

# BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE



## Statement of Environmental Objectives

October 2010



APA Group

APT O&M Services Pty Ltd

		Sign-off	Date
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## AMENDMENT DETAILS

Issue	Section	Page	Description	Date
1	All	All	Initial Issue	September 2002
2	All	All	<ul style="list-style-type: none"> <li>• Added Amendment List</li> <li>• Added Distribution List</li> <li>• Noted that revision comprises 5 yearly mandatory review</li> <li>• Change of Operator from Origin Energy Asset Management to APA Group</li> <li>• Revised reference to APIA Code of Environmental Practice</li> <li>• Revised list of environmental management areas</li> <li>• Changed environmental auditing frequency to every two years and included pipeline patrols as part of the process for assessing compliance with SEOs.</li> <li>• Other minor revisions to Section 5.</li> <li>• Changed order of objectives</li> <li>• Minor revisions to Objective, Goal and Compliance Criteria for Soil and Ground Stability.</li> <li>• Minor revision to objective for Waste Management.</li> <li>• Combined objectives for vegetation management and Right-of-Way clearance and made minor modifications.</li> <li>• Added additional heritage management objective.</li> <li>• Revised objectives for Land Use.</li> <li>• Added Goal to Public / Third Party Safety.</li> <li>• Minor revisions to incident reporting criteria for serious and reportable incidents</li> </ul>	September 2007
3	All	All	Revision to include: <ul style="list-style-type: none"> <li>• PIRSA's comments (Sept 07),</li> <li>• Revised Incident Definitions,</li> <li>• Reference made to Petroleum and Geothermal Energy Act and Regulations (SA) 2000 - as proclaimed on 1/10/09,</li> <li>• Objectives revised in accordance with definitions</li> </ul>	December 2009
4	Table 3	20	Incorporated PIRSA's additional examples to expand on Section 85(1)(e) and Regulation 32(1)(b) of the <i>Petroleum and Geothermal Energy Act 2000</i>	October 2010

## DOCUMENT DISTRIBUTION LIST

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	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT		Due Date for Document Review: October 2015

## TABLE OF CONTENTS

<b>1.</b>	<b>LEGISLATIVE OVERVIEW.....</b>	<b>6</b>
<b>2.</b>	<b>INTRODUCTION.....</b>	<b>7</b>
<b>2.1</b>	<b>BACKGROUND.....</b>	<b>7</b>
<b>2.2</b>	<b>PURPOSE OF THE SEO.....</b>	<b>8</b>
<b>3.</b>	<b>OPERATIONAL OVERVIEW.....</b>	<b>9</b>
<b>4.</b>	<b>ENVIRONMENTAL OBJECTIVES.....</b>	<b>11</b>
<b>5.</b>	<b>ASSESSMENT CRITERIA.....</b>	<b>12</b>
	<b>TABLE 1.....</b>	<b>13</b>
	<b>TABLE 2.....</b>	<b>18</b>
<b>6.</b>	<b>INCIDENT REPORTING REQUIREMENTS.....</b>	<b>19</b>
<b>6.1</b>	<b>INCIDENT DEFINITIONS.....</b>	<b>19</b>
	<b>TABLE 3.....</b>	<b>20</b>
<b>7.</b>	<b>ANNUAL REPORTING REQUIREMENTS.....</b>	<b>21</b>
<b>8.</b>	<b>REFERENCES.....</b>	<b>22</b>

## ABBREVIATIONS


<b>Abbreviation</b>	<b>Description</b>
APIA	Australian Pipeline Industry Association
AS	Australian Standards
BMP	Berri - Mildura Pipeline
DEF/EER	Declaration of Environmental Factors / Environmental Effects Report
DN	Nominal Diameter
EMP	Operations Environmental Management Plan
EPP	Environment Protection Polices (SA)
ERP	Emergency Response Plan
GAS	Goal Attainment Scaling
km	Kilometre
KP	Kilometre Point
kPa	Kilopascal
mm	millimetre
MLV	Main Line Valve
PIRSA	Primary Industries and Resources, South Australia
PL	Pipeline Licence
ROW	Right of Way
SAOP	Safety and Operating Plan
SAPG	South Australians Pipelines Group
SEO	Statement of Environmental Objectives

