



International Power



CHAPTER 13

Bushfire

URS

Bushfire Risk – Summary of Key Outcomes

The proposed site for the Parkes Peaking Power Plant has been assessed as not being bush fire prone according to Parkes Shire Councils *Bush Fire Plane Land Map* (2004), and as such has not been assessed under the *Rural Fires Act 1997*. Consultation was undertaken with the local Rural Fire Service and the NSW Rural Fire Service Head Quarters to seek feedback on the proposal. Mitigation measures are given to ensure any risk of bush fire at the site is appropriately managed.

Chapter 13

Bushfire Risk

13.1 Introduction

A Bushfire Risk Assessment was undertaken in relation to the site of the proposed Parkes Peaking Power Plant (the site). The Parkes Peaking Power Plant Project would comprise three gas turbines with the electricity generated fed into the 132kV transmission network via an existing switchyard in the adjacent TransGrid substation. The peaking power plant would use natural gas supplied by a new pipeline connected to the Central West Pipeline in Parkes and use distillate as a back up fuel.

13.2 Existing Environment

13.2.1 Surrounding Land Use

The site is located in a rural area west of Parkes. The closest existing residence is located approximately 1km southeast of the site. The majority of the surrounding area comprises predominantly rural enterprises on medium size holdings, primarily wheat cultivation. An existing substation adjoins the northern boundary of the peaking power plant site and an unsealed road adjoins the western boundary.

13.2.2 Proposed Site Layout

The development site will occupy an area of approximately 4.7 ha on a plot of 200m by 235m. The site is cleared of native vegetation and is currently used for wheat cultivation. The Parkes Peaking Power Plant comprises the following key components:

- three gas turbines, generators and ancillary plant;
- step-up transformers and connection to the existing TransGrid 132kV high voltage switchyard;
- control room, administration, amenities, car parking and workshop facility;
- connecting natural gas pipeline, gas receiving station and gas conditioning station;
- fire water tank;
- process water tank(s);
- domestic/rainwater tank(s);
- domestic wastewater treatment and disposal system;
- sedimentation pond and associated earth bund and diversion drain;
- evaporation pond to accommodate waste water discharges from the water treatment and reverse osmosis water treatment unit
- landscaping and tree planting to provide visual screening of the facility;
- internal roads; and
- security fencing.

13.3 Assessment of Impacts

The site and immediate surroundings is not mapped as being bushfire prone according to *Parkes Bush Fire Prone Land Map (20 April 2004)* (Parkes Shire Council) and thus does not require approval under the *NSW Rural Fires Act, 1997*.

Consultation was undertaken with the local Rural Fire Service and NSW Rural Fire Service Head Quarters. A copy of the project description was forwarded to Mr. Ken Neville, Local Area Manager for the Parkes region. Discussion was undertaken with Mr. Greg Jackson (Community Safety Officer) with a view to seeking information regarding fire risk at the site. No specific information was offered on fire risk at the site or any advice on mitigation measures. Further discussion was had with Mr. Doug Stevens (Development Control Officer) at the NSW Rural Fire Service Head Quarters to seek additional information regarding bushfire safety at the site. Mr Stevens advised the Rural Fire Service was only obliged to provide suggestions if the report was referred to him, as the project is not located on land mapped as bush fire prone land. Mr. Stevens suggested installation of an exhaust system that would remove any hot particulate matter. Mr Stevens also advised that cropping land is capable of burning, but that the intensity of fire is usually not strong.

The Parkes Peaking Power Plant generation process does not produce any hot particulate matter likely to initiate a fire on surrounding vegetation as an end product of either natural gas or distillate combustion.

13.4 Mitigation Measures

Table 13-1 presents a summary of mitigation measures as a result of the bush fire assessment

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Table 13-1 Summary of mitigation measures

Mitigation Measures	Implementation of mitigation measures		
	Design	Construction	Operation
Installation of fire alarm system throughout the plant monitored from the facility control room.	✓	✓	✓
A natural gas leak detection system would be installed and monitored at the facility control room.	✓	✓	✓
Distillate storage would be managed in accordance with the requirements of the <i>Occupational Health and Safety Act 2000</i> and the <i>Occupational Health and Safety Regulation 2001</i> . The distillate tanks would be installed in accordance with relevant WorkCover requirements and Australian Standard AS1940:2004 <i>Storage and Handling of Flammable and Combustible Liquids</i> . Storage volume would be less than 2000 tonnes.		✓	✓
Distillate tanks will be adequately banded to contain any potential spills or leaks.	✓	✓	✓
Fire water tank(s) will be installed on site.	✓	✓	✓