



**MEMORANDUM OF UNDERSTANDING**  
**between the**  
**DEPARTMENT OF INDUSTRY AND RESOURCES**  
**and the**  
**RADIOLOGICAL COUNCIL**  
**in relation to the regulation of**  
**NATURALLY OCCURRING RADIOACTIVE MATERIALS**  
**associated with**  
**PETROLEUM EXPLORATION AND PRODUCTION**

**Endorsement**

This Memorandum of Understanding clarifies administrative arrangements between the Department of Industry and Resources and the Radiological Council. The MoU will enhance efficient coordination between the two organisations regarding matters related to NORM generated by the Petroleum Industry.

The signatories below endorse this Memorandum of Understanding.

Dr Jim Limerick  
Director General  
Department of Industry and Resources

Handwritten signature of Jim Limerick in black ink.

Date

9.11.05

Dr Paul Psaila-Savona  
Chairman  
Radiological Council

Handwritten signature of Paul Psaila-Savona in black ink.

Date

8.11.05

## 1. Acronyms, Short Titles and Definitions

### Acronyms and Short Titles

For the purposes of this document, the following acronyms and short titles will be used:

|                        |  |
|------------------------|--|
| Council                | Radiological Council   |
| DHW                    | Department of Housing and Works  |
| DoE                    | Department of Environment  |
| DoH                    | Department of Health   |
| DoIR                   | Department of Industry and Resources                                     |
| EPA                    | Environmental Protection Authority                                       |
| EP Act                 | Environmental Protection Act 1986  |
| MoU                    | Memorandum of Understanding  |
| NOPSA                  | National Offshore Petroleum Safety Authority                             |
| NORM                   | Naturally Occurring Radioactive Materials                                |
| NWSTP Act              | Nuclear Waste Storage and Transportation (Prohibition) Act 1999          |
| RHB                    | Radiation Health Branch, Department of Health                            |
| RS Act                 | Radiation Safety Act 1975  |
| RS Regulations         | Radiation Safety (General) Regulations 1983                              |
| P(SL)(MoE) Regulations | Petroleum (Submerged Lands) (Management of Environment) Regulations 1999 |
| P(SL) Act 1967         | Petroleum (Submerged Lands) Act 1967 (Commonwealth waters)               |
| P(SL) Act 1982         | Petroleum (Submerged Lands) Act 1982 (State waters)                      |
| Petroleum Act 1967     | Petroleum legislation for onshore Western Australia                      |
| RLC                    | Radiation Liaison Committee  |

### Definitions

In this document unless the context otherwise requires:

‘adjacent area’ as per definition in the P(SL) Act 1967 Subsection 5 (1) and 5A means an adjacent area in respect of a State or Territory ascertained in accordance with section 5A and “the adjacent area” means the adjacent area in respect of the State or Territory concerned (see Appendix 1).

‘environment’ as per definition in the P(SL)(MoE) Regulations, Regulation 4(1), includes all aspects of the surroundings of human beings, whether affecting human beings as individuals or in social grouping.

‘facility’ as per definition in the P(SL)(MoE) Regulations, Regulation 4(1), includes a structure or installation of any kind.

‘offshore’ means all submerged lands that lie offshore from the State of Western Australia including

- the Commonwealth waters under the P(SL) Act 1967;
- the Territorial sea to the three nautical mile mark including around any island forming part of Western Australia, plus some petroleum title areas landward of the Territorial sea derived from old Commonwealth exploration titles on the North West Shelf under the P(SL) Act 1982; and

- Internal waters that lie landward of the Territorial sea baseline under the Petroleum Act 1967.

‘onshore’ means petroleum activities located on the mainland or islands under Western Australian jurisdiction that lies above the mean low water mark.

‘operator’ as per definition in the P(SL)(MoE) Regulations, Regulation 4(1), for a petroleum activity, means the person recorded by the Designated Authority as the operator of the activity under regulation 35 or, if there is no such person, the person responsible to the petroleum instrument holder for the overall management of operations for the activity (whether or not the operations have commenced).