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT	Due Date for Document Review: October 2015	

## 1. LEGISLATIVE OVERVIEW

A Statement of Environmental Objectives (SEO) is required for all regulated activities under Division 4 Section 99 of the South Australia *Petroleum and Geothermal Energy Act 2000*. The essential requirements necessary in the SEO are outlined in Section 100 of the South Australia *Petroleum and Geothermal Energy Act 2000*, these are:

- (1) A statement of environmental objectives for regulated activities-
  - (a) must state environmental objectives that must be achieved in carrying out regulated activities to which the statement applies; and
  - (b) must state criteria to be applied to determine whether the stated environmental objectives have been achieved in a particular case; and
  - (c) may include conditions and requirements to be complied with, in order to achieve the stated objectives; and
  - (d) must impose reporting obligations on a person carrying out regulated activities to which it relates.
- (2) One of the environmental objectives must be the rehabilitation of land adversely affected by regulated activities.
- (3) A statement of environmental objectives-
  - (a) may provide for and, for high impact activities, must provide for a report or periodic reports (to be obtained by the Minister at the expense of the licensee) from an independent expert on the environmental consequences of the activities; and
  - (b) may include a system for evaluating the licensee's environmental performance.
- (4) A statement of environmental objectives-
  - (a) may be generally applicable throughout the State; or
  - (b) may be limited to a specific part of the State.

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT	Due Date for Document Review: October 2015	

## 2. INTRODUCTION

To accord with Division 4 Section 99 of the South Australia *Petroleum and Geothermal Energy Act 2000*, this SEO has been prepared for the Berri - Mildura Natural Gas Transmission Pipeline, South Australian Pipeline Licence Number 11 (PL 11), to include the release of the *South Australian Petroleum and Geothermal Energy Act and Regulations 2000* as proclaimed on 1 October 2009.

### 2.1 BACKGROUND

This SEO is intended to complement the Operations Environmental Management Plan (EMP) for the Berri - Mildura Pipeline, which was developed based on the Declaration of Environmental Factors / Environmental Effects Report (DEF/EER), during 2008.

The DEF/EER was initially prepared for the construction and operation of the Berri - Mildura transmission pipeline to emphasise the importance of environmental management and integrate the key elements and systems, contained within the *APIA Code of Environmental Practice - Onshore Pipelines*, to facilitate continual improvement.

Extensive public consultation was an essential part of the development of the DEF/EER to address specific local issues and foster a “spirit” of community involvement. Operational environmental management of the Berri - Mildura transmission pipeline embodies industry best environmental practice, to ensure long-term environmental sustainability.

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT	Due Date for Document Review: October 2015	

## 2.2 PURPOSE OF THE SEO

The SEO aims to provide guidance and direction for the environmental management of operations, maintenance and decommissioning activities. Much like the DEF/EER featured a Goal Attainment Scaling (GAS) environmental assessment system, the SEO has been designed to identify the potential environmental hazards and consequences associated with the operation of the Berri – Mildura Pipeline and in keeping with the objectives of the South Australia *Petroleum and Geothermal Energy Act 2000*; which include:

- Minimising the environmental damage from the activities involved in the operation of transmission pipelines for transporting petroleum hydrocarbon gases.
- To establish appropriate consultative processes involving people directly affected by regulated activity and the public generally.
- To protect the public from the risks inherent in regulated activities.
- To promote adherence to AS2885 as a primary means of achieving public, environmental and safety objectives.

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT		Due Date for Document Review: October 2015

### 3. OPERATIONAL OVERVIEW

APA Group operates and maintains the Berri - Mildura natural gas transmission pipeline on behalf of the pipeline owner, Envestra Limited. The 148km buried steel transmission pipeline was constructed during 1999 by AJ Lucas in accordance with Australian Standard AS 2885.1-1997, AS2885.2-1995 and AS2885.3-1997.

South Australia plays host to 43km of the pipeline (the balance passing through Victoria enroute to the City of Mildura), which is subject to the provisions of the South Australia *Petroleum and Geothermal Energy Act 2000*, and subsequent SEO requirements. The pipeline is located within a Right-Of-Way (ROW) approximately 15m in width, which passes through Crown Land and private property along registered easements.

