



## Application for Licence

### Part V Division 3 of the *Environmental Protection Act 1986*

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<b>Licence Number</b>	L8190/2007/2
<b>Applicant</b>	Minister for Works C/- Department of Finance
<b>File number</b>	2012/006884
<b>Premises</b>	Intractable Waste Disposal Facility BOORABBIN WA  Crown Reserve No.42001 Lot 73 on Deposited Plan 217902 As defined by the coordinates in Schedule 1
<b>Date of report</b>	16 August 2022
<b>Proposed Decision</b>	Licence granted

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**SENIOR MANAGER WASTE INDUSTRIES**  
**REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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## 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the operation of the premises. As a result of this assessment, Revised Licence L8190/2007/2 has been granted.

The Revised Licence issued supersedes licence L8190/2007/1 (the Existing Licence) previously granted in relation to the premises. The Revised Licence has been granted in an updated format with existing conditions being updated and new conditions been added to the licence. This Decision Report explains and justifies the proposed changes.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

The IWDF currently operates under Ministerial Statement 562 (MS 562) which was issued in February 2001. MS 562 is the principal document under which the facility and individual disposal campaigns are regulated and requires the submission of detailed plans and reports for each individual waste disposal campaign. Licence L8190/2007/2 seeks to integrate general controls and requirements which support, but do not duplicate, the overarching and campaign-specific requirements of MS 562.

### 2.2 Application summary and overview of premises

The Intractable Waste Disposal Facility (IWDF), Mt Walton East, established in 1992, is Australia's first long-term disposal site for intractable waste. The IWDF is owned by the State Government and can only be used for intractable waste generated in Western Australia.

The Department of Finance on behalf of The Minister for Works submitted an application to replace expiring licence L8199/2007/1, issued under Division 3 Part V of the *Environmental Protection Act 1986* for a Category 66: Class V intractable landfill site.

The IWDF is about 475 kilometres north-east of Perth and is located on 25 square kilometres of Crown Reserve Land, within the Shire of Coolgardie (Figure 1). Access to the IWDF is by a 100-kilometre unsurfaced road that extends northward from Boorabbin siding on Great Eastern Highway.

Intractable wastes include radioactive wastes which need time to break down or decay to safe levels for the environment, and chemical wastes including industrial by-products like arsenic trioxide, sheep dip and pesticides which contain hazardous chemicals that cannot be easily destroyed.

To be approved for disposal at the IWDF, the waste:

- Must be generated in Western Australia. The Facility Management Contractor (FMC) on behalf of the proponent is responsible for assessing the waste to ensure it has been generated in WA. The assessment for each waste is included in the Operation Environmental and Waste Acceptance Procedures submitted to the Environmental Protection Authority (EPA).
- Must not have an alternative (better for the environment) commercially viable destruction, disposal or management technology. Approval to dispose of any specific waste at the IWDF is conditional on the EPA being satisfied that no commercially

viable destruction, disposal or management technology exists for that waste. The waste owner is responsible for providing evidence in their waste acceptance proforma (application) that they have investigated and ruled out any commercially viable destruction, disposal or management technology for that waste. The FMC on behalf of the proponent, is responsible for assessing the waste to ensure that no commercially viable destruction, disposal or management technology exists for that waste and then advising the proponent if the waste is suitable to be disposed at the IWDF or not. Part of the FMC's ongoing responsibilities is to keep up to date with the ever changing commercially viable destruction, disposal or management technology for intractable waste streams. All waste acceptance proformas (applications) and assessments are appended to the Operation Environmental and Waste Acceptance Procedures submitted to the EPA for approval and are then advertised and made publicly available.

The licence application details that:

Before any (both radioactive and chemical) waste can be disposed at the IWDF the following documents must first be prepared and approved by the EPA.

- Operation Environmental and Waste Acceptance Procedures. These procedures are prepared in accordance with the EPA approved Operation Environmental and Waste Acceptance Guidelines.
- Operation Transport Procedures. These procedures are prepared in accordance with the EPA approved Operation Transport Guidelines.
- Operation Health & Safety and Emergency Response Procedures. These procedures are prepared in accordance with the EPA approved Operation Health & Safety and Emergency Response Guidelines.
- Operation Construction Specifications. These construction specifications are prepared in accordance with the EPA approved Capping Construction Method Statement.

Once the documents are approved by the EPA they must then be advertised and made publicly available.

The documents are also provided to the IWDF Community Liaison Committee for comment and discussion.

## **Waste disposal**

The following information in relation to waste disposal has been summarised from the application.

### **Conditioning and packaging the waste**

#### **Radioactive waste**

The conditioning and packaging requirements for disposal of low-level radioactive waste at the IWDF exceed international standards. Conditioning and packaging are supervised by the IWDF Radiation Safety Officer (RSO), the FMC Project Manager, and where appropriate personnel from the Radiation Health Unit of the Health Department. Each item of low-level radioactive waste is carefully identified, measured, and recorded under strict supervision. The conditioning and packaging of the radioactive waste is then undertaken in accordance with the Radiological Council of Western Australia (RCWA) approved methodology.



**Figure 1: Packaged radioactive waste prior to disposal**

## **Chemical waste**

Chemical wastes are conditioned according to the requirements of the particular waste stream. Packaging includes bulka bags, 205 litre steel drums or sea-containers using suitably qualified personnel with appropriate personal protective equipment (PPE).

## **Waste loading and transport**

All containers holding waste are labelled according to the requirements of the Dangerous Goods Safety (Road and Rail Transport of Non-Explosives) Regulations 2007 and inspected before being accepted for transport.

Low-level radioactive wastes are labelled according to the Code of Practice for Safe Transport of Radioactive Materials (2019). All materials are carried by a contractor licensed to carry radioactive or dangerous goods.

Waste is transported to the IWDF by the shortest practical route with as few stops as possible. Semi-trailers are generally used to transport waste.

## **Shaft burial**

Shaft burial has not been used since 1994. It is very unlikely that a shaft would be excavated or constructed in the same way in the future.

Shaft burial at the IWDF commenced with the excavation of the top few metres of sand and gravel using a backhoe. The hard layer of cemented clay (silcrete) was then blasted and removed. A concrete collar was poured to preserve the top of the shaft. The rest of the shaft was then dug out using pneumatic drills and a vacuum ore-lifter designed to suck clay to the surface.

A concrete base (0.5 m thick) was poured into the shaft. A specially designed steel pallet holding three drums of waste was then lowered into the shaft one at a time. Concrete was poured into the shaft after each pallet was positioned in place. When all the drums were sealed into position, a final half-metre layer of concrete was poured. The rest of the shaft was backfilled with the clay that was dug out of the shaft. This clay was compacted every metre. A prefabricated concrete lid 200 mm thick and weighing 5 tonnes – was then placed over the top

of the shaft and sealed with a sealant. Finally, a dome of water shedding compacted clay was placed over the concrete lid and a wire fence built around the dome.

