Government of **Western Australia**
Department of **Mines and Petroleum**

GUIDELINE FOR THE DEVELOPMENT
OF AN ONSHORE OIL SPILL
CONTINGENCY PLAN

July 2016

ENDORSEMENT

To support the implementation of the Reforming Environmental Regulation (RER) program the Department of Mines and Petroleum's (DMP) Environment Division is working closely with our stakeholders to identify, develop and adopt improvements in the delivery of regulatory services for the benefit of all Western Australians. To promote this, clear advice and guidance on best practice management approaches in oil spill response is important to ensure that industry stakeholders are aware of their legal obligations under petroleum legislation administered by the department.

The purpose of this document is to provide assistance in the development of onshore Oil Spill Contingency Plans (OSCP) to satisfy the requirements of the Petroleum and Geothermal Energy Resources (Environment) Regulations 2012, the Petroleum Pipelines (Environment) Regulations 2012 and the expectations of DMP.

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1. INTRODUCTION

Environmental regulation of onshore petroleum, geothermal, and pipeline activities in Western Australia (WA) is administered by the Department of Mines and Petroleum (DMP). DMP's Environment Division regulates the WA onshore petroleum and geothermal industry under the following legislation:

- *Petroleum and Geothermal Energy Resources Act 1967*
- Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (PGER(E)R)
- *Petroleum Pipelines Act 1969*
- Petroleum Pipelines (Environment) Regulations 2012 (PP(E)R).

The PGER(E)R and the PP(E)R, collectively referred to as the Regulations, outline the requirements for an Environment Plan (EP) to be submitted and approved by DMP prior to the commencement of any petroleum, geothermal, and/or pipeline activity.

Regulation 15(10) of the PGER(E)R and regulation 15(8) of the PP(E)R require an Oil Spill Contingency Plan (OSCP) to be included in the implementation strategy component of an EP.

The Regulations require an OSCP to set out details of the following:

- preparations to be made for the possibility of an oil spill
- emergency response arrangements to be implemented if an oil spill occurs
- recovery arrangements to be implemented if an oil spill occurs
- current oil spill trajectory modelling that applies to the activity.

The Regulations also require the operator to conduct tests of the emergency response arrangements set out in the OSCP at specified intervals and describe these tests.

This guideline has been developed to provide operators with assistance in developing an onshore OSCP that satisfies the requirements of the Regulations and the expectations of DMP. It should be noted that OSCPs are commonly referred to as Spill Response Plans and should therefore cover all potential spill scenarios (including spills of chemicals and other hazardous materials).

2. PURPOSE OF AN OSCP

The purpose of an OSCP is to provide a practical reference tool for personnel responding to a spill incident.

An OSCP should, therefore, be activity specific and identify the various levels and types of response that may be required should an incident occur.

The OSCP should be written clearly, assist personnel to locate the relevant response information quickly and enable personnel to immediately understand the actions required to prevent/minimise the environmental impacts associated with the spill incident.

3. SUBMISSION FORMAT

The Regulations state that the implementation strategy of an EP must include an OSCP. DMP is flexible in the approach that operators may take regarding the submission of an OSCP. The suitability of each submission will be assessed on a case by case basis. Where the format of a submission is not considered practical or acceptable, the operator will be advised and required to resubmit in an agreed, acceptable format. Acceptable OSCP formats may include submissions that are:

- submitted as a section in the EP implementation strategy that clearly identifies that it is the OSCP component

- submitted as an appendix to the EP

- submitted as an activity specific, stand-alone document for assessment that directly relates to the activities covered under the EP. The OSCP must clearly identify the link to the applicable EP. Where this approach is taken, an EP approval will be granted on the condition that an approved OSCP must be in place prior to the commencement of any activity (in accordance with regulation 11(4)(c) of the Regulations)

- submitted as an OSCP that covers various activities or locations and may relate to more than one EP. The OSCP must clearly identify the link to the applicable EP(s). A condition will be placed on the EP approval stating an approved OSCP must be in place prior to the commencement of any activity should this approach be adopted.

An OSCP will not be approved prior to the approval of an EP, in accordance with the legislative requirements.

4. SUBMISSION AND ASSESSMENT TIMEFRAMES

Where an operator has chosen to submit an OSCP separately to an EP, it is important that sufficient time be allocated for DMP assessment.

