

# **STATEMENT OF ENVIRONMENTAL OBJECTIVES**

**for  
Preliminary Exploration and Survey Activities in South  
Australia**

**(Ground Based Geophysical (non-seismic), Pipeline  
Preliminary Survey and other Low-Impact Survey  
Activities)**

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# 1 Introduction

## 1.1 Purpose

This Statement of Environmental Objectives (SEO) has been prepared to meet the requirements of Sections 99 and 100 of the *Petroleum and Geothermal Energy Act 2000* (the Act) and Regulations 12 and 13 of the *Petroleum and Geothermal Energy Regulations 2013*.

The intent of the SEO is to outline the environmental objectives to which preliminary exploration and survey activities, deemed to be a regulated activity under the Act, must conform, and the criteria upon which the achievement of these objectives will be assessed. An approved SEO must be in place before an approval or licence to conduct the preliminary exploration and survey activities can be given.

This SEO has been prepared as a state-wide document to streamline the approval process for short term, small scale and low impact preliminary exploration and survey activities without compromising protection of the environment.

The objectives of this SEO have been developed on the basis of the information provided in the Environmental Impact Report (EIR) (RPS 2013), and are in keeping with the objectives of the Act, which include:

- to minimise the environmental damage from the activities involved in exploration for resources to which the Act applies
- to establish appropriate consultative processes involving people directly affected by regulated activities and the public generally
- to protect the public from risks inherent in regulated activities.

Environment is broadly defined in the Petroleum and Geothermal Energy Act to include natural, social, cultural and economic aspects. The environmental objectives outlined in this SEO incorporate these aspects.

Once an SEO is approved it must be reviewed at least once every five years. If, as a result of a review, the Minister considers that the SEO should be revised, the Minister will undertake the revision and then submit the statement for consideration under the Act. This SEO has been developed following a review of two previous SEOs: *SEO for ground based geophysical operations (non-seismic) in South Australia* (PIRSA 2007); and *SEO for Pipeline Preliminary Survey Activities in South Australia* (Ecos 2001). It combines and supersedes these two SEOs.

## 1.2 Scope

This fit for purpose SEO applies to preliminary exploration and survey activities conducted by proponents and their contractors within South Australia. Preliminary exploration and survey activities covered by this SEO include those listed in Table 1 below.

**Table 1: Examples of Preliminary Exploration and Survey Activities covered by this SEO**

Survey Type	Activity
Ground based geophysical operation (non-seismic)	<ul style="list-style-type: none"> <li>▪ Gravimetric survey</li> <li>▪ Magnetic survey</li> <li>▪ Electromagnetic survey</li> <li>▪ Ground-penetrating radar survey</li> <li>▪ Geochemical survey</li> <li>▪ Geological survey (including rock sampling)</li> </ul>
Pipeline preliminary survey <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ Ecological survey (e.g. flora and fauna)</li> <li>▪ Heritage survey (aboriginal and non-aboriginal)<sup>2</sup></li> <li>▪ Geotechnical survey</li> <li>▪ Cadastral survey</li> </ul>
Other preliminary exploration and survey activities	<ul style="list-style-type: none"> <li>▪ Geotechnical survey of well lease</li> <li>▪ Water bore monitoring (existing bores)</li> <li>▪ Temperature logging of existing bores</li> <li>▪ Other low-impact preliminary surveys</li> </ul>

Application of this SEO is limited to the State of South Australia. Once this SEO is gazetted, additional environmental approval for preliminary survey activities is not required, provided that the proposed activities fall within the scope described in this document.

This SEO does not cover preliminary exploration and survey activities that require specific preparation of access tracks by earthmoving equipment or the significant clearance of native vegetation. Very small scale, incidental clearance of native vegetation is covered where it is unavoidable (e.g. for geotechnical or cultural heritage test pits or excavations in the pastoral zone, where native vegetation is ubiquitous), subject to a number of conditions that are listed in this SEO. This clearance would be covered by Native Vegetation Regulation 5(1)(zc) as an exploration activity, and would not require a 'significant environmental benefit' under the *Native Vegetation Act 1991*.