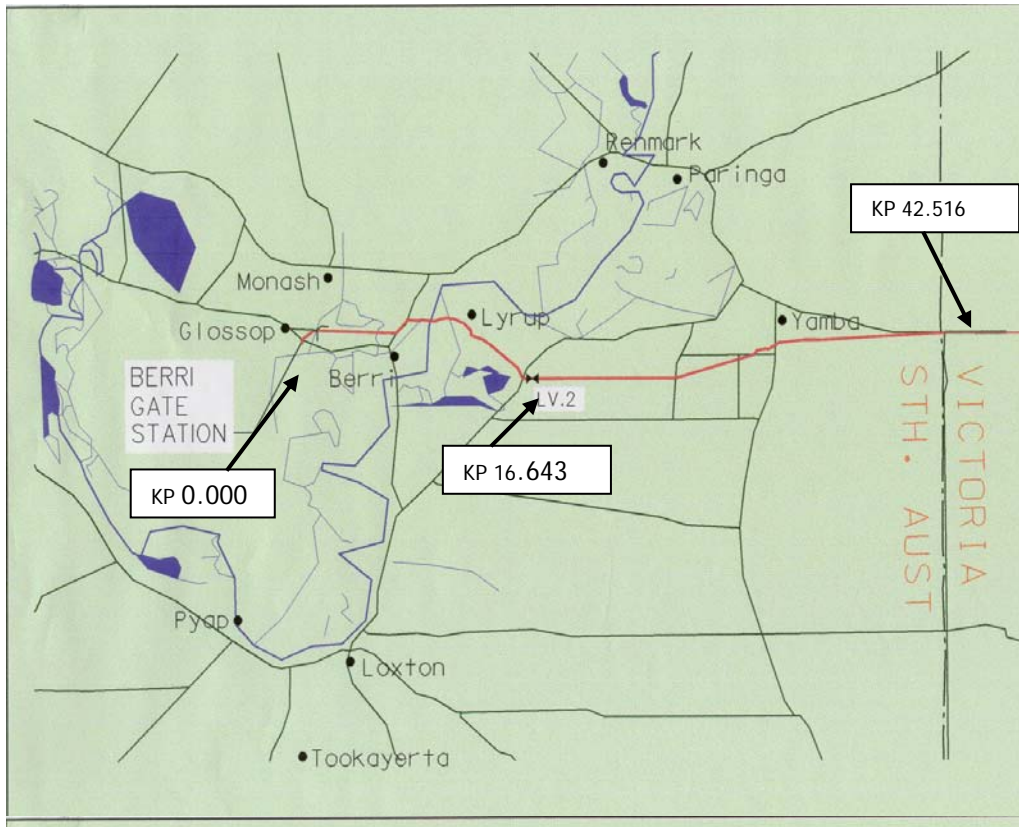
Pipeline features include a Maximum Allowable Operating Pressure (MAOP) of 9,520 kPag, a nominal outside diameter of 114.3mm (4 inches), a nominal wall thickness of 3.2mm and a nominal depth of cover of 900mm. Increased wall thickness (4.5mm) and depth of cover (1500mm) have been applied to areas identified 'higher risk'; typically these areas include road crossings along the pipeline route.

Above ground facilities within South Australia include an off-take and metering facility (Berri Off-take Station) located on the outskirts of Berri (KP 0.000) and a main line valve (MLV2) located at KP 16.643, along the Loxton-Mildura Road, on the outskirts of Lyrup. The pipeline crosses into Victoria enroute to the City of Mildura at the SA/VIC border crossing of the Sturt Highway at KP 42.516.

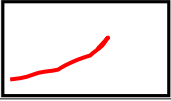

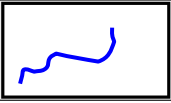
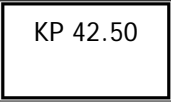
The pipeline is operated and maintained in accordance with AS2885.3-2001 Pipelines – Gas and Liquid Petroleum, Part 3 – Operations and Maintenance. The South Australian section of the Berri – Mildura Transmission Pipeline Route is shown in Figure 1.