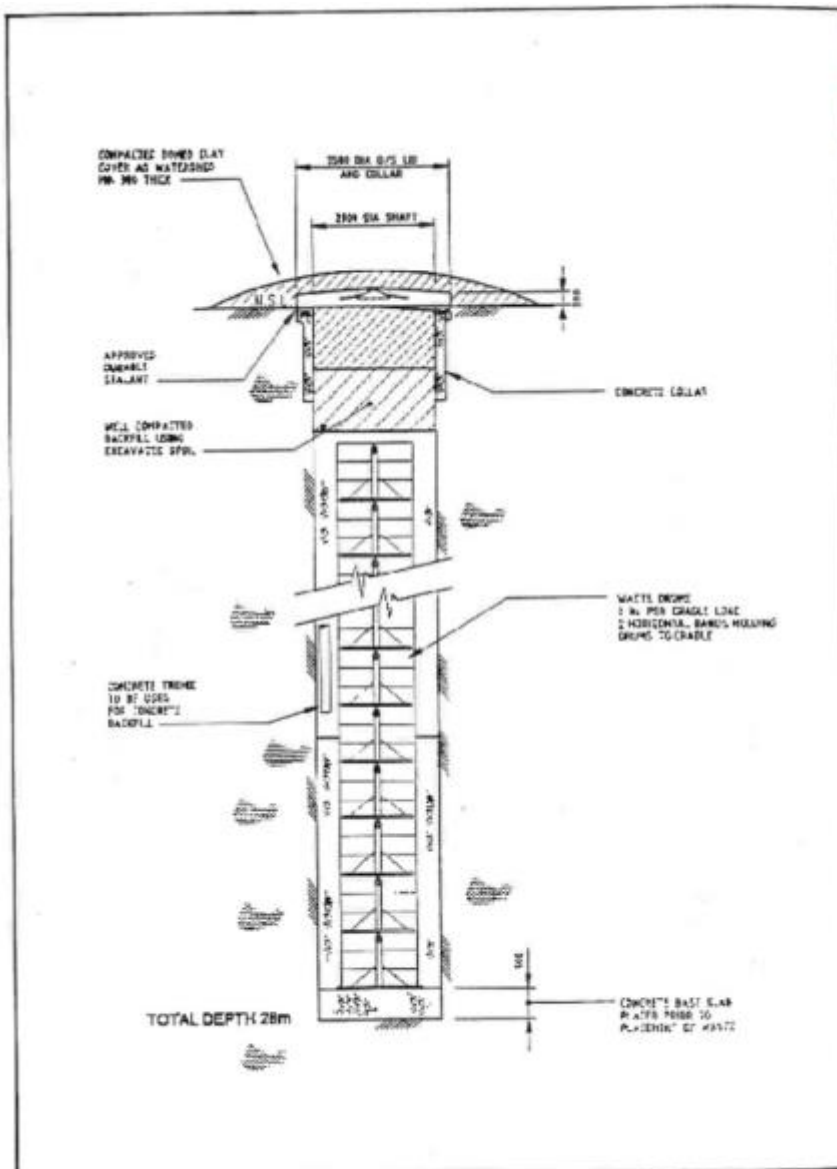


Figure 2 provides a schematic shaft disposal design

## Trench burial

Trenches are the main type of disposal cell used at the IWDF.

Segregation of the waste from the environment is accomplished by placing the waste into the natural and extensive kaolinite clay horizon underlying the IWDF. Geological investigations indicate that the clay provides an adequate barrier against potential leaching of the waste when combined with the depth and lateral extent of the clay horizon, which is widespread in the region. A natural silcrete horizon, which overlies the clay, affords natural erosion protection to the clay.

The waste disposal cell is constructed such that the waste is a minimum of five metres above the crystalline bedrock, which underlies the in-situ clay. This is to allow for the possible establishment of a future groundwater table. Regular groundwater monitoring at the IWDF indicates that a groundwater table is currently absent (no groundwater has been encountered down to bedrock).



The waste is further segregated from the surface environment by the construction of a compacted multilayer cap above the waste cell. This multilayer cap comprises compacted clay and compacted silcrete/clay material, which is excavated during construction of the disposal trench. The clay cap, silcrete layer and water-shedding clay dome, which comprise the multilayer cap, are placed and compacted to geotechnical specifications to ensure that they are adequate barriers to infiltration of rainwater and erosion.

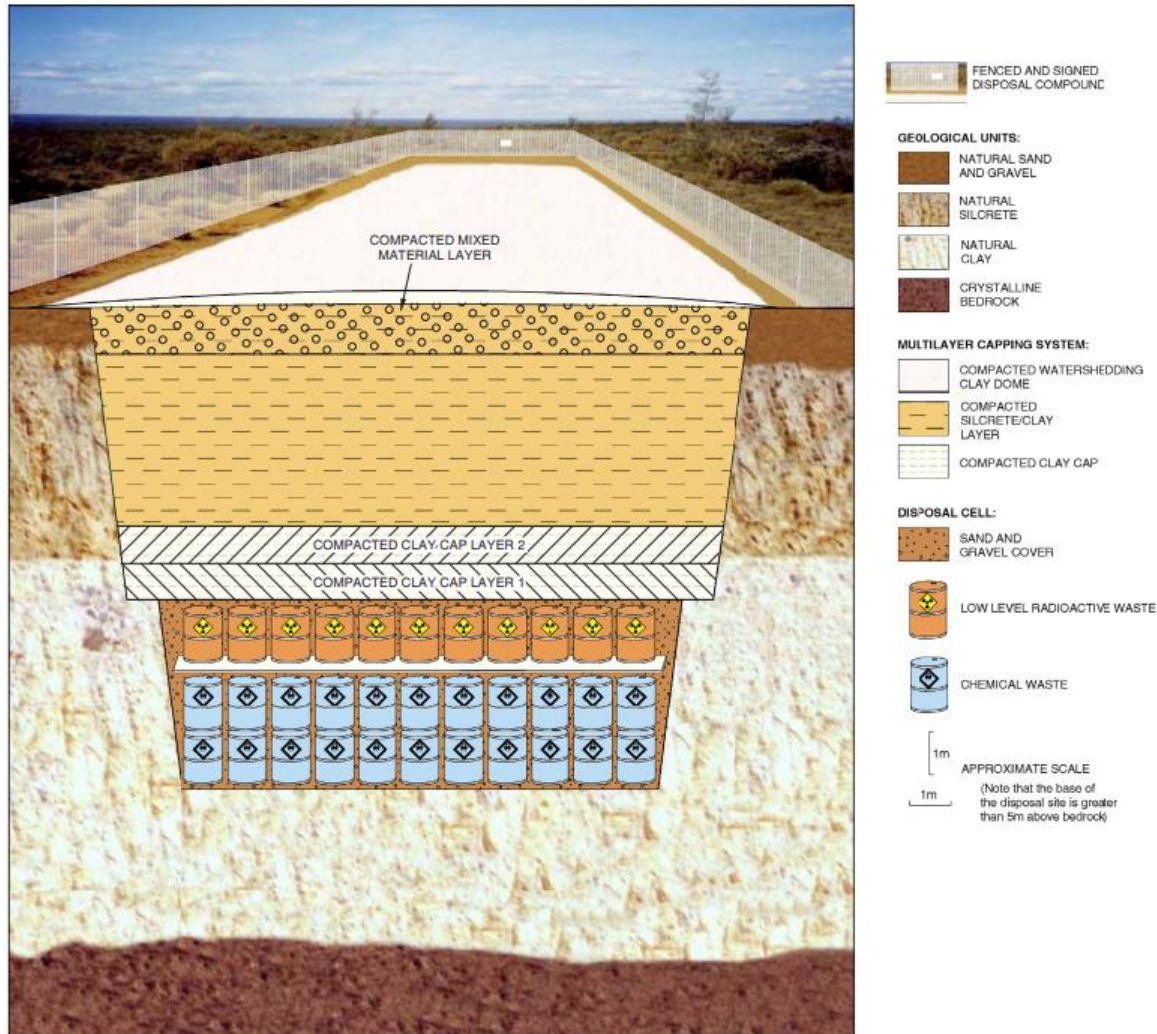


Figure 3 provides a trench disposal design

## Summary of disposal cells

The following information has been summarised from the application document.

Since 1992, 14 disposal cells have been established at the IWDF. For each cell, a summary of waste disposed, and dimensions is provided below. Figure 2 shows the location of each shaft and trench.