‘petroleum activity’ or ‘petroleum activities’ as per definition in the P(SL)(MoE) Regulations, Regulation 4(1), means operations in an adjacent area carried out under a petroleum instrument, other authority or consent under the P(SL) Act 1967 or its associated regulations and, in particular, any of the following operations:

- (a) seismic or other surveys;
- (b) drilling;
- (c) construction and installation of a facility;
- (d) operation of a facility;
- (e) significant modification of a facility;
- (f) decommissioning, dismantling or removing a facility;
- (g) construction and installation of a pipeline;
- (h) operation of a pipeline;
- (i) significant modification of a pipeline;
- (j) decommissioning, dismantling or removing a pipeline;
- (k) storage, processing or transport of petroleum;
- (l) any other operations or works for which a petroleum instrument, other authority or consent is required under the P(SL) Act 1967 or its associated regulations.

‘prescribed radiation sources’ means prescribed sources under the RS Act, including all radioactive substances, electronic products and irradiating apparatus as defined under Section 4(1) of the RS Act, with the exception of those used by Commonwealth agencies or contractors to Commonwealth agencies.

## **2. Scope and Purpose**

### ***2.1 Scope***

This MoU is between DoIR and the Council. The MoU applies to NORM<sup>1</sup> associated with ‘petroleum activities’ (see Appendix 2).

This MoU only applies to NORM generated through petroleum activities in relation to

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<sup>1</sup> Under Regulation 5 of the RS Regulations, a natural radioactive substance is deemed radioactive if it has an equivalent specific radioactivity exceeding 30 Bq/g, or if the Council are of the opinion that the substance may give rise to a radiation hazard or result in an individual receiving an effective dose exceeding 1 mSv.

- safety and environment issues for onshore petroleum activities; and
- environment issues for offshore petroleum activities

This MoU does not address the regulation of safety issues related to petroleum activities in the State offshore and Commonwealth adjacent areas. This function is regulated by NOPSA. All radiation safety issues in these defined areas need to be referred to NOPSA in conjunction with the Council.

## **2.2 Purpose**

The purpose of the MoU is to:

- a)
  - i) clarify administrative arrangements, roles and responsibilities on matters pertaining to NORM;
  - ii) make clear the relationship between the P(SL) Act 1967, Petroleum Act 1967, P(SL) Act 1982 and the RS Act on NORM related matters;
  - iii) ensure effective coordination of NORM associated with Petroleum Activities that are subject to the registration and licensing provisions for prescribed radiation sources under the RS Act, but which are also regulated by the P(SL) Act 1967, Petroleum Act 1967 and P(SL) Act 1982.
- b) supplement and assist the RLC<sup>2</sup>. The RLC represents both the Council and the DoIR and has been established to provide a framework for liaison between the two organisations.

## **3. Regulatory Responsibilities**

DoIR administers petroleum legislation in both State and Commonwealth jurisdictions in Western Australia. The Council regulates transport, storage and disposal arrangements of radioactive substances in Western Australia and within Western Australian state waters<sup>3</sup>.

### **3.1 Department of Industry and Resources**

DoIR regulates petroleum exploration and production activities within the State and Commonwealth 'adjacent area'<sup>4</sup>. DoIR

- administers State and Commonwealth legislation related to petroleum exploration and production activities;
- conducts audits of petroleum activities and systems to ensure compliance with approval conditions;
- investigates significant incidents to determine the underlying causes and provide recommendations to prevent recurrence.

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<sup>2</sup> The RLC is a mechanism for providing formal communication between DoIR and the Council and a means of administering and revising the MoU as the need arises (see also clause 4 'Working Arrangements').

<sup>3</sup> Refer Table 1, Appendix 2

<sup>4</sup> P(SL) Act 1967

DoIR is responsible for the regulation of NORM in the Commonwealth adjacent area, where it has been generated as a result of a petroleum activity. DoIR liaises with Council officers with respect to NORM associated with petroleum activities in WA State Waters and onshore.