**Figure 1**

**Berri - Mildura Transmission Pipeline Route  
South Australian Section**



**LEGEND**

- 
Berri - Mildura Transmission Pipeline Route through South Australia
- 
Main Line Valve No. 2
- 
River Murray
- 
Progressive kilometre point from Berri City Gate

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT		Due Date for Document Review: October 2015

#### 4. ENVIRONMENTAL OBJECTIVES

Potential environmental hazards and consequences associated with the operation of the Berri - Mildura Pipeline have been identified in the EMP. APT O&M is committed to achieving a range of environmental objectives in regard to these potential hazards.


The objectives for the environmental management of the operation and decommissioning of the Berri – Mildura Pipeline (PL 11) are detailed in Tables 1 and 2 and cover the management of:

Operations:

- Soil and Ground Stability
- Water
- Land or Water Contamination
- Vegetation Cover
- Heritage
- Noise Emissions
- Atmospheric Emissions
- Damage to Infrastructure/Land Use
- Public Health and Safety
- Security of Supply

Decommissioning:

- Easement Restoration and Infrastructure State

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT	Due Date for Document Review: October 2015	

## 5. ASSESSMENT CRITERIA

To ensure that the environmental objectives are achieved and maintained, assessment criteria have been developed to ensure long-term compliance. The assessment criteria assigned to each objective will be one of the following:

- **Defined Condition** – Specific environmental objectives for operations and maintenance activities, which can only be evaluated through active prevention of non-complying impacts
- **Defined Requirement** – Attainment of environmental objectives against prescribed procedures or actions defined for an operational activity

Tables 1 and 2 contain the assessment criteria for pipeline operation and maintenance activities and pipeline decommissioning respectively.

Achievement against the SEO is assessed on a quarterly basis through pipeline patrols, landowner/occupier consultation, incident reports, photo point monitoring and other pipeline operational non-routine and routine activities. Appropriate actions to reinstate compliance with stated objectives shall be initiated, based on an assessment of inherent environmental risk. Resources shall be optimised in order to target high priority non-compliances.

Environmental objectives shall be audited every two years as part of the environmental audit program, to assess the level of compliance in relation to stated objectives. Should subsequent audits identify any major non-conformances with respect to the environmental objectives then additional audits will be conducted until the non-conformances are rectified.

**Table 1**

Berri - Mildura Pipeline Environmental Management Objectives – Pipeline Operations

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved <sup>1</sup>	ASSESSMENT CRITERIA <sup>2</sup>
1. To maintain soil stability/ Integrity on the easement.	1.1 To minimise the potential for soil erosion or subsidence along the pipeline easement.  1.2 To manage soil rehabilitation areas in an appropriate manner.	Inspections undertaken as part of regular patrols.  Preventative measures implemented and monitored in susceptible areas.	No un-remediated subsidence.  Soil erosion and/or subsidence is better, or at least consistent with the surrounding area.  Rehabilitation areas support regrowth consistent with the surrounding area.
2. To minimise and manage impacts to water resources.	2.1 To ensure that operation and maintenance activities do not give rise to pollution of watercourses.  2.2 To maintain current surface drainage patterns	Regular patrols undertaken to look for evidence of erosion, windrow development or any changes to the easement that could alter surface hydrology conditions.  To promote and maintain water drainage patterns	Solid & liquid wastes have not polluted rivers, streams, watercourses, dams or lakes.  Bank stability maintained, especially following high rainfall events.  Likely alteration to drainage patterns not evidenced by soil erosion or subsidence.  Compliance with EPA <i>Environment Protection (Water Quality) Policy 2003</i>

<sup>1</sup> This column is provided for information only. Under the Petroleum and Geothermal Energy Act 2000, only objectives and assessment criteria are approved.

<sup>2</sup> Assessment criteria shown have been developed to be 'black and white'.