### 92RS01 - Radioactive waste, Health Department

The waste comprised numerous small radioactive sources including a variety of teaching, research, hospital, and industrial wastes held in store by the Radiation Health Section of the Health Department Western Australia. The waste was packaged into 60 litre drums that were filled with cement slurry. The 60 litre drums were placed in 205 litre steel drums that were filled with concrete to remove voids. A total of 66 x 205 litre drums and a one-metre-long cylinder were disposed of at the IWDF by progressively concreting them in place in a two-metre diameter, 28 metres deep shaft, located in the Radioactive Waste Disposal Area. The waste is

located 5.8 metres below ground level.

#### **94RS01 - Radioactive waste, Health Department**

The waste consisted of numerous small radioactive items held in store by the Radiation Health Section of the Health Department Western Australia. The waste was packaged into 60 litre steel drums backfilled with cement slurry. The drums were then placed into 205 litre steel drums that were backfilled with cement to remove voids. A total of 69 205 litre steel drums were then progressively concreted into place in a 27- metre-deep by two metre diameter shaft located in the Radioactive Waste Disposal Area. The waste is located 5.8 metres below ground level.

#### **94RT01 - Radium contaminated equipment, CSBP and Farmers Ltd**

The waste consisted of process equipment contaminated with radium. The contaminated equipment originated from CSBP & Farmers Ltd and was transported to the IWDF in three 6 metre shipping containers. The void spaces in the shipping containers were filled with cement slurry at the IWDF. Disposal was in a 40-metre-long, 3-metre-wide and 8-metre-deep trench located in the Radioactive Waste Disposal Area. The waste is located 4.5 metres below ground level.

#### **94NRT01 - Pesticides, Health Department**

The waste consisted of household pesticides stockpiled by the Pest Control Unit of the Health Department of Western Australia. The waste was packaged into 18 205 litre steel drums, which were then backfilled with cement slurry to preclude voids. The drums then disposed of in a 3.5-metre-long, 2.5-metre-wide, and 4-metre-deep trench located in the Chemical and Radioactive Waste Disposal Area. The waste is located 2.8 metres below ground level.

#### **94NRT02 - Arsenic waste, Department of Agriculture**

Waste consisted of arsenical sheep dip wastes stockpiled by the Department of Agriculture after its use was banned in Western Australia. The waste was packaged in 219 205 litre steel drums, transported to the IWDF, and then disposed of in an 18- metre-long, 5-metre-wide, and 5-metre-deep trench in the Chemical and Radioactive Waste Disposal Area. The waste is located 3.8 metres below ground level.

#### **96NRT01 - Contaminated soil, Department of Agriculture**

Waste consisted of soil contaminated with the organochlorine pesticide DDT and toluene that resulted from the spillage of 20,000 litres of Dichlorodiphenyltrichloroethane (DDT) mixture. The spill occurred from a ruptured tank at the Wongan Hills Agricultural Research Station operated by the then Agriculture Western Australia.

Some bulk waste contaminated with DDT and toluene was also disposed of in the trench. This bulk waste included personal protective equipment worn by people working on the packaging and disposal operation. Also included, was contaminated concrete from the floor of a shed at the research station that was in the path of the spill, and tarpaulins used to cover the spill area at Wongan Hills to prevent rainwater incursion before site remediation.

The waste was packaged in 1,012 two-tonne capacity bulka bags and disposed of in a 55-metre-long, 8-metre-wide, 8-metre-deep trench located in the Chemical and Radioactive Waste Disposal Area. The waste is located 4.5 metres below ground level.

#### **97NRT01 - Arsenic trioxide, Kanowna Belle Gold Mines**

Waste consisted of arsenic trioxide generated as a by-product of gold extraction by Kanowna Belle Gold Mines. The waste was packaged into 986 bulka bags, weighing on average 0.65 tonne. Arsenic levels in the waste averaged 25% and were all below 70%.

The waste was disposed of in a trench in the Chemical and Radioactive Waste Disposal Area that was 9.5 metres deep, 80 metres long and 9 metres wide. The waste is located 6.0 metres



below ground level.

#### **97NRT02 - Arsenic waste, Wesfarmers CSBP**

Waste consisted of arsenic generated as a by-product of the vetrocoke process in the production of ammonia by Wesfarmers CSBP Ltd at its fertiliser and chemical facility in Kwinana.

The waste was packaged in 1,662 220 litre high-density polyethylene (HDPE) over drums placed within bulka bags, and 308 60 litre HDPE drums with three drums per bulka bag. Used personal protective equipment and materials from the packaging activities were placed in 37 bulka bags and buried in the trench.

Composite and random samples indicated that the arsenic concentration in the waste ranged from 1.5% to 33.6%. The waste was disposed in a 14.3-metre-deep trench in the Chemical and Radioactive Waste Disposal Area, with base dimensions of approximately 55 metres long and 7 metres wide. The waste is located 9.0 metres below ground level.

#### **98NRT01 - Arsenic trioxide waste, Kanowna Belle Gold Mines**

Arsenic trioxide waste generated as a by-product of gold extraction by Kanowna Belle Gold Mines. The waste was packaged into 748 bulka bags, weighing on average 0.65 tonne. Arsenic levels in the waste ranged from 2% to 50% arsenic (average 27%). The waste was disposed of in the Chemical and Radioactive Waste Disposal Area in a 12.4-metre-deep trench with base dimensions of approximately 42 metres long and 12 metres wide. The waste is located 8.0 metres below ground level.

#### **98NRT02 - PCB contaminated soil, Stephenson and Ward Site**

The waste comprised polychlorinated biphenyl (PCB) contaminated soil from the remediation of the Stephenson and Ward incinerator site in Welshpool. The waste was packaged into 103 bulka bags weighing 1.2 to 2.0 tonnes. PCB concentrations in the waste varied between 59 to 9,200 milligrams per kilogram. The waste was disposed of in the Chemical/Radioactive Waste Disposal Area in a 12.4-metre-deep trench with base dimensions of approximately 13 metres long and 8.5 metres wide. The waste is located 7.5 metres below ground level.

#### **2000RT01 - Radioactive and chemical waste, various waste owners**

This 2000 disposal at the IWDF involved the burial of 2,905.8 cubic metres of radioactive and non-radioactive wastes, originating from twelve different companies and government agencies.

Following the burial of all the chemical wastes, 64 x 205 litre steel drums of low-level radioactive waste were disposed of. A specially constructed clay barrier separated the radioactive and chemical waste. The waste is located 8.0 metres below ground level.

#### **2002RT01 - Radioactive and chemical waste, various waste owners**

The 2002 disposal was conducted between April 2002 and October 2002 and involved the burial of radioactive and non-radioactive wastes, originating from six different companies and government agencies.

The chemical and low-level radioactive wastes were co-disposed in a trench, designated Trench 2002RT01, in the Chemical and Radioactive Waste Disposal Area.

Following burial of the chemical waste a clay barrier was constructed to ensure separation of the radioactive waste from the chemical waste and then the 5 x 205 litre drums and one concrete encased safe containing low level radioactive waste were placed in the trench. A multi-layer, compacted cap was then constructed to secure the waste. The waste is located 9.2 metres below ground level.

### **2008RT01 - Radioactive and chemical waste, various waste owners**

The 2008 disposal was conducted between January and October 2008 and involved the burial of radioactive and non-radioactive wastes, originating from eleven different companies, private citizens, and government agencies.

The chemical and low-level radioactive wastes were co-disposed in a trench, designated Trench 2008RT01, in the Chemical and Radioactive Waste Disposal Area.

Following the burial of the chemical waste a clay barrier was constructed to ensure separation of the radioactive waste from the chemical waste and then 62 x 205 litre steel drums containing low level radioactive waste were placed in the trench. A multi-layer, compacted cap was then constructed to secure the waste. The waste is located 8.5 metres below ground level.

### **2020NRT01 - Contaminated piping, Water Corporation**

The 2020 disposal operation was conducted between February and June 2020. The chemical wastes, originating from the Water Corporation, were disposed in a trench designated 2020NRT01 in the Chemical and Radioactive Waste Disposal Area.