DMP recommends that OSCPs be submitted at least 90 days prior to the proposed commencement date for all activities and at least six months in advance for larger scale projects or activities within environmentally sensitive areas. These timeframes are in line with those recommended for EP submission and assessment and allow for revisions resulting from assessment feedback and requests for further information made by DMP.

The Regulations provide a 30 day review timeframe for DMP to respond to a submission. Each subsequent revision submitted to DMP for assessment will result in recommencement of the 30 day assessment timeframe as specified in the Regulations. It is important that operators submit an OSCP to DMP as early as possible to avoid potential delays to proposed commencement dates.

4.1 Maintenance of an OSCP

The Regulations outline additional requirements for the revision of an OSCP. An operator must submit a revised OSCP to DMP for assessment at least 14 days before the end of the period of two years and six months commencing from the date on which the EP was approved by the department.

The operator is responsible for submitting a revised OSCP within the above timeframe to ensure compliance with the Regulations is maintained. Where a revision is not submitted within the legislated timeframe, DMP will view this as a breach of the Regulations and further action will be taken.

In addition to the two year and six month submission requirements, a revised EP, or changes to the content of the OSCP or capability of the operator to respond to an incident, will require a revised OSCP to be submitted to DMP as soon as practicable.

Operators should also ensure that information contained within the OSCP is reviewed on a regular basis to ensure that the information is current and accurate.

Where an operator is unclear on requirements for the submission of an OSCP or a revised OSCP, it is recommended that advice be sought from DMP's Environment Division at the earliest opportunity.

5. OSCP STRUCTURE AND CONTENT

The Regulations outline broad requirements for the details required in an OSCP which include:

- preparations to be made for the possibility of an oil spill

- emergency response arrangements to be implemented if an oil spill occurs

- recovery arrangements to be implemented if an oil spill occurs

- current oil spill trajectory modelling that applies to the activity.

This guideline has been developed to provide clarification on the content requirements of an OSCP to meet DMP expectations and legislative requirements.

Note: Where an OSCP has been submitted as part of the implementation strategy of an EP, there is no requirement to repeat information that has already been provided in the EP if it also satisfies the requirements of an OSCP. Depending on the nature and scale of the activity, some of the following sections may not be applicable or may require varying levels of information in order to meet the requirements of the Regulations.

5.1 Immediate response strategy

There are various actions required to respond to a spill incident, one of the most important being the immediate response strategy (in other words, initial steps, or first strike). An immediate response strategy is an important reference tool that should be located at the front of an OSCP to allow for easy access by personnel and provide clear, immediate direction on how to respond to an incident.

The information in the immediate response strategy should be succinct and state the actions required to respond to a spill incident until such time that other resources can be deployed (where required). This includes the response actions required to minimise or prevent impacts on the environment. It is expected that this response will vary from location to location.

Information that may be included in the immediate response strategy includes:

- actions required to be undertaken by the observer of an incident/or person who identifies that an incident has occurred

- process for informing other site personnel (identifying various site roles)

- lines of communication and contact information (i.e. contact phone numbers, radio call protocol, etc.)

- reference sections in the OSCP to provide further details and supporting information

- steps to identify the most appropriate response strategy/strategies

- response strategy steps and actions

- a guide on how to use the response section of the OSCP.

The use of flowcharts is an effective way of displaying and communicating essential information in the immediate response strategy and is recommended by DMP to satisfy this requirement.

5.2 Introduction

An OSCP should include an introductory component which outlines the context of the OSCP. It is expected that the following information will be provided as a minimum to satisfy this requirement:

- aims and objectives of the OSCP

- scope of the plan including:

  1. description of the geographical area covered

  2. description of the activities covered by the OSCP

  3. map of the area covered by the OSCP and identification of the areas potentially affected by the spill (including worst case credible spill scenarios). Maps should identify all environmental sensitivities

  4. description of the oil and/or any other substances covered under the OSCP

- identify and describe the integration of the OSCP with other company documents/plans. For example:

  1. the Emergency Response Plan, EP, other OSCPs, and any other relevant documents

2. where a standalone OSCP has been submitted, it is important that the OSCP clearly identifies the EP/EPs applicable to the plan (including document name, number, revision number, etc.)

- structure of the OSCP to provide an understanding of how the plan will be applied by the company, and to act as guidance to those responsible for implementing the OSCP in the event of an incident.

