Decision Report

Application for Licence

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L9157/2018/1
Applicant	REMONDIS Australia Pty Ltd
ACN	002 429 781
File Number	DER2018/000853
Premises	REMONDIS Canning Vale Materials Recovery Facility 3 Madison Street CANNING VALE WA 6155 Legal description – Lot 2 on Diagram 67441
Date of Report	4 January 2019
Status of Report	Final

Overview of premises

The REMONDIS Canning Vale MRF (Premises) is an existing materials recovery facility (MRF) situated in the Canning Vale Light Industrial Area within the City of Canning, southern Perth suburbs. The site has been in operation since 2008, with the Applicant acquiring the business from Orora Recycling in June 2015.

Prior to 2015, MRFs were not regulated by DWER. However, following a recent review MRFs are now considered to be consistent with the description of a Category 62 prescribed premises as described in Section 1 of the *Environmental Protection Regulations 1987* (EP Regs) and therefore require a licence to operate.

The Applicant has now applied to licence its existing operations, which is predominantly the recycling of cardboard and waste paper from local government, commercial and industrial operations. Other recyclables are also processed in smaller quantities, including plastics, glass and aluminum/steel cans, in addition to the destruction of non-hazardous liquids (soft drink, fruit juice, etc.). Table 1 outlines the Prescribed Premises categories as per the Application.

Table 1: Prescribed Premises Categories

Classification of Premises	Description	Premises throughput (as per Application)
Category 62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use	90,000 tonnes per annual period
Category 61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated	30,000 tonnes per annual period
Category 61A	Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land	2,000 tonnes per annual period

Operational aspects

A number of different processes occur on the Premises, with the main infrastructure for each process listed in Table 2 below.

Area 1: Cardboard/plastics/metals receival, baling and export

The receival, baling and export of cardboard/paper and plastics are the main activities undertaken on the Premises. The materials accepted in the general baling area include cardboard, newspaper, office paper, plastic bottles, HDPE, LDPE, mixed plastics, polypropylene bags, and aluminium and steel cans.

Pre-sorted materials are received, either loose or in baled form, and stockpiled within the receival area (Area 1). Loose materials are placed into specified bunkers for each product, whilst most of the baled materials require reprocessing, which involves opening the bales and placing the materials into the specified bunker, ready for re-baling.

Two dedicated balers are used – one for cardboard/paper and the other for plastics. Baled product is then stacked and stored in a designated area, ready for loading into shipping containers for export.

Non-conforming wastes are removed from the stream and placed in a hook-lift bin, which is taken to landfill 2-3 times per week, or on the same day if it involves odorous material.

The current throughput is approximately 40,000 tonnes per annum (tpa), however the site capacity in this area is approximately 90,000 tpa.

Area 2: Materials Recovery Facility (MRF)

The MRF is located in an undercover area consisting of concrete tilt panels and a dome roof with an opening on one side spanning 19 m x 16 m. The plant is designed to process up to 4 tonnes per hour of co-mingled recyclables, with a weekly throughput of 140 tonnes.

Materials are received in an undercover holding area on hardstand, prior to being loaded onto an initial conveyor and progressing through the system, with the different materials being removed from the stream:

- Contaminants, i.e. anything other than cardboard, paper, plastics, glass, aluminium cans and metals, are removed at the first sorting point and placed into a chute that drops into a bin, which is emptied into a larger bin awaiting off-site disposal at landfill;
- Materials pass over a first disc screen, which removes broken glass and fine materials, such as shredded paper, to be disposed at landfill;
- Materials then pass over second and third disc screens, which separate out cardboard and paper through the top of the screen, for baling in the primary baler;
- The remaining material is carried by conveyor to a final sorting platform, where aluminum, plastics and glass are removed by hand and ferrous metal removed by magnet. These materials are placed into a chute that drop to bins below and emptied into storage bunkers awaiting baling;
- Plastics and cardboard/paper are then baled using the dedicated balers. Baled product is then stacked and stored in a designated area, ready for loading into shipping containers for export; and
- Remaining materials that are unsuitable for recycling are collected in a bin at the end of the conveyor line for disposal to landfill.

Area 5: Product destruction

The product destruction area is located within a shed spanning 13 m x 9 m. The facility has the capacity to process up to 2 million litres per year of non-hazardous liquids, such as spoiled soft drinks and fruit juices, with current throughput of approximately 130,000 litres per month.