Waste disposed consisted of 451 x 205 L steel drums, 29 x 1,000 L intermediate bulk containers (IBCs) containing bituminous pipe coating contaminated with asbestos and creosote which included polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs), one sea container containing contaminated solids and 1,200 lineal metres of pipe with bituminous pipe coating attached. The waste is located 8.5 metres below ground level.

The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in licence L8190/2007/2.

## **2.3 Part IV of the EP Act**

The IWDF currently operates under Ministerial Statement 562 (MS 562) which was issued in February 2001. MS 562 is the principal document under which the facility and individual disposal campaigns are regulated.

The facility is subject to several conditions under MS 562 including a requirement to implement and maintaining environmental management plans that includes;

- A flora and fauna management plan
- Transport management plan
- Water management plan
- Emergency response plan
- Health and Safety Management plan
- Air Quality management plan
- Radiation management plan and
- Decommissioning and rehabilitation management plan

The environmental impact of the IWDF was assessed by the EPA in the late 1980's under Part IV of the *Environmental Protection Act, 1986*. The Minister for the Environment released a Ministerial Statement, issued under s45 (5) of the EP Act, specifying that the proposal may be implemented under the conditions and commitments as detailed in the statement. Changes to the Ministerial Statement were made early in 2001 to consolidate three earlier Ministerial Statements and to remove the approval for an incinerator.

## 2.4 Other relevant approvals

The IWDF is registered with the RCWA, and this registration (RS 13/2011 20590) sets conditions, restrictions and limitations for the ongoing management and disposal of radioactive wastes at the IWDF.

As there are small quantities of thorium and uranium disposed at the IWDF the facility is required by the Australian Safeguards and Non-Proliferation Office (ASNO) to have a 'Permit to Possess Nuclear Material'. This permit (PN 207) requires the holder to report annually to ASNO its inventory of nuclear waste.

In compliance with Section 4.5 (o) of the Code of Practice for the Near-Surface Disposal of Radioactive Waste in Australia (1992) the last three technical audits have been undertaken at the IWDF by technical personnel of The Australian Radiation Protection and Nuclear Safety Agency ARPANSA

## 2.5 Recordkeeping

Proponent commitment 7.3 of Ministerial Statement 562 requires the proponent to maintain, update and make publicly available a waste register database for all waste disposed of at the IWDF. This database must detail the disposal method, source, type, quantity, and location of all waste disposed of at the IWDF. The database contains all relevant detail for radioactive and chemical waste disposals at the IWDF. The publicly available information from the database is available on request from the Department of Finance.