<sup>1</sup> Pipeline preliminary surveys are carried out under a Preliminary Survey Licence (PSL). This licence authorises a licensee to carry out a survey, environmental evaluation, or other form of assessment preparatory to the carrying out of regulated activities on land. A PSL may authorise incidental matters such as marking out the proposed route of a pipeline.

This SEO relates to preliminary survey activities for transmission pipelines as defined by the Act. 'Pipeline' means a pipe or system of pipes for conveying petroleum or another regulated substance from place to place and includes:

- Tanks, machinery and equipment necessary for, or associated with, its operation; and
- A part of a pipeline.

<sup>2</sup> Work Area Clearances conducted by Native Title holders or Native Title claimants on Native Title land are not considered by DMITRE to be regulated activities and are not covered by this SEO.

## **2 Environmental Objectives and Assessment Criteria**

### **2.1 Objectives**

The broad objective of this SEO is to manage any impact of preliminary exploration and survey activities on the biological or cultural features of a region or on other land users. Potential environmental hazards and consequences associated with these activities have been identified in the EIR (RPS 2013).

Environmental objectives relating to these potential hazards are listed below.

1. Avoid or minimise disturbance to stakeholders and / or associated infrastructure.
2. Avoid or minimise disturbance to native vegetation and native fauna.
3. Avoid disturbance to sites of cultural and heritage significance.
4. Avoid the introduction or spread of exotic species and other biosecurity threats.
5. Minimise the risk of initiation and / or propagation of wildfire.
6. Minimise visual impact of operations.
7. Minimise generation of dust.
8. Minimise soil disturbance and contamination.
9. Avoid or minimise impact to surface water, groundwater and drainage patterns.
10. Optimise (in order of most to least preferable) waste avoidance, reduction, reuse, recycling, treatment and disposal.
11. Remediate and rehabilitate operational areas where required.

### **2.2 Assessment Criteria**

The environmental objectives identified above are subject to an assessment to measure the level of achievement. The assessment criteria for each objective are set out in Table 2.

In most cases the achievement of an objective can be assessed through ensuring defined conditions are met or carried out. Such conditions include:

- Prohibitions that achieve the objective through the prevention of unacceptable actions
- Requirements to carry out certain actions in accordance with approved procedures or industry accepted standards.

Table 2 also outlines the controls that are planned to be implemented to ensure that environmental objectives are achieved, in the “Guide to How Objectives Can be Achieved” column.

### **2.3 Mitigation Strategies**

In addition to the defined assessment criteria outlined in Table 1, proponents shall implement the general management procedures discussed below.

#### **2.3.1 Awareness Program**

Proponents shall ensure that all personnel involved with preliminary exploration and survey activities receive adequate training on the relevant environmental objectives, impact mitigation strategies (as outlined in the EIR) and assessment criteria contained within this SEO.

### **2.3.2 Implementation Strategies**

Proponents and contractors shall develop site-specific mitigation strategies. In undertaking activities proponents need to be mindful of their obligations under relevant legislation including but not limited to:

#### **Commonwealth**

*Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*

*Native Title Act 1993*

#### **South Australia**

*Aboriginal Heritage Act 1988*

*Environment Protection Act 1993*

*Forestry Act 1950*

*Heritage Places Act 1993*

*National Parks and Wildlife Act 1972*

*Native Vegetation Act 1991*

*Natural Resources Management Act 2004*

*Public and Environmental Health (Waste Control) Regulations 2010*

*River Murray Act 2003.*

### **2.3.3 Contractual Obligations**

All contractors with companies undertaking preliminary exploration and survey activities for the proponent shall include a requirement to:

- operate in a manner consistent with the proponent's environmental policy; and
- meet the assessment criteria outlined in this SEO.