Palletised bottles/cans are received in this area and are loose loaded into a hopper to be carried to a shredder, where the liquid portion is removed and stored for further treatment. The solid portion (i.e. containers) are shredded for sale to local and export markets.

The loading hopper sits above a collection tank to capture any accidental spills during the loading process. This tank has a capacity of 360 litres.

The shredder destroys the containers and allows the liquid portion to be collected in a tank underneath (580 litres capacity), which is itself located within a bunded area with a holding capacity of 970 litres. As only one pallet is processed at a time, the combined collection tank and bunded area is sufficiently sized contain the whole volume of pallet, if required (500 litres).

The shredded containers are passed onto a second conveyor and collected in a bin at the end of the line, where they are transported to a holding bunker in Area 1, ready for baling. The collection bin sits on a bunded area with a holding capacity of 970 litres.

The three liquid collection tanks located along the process line are connected via fixed pipes which drain to a large self-bunded storage tank located outside of the shed. This tank has a capacity of 22,000 litres and consists of a double steel wall. When this tank nears capacity, it is emptied into a liquid waste tanker truck and delivered to the Applicant's wastewater treatment facility in Henderson for further treatment.

Area 3: Waste oil filters

Waste oil filters are accepted and crushed on-site, in the same shed as the product destruction area. This is only a minor activity on the Premises, with approximately one x 1 m^3 bin of waste oil filters processed every 2 weeks.

Sealed bins containing waste oil filters are received and stored within the shed, awaiting processing. Filters are removed from the bins and placed by hand into a press on a flat plate with draining holes and raised edges to contain the oil being drained. The press is lowered and the filters are crushed, with residual oil draining into a holding tank within the press.

The press is located within a metal bund with a holding capacity of 200 litres, which is sufficiently sized given the press can produce a maximum of 20 litres of oil per press run. The collected oil within the press is pumped out after each press cycle into a bunded, 1,000 litre intermediate bulk container (IBC). The crushed filters are placed in a bin and transferred to the site steel recycling bin for sale to the local market.

Table 2: REMONDIS Canning Vale MRF infrastructure

Infrastructure	
Prescribed Activity Category 62	
Area 1: Cardboard/plastics/metals receival baling and export	
1	2 x horizontal balers
2	Baled product storage area
3	Loose material storage bunkers
Area 2: Materials Recovery Facility	
1	2 x sorting platforms
2	9 x conveyors
3	1 x 3 deck rotating disc screens
4	1 x steel magnet
5	1 x bouncer conveyor
Prescribed Activity Category 61 & 61A	
Product destruction of expired or spoiled non-hazardous liquids	
1	1 x shredder
2	3 x bunded collection tanks, located beneath the hopper (360 litre capacity), shredder (580 litre capacity) and collection bin (970 litre capacity). All tanks are connected via fixed pipes which drain to the main self-bunded storage tank (see below)
3	1 x self-bunded liquid storage tank (22,000 litre capacity)
4	2 x conveyors
Other activities	
1	1 x vertical press (200 litre bund capacity) for crushing waste oil filters
2	1 x 1,000 litre IBC, for storing waste oil collected from crushed oil filters
3	1 x truck wash bay, including 2 x 5,000 litre capacity interceptor pits

Exclusions to the Premises

The following matters are outside the scope of this assessment and have not been considered within the risk assessment detailed in this Decision Report:

- maintenance areas and mechanical workshops;
- weighbridges, equipment storage areas, wash down bays, etc.; and
- administration areas.

The Licence is related to Category 61, 61A and 62 activities only and does not offer the defence to offence provisions in the EP Act (see s. 74, 74A and 74B) relating to emissions or environmental impacts arising from non-Prescribed Activities, including those referenced above.

Environmental siting

The Premises is located within the Canning Vale industrial area, approximately 13 km south of the Perth CBD, in the City of Canning. The site is zoned as 'industrial land use' under the Metropolitan Regional Scheme and as 'general industry' under the City of Canning Town Planning Scheme No.40.

The site is predominantly surrounded by manufacturing industry. DWER records indicate a number of prescribed premises are also located within the Canning Vale industrial area, including 3 within 500 m of the site.

The Applicant advises that it has consulted with immediate neighbouring premises, and that no objections were raised.