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved <sup>1</sup>	ASSESSMENT CRITERIA <sup>2</sup>
<p>3. To avoid land or water contamination.</p>	<p>3.1 To prevent spills and if they occur minimise their impact.</p> <p>3.2 To ensure that rubbish and waste material are disposed of in an appropriate manner.</p> <p>3.3 To prevent the spread of contamination where the easement intersects known contaminated sites.</p>	<p>To ensure that all wastes are removed from the site and appropriately disposed.</p> <p>To conduct all activities associated with pipeline operation in a manner that reduces the production of waste.</p> <p>Spills/contamination remediated in consultation with regulatory bodies and agencies.</p> <p>Ensure appropriate spill response equipment is available and personnel are trained in spill Response Procedures.</p>	<p>No wastes evident on or off the easement arising from pipeline operations.</p> <p>No soil or water contamination as a result of pipeline activities.</p> <p>Documented waste disposal records to confirm disposal of prescribed waste in accordance with the <i>Environment Protection Act 1993</i>.</p>
<p>4. To promote and maintain native vegetation cover on the right-of-way.</p>	<p>4.1 To promote and maintain regrowth on the easement to be consistent with surrounding areas.</p> <p>4.2 To minimise additional clearing of native vegetation as part of operational activities.</p> <p>4.3 To manage vegetation on the easement so that it does not interfere with the integrity of the pipeline.</p> <p>4.4 To ensure maintenance activities are planned and carried-out in a manner that minimises impacts to native fauna.</p>	<p>Encourage regrowth of native grasses and shrubs along the right-of-way, within 3m of the pipeline centreline, where appropriate (i.e. – not in farmland used for cropping or pasture).</p> <p>Prompt reinstatement of easement.</p> <p>Maintain vegetation in accordance with pre-existing conditions and ensure environmental weeds and pathogens along the right-of-way are managed in a manner consistent with adjoining land.</p> <p>To deter regrowth of native trees along the right-of-way (minimum separation of 3m from pipeline centreline).</p>	<p>Native vegetation regrowth (grasses, shrubs &amp; trees) along right-of-way is typical of adjoining areas. Note: Assessment of the consistency with surrounding areas will take into account that regrowth is dependant on time and rainfall.</p> <p>No complaints from landholders in respect to crop losses along the right-of-way.</p> <p>No new weed infestations or pathogens as a result of pipeline activities.</p> <p>Vegetation trimmed rather than cleared where possible.</p> <p>Avoid disturbance to areas of remnant vegetation.</p> <p>Approval obtained under the <i>Native Vegetation Act 1991</i> for any clearance of native vegetation.</p>
<p>Issue: 4</p>	<p>15 October 2010</p>		<p>Page 14 of 22</p>

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved <sup>1</sup>	ASSESSMENT CRITERIA <sup>2</sup>
5. To adequately protect heritage sites and values.	5.1 To ensure that identified heritage sites are undisturbed and appropriately managed during pipeline operations and maintenance activities.	<p>To implement an effective communication strategy with relevant heritage groups.</p> <p>To manage identified Aboriginal and European heritage sites in accordance with prescribed procedures.</p> <p>To appropriately manage any newly identified heritage sites in accordance with prescribed procedures.</p>	<p>Management of identified heritage sites in consultation with traditional custodians.</p> <p>Compliance with work Instructions in relation to heritage site management.</p> <p>No impact to known sites without approval under the <i>Aboriginal Heritage Act 1988</i> or the <i>Heritage Places Act 1993</i>.</p>
6. To minimise noise due to operations.	6.1 To ensure operations comply with noise standards	<p>To ensure that operations comply with noise standards and where possible ensure that landowners are not disturbed.</p> <p>Monitoring results and incident reports.</p> <p>Design any facilities to meet the noise requirements under the <i>Environment Protection Act 1993</i>.</p>	<p>No noise related complaints from landholders or third parties.</p> <p>Compliance with Legislative requirements of <i>Environment Protection Act 1993</i> and <i>Environmental Protection (Industrial Noise) Policy 1994</i> in respect of noise emissions.</p>
7. To minimise atmospheric emissions	<p>7.1 To minimise controlled and uncontrolled atmospheric emissions.</p> <p>7.2 To minimise the generation of dust.</p>	<p>To ensure that uncontrolled atmospheric emissions that affect an area, not designed to contain such an escape, are managed to accord with the requirements of the <i>Petroleum and Geothermal Energy Act 2000</i>.</p> <p>To minimise dust generation by management of vehicle operations along the easement.</p>	<p>No uncontrolled atmospheric emissions that have affected an area that has not been specifically designed to contain such an escape.</p> <p>No complaints from third parties in respect of air quality.</p> <p>Compliance with EPA <i>Environment Protection (Air Quality) Policy 1994</i>.</p>