Under Commonwealth Petroleum Legislation, acceptable environment and safety plans<sup>5</sup> are required to be in place before the commencement of a petroleum activity. Once the plans are in effect, the RS Act does not apply in the Commonwealth adjacent area<sup>6</sup>. However, DoIR will liaise with the RHB for technical advice on an as needs basis.

If NORM associated with a petroleum activity is discovered in Western Australia, then DoIR will advise Council. DoIR will also advise the petroleum operator of the need to apply for registration with the Council.

Any petroleum activity that is determined by DoIR to have a significant impact on the environment if implemented will be referred by DoIR to the EPA.

**The following relevant legislation is administered by DoIR:**

*Commonwealth*

- Petroleum (Submerged Lands) Act 1967
- Petroleum (Submerged Lands) (Management of Environment) Regulations 1999
- Petroleum (Submerged Lands) (Pipelines) Regulations 2001
- Schedule of Specific Requirements as to Offshore Petroleum Exploration and Production<sup>7</sup>

*State*

- Petroleum Act 1967
- Petroleum (Submerged Lands) Act 1982
- Petroleum Pipelines Regulations 1970
- Schedule of General Requirements for Occupational Health and Safety
- Schedule of Onshore Petroleum Exploration and Requirements<sup>8</sup>

**3.2 Radiological Council**

The Council is the statutory authority that administers the RS Act.

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<sup>5</sup> As per '2.1 Scope', NOPSA administers the regulation of safety issues for petroleum activities in the adjacent area.

<sup>6</sup> This is because generally, Commonwealth legislation overrides State legislation where there is an inconsistency between the two.

<sup>7</sup> P(SL) Acts, (Schedule) Specific Requirements As To Offshore Petroleum Exploration And Production 1995, Direction 239 'Radioactive Substances'.

<sup>8</sup> Petroleum Act 1967, Schedule of Onshore Petroleum Exploration And Production Requirements 1991, Direction 213 'Radioactive Substances'.

The regulations to the RS Act are —

- Radiation Safety (General) Regulations 1983
- Radiation Safety (Transport of Radioactive Substances) Regulations 2002
- Radiation Safety (Qualifications) Regulations 1980

The operation, use, manufacture, storage, transport, sale, possession, installation, service, maintenance, repair, disposal or other dealing with prescribed radiation sources is regulated under the RS Act. The transport of prescribed radioactive material is further regulated under the *Radiation Safety (Transport of Radioactive Substances) Regulations 2002*, which is complementary to the *Dangerous Goods (Transport) (Road and Rail) Regulations 1999*<sup>9</sup>.

In Western Australia (onshore and state waters), the Council regulates NORM and all prescribed radiation sources. Registration for storage may be required and a disposal permit may also need to be provided for NORM.

In the Commonwealth adjacent area, the Council regulates all prescribed radiation sources.

### **3.3 Radiation Health Branch, Department of Health**

The RHB provides technical advice to DoIR and Council on NORM issues related to petroleum activities.

### **3.4 Department of Health**

In March 2004, the Nuclear Waste Storage (Prohibition) Act was amended and is now the NWSTP Act. NORM is no longer captured as “nuclear waste” for the purposes of that Act.

The DoH administers the NWSTP Act.

### **3.5 Department of Housing and Works, Department of Environment**

The DHW manages the operations of the Mt Walton East Intractable Waste Disposal Facility. These operations must comply with the Council’s registration conditions and environmental conditions placed on the facility by the Minister for Environment.

The DoE regulates under licence (granted under Part V of the EP Act) the operation of Class 1 to 4 landfill sites (see Appendix 3), as defined by *Landfill Waste Classification and Waste Definitions 1996 (as amended)*. Under this legislation radioactive wastes cannot be disposed at Class 1 to 4 landfills.

Under Section 38 of the EP Act, DoIR is required to refer petroleum proposals to the EPA if they are likely to have a significant environmental effect.