Table 3: Residential and sensitive receivers and distance from activity boundary

Residential and sensitive receivers	Distance from Prescribed Premises
Thornlie (western residences of)	~850 m west of the Premises
Parkwood and Willetton (southern residences of)	~950 m north of the Premises
Canning Vale (northeast residences of)	~1,500 m east of the Premises

No specified ecosystems or areas of high conservation value have been identified in proximity that may be directly impacted from activities at the Premises. The distance to groundwater and water sources are shown in Table 5.

Table 4: Environmental receptors and distance from activity boundary

Groundwater and water sources	Distance from Premises	Environmental value
Groundwater	Natural ground level is approximately 19 mAHD and the surface of the aquifer is approximately 15.8 mAHD, being 3.3 m below ground level[1]	Beneficial users of groundwater Salinity is estimated between 250 and 500 mg/L[1]
Geomorphic wetlands – Tom Bateman Reserve	Approximately 750 m northeast of the Premises	Bush Forever site, supports a seasonal conservation category wetland and associated native vegetation and fauna

Note 1: Sourced from the Perth Groundwater Atlas (DoW, 2004).

Legislative context and other approvals

The overarching legislative framework of this assessment is the EP Act and EP Regulations. The guidance statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015)*;
- *Guidance Statement: Setting Conditions (October 2015)*;
- *Guidance Statement: Licence Duration (August 2016)*;
- *Guidance Statement: Decision Making (February 2017)*; and
- *Guidance Statement: Risk Assessment (February 2017).*

Other relevant approvals are listed in Table 6.

Table 5: Relevant approvals

Legislation	Details
Environmental Protection (Controlled Waste) Regulations 2004	Under the EP Act, a site must be listed as a 'controlled waste facility' in the Controlled Waste Tracking System (CWTS) for the purposes of accepting a controlled waste. The Premises is a listed controlled waste facility in the CTWS for accepting the following controlled wastes: - Waste mineral oils unfit for their intended purpose (J100); - Waste oil and water mixtures or emulsions, and hydrocarbon and water mixtures or emulsions (J120); and - Used oil filters (J170). The Applicant has applied to include food and beverage processing wastes as an approved controlled waste for acceptance at the Premises.
Planning approvals	Current planning approvals issued by the City of Canning are for storage facility to existing general industry site in 2010 and a wash down bay to waste recycling facility in 2018. Both these approvals do not have an expiry. The City was not aware the site was processing liquid waste, however advises this still falls within the current approved on-site land use.

Monitoring data

Noise monitoring

The Applicant commissioned a basic noise monitoring survey in order to demonstrate the noise levels at the Premises boundary. The monitoring was conducted in February 2018 between the hours of 8:30 AM and 9:30 AM, under normal operating conditions.

Results

A number of 5-minute measurements were made around the perimeter of the Premises, which was considered to be the representative assessment period as each task was repetitive during the shift. A summary of the $L_{A\ max}$ measurements are provided in Table 6 below.

Table 6: Boundary noise measurements

Activity	Measured noise level[1] ($L_{A\ max}$) dB(A)	Adjustments dB(A)	Assessed noise level dB(A)
Loader operating	84.5	+5 tonality	89.5
Loader emptying bucket	84		89
Glass recycling	83		88
Plastic shredder	82		87
Truck idling on weighbridge	75		80
Trucks driving past	75		80
Trucks entering yard driving at walking pace	61 – 66		76 – 81
Front end loader beeper	65		70
Compressor	64		69
Forklift placing bale	63		68
Machinery operating in the background, at least 30 m away	51 – 55		56 – 60
Assigned level for industrial and utility premises (other than Kwinana Industrial Area) – All hours	90		90

Note 1: Measured at the closest boundary location to the activity.

Discussion of the results is provided, with a summary below:

- Noise received at the neighbouring residences could be tonal, therefore to be conservative a 5 dB(A) penalty for tonality has been applied;
- The $L_{A\ max}$ assigned level of 90 dB(A) was not exceeded;
- The $L_{A\ 1}$ assigned level of 80 dB(A), after adding a 5 dB(A) penalty for tonality, was exceeded at the boundary of the plastic shredder, glass recycler, emptying bucket and loader operation; and
- The $L_{A\ 10}$ assigned level of 65 dB(A), after adding a 5 dB(A) penalty for tonality, was exceeded at the boundary of the plastic shredder, glass recycler, emptying bucket, trucks idling, forklift placing bale and loader operation with reversing beeper.