**Table 2: Environmental Objectives and Assessment Criteria**

Environmental Objectives	Assessment Criteria	Guide to How Objectives Can be Achieved
1. Avoid or minimise disturbance to stakeholders and / or associated infrastructure.	<p>All reasonable stakeholder complaints are addressed and resolved.</p> <p>Upon completion of survey activities and after any rehabilitation or reparation (if determined prior to survey), the level to which the impacts on other land users is determined by the absence of existing stakeholder complaints.</p>	<p>Landowners notified of proposed survey activities (pursuant to Regulations).</p> <p>Landowners / managers consulted prior to survey activities and their specific requirements are recorded and addressed appropriately.</p> <p>All reasonable landowner requirements are incorporated into management strategies.</p> <p>System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner.</p> <p>Induction for all employees and contractors covers pastoral, conservation, tourism, legislation and infrastructure issues.</p> <p>Access to properties is kept to the minimum required to acquire data.</p> <p>The number of site visits is restricted to as few as practicable.</p> <p>Existing tracks are used where possible.</p> <p>All gates are left in the position in which they were originally found.</p> <p>All fences are restored to a level satisfactory to the landowner.</p> <p>Vehicles driven at appropriate speeds to minimise stock disturbance.</p> <p>Wet weather operations are avoided to prevent station track damage.</p> <p><b>Note:</b> The Earth Resources Information Sheet P9 <i>Liaison Guidelines for Landholders and Petroleum Explorers in South Australia</i> (<a href="http://www.misa.net.au/_data/assets/pdf_file/0008/28556/p09.pdf">http://www.misa.net.au/_data/assets/pdf_file/0008/28556/p09.pdf</a>) is a valuable tool in promoting effective communication channels.</p>
2. Avoid or minimise disturbance to native vegetation and native fauna.	<p>No unauthorised clearing of vegetation.</p> <p>Activities confined to existing cleared areas, access tracks or existing seismic lines (except where they have been rehabilitated) where possible.</p> <p>Fauna casualties reduced to as low as reasonably practicable.</p>	<p>Clearing of native vegetation is avoided except as outlined below.</p> <p>Where clearance / disturbance of very small areas of native vegetation is unavoidable (e.g. for geotechnical or cultural heritage test pits or excavations in the pastoral zone, where native vegetation is ubiquitous), the following must be adhered to:</p> <ul style="list-style-type: none"> <li>▪ native vegetation will not be cleared if existing cleared areas can be utilised</li> <li>▪ clearance of native vegetation will be limited to the minimum required for the survey activity (expected to be several square metres or less)</li> <li>▪ trees, large shrubs and flora of conservation significance will be avoided</li> <li>▪ naturally clear areas or areas with few long-lived species will be selected where possible</li> <li>▪ where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments must be carried out and a location specific environmental management plan developed and implemented</li> <li>▪ any areas of clearance will be rehabilitated where necessary (e.g. by respraying vegetation or reseeded with local seed sources where appropriate).</li> </ul> <p>The conservation needs of particular species will be considered and appropriate management strategies implemented where necessary.</p> <p>If flora with significant conservation value is present in the vicinity of survey activities it will be flagged and / or fenced off where necessary to prevent disturbance.</p> <p>Areas of sensitive or significant<sup>3</sup> vegetation will be identified and will not be traversed by vehicles.</p>

<sup>3</sup> Sensitive or significant vegetation would include vegetation that is sensitive to disturbance and would be unlikely to recover readily from vehicle traverses, and vegetation associations or plant species of conservation significance.