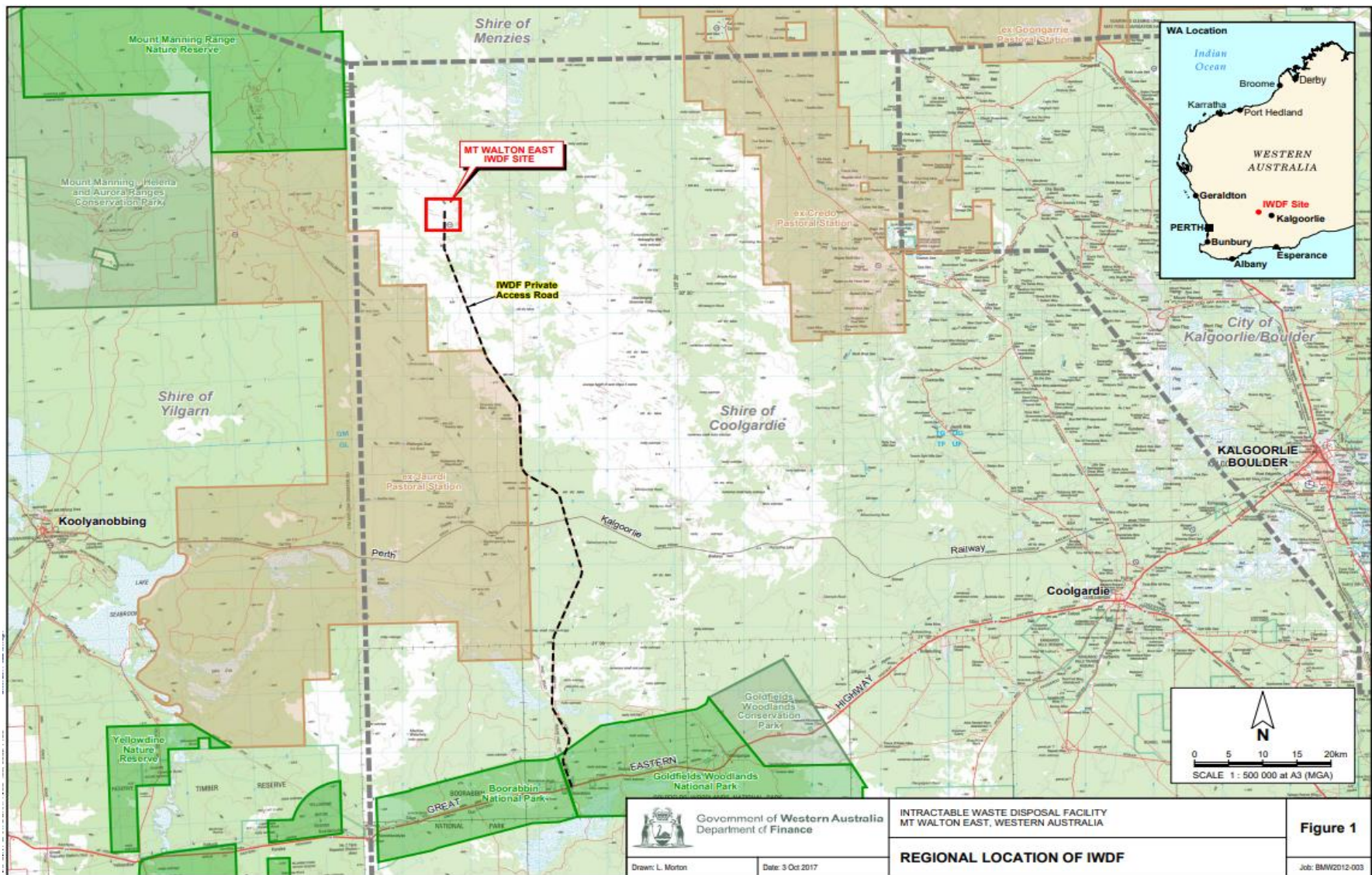


Figure 1: IWDF locality plan



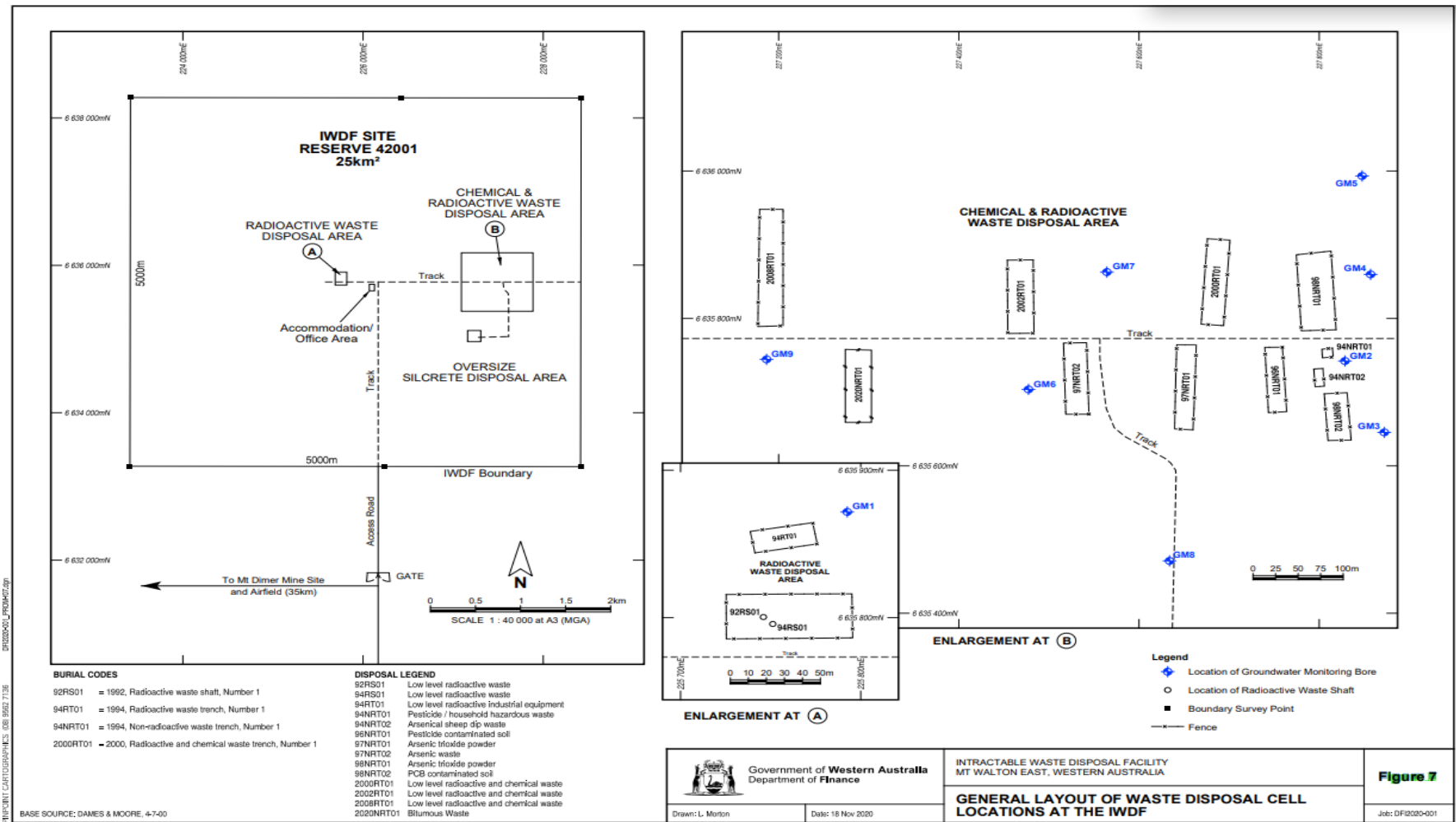


Figure 2: IWDF general layout of waste disposal cell locations

### 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

#### 3.1 Source-pathways and receptors

##### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Procedures and proposed controls
<b>Operation</b>			
Waste, Leachate and Air emissions	Radioactive and Chemical waste delivery	Air / windborne, seepage to soil and groundwater	<p><b>Planning and approval</b></p> <p><i>Prior to commencing a disposal operation which includes radioactive waste approval must be obtained from the RCWA for the:</i></p> <ul style="list-style-type: none"> <li>• <i>Design of the burial cell;</i></li> <li>• <i>Pre-disposal environmental radiation monitoring program;</i></li> <li>• <i>On-going environmental radiation monitoring program; and</i></li> <li>• <i>Occupational radiation monitoring program.</i></li> </ul> <p><i>The RSO must ensure that the following approvals are obtained by the waste owner:</i></p> <ul style="list-style-type: none"> <li>• <i>Disposal permit from the RCWA for each item of waste; and</i></li> <li>• <i>Transport approval for any special form material with expired certification; and</i></li> <li>• <i>Disposal permit from ASNO, if the waste is subject to a 'Permit to Possess Nuclear Material'.</i></li> </ul> <p><b>Waste delivery and acceptance</b></p> <p><i>Mobilisation and set-up of trench office and decontamination facilities;</i></p> <p><i>Induction training and safety management;</i></p>



Emission	Sources	Potential pathways	Procedures and proposed controls
			<p><i>Communications and signage: Signs are placed on the access road to alert any road users of road closure and the presence of truck convoys on the road;</i></p> <p><i>Waste will only be accepted for disposal at the IWDF during daylight hours;</i></p> <p><i>Inspection of initial waste loading at waste owner's site;</i></p> <p><i>The first vehicle of every waste consignment is required to produce a completed Certificate of Identification to prove compliance of the waste with acceptance criteria and a completed Controlled Waste Tracking Form;</i></p> <p><i>Inspection of waste and documentation prior to unloading using an inspection checklist;</i></p> <p><i>The Operations Manager or Safety Manager may reject waste on a package-by-package basis if a package has been materially damaged prior to delivery or does not otherwise comply with waste acceptance criteria or agreed technical specifications (e.g., as outlined in the Certificate of Identification);</i></p> <p><i>Rejected, non-conforming waste packages are covered in a tarpaulin if any waste has been, or shows potential for, spillage;</i></p> <p><i>The non-conforming waste are returned to the waste owner for further cleaning, repackaging, or alternative disposal;</i></p> <p><i>Unloading is undertaken using apparatus appropriate for the waste packages;</i></p> <p><b>Disposal</b></p> <p><i>Containers are then placed into disposal cell for burial and capping after the disposal using appropriate apparatus;</i></p> <p><i>Contact between the Operations Manager, forklift driver, rigger, dogman and crane driver are carried out by UHF radio;</i></p> <p><i>The Operations Manager or delegate supervises and records the placement of each package on the appropriate chain of custody document (e.g, by checking off against the Packaging and Loading Checklist) and on a waste placement form;</i></p> <p><i>Further inspection of the waste packages takes place during placement of the waste. Final acceptance of each waste package by the State only occurs once the waste is safely positioned in the trench;</i></p> <p><i>Disposal of contaminated soils and PPE</i></p>

Emission	Sources	Potential pathways	Procedures and proposed controls
			<p><i>placed in the trench as part of the waste;</i></p> <p><i>Intermediate cover placement between layers of waste (usually 2-4 layers of waste depending on the specific trench design) are achieved by placing a pile of sand and gravel at the base of the ramp, in the trench, using dump trucks and carefully pushing the sand over the waste packages using a front-end loader;</i></p> <p><i>In a case where wastes are to be separated (e.g., radioactive wastes from chemical wastes), engineered barriers are constructed as per the specific Construction Specifications;</i></p> <p><i>Capping structure is designed to ensure that the cell structure is stabilized, the intrusion of rainwater is prevented;</i></p> <p><i>Certificate of Acceptance along with appropriate chain of custody documentation (copies of completed loading checklists and chain of custody form), is issued to the driver of each truck that collects an empty trailer/shipping container, for return to the Waste Owner's site. A copy of all returned documentation is kept onsite as well;</i></p> <p><i>Within 14 days after the day on which the waste was unloaded the FMC Project Manager will update the DWER electronic Controlled Waste Tracking System to record that the waste has been received at the IWDF;</i></p> <p><i>V-drains are excavated, to aid surface drainage away from the water shedding clay dome, in accordance with the EPA and Radiological Council approved operation specific construction specifications;</i></p> <p><b>Monitoring</b></p> <p><i>Environmental sampling is undertaken following waste placement;</i></p> <p><i>Groundwater monitoring is completed every six months at the IWDF. Groundwater sampling is also undertaken pre and post disposal. There has been no groundwater detected on the site since the first bore was installed;</i></p> <p><i>The lack of groundwater and the thickness of the kaolinitic clay layer are the key geological attributes of the site because they preclude the transport of contaminants off-site;</i></p> <p><i>Biological monitoring is undertaken for chemical disposal operations. It comprises urine sampling of workers before and after the disposal operation for target chemicals</i></p>