## **4. Working Arrangements**

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<sup>9</sup> Administered by DoIR (Explosives and Dangerous Goods Division)

- The RLC is a mechanism for providing formal communication between DoIR and the Council and a means of administering and revising the MoU as the need arises. The RLC consists of identified DoIR and Council officers who will meet periodically at least once every twelve months at a mutually convenient venue to review the current relevance of the MoU.
- Both DoIR and Council are to keep and maintain a file dedicated to recording minutes and other activities associated with the RLC.
- Personnel at all levels in both organisations are to recognise the roles of the respective authorities, to adopt an open approach, and to ensure prompt action to achieve effective liaison whenever the need arises.
- When planning agendas and programs for liaison meetings, specialist workshops and training courses, both organisations should bear in mind the advantages of representation from the other body and make suitable arrangements when appropriate.

## **5. Communications**

### ***5.1 External Communications***

Communication is encouraged between Government officers and industry or other relevant bodies. However, Government officers are not entitled to provide information on business relating to the Public Service or the Crown (see Appendix 4). In addition, Council officers have a confidentiality clause under Section 49 of the RS Act. This creates an offence for a person to disclose information obtained by or in connection with the operation of the Act except in specified circumstances. It is also the responsibility of Government officers considering disclosure (or non-disclosure) to alert the external organisation to its intentions and/or to seek agreement.

### ***5.2 Internal Communications***

Communication between Government officers and Government departments is encouraged where the purpose of the communication:

- i) gives effect to the objects of an Act; or
- ii) enhances the performance of a duty under an Act.

Government officers who have legitimate access to certain information must be informed that disclosure of that information, other than in accordance with an Act, may be an offence. Such disclosure may otherwise give clients and the public the appearance of uncoordinated action by regulatory authorities. It is also the responsibility of Government officers considering disclosure (or non-disclosure) to alert the external organisation to its intentions and/or to seek agreement.

## **6. Disagreements**

Where a disagreement arises between DoIR and the Council<sup>10</sup> on any matter relevant to the regulation of NORM or any associated issue —

- i. The matter shall first be considered at a scheduled or special meeting of the RLC (as may be appropriate) which shall provide advice to the respective regulatory authorities. The meeting will be co-chaired by the Director of the Petroleum and Royalties Division DoIR and the Chairman of the Council. Other members of DoIR or Council will be invited as deemed appropriate.
- ii. If the matter is not resolved from this meeting, then joint legal advice will be sought.
- iii. If resolution still cannot be achieved, the matter shall be referred to the respective Ministers for decision.

No action shall be taken or advice given to industry, to any agency or to any other person or organisation until any disagreement is resolved.

## **7. Duration**

This MoU commences from the date of endorsement and has application until terminated by either party.

## **8. Amendment**

Amendments to the MoU may be made at any time, but only by agreement in writing between the parties to this MoU. Amendments will be in the form of a written attachment to the MoU and will be treated as part of it.

## **9. Review**

This MoU shall be subject to review every five years or sooner if there is either a change of State Government policy affecting the subject of the MoU, or one of the parties to this MoU determines that a review is required. The review will be undertaken jointly by the parties.

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<sup>10</sup> Section 23 of the RS Act states “*any question, difference or dispute arising or about to arise between the Council and any department of the Public Service of the State, or any instrumentality of the government of the State, with respect to the exercise of any rights, powers or authority or the discharge of any duty by either or both of them may be finally and conclusively determined by the Governor*”.