Environmental Objectives	Assessment Criteria	Guide to How Objectives Can be Achieved
	<p><u>Waste Management</u> Refer to assessment criteria for Objective 10.</p> <p><u>Fuel and Chemical Storage and Handling</u> Refer to assessment criteria for Objective 8.</p>	<p>Repeated driving along temporary access routes will be avoided where it is likely to result in long-term damage to vegetation. Campsites (if required) are established on clear areas where no impact to vegetation occurs and in locations where the preparation of a new access track is not necessary. No domestic pets allowed at camps or worksites. Feeding of wildlife (e.g. dingoes) is not permitted. Removal of native vegetation for tracks for vehicle access is not permitted under this SEO. <u>Geophysical surveys (non-seismic)</u> Terrain and vegetation is considered in planning stage when designing layout of the survey. Only vehicles engaged in actual data acquisition process are permitted to drive along survey traverses. <u>Pipeline preliminary surveys</u> Undertake ecological survey/assessment prior to geotechnical and land / cadastral survey to identify any 'no-go' areas.</p> <p><u>Waste Management</u> Refer to Objective 10.</p> <p><u>Fuel and Chemical Storage and Handling</u> Refer to Objective 8.</p>
3. Avoid disturbance to sites of cultural and heritage significance.	No impact to sites of Aboriginal or non-indigenous heritage significance without prior approval under the <i>Aboriginal Heritage Act 1988</i> or <i>Heritage Places Act 1993</i> .	<p>Appropriately qualified and experienced personnel have scouted the area. Cultural and heritage site registers have been consulted in relation to proposed survey traverse / activity location and if required, survey traverse or locations adjusted accordingly. A cultural heritage clearance report has been undertaken by qualified and experienced personnel and is available for audit upon request. (Note: A cultural heritage survey / report may not be required in some areas where the risk can be demonstrated to be low e.g. in cleared cropping land where there is no ground disturbance). Activities are confined to the area cleared for cultural heritage. Known heritage sites are identified and protected from operations. Where necessary, cultural heritage sites or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance. Training and induction for all personnel to educate them on the cultural heritage issues and the importance of remaining within designated / approved areas. Proponents and their contractors have a reporting system in place for cultural sites discovered during activities. Report forms are completed for any suspected aboriginal sites or individual artefacts identified, which are forwarded to DPC-AARD, in compliance with the Aboriginal Heritage Act. <b>Note:</b> Where a negotiated Native Title Agreement is in place, a Work Area Clearance and subsequent report, undertaken by qualified and experienced personnel, may be required before activities can commence. Compliance with this Agreement takes precedence over the above criteria (however the <i>Aboriginal Heritage Act 1998</i> is not set aside by an Agreement).</p>

Environmental Objectives	Assessment Criteria	Guide to How Objectives Can be Achieved
4. Avoid the introduction or spread of exotic species and other biosecurity threats.	No weeds, feral animals or plant and animal diseases are introduced to, or spread within operational areas as a result of activities.	<p>Equipment that has been operating outside the State or in areas of known weed infestation must be cleaned (washed down where appropriate) before arrival at the survey location.</p> <p>All vehicles and equipment should generally be cleaned before arrival at site, and between properties where required, unless it is demonstrated that the risks are not significant.</p> <p>Cleaning of equipment must be carried out in accordance with pre-determined company procedures and / or industry standards (e.g. accepted APPEA standards).</p> <p>Management measures in place to prevent the spread of identified weeds / diseases / pathogens.</p> <p>Weeds, in particular those of National Significance, will not be disturbed unless for their control.</p> <p>Contact with any infected plants or animals should result in cleaning of the relevant machinery before relocation, even within the survey area.</p> <p>Details or logs of equipment cleaning are kept and are available for audit upon request.</p> <p>Records of detection (whether introduced by an operator or not), monitoring, eradication or control of introduced species are kept and are available for audit upon request.</p> <p>No pets are to be kept by the survey crew whilst on field operations.</p> <p>Liaison with the animal and plant control officer of applicable local councils and regional NRM boards and landowners can provide important information on local issues to factor into planning.</p>
5. Minimise the risk of initiation and / or propagation of wildfire.	Appropriate plans in place and equipment available to identify hazards, initiate hazard mitigation and response training; fire-fighting equipment available and maintained accordingly, and fire bans adhered to.	<p>Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds.</p> <p>A hazard identification plan is in place for immediate implementation on days of high temperatures and winds.</p> <p>A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew.</p> <p>The risks of fire to crews are clearly defined.</p> <p>Reporting procedures in place to CFS, DMITRE Energy Resources Division and DEWNR when survey activities undertaken within a DEWNR reserve.</p> <p>Crews are trained in use of fire fighting equipment.</p> <p>Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the <i>Fire and Emergency Services Act 2005</i>, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.</p>
6. Minimise visual impact of survey activities.	<p>No reasonable stakeholder complaints left unresolved.</p> <p>Activities appropriately located to minimise visual impacts.</p>	<p>The conduciveness of an area to support survey vehicles (and potential impacts) should be considered to reduce on-ground visual impacts, especially in salt lake systems.</p> <p>Proposed survey traverses have been appropriately located to minimise visual impacts.</p> <p>Vegetation and terrain variations have been used to minimise survey traverse visibility.</p> <p>Planning procedures to minimise visibility aspects are evident and available for audit upon request.</p> <p>Campsites should have a low visibility from likely public viewpoints.</p> <p>All litter is removed.</p> <p><u>Pipeline preliminary surveys</u></p> <p>Marker pegs are limited to those essential for identifying the proposed alignment.</p> <p>Excavations are restricted to areas away from general public view, where practicable.</p> <p>Excavations are restored as soon as practicable.</p> <p><b>No preparation of access tracks by earthmoving equipment is permitted under this SEO.</b></p>

