LPG tankers from the site shall not exceed the maximum indicated in the Environment Impact Statement; that is, an average of 90 movements per day averaged over a calendar year. The Applicant shall keep records of movements and such records shall be available to nominees of Botany and Randwick City Councils on request.

41. **Transport Records**

The Applicant shall maintain appropriate records of dangerous goods traffic movements and transfers into and out of the site during the operational phase of the development from the date of commencement of operation of the proposed development and shall furnish Randwick City and Botany Councils with this information upon request.

42. **Transport: Routes**

Botany Road west of Foreshore Drive shall not be used by road tankers except for local deliveries. The Applicant shall enter into contractual arrangements with contract drivers to require the use of routes determined as a result of the Transport of Hazardous Materials Study.

43. **Transport: Vehicles**

The Applicant shall ensure that all road tanker vehicles waiting to be loaded:

- a) stand entirely within the site;
- b) are parked in such a manner as to ensure there is free access around the site for NSW Fire Brigade appliances at all times; and
- c) are not unduly delayed on site.

44. **Waste Management**

The Applicant shall:

- i) meet the requirements of the Water Board, the Environment Protection Authority and Waste Recycling and Processing Service of NSW in respect to the management, disposal and monitoring of all solid and liquid waste;
- ii) retain on site contaminated solid and liquid waste in storages capable of receiving storm events as defined by the Environment Protection Authority;
- iii) implement a waste management plan incorporating waste minimisation procedures to the satisfaction of Randwick City Council following discussion with the Environment Protection Authority, the Water Board and Waste Recycling and Processing Service of NSW;
- iv) ensure all waste is disposed of to licensed waste facilities; and
- v) not admit solid and liquid wastes to the site for storage or treatment.

45. **Water Curtain**

The proposed development shall contain a water curtain. The water curtain shall be constructed to the satisfaction of the Director of Planning, the Department of Water Resources and the WorkCover Authority and in accordance with the principles set out in the Environmental Impact Statement and development application.

46. **Earthquake Design**

The Applicant shall design and construct the underground caverns and shafts to the design earthquakes and design standards of a Safe Shutdown Earthquake (SSE) of 6.5 Magnitude originating 50 kilometres westward from the site or a SSE of 5.5 Magnitude originating 10 kilometres underneath the site as set out in the EIS and the Applicant's supplementary reports submitted to the Inquiry. The aboveground facilities shall be designed to a standard which ensures that the risk stated in the Preliminary Hazard Analysis (PHA) is not exceeded. The Final Hazard Analysis shall demonstrate the adequacy of the design standards chosen.

47. **Restricted Activity Zone**

Construction shall not commence until the Director of Planning has agreed in writing to written agreements entered into between the Applicant and the Department of Water Resources and the Maritime Services Board for the maintenance of a restricted activity zone in the area above and beyond the caverns. The restricted activity zone shall not apply to building construction, piling and bore sinking down to 20 metres from the surface and shall apply to the zone indicated on the map marked Figure 1 in the Skymill submission in reply prepared by Dames and Moore dated 16/3/94. The provisions relating to this zone shall protect the caverns from intrusion or damage and ensure maintenance of the water table above and around the caverns. Any variation to these provisions must be approved in writing by the Director of Planning who shall not approve them unless the Director of Planning is satisfied that all affected lessees agree to the proposed changes. The Maritime Services Board shall inform all lessees within the zone of the agreements entered into with the Department of Water Resources and the Applicant prior to commencement of construction.

48. **Pacific Power**

The Applicant shall consult with Pacific Power within three (3) months of this consent and shall provide Pacific Power with documentation relating to restrictions within the Restricted Activity Zone.

49. **Design Life**

The Applicant shall design all components that are not replaceable under normal operational conditions within the cavern and shaft structures to have a minimum design life of 50 with a safety factor of 2.

50. **Decommissioning**

The Applicant shall prepare a Decommissioning Plan to the requirements of the Maritime Services Board in consultation with the Department of Water Resources and the Environment Protection Authority prior to commissioning of the caverns.

51. **Emergency Plan and Remedial Action Plan**

The Applicant shall provide copies of the site Emergency Plan and the Remedial Action Plan to Randwick City Council and to Botany Council or their nominees for inspection on request.

52. **Availability of Reports**

The Applicant shall provide for inspection on request by Randwick City Council and Botany Council or their nominees, all reports and other relevant documentation on safety-related matters required by conditions of consent to be made available to the Department of Planning subject to confidentiality.

53. **Expert Advice**

The Applicant shall ensure that, throughout the design, construction and operational phases of the development, there is adequate input from a qualified company with expertise in the design, construction and operation of facilities such as those proposed.

54. **Electricity Substation**

The Applicant shall make available an area of land having approximate dimensions of 4m x 5m adjacent to the street alignment to enable Sydney Electricity to establish an electricity substation. The size and location of the area is to be in accordance with the requirements of the Maritime Services Board, Randwick City Council and Sydney Electricity.