## APPENDIX 1

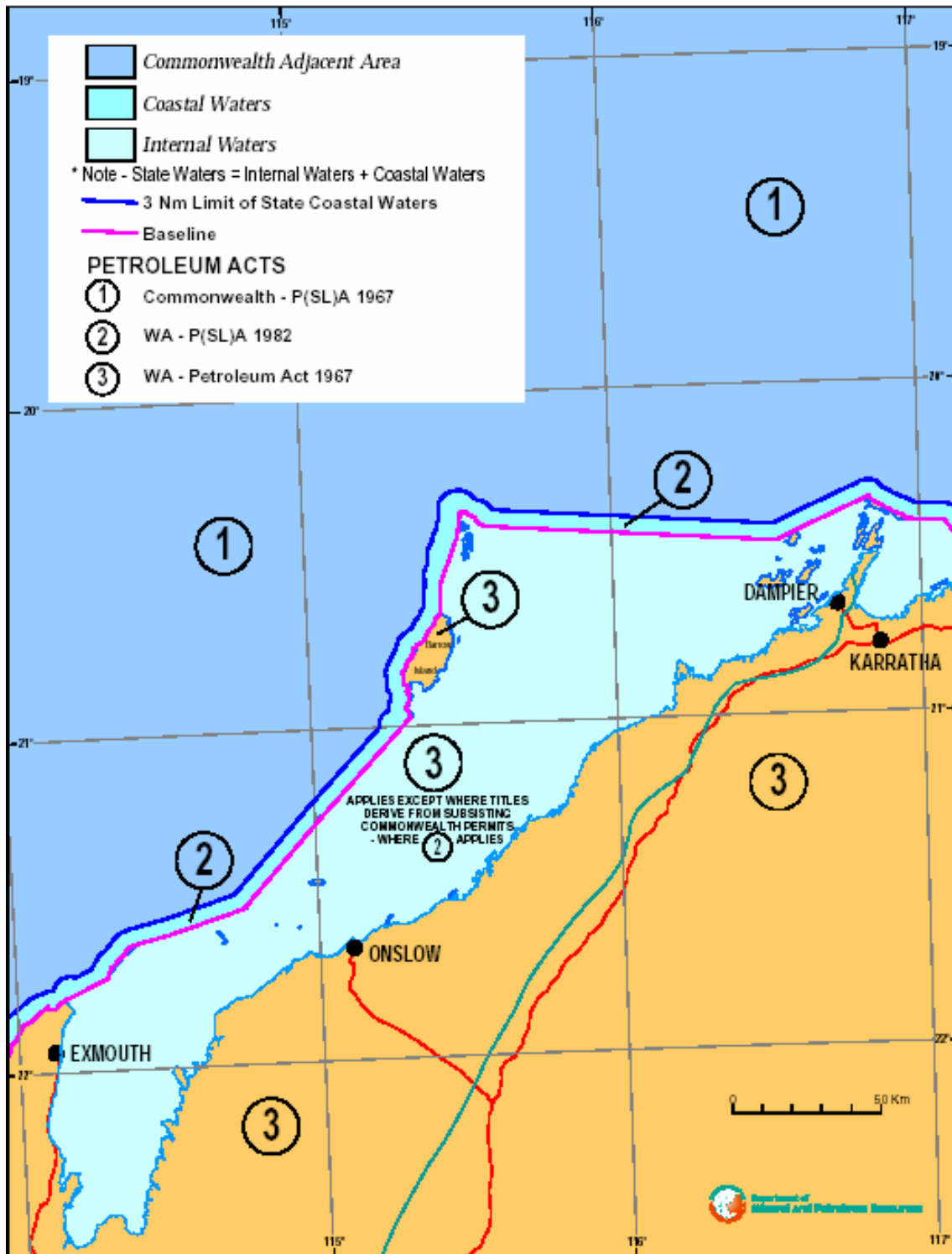
### PETROLEUM (SUBMERGED LANDS) ACT 1967