Environmental Objectives	Assessment Criteria	Guide to How Objectives Can be Achieved
7. Minimise generation of dust.	No reasonable stakeholder complaints received.	Vehicles are driven at speeds slow enough to minimise generation of dust. Access to properties is kept to the minimum required to acquire data.
8. Minimise soil disturbance and contamination.	<p>No evidence of significant soil disturbance (e.g. wheel ruts, heavily compacted areas).</p> <p>No evidence of soil inversion.</p> <p>No soil contamination as a result of survey activities.</p> <p>No reasonable stakeholder complaints left unresolved.</p> <p><u>Fuel and Chemical Storage and Handling</u></p> <p>No spills / leaks outside of areas designed to contain them.</p>	<p>Only vehicles engaged in actual data acquisition process are permitted to drive along survey traverses.</p> <p>Vehicles use existing tracks where possible.</p> <p>The ability of an area to support the weight of survey vehicles (and potential impacts) should be considered in order to reduce any disturbances, especially in salt lake systems.</p> <p>Any areas of erosion are rehabilitated or managed to prevent further erosion.</p> <p>The soil profile and contours are restored to as near as possible to their undisturbed state as soon as practicable and to the landowner's satisfaction.</p> <p>Waste materials do not pollute the environment and contaminate soils.</p> <p>Any oil spills have been ripped to an appropriate depth or removed off-site for disposal at an appropriately licensed waste handling facility.</p> <p>Campsites (if required) have been appropriately located to minimise disturbance and contamination of soils.</p> <p>All appropriate spill cleanup equipment held at campsites.</p> <p><u>Geotechnical surveys</u></p> <p>The area of excavation is restricted to the smallest practicable.</p> <p>Disturbance is restricted to the proposed pipeline construction right-of-way or proposed well lease where practicable (right-of-way width is likely to vary from between 10 to 25 metres).</p> <p>Topsoil is kept separate from subsoil.</p> <p>The soil profile and contours are restored to as near as possible to their undisturbed state as soon as practicable and to the landowner's satisfaction.</p> <p><u>Fuel and Chemical Storage and Handling</u></p> <p>Where possible refuel vehicles at service stations or other designated third party refuelling locations.</p> <p>All fuel, oil and chemical storage, handling and secondary containment in accordance with the appropriate standards and guidelines e.g. Australian Standard AS 1940, EPA Guideline 080/07 <i>Bunding and Spill Management</i> and product MSDSs.</p> <p>Refuelling undertaken with appropriate drip capture systems.</p> <p>Spill response equipment maintained on site.</p> <p>Spills or leaks immediately reported and clean up actions initiated.</p> <p>No refuelling outside designated refuelling / servicing areas.</p> <p>No refuelling near watercourses.</p> <p>Personnel trained in correct procedures for use of materials, including refuelling and clean-up procedures.</p>