5.3 Identification of spill sources

In order to prevent a spill from occurring, it is important that the operator identifies and understands all potential sources of spills associated with the activities covered under the OSCP. Generally, the spill sources are identified in the EP and have corresponding mitigation measures to reduce the risks and impacts of spills to As Low As Reasonably Practicable (ALARP).

An OSCP should identify all potential spill sources and maximum potential volumes to ensure appropriate preparedness, response and recovery strategies are in place.

This may be presented in tabular format for ease of reference. When identifying the spill source, the oil or substance type must also be provided.

Some potential spill sources and scenarios to consider include:

- transfer of hydrocarbons, chemicals, drilling muds

- equipment failure

- blowout

- damage of equipment/infrastructure from corrosion, dropped objects or collision

- offloading products

- loss of containment.

All potential scenarios identified in the OSCP must be evaluated to the worst case credible volumes and impacts. This ensures that in the event of an incident, an acceptable level of capability is in place to respond to the highest possible spill scenario event, rather than minimal preparedness.

5.4 Preparedness

This section of an OSCP must clearly demonstrate the preparations in place if a spill incident arises during the proposed activity/activities.

It is important to understand the environment and sensitivities covered under the scope of the OSCP in order to manage a spill in the most effective way and to minimise the potential environmental risks and impacts to ALARP.

5.4.1 Response levels

The OSCP should identify and define the incident level classification system for the activity. This includes:

- Adequately defining and characterising the classification levels for incidents of varying severity. For example:

  1. Level 1 incidents can be adequately responded to by the application of local or initial resources only (i.e. the immediate response strategy).

  2. Level 2 incidents are more complex in size, duration, resource management and risk, and may require additional jurisdictional resources beyond that of the initial response.

  3. Level 3 incidents require assistance above that of a Level 2 incident and may require the support of national and international resources.

- A clear explanation of the triggers for escalation of a spill response level (e.g. at what point would the incident be escalated from a Level 1 response to a Level 2 response, etc.). Given the dynamic nature of incidents, there may be a need to increase the response for a range of reasons. Therefore, triggers for escalation should be considered and provided in the OSCP.

- An explanation of the mechanisms for terminating a response, including who will be the decision maker, who will be involved or consulted in the decision making, the process that will be followed for termination, notifications of termination, and any other information required. Post spill environmental monitoring requirements should also be considered in the decision making for response termination.

It is important that the OSCP clearly identifies who is responsible for making key decisions in the event of a spill incident so that all personnel are aware of the chain of command. For example, determination of incident classification levels, escalation of incident response and termination of response.

5.4.2 Protection and response priorities

The OSCP must identify all sensitivities that may potentially be affected by the worst case credible spill scenarios identified for the activities. A map should be provided to present this information to DMP. A list of all sensitivities in order of priority for protection should be included in the document and a comprehensive understanding of the environment to support the plan's priorities and strategies proposed must be demonstrated.

5.4.3 Structure, roles and responsibilities

The OSCP must identify the operator's emergency response structure across all levels of incidents and provide information on the roles and responsibilities of all personnel who will play a role in the incident response.

The structure, roles and responsibilities will range from in-field personnel as the initial responders, to those roles and teams in other locations which may be contacted in the event of larger scale incidents. Flowcharts are useful to show the relationships/interactions between the levels of response personnel and teams. Tables are an effective way of demonstrating the roles and responsibilities of personnel identified as participants of an incident response.

The operator is required to provide information on how all roles interact, including details on the internal notification structure and process, to demonstrate that appropriate lines of communication are in place.

5.4.4 Trajectory modelling

The Regulations require an OSCP to contain "current oil spill trajectory modelling that applies to the activity". It is recognised that the extent of trajectory modelling differs greatly between onshore and offshore activities, but it is important to understand how a spill may impact the environment. This is critical to ensure adequate response techniques are planned and implemented at the time of an incident.

The OSCP must include information that best represents the zone of potential impact and subsequent fate of a spill for all credible scenarios (including worst case). This representation should demonstrate an understanding of the soil type, including soil infiltration rates, topography and any other information that may influence the fate of a spill. This will assist in determining the environment that may be affected and therefore the protection priorities and the most appropriate response actions. Response times for clean-up and removal can then be considered in order to minimise the potential environmental impacts. For example, in locations where the water table is at a shallow depth and the soil has a high infiltration rate, the urgency to remove any surface spill of hazardous material will be greater than in areas with a deep water table and low infiltration rates.