#### Section 5A Adjacent areas

- (1) For the purposes of this Act, but subject to subsection (2), the adjacent area in respect of a State other than Western Australia is so much of the area described in Schedule 2 under the heading that refers to that State as comprises waters of the sea that:
  - (a) are not within the outer limits of the territorial sea of Australia (including the territorial sea adjacent to any island forming part of Australia); and
  - (b) are within the outer limits of the continental shelf.
- (1A) For the purposes of this Act, but subject to subsections (2) and (10), the adjacent area in respect of Western Australia or the Northern Territory is so much of the area described in Schedule 2 under the heading that refers to that State or Territory as comprises waters of the sea that:
  - (a) are not within the outer limits of the territorial sea of Australia (including the territorial sea adjacent to any island forming part of Australia); and
  - (b) are within the outer limits of the continental shelf; and
  - (c) are not within Area A of the Zone of Cooperation.
- (2) If at any time the breadth of the territorial sea of Australia is determined or declared to be greater than 3 nautical miles, subsections (1) and (1A) continue to have effect as if the breadth of the territorial sea of Australia had continued to be 3 nautical miles.
- (3) For the purposes of this Act, but subject to subsection (10), the adjacent area in respect of the Territory of Ashmore and Cartier Islands is so much of the area described in Schedule 2 under the heading that refers to that Territory as comprises land and water that:
  - (a) are within the outer limits of the continental shelf; and
  - (b) are not within Area A of the Zone of Cooperation.
- (4) This Act, and any Act with which this Act is incorporated, have effect in relation to so much of the adjacent area in respect of the Territory of Ashmore and Cartier Islands as consists of land as though that land were beneath the sea and were portion of the sea-bed and subsoil of that adjacent area.
- (5) For the purposes of this Act, the adjacent area in respect of Norfolk Island is the area the boundaries of which are:
  - (a) the coastline at mean low water of Norfolk Island; and
  - (b) the outer limit of the superjacent waters of the continental shelf adjacent to the coast of Norfolk Island.
- (6) For the purposes of this Act, the adjacent area in respect of the Territory of Heard Island and McDonald Islands is the area the boundaries of which are:
  - (a) the coast lines at mean low water of the islands comprising that Territory; and
  - (b) the outer limit of the superjacent waters of the continental shelf adjacent to the coasts of those islands.

- (6A) For the purposes of this Act, the adjacent area in respect of the Territory of Christmas Island is the area whose boundaries are:
- (a) the coastline at mean low water of Christmas Island; and
  - (b) the outer limit of the superjacent waters of the continental shelf adjacent to the coast of Christmas Island.
- (6B) For the purposes of this Act, the adjacent area in respect of the Territory of Cocos (Keeling) Islands comprises the following areas:
- (a) the area whose boundaries are:
    - (i) the coastline at mean low water of the north atoll of the Territory (otherwise called North Keeling Island); and
    - (ii) the outer limit of the superjacent waters of the continental shelf adjacent to the coast of that Island;
  - (b) the area whose boundaries are:
    - (i) the coastlines at mean low water of the remaining islands of the Territory; and
    - (ii) the outer limit of the superjacent waters of the continental shelf adjacent to the coasts of those islands.
- (7) For the purposes of this Act, the Coral Sea area is so much of the area to the east of the adjacent area in respect of Queensland as comprises waters of the sea that are within the outer limits of the continental shelf, other than any part of that area that is to the south of the parallel of Latitude 25° South or that is on the landward side of the coastline of any island at mean low water.
- (8) This Act, and any Act with which this Act is incorporated, apply in relation to the Coral Sea area as if that area were part of the adjacent area in respect of Queensland and references in this Act, and in any Act with which this Act is incorporated, to the adjacent area in respect of a State, shall, in relation to Queensland, be read as including references to the Coral Sea area.
- (9) For the purposes of subsections (5), (6) and (7), the continental shelf does not include any area of seabed and subsoil that, by virtue of an agreement in force between Australia and another country, is not an area over which Australia exercises sovereign rights.
- (10) For the purposes of an Act to which this subsection applies, this section has effect as if paragraphs (1A)(c) and (3)(b) were omitted.
- (11) The regulations may prescribe the Acts to which subsection (10) applies.

**EXAMPLE AREA OF WHERE COMMONWEALTH & STATE PETROLEUM ACTS APPLY**



## APPENDIX 2

**Table 1 – Administrative Arrangements for NORM Generated from Petroleum Activities**

| Regulator | Commonwealth ‘adjacent area’ <sup>11</sup>               | Western Australia  |  |
|-----------|--|--|--|
|           |  | WA State Waters  | Onshore  |
| DoIR      | Regulates NORM under Petroleum Legislation <sup>12</sup> | Liases with Council officers with respect to WA State Waters | Liases with Council officers with respect to onshore WA    |
| Council   | N/a  | Regulates NORM – licence and registration; disposal permit   | Regulates NORM – licence and registration; disposal permit |
| RHB       | Provides technical advice to DoIR                        | N/a  | N/a  |
| DoE       | Outside of State jurisdiction                            | No jurisdiction related to NORM                              | Administers disposal sites                                 |

### Importation of NORM from offshore petroleum activities

In Western Australia (onshore and State waters), the Council regulates NORM and all prescribed radiation sources. Registration for storage may be required and a disposal permit may also need to be provided for NORM.