Environmental Objectives	Assessment Criteria	Guide to How Objectives Can be Achieved
9. Avoid or minimise impact to surface water, groundwater and drainage patterns.	<p>No water (surface or groundwater) contamination as a result of survey activities.</p> <p>No disturbance to drainage patterns as a result of activities.</p> <p><u>Fuel and Chemical Storage and Handling</u></p> <p>Refer to Objective 8.</p>	<p>Access routes are located to avoid any diversion of water during flood inundation.</p> <p>Areas of inundation, which may result in bogging, or creation of heavy wheel track rutting (e.g. more than 200 mm deep) are avoided.</p> <p>Drainage patterns are restored to as near as possible to their undisturbed state as soon as practicable.</p> <p><u>Water bore monitoring / Temperature logging</u></p> <p>Authority for entry to bore obtained from owner.</p> <p>All logging equipment to be appropriately cleaned prior to use at each sampling location.</p> <p>Purged bore water to be disposed of appropriately to avoid surface water impacts.</p> <p>Bore infrastructure is not altered without the owner's permission. Operations that access or alter bores are authorised by a relevant permit/licence. High pressure bores are not to be altered.</p> <p>Bores are left in a condition satisfactory to the bore owner.</p> <p><u>Fuel and Chemical Storage and Handling</u></p> <p>Refer to Objective 8.</p>
10. Optimise (in order of most to least preferable) waste avoidance, reduction, reuse, recycling, treatment and disposal.	<p>No waste to be left at the survey site upon completion of the survey activity.</p>	<p>Waste generation minimised (e.g. reduce, reuse and recycle).</p> <p>Waste streams segregated on site where practicable to maximise opportunities for waste recovery, reuse and recycling.</p> <p>Waste removed off-site and disposed of at an appropriately licensed waste handling facility.</p> <p>Secure systems used for storage and transport of waste (e.g. covered bins).</p> <p>Hazardous wastes handled in accordance with relevant legislation and standards.</p> <p>All wastewater disposed of in accordance with the <i>Public and Environmental Health (Waste Control) Regulations 2010</i>.</p>
11. Remediate and rehabilitate operational areas where required.	<p>No reasonable stakeholder complaints left unresolved.</p>	<p>Remediation measures carried out if required, as determined in consultation with landowners, DMITRE and relevant regulatory bodies.</p> <p>Refer to Objective 1, 2, 4, 8, 9.</p>

## **3 Auditing**

### **3.1 Operator Field Inspections**

The operator's field representative shall undertake an inspection / audit of the various aspects of the operation to ascertain whether the environmental objectives were achieved. Any matter requiring a resolution will be actioned before the survey can be deemed to be completed. For larger geophysical surveys, an audit report will be prepared and will be submitted to DMITRE and will be referenced in the licensee's annual report to DMITRE. This annual report also requires a statement of compliance of operations with the *Petroleum and Geothermal Energy Act 2000*, Regulations and this SEO.

### **3.2 DMITRE Audits**

DMITRE may undertake random audits of preliminary exploration and survey activities, both in the field and office using the assessment methods described in this SEO. The aim of these audits is to ascertain the achievement or otherwise of the licensees' environmental objectives as well as to test the veracity of the licensee's annual report on compliance.

A summary of the results of DMITRE audits will be included as a part of DMITRE's reporting on the environmental management of petroleum operations and will be made public in DMITRE's Annual Report.

### **3.3 Third Party Audits**

Third parties may also carry out audits of the field outcomes of company preliminary exploration and survey activities. These audits may be commissioned by DMITRE, or the licensee, or by any other independent parties. If these audit findings are to be compared with those of the operator and / or DMITRE, then the same assessment criteria must be used. Pertinent items from these reports may be included in DMITRE's reporting on environmental management.

## 4 Reporting

It is a requirement under Section 85 of the *Petroleum and Geothermal Energy Act 2000* that ‘serious’ and ‘reportable’ incidents must be reported to the Minister.