DWER technical review

DWER's review of the Noise Survey (CHP, 2018) provided as part of the Application identified:

- The report appears to have been prepared by a person familiar with occupational noise and not environmental noise;
- Tonality is assumed in the report, however it is not clear if this was because it was being subjectively assessed, or to enable a worst-case assessment. Regardless, it is noted the sound level meter used (Svan 957) does not comprise one-third octave filters, which is required for objective tonal assessments under the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations);
- The veracity of the measurements are unclear, as limited details are provided on what standard the sound level meter used is calibrated to (the Noise Regulations are very specific on calibration standards); and
- No recommendations are provided in terms of achieving compliance with the Noise Regulations.

In terms of the noise survey results:

- The report suggests the operations do not comply with the Noise Regulations, however there is insufficient information to determine either way;
- Nearby receivers appear to be industrial in nature, therefore assessment against the industrial assigned levels seems appropriate. The nearest noise sensitive receivers appear to be at least 850 away and are unlikely to be impacted during normal operations, i.e. day time hours;
- Measurements are reported over a 5 minute representative assessment period (RAP), as each task is repetitive, however no indication is provided as to the measurement parameter being represented. It appears the same values have been used to determine that the $L_{A\ max}$ assigned level was not exceeded as was used to assess the $L_{A\ 1}$ assigned level;
- If the measured parameter was an $L_{A\ eq}$ (as used for occupational health assessment) it would underrepresent the $L_{A\ max}$ level and misrepresent the $L_{A\ 1}$ and $L_{A\ 10}$ levels. If the measured parameter was a statistical level, there is no indication which statistical parameter and what time weighting was used (slow, as required by the Noise Regulations, or fast); and
- The noise sources need to be assessed against the assigned levels in the Noise Regulations. The statistical assigned levels require that it be shown the assigned levels not be exceeded for a specified percentage of the RAP. Whilst the processes are described as being repetitive, there is no indication of the frequency of repetition, hence for how long the particular statistical assigned level is exceeded.

Risk assessment

Table 7: Identification of emissions, pathway and receptors during operation

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls[1]
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Receptor (impact)					
Category 62: Solid waste depot	Waste acceptance, handling, processing and storage	Noise	Adjacent industrial and commercial premises	Air / wind dispersion	Amenity impacts	Minor	Possible	Medium	Operations on the premises involve the use of noisy machinery, both fixed (e.g. balers and the shredder) and mobile (e.g. trucks, front end loaders). It is unclear whether the operations comply with the Noise Regulations, based on the noise survey submitted with the application. However based on the nature of the operation (i.e. MRF operating within an industrial area) and the operating hours being day time only (7am – 3pm weekdays), DWER considers that low level impacts to amenity are possible, but unlikely, at a local scale, given there has been no public complaints received by DWER from existing operations and no objections being raised as part of the Applicant's consultation with neighbouring premises. In addition, DWER does not consider the risk of noise from the premises warrants the reassessment of noise levels at this stage; however this may be revisited should noise become an issue from future operations.	Nil. The Noise Regulations operate as a prescribed standard under the EP Act In addition, the Applicant must take all reasonable measures to prevent or control noise emissions under s51(b) of the EP Act, even if they comply with the Noise Regulations
			Residential premises located ~800 m from site			Minor	Rare	Low	Based on the distance to noise sensitive receivers (~850 m), DWER considers that low level impacts to amenity would only occur in exceptional circumstances. Any noise impacts that may arise can be regulated under the provisions of the Noise Regulations.	
		Odour	Adjacent industrial and commercial premises Residential premises located ~800 m from site			Minor	Rare	Low	Small amounts of non-conforming wastes, which may contain putrescible (odorous) material, are handled on the premises from time to time. These are immediately separated out and sent to landfill. DWER therefore considers that low level impacts to amenity at a local scale from malodour would only occur in exceptional circumstances.	Refer to Condition 4 – waste processing limits
		Contaminated surface water	Groundwater and nearby wetlands	Seepage, overland flow	Groundwater contamination, impact on the biological diversity and ecosystem function of wetlands	Minor	Rare	Low	The entire premises is bitumen hardstand, with all surface water runoff directed to blind collection sumps that are not connected to the external stormwater system. All collected surface water is contained on the premises, and pumped out when required. DWER therefore considers off-site impacts from contaminated surface water runoff would only occur in exceptional circumstances.	None specified
		Windblown waste	Adjacent industrial and commercial premises	Air / wind dispersion	Amenity impacts	Minor	Possible	Medium	Significant quantities of loose materials (paper, plastics, etc.) are received and handled on the premises each day, which have the potential to become windblown. The Applicant has in place litter screens on the boundary and routine site clean ups (sweeping) as the main control measures, which appear to be adequate. No public complaints have been received by DWER from existing operations. DWER therefore considers low level impacts to amenity from windblown waste are unlikely, but possible, at a local scale.	Refer to Condition 7 – windblown waste does not escape the Premises