Emission	Sources	Potential pathways	Procedures and proposed controls
			<p><i>(generally arsenic) depending on what is being disposed of at the site;</i></p> <p><i>Dust monitoring at six locations around each disposal cell is undertaken before, during and after placement of the waste. Soil samples are also taken before and after each operation from the same locations as the dust samples;</i></p> <p><i>Other on-going monitoring program, conducted since 1992, have involved measurements of:</i></p> <p><i>(i) gamma radiation levels over the disposal structures and on the perimeters of the disposal compounds.</i></p> <p><i>Gamma radiation was undertaken annually between 1992 -1999, then subsequently every 5 years. Last gamma radiation monitoring was completed in Oct 2017, next due in Oct 2022.</i></p> <p><i>(ii) radon concentrations in air in the vicinity of the disposal sites and at a remote site, from 1992 to 1999 and radon and thoron concentrations in the air from 2013 and 2015; and</i></p> <p><i>(iii) radionuclides in soils, 1992 and 2013.</i></p>
Dust	Vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air / windborne pathway	<p><i>The Operations Manager keeps a record of the prevailing wind direction during all waste disposal activities;</i></p> <p><i>The Operations Manager ensures that dust generation is kept to a minimum in the trench area by regular dust suppression in accordance with inhouse Environmental Procedure (use of water carts, wetting down of roads when required);</i></p> <p><i>The potential for generation of waste dust is minimised by the inspection of waste packages prior to unloading, to ensure that they are:</i></p> <ul style="list-style-type: none"> <li><i>• clean and free of any surficial waste material;</i></li> <li><i>• intact and lacking any perforations or holes, which may lead to spillage of waste material;</i></li> <li><i>• Commencement of environmental monitoring (dust and/or radiation)</i></li> </ul> <p><i>• For chemical waste consignments, the Environment Manager ensures that pre-disposal environmental dust monitoring is commenced prior to waste delivery</i></p>

### 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Ex-Juardi pastoral station homestead	Approximately 50 km southwest of the Premises.
Carina Mine Camp (under care and maintenance at the time of assessment, with two caretakers in residence)	Approximately 52 km southwest of the Premises.
Town of Koolyanobbing	Approximately 70 km south-west of the Premises.
Industrial receptors	Distance from prescribed activity
Sandy Ridge Waste Disposal facility	Approximately 5 km west of the Premises.
Environmental receptors	Distance from prescribed activity
Important wetlands – Western Australia	No important wetlands are located within 20 km of the premises
Geomorphic Wetlands	There are no geomorphic wetlands within 20 km of the premises
Public drinking water source areas	There are no Public Drinking Water Source Areas within 20 km of the premises
Major watercourses/waterbodies	There are no major watercourses/water bodies within 20 km of the premises (based on available GIS dataset – Hydrography WA 250K – Surface Waterbodies).
Surrounding vegetation	Area surrounded by vegetation. <i>Acacia neurophylla</i> , <i>A. beauverdiana</i> and <i>A. resinomarginea</i> thicket mostly dominant in the area.
Groundwater	No ground water has been encountered despite extensive drilling

### 3.1.3 Geology

The IWDF lies in the central eastern portion of the Achaean Yilgarn Block, a tectonically

stable, ancient craton comprising granitic rocks and intervening greenstone belts which contain a variety of volcanic, metamorphic, and sedimentary rocks. The Yilgarn Block generally has low seismic activity.

In geological terms the IWDF site is typical of areas overlying deeply weathered granite domes. The profile generally comprises four main lithologies and from the surface these are:

1. colluvial sand - comprises yellow brown quartz sand overlying nodular red brown clayey sand. It averages about 1.5 metres thick.

2. silcrete - comprises kaolinitic clay which has been variably indurated with silica to form a hard cap over underlying lithologies. This cap averages about 3 metres thick.

3. kaolinitic clay - comprises soft white kaolin weathered from pre-existing granite. As a result, the clays contain relict quartz phenocrysts. This important layer houses the buried waste and on average is more than 15 metres thick over the site. It is absent in several areas, especially where the bedrock is shallow, but elsewhere has a maximum thickness of 32.5 metres.

4. granitoid basement - comprises a fine to medium grained leucocratic granite containing pegmatite and quartz veins. The basement topography varies over the site from 3.5 to 47 metres below the surface. The lack of groundwater and the thickness of the kaolinitic clay layer are the key geological attributes of the site in terms of its function as an intractable waste repository because they preclude the transport of contaminants off-site.

### 3.1.4 Wind direction and strength

The prevailing wind direction has been considered. Using information available on the Bureau of Meteorology's website, the Facility is located between two weather stations, Southern Cross Airfield (No. 012320) and Menzies (012052). Wind data available for the Menzies station provides an historic dataset (1957 to 1996), while the Southern Cross Airport weather station provides data from 1996 to 2019. The Menzies weather station is located approximately 110 km north-east of the proposed premises and the Southern Cross Airport weather station is located approximately 122 km southwest from the premises boundary.

Based on the climate data for the Menzies station (Jan 1957 to Dec 1996), winter morning winds are generally north-easterly and north-westerly, while the prevailing afternoon wind direction in winter is north-westerly. In the summer months, historic wind data at Menzies indicates prevailing south-easterly and north-easterly winds in the morning, and south-easterly in the afternoon. Mean 9am wind speed during the summer months is 19 km/h, while in the winter months 14 km/h.

Based on the climate data for the Southern Cross Airfield station (Oct 1996 to Aug 2019), the prevailing wind direction in winter months is northerly in the morning to west/north-westerlies in the afternoon, and in summer months the prevailing wind direction is generally easterly in the morning and variable in the afternoon. Mean 9am wind speed during the summer months is 22 km/h, while in the winter months 13 km/h.

The relevant pathways that have been considered in the risk assessment table in Section 3.2 are:

- Air and wind dispersion
- Direct discharge to soil
- Surface water overland flow

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Licence L8190/2007/2 that accompanies this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).



**Table 3: Risk assessment of potential emissions and discharges from the premises during Operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Operation</b>								
Screening, crushing, unloading, loading and storage of material  Vehicle movements	Dust	Air / windborne pathway causing Potential suppression of photosynthetic functions	Vegetation surrounding the prescribed premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	<u>Condition 2, 3, 4, 10 and 12</u>	<p><i>Licence conditions included:</i></p> <p>Condition 1 – infrastructure and equipment requirements</p> <p>Conditions 2, 3 and 4 – Waste acceptance and Spill response procedures</p> <p>Condition 10 and 12 – Records and reporting</p> <p>The Delegated Officer also considers that the dust emissions can be sufficiently managed under Ministerial Statement 562 and the amenity impacts can be assessed against the general provisions of the EP Act, specifically whether fugitive dust unreasonably interferes with the health, welfare, convenience, or comfort of any person.</p>
	Disturbance of waste, breach of containment causing discharge to land and air-chemical and radioactive waste	Air / windborne pathway causing impacts to health and amenity.  Surface runoff causing soil contamination and inhibiting vegetation growth survival, and health impacts to fauna in the area.	Workers of Sandy Ridge Facility 5 km away  Soil and vegetation surrounding the prescribed premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	<u>Condition 1, 2, 3, 4, 5, 11 and 12</u>	<p>Licence conditions included to ensure the appropriate spill response equipment is located onsite and any spilled wastes are contained and cleaned up appropriately.</p> <p><i>Licence conditions included:</i></p> <p>Condition 1: Surface water management system</p> <p>Conditions 2, 3 and 4 – Waste acceptance and spill response procedures</p> <p>Conditions 5 – Stormwater management</p>

