

#### ALTONA PLANT

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30 June, 2008

Mr Barry Goldstein Office of Minerals and Energy Resources Primary Industries and Resources SA GPO Box 1671 Adelaide, South Australia 5001

Dear Sir,

# Annual Report, PPL21 Caroline 1

Revised 30 June 2008

In accordance with the Petroleum regulations 2000, part 33, Annual Reports, Air Liquide Australia hereby re-submits the 2007 annual report which has been revised to included comments from PIRSA. This report is for the period 1 January to 31 Dec 2007.

Yours sincerely

AIR LIQUIDE AUSTRALIA LIMITED

Mark Bennett

Primary Production Manager Southern Region



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#### Introduction:

This report is issued in accordance with the requirements of the South Australian, Pipeline Regulations 2000, regulation 33 and concerns the regulated activities conducted under Petroleum Production Licence 21 (PPL21) at the 'Caroline 1' Well. The report covers the period 1 January 2007 to 31 Dec 2007.

# Reg 33 (2) a - Summary of Regulated Activities:

Activities conducted under the licence within the report period included;

- Processing and distribution of Carbon Dioxide, approx. 11,250t
- Routine maintenance and minor plant improvements. The minor improvements included modifications to adsorbent used for product drying, improved water treatment and safety related items.

# Reg 33 (2) b - Compliance with the Petroleum Act and Regulations 2000, the licence and statement of environmental objectives;

Operations at the Caroline 1 Well and associated processing plant have been conducted generally in accordance with the requirements of the Petroleum Act & Regulations 2000.

With regard to the environmental objectives the following table details progress towards those objectives and their assessment criteria. Refer also to the Air Liquide, Statement of Environmental Objectives, issued June 2001.

Environmental Objective	Comments
Avoid groundwater and soil contamination - General	
Chemicals, fuels and oils stored in a contained area on a flat, impermeable surface.	All items stored correctly
Sulphuric acid stored in a contained area.	Portable bund in situ.
	Volumes of sulphuric acid reduced with use of new water softener.
Spill response station maintained.	In compliance
Environmental incident reporting integrated	No incidents reported.



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Environmental Objective	Comments
into existing incident reporting systems.	
Appropriate training in spill response and reporting for employees and contractors undertaken.	Site personnel are trained in spill containment.
Material Safety Data Sheets and spill response procedures posted in appropriate	All MSDS' are current.
work areas.	Register has been updated
In the event of a spill, appropriate spill response procedures to be followed and the incident reported to the Plant Manager (as per Safety Training Manual).	No spills to report.
Waste volumes recorded and continually reviewed to ensure that waste generation (as a percentage of CO2 production) is not increasing.	Losses are recorded daily. A loss reduction program is ongoing:
	Replaced molecular sieve for activated alumina as product drying media which will reduce losses due to regeneration
Waste generation reviewed and opportunities for reduction identified and documented (by March 2001).	Competed
Use of silica gel phased out and waste generation below 800 kg/year for moisture removal stage of CO2 purification (by March 2001). New product, KC Trockenperlen, has double life of old silica gel.	Objective completed and now KC Trockenperlen has been replaced with activated alumina.
Strategy developed for continued waste reduction	Refer above 'Waste volumes' which provides details of loss reduction strategy. In addition reduced plant throughput has reduced solid waste production proportionally.
Contracts with licensed waste disposal contractors maintained (i.e. spent KC Trockenperlen, activated carbon, Puraspec,	Contract in place with Cleanaway.



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Environmental Objective	Comments
sewage, hydrocarbon, and general rubbish).	
Monitor wellhead pressure and diesel system. Assess casing integrity every two years.	Daily monitoring of pressure in outer casing confirms the integrity of the casing.
Conduct soil analysis in the vicinity of the disused waste pits by March 2001.	Samples and analysis were performed in March 2001 and the results indicated no contamination.
Minimise air emissions	Maintenance program has been implemented and records are kept.
Reduce CO2 losses by 5% by December 2001	Average losses for 2007 were 19.6%. Previous annual averages were:
	2006 – 20.1%, 2005 – 16.8%, 2004 - 16.5%, 2003 -26.5%, 2002 - 21.6%, 2001 - 27.6%
Freon gas (R12) phased out by June 2002.	Complete.
Provide a safe working environment for	Based on the results of;
employees, contractors and third parties.	monitoring of well head by expert consultant,
	monitoring of wellhead pressure,
	monitoring of diesel system,
	safe operation has been achieved. Air Liquide is committed to a zero accidents policy.