OBJECTIVE	GOAL(S)	Guide to How Objectives Can Be Achieved <sup>1</sup>	ASSESSMENT CRITERIA <sup>2</sup>
<p>8. To avoid unnecessary disturbance to third party infrastructure, landholders or land use.</p>	<p>8.1 To minimise disturbance or damage to infrastructure/land use and remediate where disturbance can not be avoided.</p> <p>8.2 To maintain appropriate consultation with all relevant landowners.</p>	<p>To minimise disturbance to land use and damage to infrastructure.</p> <p>To develop site-specific land management strategies in consultation with landholders, for likely impacts arising from temporary land use disturbance.</p> <p>To inform landholders of likely land use disturbance as a direct result of operations.</p> <p>Measures undertaken to minimise third party use of right-of-way.</p>	<p>No reasonable complaints from landholders in relation to land use or infrastructure damage.</p> <p>Where disturbance is unavoidable or accidental, infrastructure or land use is restored to the satisfaction of the landowner or to undisturbed condition.</p> <p>Duration of disturbance does not exceed agreed time frame. Appropriate consultation with landowners regarding pipeline activities, which may affect their particular property.</p>
<p>9. To minimise the risks to public and third party health and safety.</p>	<p>9.1 To ensure that adequate measures are in place to protect public and third party safety during operations.</p> <p>9.2 To minimise the risk of fire during routine operations.</p> <p>9.3 To prevent unauthorised activity on the easement that may adversely impact on the integrity of the pipeline.</p>	<p>To prevent unauthorised activities along the pipeline which have the potential to result in a risk to the safety of the public and third parties.</p> <p>Job Safety Analysis (JSAs) carried out to identify potential hazards and implement controls.</p> <p>Inspection/patrol reports and records.</p> <p>Clear identification of the pipeline to accord with AS2885.</p> <p>Reports of unauthorised activity on the ROW prepared to adhere with the <i>guidelines for Reportable and Serious Incidents</i>.</p>	<p>No incidents or accidents involving the public or a third party occur during pipeline operations.</p> <p>Documented evidence of public safety management and pipeline awareness, during the course of pipeline operations.</p> <p>Adherence to AS 2885.</p> <p>No fire outbreaks arising from pipeline operations.</p>

<b>OBJECTIVE</b>	<b>GOAL(S)</b>	<b>Guide to How Objectives Can Be Achieved<sup>1</sup></b>	<b>ASSESSMENT CRITERIA<sup>2</sup></b>
<p>10. To ensure that security of natural gas supplies are maintained to gas consumers.</p>	<p>10.1 To minimise the potential for significant disruption of gas supply to customers in line with contractual agreements.</p>	<p>Emergency Response Exercises carried out to determine prompt and effective response.</p> <p>In the event of an emergency where gas supplies are disrupted, ensure that the pipeline system is returned efficiently to a safe, operational state with minimum customer and environmental impact.</p> <p>Mapped processes of responding to breakdown and emergencies.</p>	<p>No interruption to gas supply.</p>


**Table 2**

Berri - Mildura Pipeline Environmental Management Objectives – Pipeline Decommissioning

OBJECTIVE	GOAL (S)	Guide to How Objectives Can Be Achieved <sup>1</sup>	ASSESSMENT CRITERIA <sup>2</sup>
11. To appropriately decommission the pipeline in accordance with regulatory requirements and accepted best practice environmental management criteria.	11.1 To decommission pipeline and associated infrastructure in a safe and timely manner, in accordance with appropriate regulatory requirements. 11.2 To minimise environmental disturbance to remnant vegetation; landholders and third party stakeholders. 11.3 To restore the natural environment and promote biodiversity.	Compliance with relevant occupational health, safety and welfare regulatory requirements. Compliance with relevant environmental regulatory requirements. Initiation of revegetation or similar restoration works and monitoring programmes as required.	Pipeline and associated above-ground infrastructure decommissioned to an appropriate standard as required by the legislation and standards of the time. No complaints from landholders and third party stakeholders

<sup>1</sup> This column is provided for information only. Under the Petroleum and Geothermal Energy Act 2000, only objectives and assessment criteria are approved.

<sup>2</sup> Assessment criteria shown have been developed to be 'black and white'.

