

PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997

Publication of Exemption Granted under section 284

THE following exemption is published by the Environment Protection Authority (EPA) in accordance with s.284 of the Protection of the Environment Operations Act 1997. Section 284 of the Act provides that the EPA may exempt a person or class of persons from a specified provision of the Act or the regulations under the Act. The Board of the EPA has approved the making of the exemption.

LISA CORBYN,
Acting Director-General,
Environment Protection Authority

Dated 20 July 1999.

PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997

Order Granting Exemption under section 284

BY this order the Environment Protection Authority (EPA), with the approval of the Board of the EPA, grants to BHP (AIS) Pty Ltd (ACN 000 019 625) ("the company") an exemption from compliance with Table B of clause 7 of the Clean Air (Plant and Equipment) Regulation 1997 relating to the emission of hydrogen sulfide from the Number Six Blast Furnace slag granulator stack at the Port Kembla Steelworks, Five Islands Road, Cringila, New South Wales ("the steelworks"). The exemption is granted under s.284 of the Protection of the Environment Operations Act 1997 ("the Act") subject to the following conditions:

1. *General Conditions*

- (a) This exemption takes effect from the date of its publication in the *Government Gazette* and expires on 30 September 2001 unless otherwise varied or revoked.
- (b) The Number Six Blast Furnace slag granulator ("the Number 6 slag granulator") must be designed and operated to ensure that the concentration of hydrogen sulfide (when measured at any location off site of the steelworks and including background levels of hydrogen sulfide), complies with the following air quality standards:
 - 42 µg/m³, 1 hour average, 100 per cent of the time; and

- 3 µg/m³, 3 minute average, 99 per cent of the time.

2. *Reactive Management Strategy*

- (a) To ensure that the air quality standards for hydrogen sulfide detailed in condition 1 (b) are complied with, the company must develop and implement an approved reactive management strategy.
- (b) The documentation detailing the strategy must provide details of:
 - (i) All measures that can reasonably be and will be implemented by the company to minimise the impacts of hydrogen sulfide emissions.
 - (ii) Process changes that can and will be implemented by the company and hydrogen sulfide emissions control equipment that can and will be used or installed by the company (including costs) to minimise the impacts from the slag granulation process.
 - (iii) A real time meteorology and ambient hydrogen sulfide monitoring system which must be used to ensure immediate action is undertaken if the air quality standards for hydrogen sulfide in condition 1 (b) are likely to be exceeded.
 - (iv) Measures that will be undertaken by the company to reduce hydrogen sulfide emissions in the event that the air quality standards for hydrogen sulfide in condition 1 (b) are likely to be exceeded.
- (c) The documentation detailing the reactive management strategy must be provided to the EPA. The Number 6 slag granulator must not be operated until the company has obtained the EPA's written approval of the reactive management strategy. The EPA's approval may be given unconditionally or subject to conditions.

3. *Environmental Monitoring*

- (a) The company must develop and implement a hydrogen sulfide monitoring program approved by the EPA.
- (b) Hydrogen sulfide levels must be monitored at the following locations on a continuous basis:
 - Berkeley Reserve, Jarvie Rd, Cringila;
 - Cringila Public School, Sheffield St, Cringila; and
 - Fort Drummond, Television Ave, Mt St Thomas, in accordance with Standards Association of Australia (1987) AS 2922-1987, or as otherwise approved in writing by the EPA.

- (c) Summaries of the monitoring data for hydrogen sulfide for the quarterly calendar periods ending March, June, September and December must be prepared and submitted to the Wollongong Regional Office of the EPA by the 15th day of the month that immediately follows the end of the quarterly calendar period concerned. The first quarterly summary must cover the period following EPA approval of the monitoring program up until 30 September 1999. Each summary must list the following information in relation to the data recorded at each monitoring station:
- Percentage sampling time at each monitoring station;
 - 100th percentile concentration (1 hour average);
 - 100th percentile concentration (3 minute average);
 - 99th percentile concentration (3 minute average);
 - Number of exceedances of 42 $\mu\text{g}/\text{m}^3$ (1hour average); and
 - Number of exceedances of 3 $\mu\text{g}/\text{m}^3$ (3 minute average).
- (d) Calibration of all analysers must be carried out in accordance with the manufacturer's specifications or in accordance with the following procedure:
- (i) A single point precision check must be carried out every two weeks on each analyser by challenging the analyser with a precision gas of known concentration (between 60 per cent and 90 per cent of the range normally used for analysis).
 - (ii) The analyser must be operating in the normal sampling mode and the test gases must pass through all filters, scrubbers, conditioners and other components used in the normal ambient sampling process and using as much of the ambient air inlet as practicable. The results for the month must then be used to calculate the 95 percent probability limits. The 95 per cent probability limits for each month must be reported.
 - (iii) A determination of instrument span and zero must be undertaken and recorded at least weekly.
 - (iv) A multi point check to test linearity of the instrument output must be undertaken and recorded at least once every six months.
- (e) Summaries of the weekly instrument calibrations for the quarterly calendar periods ending March, June, September and December must be prepared and submitted to the Wollongong Regional Office of the EPA by the 15th day of the month that immediately follows the end of the quarterly calendar period concerned. The first quarterly summary must cover the period following EPA approval of the monitoring program up until 30 September 1999. The date of calibration, indicated span value of the instrument before adjustment, and the known concentration of the calibration reference must be shown for each weekly calibration.

- (f) The documentation detailing the hydrogen sulfide monitoring program must be provided to the EPA. The Number 6 slag granulator must not be operated until the company has obtained the EPA's written approval of the hydrogen sulfide monitoring program. The EPA's approval may be given unconditionally or subject to conditions.

4. *Source Monitoring Program*

- (a) The company must develop and implement a hydrogen sulfide source emission monitoring program for the main stack of the Number 6 slag granulator.
- (b) The monitoring program must detail, but need not be limited to the following:
- Monitoring methods (for hydrogen sulfide, oxygen content, moisture content, temperature, velocity and volumetric flow rate);
 - Details of monitor;
 - Location of monitor;
 - Frequency of monitoring;
 - Operation and calibration of monitor;
 - Data collection and reporting.
- (c) Summaries of the source emission monitoring program for the quarterly calendar periods ending March, June, September and December must be prepared and submitted to the Wollongong Regional Office of the EPA by the 15th day of the month that immediately follows the end of the quarterly calendar period concerned. The first quarterly summary must cover the period following EPA approval of the monitoring program up until 30 September 1999. Quarterly summaries must list the following information:
- Percentage sampling time;
 - Maximum 1 hour and 3 minute average concentrations and emission rates of hydrogen sulfide; and
 - Time series plots of 1 hour and 3 minute average concentrations and emission rates of hydrogen sulfide.
- (d) The documentation detailing the source emission monitoring program must be provided to the EPA. The Number 6 slag granulator must not be operated until the company has obtained the EPA's written approval of the source emission monitoring program. The EPA's approval may be given unconditionally or subject to conditions.

Dated 20 July 1999.

LISA CORBYN,
Acting Director-General,
Environment Protection Authority