It is important that where an OSCP covers multiple locations or activities, the zone of potential impact and fate of a spill is represented for all locations.

Any assumptions or limitations of the trajectory model used should be noted in the OSCP to assist with the assessment of the suitability and adequacy of the oil spill prevention, preparation, response and recovery arrangements.

5.4.5 Response equipment

It is expected that an OSCP will include a list of equipment available on site for the proposed activity or activities. It is important that the equipment available on site allows for implementation of the immediate response plan.

The OSCP must also identify other sources of equipment available for use in the event of an incident. Again, the equipment identified must align with the proposed response strategies and actions described in the OSCP.

Details on equipment location and mobilisation time should be included for equipment stockpiles not located on site. This will assist in the planning of

response strategies and in demonstrating to DMP the capability and feasibility of implementing the proposed response strategies.

Where relevant, details are to be provided on how equipment will be maintained, the frequency or schedule of planned maintenance, and who this responsibility is delegated to. Testing of spill equipment should also be considered and be described in the OSCP.

5.4.6 Response personnel

Identification of positions that are trained and available to respond to an incident should be provided in the OSCP. It is important to include details on the availability of onsite staff and their training in relation to spill response, in order to demonstrate response capability. Personnel not located onsite, but who may be allocated a role in the response, must also be identified and shown to have the appropriate training to undertake the designated roles.

The OSCP should provide information on the following:

- what training has been undertaken including courses, inductions, and exercises (desktop/field)

- the frequency that training is provided to ensure adequate skills are maintained

- positions required to participate in the training

- any other relevant information to assist in satisfactorily demonstrating response capability.

5.4.7 Contact directory

Operators are required to maintain an up to date contact directory. Appropriate contact details should be maintained for the following:

- key company personnel

- regulators (e.g. DMP, Environmental Protection Authority, Department of Parks and Wildlife, Department of Water)

- regional/local authorities (e.g. Department of Fire and Emergency Services, Police, local council, etc.)

- equipment and resource contacts

- waste contractor and disposal sites (must be approved and licensed)

- other contractors and support services that may be contacted to assist in the event of an incident.

To ensure currency of the contact directory, this may be a standalone "live" document (e.g. attached as an appendix to the OSCP). A copy of this document (current version) must be submitted to DMP at the time of OSCP submission. A clear reference to this document must also be provided in the OSCP.

5.4.8 Testing the OSCP

The Regulations require the operator to conduct and describe tests of the emergency response arrangements set out in the OSCP at specified intervals.

The specified intervals may include:

- when introduced

- when significantly amended

- not later than 12 months after the most recent test

- when a new location for the activity is added

- when a new facility or structure under the scope of the OSCP becomes operational.

The specified intervals as determined by the operator must be included in the OSCP to satisfy the regulatory requirement of describing the testing arrangements.

Testing of an OSCP can be undertaken in a number of ways, including desktop exercises and field exercises. This is up to the operator to determine, but must be appropriate to ensure regulatory requirements are met.

5.5 Response and Recovery

For the majority of onshore spill incidents, the response strategies are likely to be:

- control the source of the spill

- contain the spilled material (e.g. use of absorbent material to prevent further impact)

- clean up the spilled material in the most effective manner to ensure all material is recovered, contaminated materials are removed and all waste is disposed of in a way that minimises impact to the environment (licensed waste disposal facility suitable for the classification of waste type)

- prevent the occurrence of further incidents.

DMP expects that each operator will implement a best practice management approach to demonstrate in the OSCP that the proposed response and recovery strategies are suitable for each potential spill scenario and location identified.

Response strategies that may be considered by the operator include:

- monitoring and assessment

- control and recovery

- application of spill control agents

- clean up and remediation

- response to impacted or threatened wildlife.

Response and recovery arrangements may be influenced by the following factors:

- location

- type of material spilled

- amount of material spilled

- environmental sensitivities

- response equipment and capability

- weather conditions

- any other unforeseen circumstances.

It is important that where a response strategy (or strategies) has been identified by the operator, the steps involved in determining and applying the most appropriate response actions are clearly provided in the OSCP.

5.5.1 Onshore response

Various actions may be implemented to respond to an onshore spill incident. The actions selected will be influenced by a number of factors including size of the spill, material spilled, location of spill, potential impact of the spill, sensitivities and protection priorities, weather conditions, etc.