	<b>SESA NATURAL GAS TRANSMISSION PIPELINE (PL 16) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0599</b>
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## 6. INCIDENT REPORTING REQUIREMENTS

In accordance with the requirements of Section 100 (1) (d) of the South Australia *Petroleum and Geothermal Energy Act 2000*, an SEO shall impose reporting obligations on an individual carrying out regulated activities. Regulation 12(2) requires an SEO to identify events, which may arise from regulated activities, which could contribute towards the development of a serious incident or a reportable incident within the context of Section 85 of the Act.

Section 85 of the South Australia *Petroleum and Geothermal Energy Act 2000* and Section 32 of the South Australia *Petroleum and Geothermal Energy Regulations 2000*, respectively, prescribe that incidents deemed to be “serious” or “reportable”, shall be reported to the Minister of Primary Industries and Resources as soon as practicable after the occurrence. Both reportable and serious incident reports are to include an assessment of the effectiveness of design, procedures and management systems that were in place to prevent the incident from occurring. Other reporting requirements include:

- Serious Incidents – must be reported to the Minister for Primary Industries and Resources as soon as practicable after the occurrence, as per Section 85 of the South Australia *Petroleum and Geothermal Energy Act 2000* and Section 32 of the South Australia *Petroleum and Geothermal Energy Regulations 2000*.
- Reportable Incidents – must be reported to the Minister for Primary Industries and Resources on a quarterly basis within one month of the end of the quarter, as per Section 32 of the South Australia *Petroleum and Geothermal Energy Regulations 2000*.

### 6.1 INCIDENT DEFINITIONS

Pursuant to Section 85(1) and the expanded incident definitions in support of Section 85(1)(e) and Regulation 32(1)(b), the definitions contained in Table 3 constitute serious and reportable incidents.

**Table 3**

Serious Incidents	Reportable Incidents
<ol style="list-style-type: none"> <li>1. A person is seriously injured<sup>1</sup> or killed.</li> <li>2. An imminent risk to public health or safety arises.</li> <li>3. Serious environmental damage occurs or an imminent risk of serious environmental damage arises. For example:               <ol style="list-style-type: none"> <li>a) Disturbance to sites of cultural and/or heritage significance without appropriate permits and approvals<sup>2</sup>.</li> <li>b) An escape of petroleum, process substance, a chemical or a fuel to a water body, or to land in a place where it is reasonably likely to enter a water body by seepage or infiltration, or onto land that affects the health of native flora and fauna species.</li> <li>c) Detection of a declared weed, animal/plant pathogen or plant pest species that has been introduced or spread as a direct result of activities.</li> <li>d) Any removal of rare, vulnerable or endangered flora and fauna without appropriate permits and approvals<sup>3</sup>.</li> </ol> </li> <li>4. Security of natural gas supply is prejudiced or an imminent risk of prejudice to security of natural gas supply arises<sup>4</sup>.</li> <li>5. An event that compromises the physical integrity of an asset or facility. For example:               <ol style="list-style-type: none"> <li>a) Identification of a through-wall defect on a pipeline or plant component.</li> <li>b) Pipeline<sup>5</sup> rupture.</li> </ol> </li> <li>6. Unauthorised activity on a pipeline easement where the pipeline is contacted and repair action is required<sup>6</sup>.</li> <li>7. An uncontrolled gas release resulting in the activation of gas detection alarms and/or emergency response and evacuation procedures of an area in or adjacent to the gas release, and/or fire or explosion.</li> </ol>	<ol style="list-style-type: none"> <li>1. An escape of petroleum<sup>7</sup>, processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape<sup>8</sup> (other than a serious incident).</li> <li>2. An event that has the potential to compromise the physical integrity of an asset or facility. For example:               <ol style="list-style-type: none"> <li>a) Unauthorised activity on a pipeline easement with equipment that has been identified<sup>6</sup> as exceeding the pipeline's penetration resistance, determined in accordance with Australian Standard (AS) 2885.</li> <li>b) Identification<sup>9</sup> of a partial through-wall defect (e.g. through visual inspection, inline inspection, non-destructive testing) that requires repair or replacement action, or a reduction of the Maximum Allowable Operating Pressure, to maintain safe operation (other than a serious incident).</li> <li>c) Unauthorised activity on a pipeline easement with equipment or vehicles that have been identified<sup>6</sup> as exceeding allowable stress limits, determined in accordance with AS2885.</li> <li>d) An unapproved<sup>10</sup> excursion outside of critical design or operating conditions/parameters.</li> <li>e) Failure of a critical procedural control in place to reduce a credible threat to low or as low as reasonably practicable (ALARP).<sup>11</sup></li> </ol> </li> <li>3. Unauthorised activity on a pipeline easement where the pipeline is contacted but repair action is not required.</li> <li>4. Malfunction or failure of critical plant or equipment that had (or still has) potential to cause a serious incident.</li> </ol>