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Environmental	Objective
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#### **Comments**

### Avoid groundwater and soil contamination - Hydrocarbon Waste

Hydrocarbon waste is stored in bunded tank. Sludge removed annually.

Contract with Cleanaway in place.

Hydrocarbon tank and bunded area inspected for spills and leaks

Daily checks have been conducted.and maintenance works performed confirm the integrity of the tank and bunded area

Procedure for hydrocarbon tank and bund maintenance and inspection to be documented.

Confirmed and recorded in daily logs

Hydrocarbon storage tanks and bund to be maintained in a structurally sound condition.

Based on inspections and maintenance conducted the integrity of the storage tanks and bunds is confirmed.

# Avoid groundwater and soil contamination - Produced Formation Water

Sprinkler system is relocated periodically to avoid creation of soakages and areas of dieoff.

Daily check.

A checklist for inspection of grassed areas, "effluent" tanks, hydrocarbon storage tank and bunds developed and implemented.

Daily check.

Liquid waste sampled and analysed for hydrocarbon content, salinity and pH levels every six months.

Tests have been conducted to schedule and all results are within ANZECC guidelines.

Additional testing and analysis has been performed at the request of the EPA – further tests may be conducted after requirements of EPA are clarified.



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Issue Date: 18 March, 2008 Revised: 30 June 2008

Environmental Objective	Comments
Water quality monitoring data (hydrocarbon content, salinity and pH) and inspections of discharge (irrigation) water (i.e. signs of "dieoff" or surface hydrocarbons on grassed areas) recorded.	Continuous, no indications of die-off or surface hydrocarbons.
Water quality data to be assessed as per ANZECC guidelines for agriculture.	Routine testing system in place.

### Reg 33 (2) c – Actions to rectify non-compliance with the Act

Air Liquide are currently working with the EPA and PIRSA regarding the control measures and the potential for ground water contamination due to formation water disposal. Based on available water salinity data, history of water disposal practices and site observations Air Liquide believes that there is no threat of non-compliance with the Petroleum Act or the Environment Protection Act as a result of current practices and as such no specific compliance actions are in proposed.

# Reg 33 (2) d - Summary of management system audits

The following management system audits were conducted:

• Internal Audit, Document control, management review, audits, Qstars, training – conducted Nov 07

# Reg 33 (2) e - List of Reports and Data generated

The following table identifies the reports and data relevant to the Petroleum Act 2000 generated during the reporting period;

Report	Status
Production Reports (reg 45 (1)).	Submitted with Royalty return.
Royalty returns.	Submitted each month.
Fitness for Purpose Study Report 2007	Submitted 30 May 2007.



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Issue Date: 18 March, 2008 Revised: 30 June 2008

### Reg 33 (2) f - Incidents reported to the Minister

There have been no incidents reported to the minister during the reporting period.

## Reg 33 (2) g - Foreseeable Threats

There are no reasonably foreseeable threats to the facilities that require reporting.

### Reg 33 (2) h – Operations planned for next year

The proposed operations for the year 1 January 2008 to 31 December 2008 involve continued safe and efficient production of carbon dioxide. It is expected that production volumes will be lower than the previous year by approximately 7%. The estimated production 2008 is 10,475t. The reduction is due to depletion of the resource. No down-hole works are planned.

#### Reg 33 (2) i – Estimated production volume

The estimated production volume for the period 1 Jan to 31 Dec 2008 is 10,475t.

#### Reg 33 (2) j – Development Activities

No development activities are planned for the period 1 January 2008 to 31 December 2008.

#### Reg 33 (3) – Statement of Expenditure

A statement of expenditure on regulated activities conducted under the licence for the reporting period is attached to this report.

Mark Bennett, Air Liquide Australia Limited