A clear action strategy must be provided in the OSCP to demonstrate that the actions selected are the most appropriate. The action strategy must cover activities associated with initial actions (i.e. stopping the source of the spill, reducing/preventing further impacts to the environment, clean-up methods and verification that all contaminated material has been recovered and disposed of correctly).

5.5.2 Waterway response

Where a spill incident results in an impact to any waterway, the response actions and strategies will be different from an onshore response.

Waterway response is likely to require additional resources to an onshore response, and this will need to be considered in the OSCP where there is the potential for a spill to a waterway.

5.5.3 Oiled wildlife response

An incident may result in wildlife being impacted (e.g. oiled). It is the responsibility of an operator to determine the potential for impacts to wildlife (including habitats) and demonstrate the capability to respond to oiled wildlife.

It is highly recommended that operators consult with the Department of Parks and Wildlife to ensure adequate capability and/or arrangements are in place to respond to oiled wildlife prior to the submission of the OSCP where credible risks to wildlife have been identified.

5.5.4 Waste management

Waste management is an important consideration when planning a response, due to the volume of waste that may be generated. It is important that an operator determines the types and potential volumes of waste that may be generated from a worst case credible spill incident.

The operator may need to consider storage, handling and transport of contaminated material. All waste must be disposed of at an appropriate licensed waste disposal facility.

Operators should identify suitable waste disposal locations in the OSCP and include contact details for proposed licensed waste contractors in the contact directory, as discussed in section 5.4.7.

5.5.5 Occupational health and safety

The OSCP must identify the operator's Occupational Health and Safety policy and/or procedure that will be adhered to by all personnel when responding to an incident.

General information on personal protective equipment (PPE) requirements should also be included in the OSCP.

The OSCP must reference where Safety Data Sheets are available on site to ensure responders are aware of health, safety and environment issues and PPE requirements in a response situation.

5.5.6 Monitoring and remediation

Where a spill incident has occurred, ongoing monitoring and remediation of the impacted/affected area may be required to ensure an effective response was undertaken and that no ongoing or further impacts to the environment have occurred.

DMP expects a commitment in the OSCP that monitoring and remediation of the impacted/affected environment will be undertaken. Additional information should be provided in the OSCP to support this, such as consideration of the duration of the monitoring and remediation, determining factors for ceasing monitoring and remediation, as well as any other relevant information that demonstrates the operator's commitment of ensuring an effective response.

It is standard practice following a spill incident to hold a debriefing session with all relevant parties to discuss the actions, lessons learned and improvements that could be made to prevent the incident from recurring or improve preparedness, response, or recovery strategies and actions. Noting this practice in the OSCP may assist in demonstrating the operator's commitment to operating under the ALARP principle.

5.6 Reporting requirements

In the event of an incident, an operator will not only be required to report internally within the organisation, but may also have several requirements to report externally. These requirements must be identified in the OSCP to ensure that personnel undertake the required reporting through the appropriate notification process and within any specified timeframes.

It is a requirement under the Regulations for an operator to notify DMP of an incident within specified legislated timeframes as determined by the level of incident (recordable and reportable incidents).

The following requirements apply to all activities when reporting incidents to DMP:

- Reportable incidents must be reported to DMP within two hours of the incident occurring or the operator becoming aware of the incident.

- Initial reporting within two hours is to be communicated via email to petroleum.environment@dmp.wa.gov.au.

- A written report must be submitted within three days of the incident occurring. The report is to be submitted via email to petroleum.environment@dmp.wa.gov.au.

- Additional pollution reports containing updates on the response and investigation reports may be required as requested by DMP for larger scale incidents.

Additional reporting requirements to other agencies must also be identified and included in the OSCP where required (e.g. reporting requirements under the *Environmental Protection Act 1986*, *Environment Protection and Biodiversity Conservation Act 1999*, *Wildlife Conservation Act 1950*). Reporting timeframes and contact details should also be provided.

Contact details for external agencies and departments are to be included in the contact directory, as discussed in section 5.4.7.

6. COST RECOVERY

DMP expects a commitment in the OSCP regarding cost recovery. All expenses associated with response, recovery, remediation and monitoring resulting from a spill incident must be incurred by the operator.

7. CONSULTATION

The development of an OSCP should involve consultation with various relevant stakeholders to ensure the details provided are accurate and the commitments made in the plan are achievable and result in the best outcome for the environment.