DoIR regulates environmental issues<sup>12</sup> related to petroleum activities in Commonwealth waters. However, should the registered substance need to be brought into Western Australia (onshore or State waters), then a registration for storage may be required and a disposal permit may also need to be provided for NORM

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<sup>11</sup> The majority of petroleum activities are in the Commonwealth ‘adjacent area’ (generally greater than 3 nautical miles (5.5 km) from the coastline).

<sup>12</sup> Note: as per ‘2.1 Scope’, NOPSA administers the regulation of safety issues for petroleum activities in the adjacent area.

## APPENDIX 3

### Landfill Classes and Waste Types

| Landfill Class                  | Common Name          | Waste Types Permitted for Disposal   |
|---------------------------------|----------------------|--|
| Class I<br>(Category 63)        | Inert Landfill       | <ul style="list-style-type: none"> <li>▪ Clean Fill</li> <li>▪ Type 1 Inert Waste</li> <li>▪ Contaminated solid wastes meeting waste acceptance criteria specified for Class I landfills (with specific licence conditions)</li> <li>▪ Type 2 Inert Waste (with specific licence conditions)</li> <li>▪ Type 3 Inert Waste (subject to DEP approval)</li> <li>▪ Type 1 Special Waste</li> </ul>  |
| Class II<br>(Category 64 or 89) | Putrescible Landfill | <ul style="list-style-type: none"> <li>▪ Clean Fill</li> <li>▪ Type 1 Inert Waste</li> <li>▪ Putrescible Wastes</li> <li>▪ Contaminated solid waste meeting waste acceptance criteria specified for Class II landfills (with specific licence conditions)</li> <li>▪ Type 2 Inert Wastes (with specific licence conditions)</li> <li>▪ Type 1 and Type 2 Special Wastes (for registered sites as approved under the Controlled Waste Regulations)</li> </ul> |
| Class III<br>(Category 64)      | Putrescible Landfill | <ul style="list-style-type: none"> <li>▪ Clean Fill</li> <li>▪ Type 1 Inert Waste;</li> <li>▪ Putrescible Wastes;</li> <li>▪ Contaminated solid waste meeting waste acceptance criteria specified for Class II or Class III landfills (possibly with specific licence conditions)</li> <li>▪ Type 2 Inert Wastes (with specific licence conditions)</li> <li>▪ Type 1 and Type 2 Special Wastes</li> </ul>   |
| Class IV<br>(Category 65)       | Secure Landfill      | <ul style="list-style-type: none"> <li>▪ Clean Fill</li> <li>▪ Type 1 Inert Waste;</li> <li>▪ Contaminated solid waste meeting criteria specified for Class II, Class III or Class IV landfills (possibly with specific licence conditions)</li> <li>▪ Type 2 Inert Wastes (with specific licence conditions)</li> <li>▪ Type 1 and Type 2 Special Wastes</li> </ul>   |
| Class V<br>(Category 66)        | Intractable Landfill | <ul style="list-style-type: none"> <li>▪ Intractable and other wastes in accordance with the approvals for the site.</li> </ul>  |

Note: Clean Fill can be disposed of at unlicensed sites. However, the DoE may require certification from a competent person that the material possesses the characteristics of uncontaminated natural soil or rock. Construction and demolition rubble and soils known to be contaminated above National Environmental Protection Measure (NEPM) residential soil health investigation levels are not regarded as clean fill.

Reference:

Department of Environmental Protection (September 2002) *Landfill waste classifications and waste definitions 1996 (as amended)*, Perth, Western Australia.