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Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								<p>Condition 11 – Compliance reporting</p> <p>Condition 12 – Annual reporting</p> <p>The Delegated Officer also considers that discharges to land can be managed under Ministerial Statement 562 and under the Environmental Protection (Unauthorised Discharges) Regulations 2004 (UDR Regulations).</p>
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Ecosystem surrounding the prescribed premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	<u>Conditions 5, and 11</u>	<p>Licence conditions included to ensure stormwater flows are controlled around the temporary waste storage and waste disposal area to mitigate impacts associated with contaminated stormwater runoff.</p> <p>Conditions 5 – Stormwater management</p> <p>Conditions 11 – compliance reporting</p> <p>The Delegated Officer considers that stormwater contamination can also be adequately managed under Ministerial Statement 562 the Environmental Protection (Unauthorised Discharges) Regulations 2004 (UDR Regulations).</p>
	Radiation	Air/windborne pathway causing impacts to health and amenity of closest human receptors  Air/windborne pathway causing	Workers of Sandy Ridge Waste Facility 5 km away	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	<u>Condition 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12</u>	<p>The Delegated Officer notes that the acceptance and storage of radioactive wastes are subject to the approval of the RCWA, in addition to regulation under Part V of the EP Act.</p> <p>Licences conditions are included to ensure the acceptance, handling,</p>

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Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		<p><i>impacts to surrounding ecosystems.</i></p> <p><i>Direct discharge pathway to soil causing impacts to surrounding ecosystems.</i></p>					<p><i>and storage of these wastes in accordance with Radiological Council approval.</i></p> <p><i>Licence conditions included:</i></p> <p><i>Condition 1: Infrastructure and equipment</i></p> <p><i>Conditions 2, 3 and 4 – Waste acceptance and spill response procedures</i></p> <p><i>Conditions 5 – Stormwater management</i></p> <p><i>Condition 6 – Monitoring</i></p> <p><i>Conditions 7 to 12 – Records and reporting including complaints received.</i></p> <p><i>The Delegated Officer considers that the acceptance, storage and disposal of radiological waste is also subject to the approval of the Radiological Council, applicant controls in addition to Ministerial Statement 562 therefore the risks relating to radiation emissions will be adequately managed.</i></p>	

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

## 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
<i>Application advertised on the department's website on 7 February 2022</i>	<i>None received</i>	<i>Noted</i>
<i>Local Government Authorities (Shire of Coolgardie and Shire of Yilgarn) advised of proposal on 28 March 2022</i>	<i>None received</i>	<i>Noted</i>
<i>Applicant was provided with draft documents on [date]</i>	<i>Refer to Appendix 1</i>	<i>Refer to Appendix 1</i>

## 5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that the application to renew licence L8190/2007/2 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

DWER's Guidance Statement; Licence Duration states that the department has a preference to issue longer term (20 year) licences to provide greater certainty to industry and to reduce administrative burden on both industry and the department. This guidance statement explains that in determining a licence duration the CEO will have regard to providing the maximum appropriate licence term taking into account a number of factors, including the duration of statutory approvals and the level of risk of harm to public health and the environment posed by the premises.

The Delegated Officer notes that the IWDF is registered with the RCWA, and the registration (RS13/2011 20590), expires on 8 February 2023. The Licence holder has given assurance that the registration is an ongoing process and that the council will issue another registration before the expiry date. It is the responsibility of the Licence Holder to ensure that all relevant statutory approvals are in place to facilitate an ongoing occupancy and operation of the premises.

In this instance the Delegated Officer has determined to renew the licence for twenty years.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

## Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Cover page & throughout document	Typographical changes requested.	Typographical changes adopted.
Infrastructure and Equipment Condition 1	Please note that all disposal operation equipment, plant and machinery are provided by the earthworks contractor or hired, therefore maintenance and servicing is not undertaken by the licence holder. Except for the onsite generator, there is no equipment, plant or machinery kept at the IWDF unless there is a disposal so this condition may not be relevant.	Agreed. Requirement removed.
	Row 2, paragraph 1: The term "cells" refers to both shaft and trench so "trench" can be removed here. Row 2, paragraph 2: The decision report states that the licence seeks to integrate general controls and requirements that support, but do not duplicate, the overarching and campaign-specific requirements of MS 562. The separation distance requirement here is a direct duplication of Proponent Commitment 10 of MS 562.	Agreed. Requirement removed.
	Row 2, paragraphs 3-5: The current cell capping methodology used at the IWDF is best practice for the disposal of low-level radioactive waste but if this best practice changes, the IWDF is required under the <i>Code of practice for near-surface disposal of radioactive waste</i> (RHS-35) to implement best practice and would therefore change the method currently used. If this occurs, would a change to the licence be required?	Agreed. Requirement removed.
	Row 3: The IWDF does not have a separate temporary waste storage area. Temporary storage is located in the laydown area within the exclusion zone for the excavated disposal cell, however,	Agreed. Requirement removed.



Condition	Summary of applicant's comment	Department's response
	<p>waste is often moved directly from the transport vehicle into the cell. Additionally, radioactive waste may only be brought to the IWDF if approved by RCWA so this condition may be a duplication.</p> <p>It should be noted that not all radioactive waste is packaged in drums and in the sizes specified. Due to activity, some isotopes, e.g. radium, may need to be packaged in larger containers. NORMS may be packaged in IBCs or similar.</p> <p>Propose DWER removes reference to specific waste package types and sizes.</p>	
	Row 4: Propose DWER amend to "Bore GM1 – GM9 as depicted in Schedule 1 Bore Location Map and any future bores".	Agreed. Request adopted.
	Row 5: Propose DWER remove "in accordance with the EPA and Radiological Council approved operation specific construction specifications" as the construction specifications do not relate to maintenance.	Agreed. Request adopted.
	Row 6: This is a duplication of Proponent Commitment 9 in MS 562. Additionally, it is proposed that fencing around the perimeter is not required, only around the cells.	Condition updated. The licence holder will now be required to ensure fencing around the cells only are maintained free of holes, breaks and other defects.
Waste Acceptance 1	Should this be condition 2 since condition 1 is under Infrastructure and Equipment? If so, all subsequent conditions to be renumbered. Proposed removing the condition as it duplicates MS 562	Typo corrected. The Delegated Officer agrees that the request would be a duplication, however as the site is unmanned during night-time with no fencing around the property boundary and that the condition relates to waste dumping by third party without prior approval. Therefore the condition will ensure any waste dumped on site without prior approval cannot be buried on site.
Waste Acceptance 1-3	These conditions duplicate/reference existing conditions already governed by the EPA and RCWA. Propose DWER removes.	Previous Conditions 3 and 4 removed.
Waste Acceptance 4	Approach towards this condition is dependent on the outcome of discussions between the licence holder and DWER regarding the	Previous Condition 5 removed

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Condition	Summary of applicant's comment	Department's response
	Temporary Waste Storage Area condition under Infrastructure and Equipment 1.	
Waste Acceptance 5	The IWDF does not accept liquid wastes. Propose DWER removes reference to "liquid wastes". Additional clarification required for reference to engineered containment system, as spills within the cell would not be recovered or removed.	Request adopted. Condition text updated to ensure only spills outside the disposal cells will be recovered or removed and disposed immediately.
Stormwater Management 7	What does DWER consider as "stormwater diversion infrastructure"? Currently, bunds are constructed around disposal cells during an operation. Is this sufficient or does DWER expect diversion infrastructure around the entire exclusion zone? Construction of additional soil bunding would require significant additional vegetation clearing to source the materials required for the bund as the material excavated for the cell is used as backfill. As well as the environmental impact, this will add significant additional time and cost to a disposal operation. Propose DWER amend the condition to state that a temporary bund will be constructed as required to divert stormwater.	The Delegated Officer has reviewed the comments relating to the stormwater diversion infrastructure and considers that only existing bunds are required to be adequately maintained. Condition text updated.
Monitoring 8	Table 2: The weight of waste is not always relevant or recorded. However, volume of waste is always recorded as it is critical for disposal at the IWDF. This is especially so for small quantities of radioactive waste. Propose that DWER do not prescribe the unit of measure (tonnes) for the quantity of waste.	Request adopted. Condition text updated.
Records and reporting 9	Is notification of the intent to undertake a disposal operation sufficient? If additional information is required, can DWER advise? Condition 10 should now refer to Condition 7.	The Delegated Officer reviewed the comments and has amended the reporting requirement to reflect this.
Records and reporting 10	Does DWER keep a record of the calculation of fees payable in respect of the licence?	The Delegated Officer is aware that the calculation of fees payable is a standard licence condition however has agreed to remove this condition.
Records and reporting 14	All the information in Table 3 is included in either the disposal close-out report or the body of the annual PCR. Will DWER accept the PCR as the Annual Environment Report?	Submission date adopted to align with PCR report. Provided that all information outlined by Table 3 is captured in the PCR this may be submitted to comply with the reporting requirements.