### 4.1 Definitions

#### Serious Incidents

Section 85(1) of the Act defines a ‘serious incident’ as an incident in which:

- (a) a person is seriously injured or killed
- (b) an imminent risk to public health or safety arises
- (c) serious environmental damage occurs or an imminent risk of serious environmental damage arises
- (d) security of natural gas supply is prejudiced or an imminent risk of prejudice to security of natural gas supply arises
- (e) some other event or circumstance occurs or arises that results in the incident falling within a classification of serious incidents under the regulations or a relevant statement of environmental objectives.

#### Reportable Incidents

Section 85(1) of the Act defines reportable incidents as incidents (other than a serious incident) arising from activities conducted under a licence that are classified under the Regulations as a reportable incident.

Regulation 32(1) classifies the following as reportable incidents:

- (a) an escape of petroleum<sup>4</sup>, a processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape
- (b) an incident identified as a reportable incident under the relevant statement of environmental objectives.

Regulation 12(2) requires an SEO to identify events which could arise that could, if not properly managed or avoided, cause a serious incident or a reportable incident within the meaning of Section 85 of the Act.

Table 3 identifies the potential serious and reportable incidents relevant to preliminary exploration and survey activities, pursuant to Regulation 12(2) and Regulation 32(1)(b). These definitions are based on the standard incident definitions for facilities and pipelines that have been developed by DMITRE.

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<sup>4</sup> In gaseous, liquid or solid state, as per Petroleum and Geothermal Energy Act definition

**Table 3: Potential Serious and Reportable Incidents**

Serious Incidents	Reportable Incidents
<ol style="list-style-type: none"> <li>1. A person is seriously injured<sup>5</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>6</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>7</sup>.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. An escape of petroleum<sup>8</sup>, processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape<sup>9</sup> (other than a serious incident).</li> <li>2. Unresolved reasonable complaints from stakeholders regarding operations.</li> </ol>

## 4.2 Reporting Requirements

**Serious Incidents** must be reported to the Minister as soon as practicable after the occurrence, as per Section 85 of the Act and Regulation 32.

**Reportable Incidents** must be reported to DMITRE on a quarterly basis within 1 month of the end of the quarter, as per Regulation 32.

<sup>5</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>6</sup> Pursuant to *Aboriginal Heritage Act 1988* and *Heritage Places Act 1993*

<sup>7</sup> Pursuant to *Native Vegetation Act 1991* (flora) and *National Parks and Wildlife Act 1972* (fauna).

<sup>8</sup> In gaseous, liquid or solid state, as per *Petroleum and Geothermal Energy Act 2000* definition.

<sup>9</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.

## 5 List of Abbreviations

APPEA	Australian Petroleum Production and Exploration Association
AS 1940	Australian Standard AS 1940 <i>Storage and Handling of Flammable and Combustible Liquids</i>
DFW	Department for Water (South Australia) (part of DEWNR as of 1 July 2012)
DEWNR	Department of Environment, Water and Natural Resources
DMITRE	Department for Manufacturing, Innovation, Trade, Resources and Energy
DPC-AARD	Department of Premier and Cabinet – Aboriginal Affairs and Reconciliation Division
EIR	Environmental Impact Report prepared in accordance with Section 97 of the <i>Petroleum and Geothermal Energy Act 2000</i> and Regulation 10.
EPA	Environment Protection Authority
ERP	Emergency response plan
MSDS	Material Safety Data Sheet
PPE	Personal protective equipment
PSL	Preliminary Survey Licence issued in accordance with Section 10 of the <i>Petroleum and Geothermal Energy Act 2000</i>
SEO	Statement of Environmental Objectives prepared in accordance with Section 99 and 100 of the <i>Petroleum and Geothermal Energy Act 2000</i> and Regulations 12 and 13.



## 6 References

Ecos (2001). *SEO for Pipeline Preliminary Survey in South Australia*. PIRSA, March 2007.

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