It is a requirement that all consultation undertaken in the development of the OSCP be recorded and provided in the appendix of the plan (or in the case where the OSCP is submitted as part of the EP, in the consultation section of the EP). This demonstrates to DMP that the operator has made all possible efforts to ensure a comprehensive response plan has been developed.

8. REFERENCE MATERIALS AND LINKS

Guidelines for the Preparation and Submission of an Environment Plan – available on the DMP website http://www.dmp.wa.gov.au/Documents/Environment/Guideline_for_Development_of_Petroleum_and_Geothermal.pdf

Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 – available on the State Law Publisher website https://www.slp.wa.gov.au/lndex.html

Petroleum Pipelines (Environment) Regulations 2012 – available on the State Law Publisher website https://www.slp.wa.gov.au/lndex.html

9. LIST OF ABBREVIATIONS USED IN THIS GUIDELINE

ALARP	As Low As Reasonably Practicable
DMP	Department of Mines and Petroleum
EP	Environment Plan
OSCP	Oil Spill Contingency Plan
PGER(E)R	Petroleum and Geothermal Energy Resources (Environment) Regulations 2012
PP(E)R	Petroleum Pipelines (Environment) Regulations 2012
PPE	Personal Protective Equipment

10. DEFINITIONS

Environment (as defined in the PGER(E)R and PP(E)R) means:
- ecosystems and their constituent parts, including people and communities
- natural and physical resources
- the qualities and characteristics of locations, places and areas
- the heritage value of places which includes the social, economic and cultural features of the matters mentioned in the bullet points above.

Environment that may be affected:
- the area over which a spill of oil and/or other substance(s) that may potentially have an environmental effect.

Environment Plan (as defined in the PGER(E)R and PP(E)R):
- in relation to an activity means an environment plan submitted by the operator of the activity that is approved and revised from time to time under these regulations, but does not include:
  1. if the environment plan is approved in part – that part of the plan that is not approved
  2. an environment plan for which the approval has been withdrawn.

Environmental impact (as defined in the PGER(E)R and PP(E)R):
- means any change to the environment, whether adverse or beneficial, that wholly or partly results from an activity of an operator.

Environmental risk (as defined in the PGER(E)R and PP(E)R):
- means the chance of something happening that will have an adverse environmental impact, measured in terms of the environmental consequences and the likelihood of those particular consequences occurring.

Geothermal activity (as defined in the PGER(E)R) means:
- any operations or works carried out in the State under a geothermal instrument
- any other operations or works carried out in the State relating to geothermal exploration or development which may have an environmental impact, and includes:
  1. seismic or other surveys
  2. drilling
  3. hydraulic fracturing
  4. construction and installation of a facility
  5. operation of a facility
  6. modification of a facility
  7. decommissioning, dismantling or removing a facility
  8. processing or transport of geothermal energy.

Operator (as defined in the PGER(E)R and PP(E)R):
- if there is a person recorded by the Minister as the operator of the activity under regulation 41 (of the PGER(E)R or regulation 40 of the PP(E)R) – that person.

- or in any other case:
  1. if there is a petroleum instrument or geothermal instrument or pipeline instrument for the activity – the person responsible to the instrument holder for the overall management and operation of the activity (whether or not the activity has commenced)
  2. if there is no petroleum instrument or geothermal instrument or pipeline instrument for the activity – the person carrying out the activity.

Petroleum activity (as defined in the PGER(E)R) means:
- any operations or works carried out in the State under a petroleum instrument
- any other operations or works carried out in the State relating to petroleum exploration or development which may have an environmental impact, and includes:
  1. seismic or other surveys
  2. drilling
  3. hydraulic fracturing
  4. construction and installation of a facility
  5. operation of a facility
  6. modification of a facility
  7. decommissioning, dismantling or removing a facility
  8. storage of petroleum.

Pipeline activity (as defined in the PP(E)R) means:
- any operations or works carried out under a pipeline instrument
- any other operations or works carried out in relation to a pipeline which may have an environmental impact, and includes:
  1. construction and installation of a pipeline
  2. operation of a pipeline
  3. modification of a pipeline
  4. decommissioning, dismantling or removing a pipeline
  5. storage, processing or transport of petroleum using a pipeline.

Worst case:
- the greatest potential duration and volume of a spill to determine the highest potential consequence of environmental impact.