Condition	Summary of applicant's comment	Department's response
	<p>If a disposal has occurred, the PCR and close-out report must be submitted to the EPA three months from demobilisation. If the PCR is used for the environmental report this will mean that the PCR must be completed within 60 days. Request that DWER aligns the condition with the EPA timeframe of 3 months as the PCR is a substantial document requiring extensive preparation.</p>	
Definitions	<p><b>annual period:</b> Annual PCR reporting for the IWDF is from 1 July to 30 June. This PCR reporting is also submitted to RCWA. Request that DWER aligns the reporting period for the licence so that only one report needs to be prepared. This will impact conditions 13 and 14.</p> <p><b>Emergency Response Equipment:</b> Fire extinguishers, and water in the non-potable water tank are the only ER equipment stored on site. Other ER equipment is waste disposal specific and described in the Operation Health &amp; Safety and Emergency Response Procedures (OHSERP) which are prepared for each disposal and approved by the EPA. The appropriate ER equipment is obtained as part of the disposal operation start-up and mobilisation.</p> <p><b>OEWP:</b> The current definition refers to two different documents. The OEWP is the Operation Environmental and Waste Acceptance Procedures which provides procedures and information specific to the proposed disposal operation. OP-06 Waste Delivery Acceptance and Disposal is a procedure within the IWDF Environmental Health &amp; Safety and Quality Management System (EHSQMS) and describes the overall process of waste delivery acceptance and disposal in general terms.</p> <p><b>Performance and Compliance Report:</b> The report on the operation-specific activities carried out at the IWDF is the operation close-out report. The PCR is prepared annually for the 1 July - 30 June reporting period and includes the close-out report if</p>	<p>Request adopted</p> <p>Emergency response equipment list updated.</p> <p>Comments noted</p>

Condition	Summary of applicant's comment	Department's response
	there has been a disposal operation.	
Schedule 1: Maps	Figure 1: There is a typo in Figure 1, Inset 1 where the 2020 cell has been mislabelled 2002NRT01. The licence holder will provide an updated figure to DWER as soon as possible for inclusion in the final licence.	Noted. Map replaced
Definition Table 1	Typographical changes requested.	Changes adopted
Decision Report	Please review grammar, punctuation, and capitalisation throughout. Page numbers restart after the transition from landscape to portrait at page 14 of the PDF. Update Table of Contents once changes are made.	Noted  Page numbers and Table of Contents page updated
Cover page	Typographical changes requested	Typographical changes adopted
Shaft burial – page three	Typographical changes requested  Disposal, paragraph 6: Change “3-4 layers” to “2-4 layers” Monitoring, paragraph 2: Groundwater sampling is also undertaken pre and post disposal. Monitoring, paragraph 7: Gamma radiation was undertaken annually between 1992 -1999, then subsequently every 5 years. Last gamma radiation monitoring was completed Oct 2017, next due Oct 2022.	Typographical changes adopted
3.1.1 Emission and controls, Table 1	Typographical changes requested  Consider including that shaft burial has not been used since 1994 and that this description describes activity 30 years old. It is very unlikely that a shaft would be excavated or constructed in the same way in the future.	Typographical changes adopted

Condition	Summary of applicant's comment	Department's response
3.1.1 Emission and controls, Table 1	Typographical error noted	Corrected
3.2 Risk ratings, Table 3	Typographical changes requested	Typographical changes adopted

## Appendix 2: Application validation summary

Application type						
1.1	Check that the type of application being applied for, as indicated in the first section of the <i>IR-F01</i> application form is for a renewal Yes . <input checked="" type="checkbox"/> No <input type="checkbox"/>					
	Renewal	<input checked="" type="checkbox"/>	Current licence No. & expiry date:		L8190/2007/1 Expiry Date: 17/02/2022	
Prescribed premises categories			Yes	No	Proposed Action / Notes (if applicable)	
1.3	Has the applicant specified all prescribed premises categories that are relevant to the activities on the premises?		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Prescribed premises category and description			Proposed production or design capacity			
Category 66: Class V intractable landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.			Not applicable			
Verification			Yes	No	Proposed Action / Notes (if applicable)	
1.4	Has a response been provided to all applicable sections of the application form?		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
1.5	Date application received:		16/11/2021			
1.6	Date assigned to Ind reg Officer		16/11/2021			
1.7	HPRM file reference number:		DWERDT527417 – 2012/006884~1			
Applicant Details						
2.1	Valid applicant name provided		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	Previously- occupier name was Department of Finance, however following legal advice occupier name will now be Minister for Works C/- Department of Finance
	Valid ACN provided		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	.
2.2	Trading name provided		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.3	Accurate authorised representative details provided		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Consent given to correspondence being exclusively via email		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	Physical address for notices served under the EP Act provided		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	Postal address for correspondence provided		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



2.6	Contact person details for DWER enquiries related to the application provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	Occupier status proven	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Attachments</b>					
2.8	Proof of occupier status provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.9	ASIC current company information extract provided	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.10	Authorisation to act as representative of the occupier provided	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Premises details</b>					
3.1	Legal land description provided for all areas proposed to be included within the prescribed premises boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	Premise street address provided	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Premises name provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2	Local Government Authority area correctly identified	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Shire of Coolgardie
3.3	Accurate GPS or map coordinates provided to identify the premises	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
4.1 & 4.2	Infrastructure, equipment and proposed activities described in application	<input checked="" type="checkbox"/>	<input type="checkbox"/>		description of infrastructure provided
4.8	Maximum production or design capacity for each category matches existing licence	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Not applicable
4.9	Estimated actual throughput provided	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Other Approvals and Consultation</b>					
6.2	Premises has EPA approval? Provide MS number and Report number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		MS562
6.3 & 6.4	Does clearing permit exist for the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No permit required. Existing licence
	If "yes", specify:	Clearing permit number:			
6.5	Does groundwater well licence or surface water permit exist for the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		licence not required
	If "yes", specify:	GWL or SWL number:			
7.1, 7.2 & 7.3	Considered as a major project, State Agreement Act and lead agency framework.	Not a major project, existing licence renewal			
			<input checked="" type="checkbox"/>		Existing licence
7.4	Has the proposal been referred and/or assessed under the EPBC Act?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		N/A
	If "yes", specify:	EPBC approval number:			
7.5 & 7.6	Has the Applicant obtained all relevant planning approvals or mining approvals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Planning approval not required. Planning still valid
	.				
7.7	Has the proposal obtained all other necessary statutory approvals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>7.8</b>	Have all identified direct interest stakeholders been invited to make representations during the consultation period?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing licence
<b>Attachments</b>					
<b>7.9</b>	Has the applicant provided details of other approvals specified in Part 7 and consultation documentation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No further approval required till 8 February 2023 (Radiological Council Registration) & Permit to Possess Nuclear Materials will expire on 30 November 2024.
<b>Attachments</b>					
<b>7.9</b>	SM approval obtained for licence tenure less than 20 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Emissions and discharges and environmental siting of premises					
<b>Part 9</b>	Have all emission and discharges been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Part 10</b>	Have all nearby environmental receptors and receiving environments been considered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing licence, only administrative renewal