<sup>1</sup> Includes an immediately notifiable work-related injury pursuant to Division 6.6 of the Occupational Health, Safety and Welfare Regulations 1995 that results in the issuing of a Prohibition Notice by SafeWork SA.

<sup>2</sup> Pursuant to Aboriginal Heritage Act 1988 and Heritage Places Act 1993

<sup>3</sup> Pursuant to Native Vegetation Act 1991 (flora) and National Parks and Wildlife Act 1972 (fauna).

<sup>4</sup> That is, after taking into account relevant factors on a day and rights and obligations under contracts, a significant curtailment of firm service that detrimentally impacts or is likely to impact upon the security of electricity supply to South Australia or to gas supplies to a significant number of commercial and/or domestic gas users in SA

<sup>5</sup> As per Petroleum and Geothermal Energy Act 2000 definition, the term 'pipeline' includes tanks, machinery and equipment necessary for, or associated with, operation of the pipeline.

<sup>6</sup> For the case where a detailed assessment is required to determine this, PIRSA recommends the incident be reported initially and amended at a later date if required.


<sup>7</sup> In gaseous, liquid or solid state, as per Petroleum and Geothermal Energy Act definition.

<sup>8</sup> An area assigned during a Hazard and Operability Process (HAZOP) study as a hazardous area for the purpose of gas venting, and designed as such, is considered to be an area specifically designed to contain a gas escape.

<sup>9</sup> For reporting purposes, the incident is considered to have occurred at the time that a decision is made to repair or replace the defect, or reduce the Maximum Allowable Operating Pressure.

<sup>10</sup> "Approval" as per AS2885 definition. Note that there may be situations where excursions are allowable under AS2885.

<sup>11</sup> As per the Safety Management System process articulated in AS 2885.1-2007, or similar risk assessment process.

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT		Due Date for Document Review: October 2015

## 7. ANNUAL REPORTING REQUIREMENTS

An annual report will be submitted to the Minister as required by Regulation 33, detailing the nature of regulated activities for the previous licence year. The written report will detail technical and performance issues in relation to regulated activities controlled under the licence. Performance against the stated environmental objectives detailed within the SEO, including any non-conformances will also be reported in the annual report. Compliance with the intent of the SEO shall be supported by audit results and action status reports.

	<b>BERRI - MILDURA NATURAL GAS TRANSMISSION PIPELINE (PL 11) STATEMENT OF ENVIRONMENTAL OBJECTIVES (SA)</b>	<b>0510</b>
THIS IS A QUALITY CONTROL DOCUMENT	Due Date for Document Review: October 2015	

## 8. REFERENCES

- Aboriginal Heritage Act 1988
- AS 2885.1-2007 Pipelines – Gas and Liquid Petroleum, Part 1 – Design and Construction
- AS 2885.3-2001 Pipelines – Gas and Liquid Petroleum, Part 3 – Operations and Maintenance
- Australian Pipeline Industry Association (2005) Code of Environmental Practice – Onshore Pipelines
- Boral Energy (1999), Declaration of Environmental Factors / Environmental Effects Report
- Environment Protection Act 1993
- Environment Protection (Air Quality) Policy 1994
- Environment Protection (Water Quality) Policy 2003
- Environment Protection (Noise) Policy 2007
- Heritage Places Act 1993
- Guidelines for Reportable and Serious Incidents prepared under the Petroleum and Geothermal Energy Act 2000
- Petroleum Act (SA) 1994
- Petroleum Act (SA) 2000
- South Australia Petroleum and Geothermal Energy Act 2000
- South Australia Petroleum and Geothermal Energy Regulations 2000
- Native Vegetation Act 1991
- Operations Environmental Management Plan, APA Document No. 0280