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls[1]
Source/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Receptor (impact)**					
		Fire			Amenity impacts (smoke), destroyed property	Moderate	Possible	Medium	The operations involve stockpiling large quantities (90,000 tpa) of combustible recyclable and waste materials (paper, cardboard, plastics, etc.), which presents a significant fire risk. The Applicant has in place a number of controls including stockpile management (e.g. dimensions, separation between other stockpiles/buildings/boundary, etc.), firefighting equipment (hydrants/ boosters/ extinguishers, etc.) and thermal detection cameras. The adequacy of the site's fire risk management has been reviewed by DFES, who consider the site's emergency response plan to follow the general principles of AS3745.	Refer to Condition 6 – minimum fire controls
Category 61: Liquid waste facility	Waste acceptance and processing (shredding, collection of liquid portion) of fruit juice/soft drink containers, etc. Includes processing (crushing) of waste oil filters	Noise			Amenity impacts	Moderate	Possible	Medium	Medium risk for the reasons stated above.	See comment for noise above
		Spillage of liquid	Groundwater and nearby wetlands	Seepage, overland flow	Groundwater contamination, impact on the biological diversity and ecosystem function of wetlands	Minor	Possible	Medium	Collection tanks/bunds are located beneath each component of the shredder and are sufficiently sized to contain more than 100% of the volume of liquid of each pallet. Shredding operations are conducted within a shed with a flat concrete hardstand floor – any spillages on the western side of the shed will be directed to the blind collection sumps on the premises, however any spillages to the east will flow along the boundary of the premises and off-site, and join the external roadside stormwater system (and ultimately to nearby wetlands). As only one pallet of containers can be processed at any one time, meaning a maximum of 500 litres could flow into the environment, DWER considers that low level off-site impacts are possible at a local scale.	Refer to Condition 5 – minimum requirements for containment infrastructure
Category 61A: Solid waste facility	Processing and storage of shredded fruit juice/soft drink containers, etc. and pressed oil filters	Residual liquids				Minor	Rare	Low	Small amounts of residual liquid may remain on shredded containers transferred to the specified bunker awaiting baling. Any wash-off would be contained on-site. DWER therefore considers that low level off-site impacts from runoff of residual liquids would only occur in exceptional circumstances.	None specified

Note 1: refer to conditions of the granted instrument

Consultation

Table 8: Direct interest public authority comments

Public authority	Comment
City of Canning	Planning approvals have been issued in 2010 (general industry) and 2018 (waste recycling facility). Both these do not have set expiry dates. The City was unaware of the liquid waste processing component of the operation, however advises this activity still falls within the current approved land use. The City would have concerns about the potential for odour should the Applicant start to process products that could become odorous, e.g. spoiled dairy, and that collection and processing is contained and will not enter the environment/stormwater systems.
Department of Fire and Emergency Services	The emergency response plan is generic and appears to follow the principles of AS 3745. Internal firefighting water supply is limited to storage tanks that supply water to hose reels. There are no internal hydrant supplies, however street hydrants are available to the north and south of the premises for firefighting crews to use. There are no site drains or containment establishments – water runoff would be an issue for this site. Mitigation is limited to pillows and booms which may become overwhelmed at a large fire. The site map is generic and does not identify the closest hydrants, water storage tanks, isolation valves, etc.

Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarised in Appendix 3).

This assessment was also informed by a site inspection by DWER on 23 August 2018.

Based on this assessment, it has been determined that the Issued Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

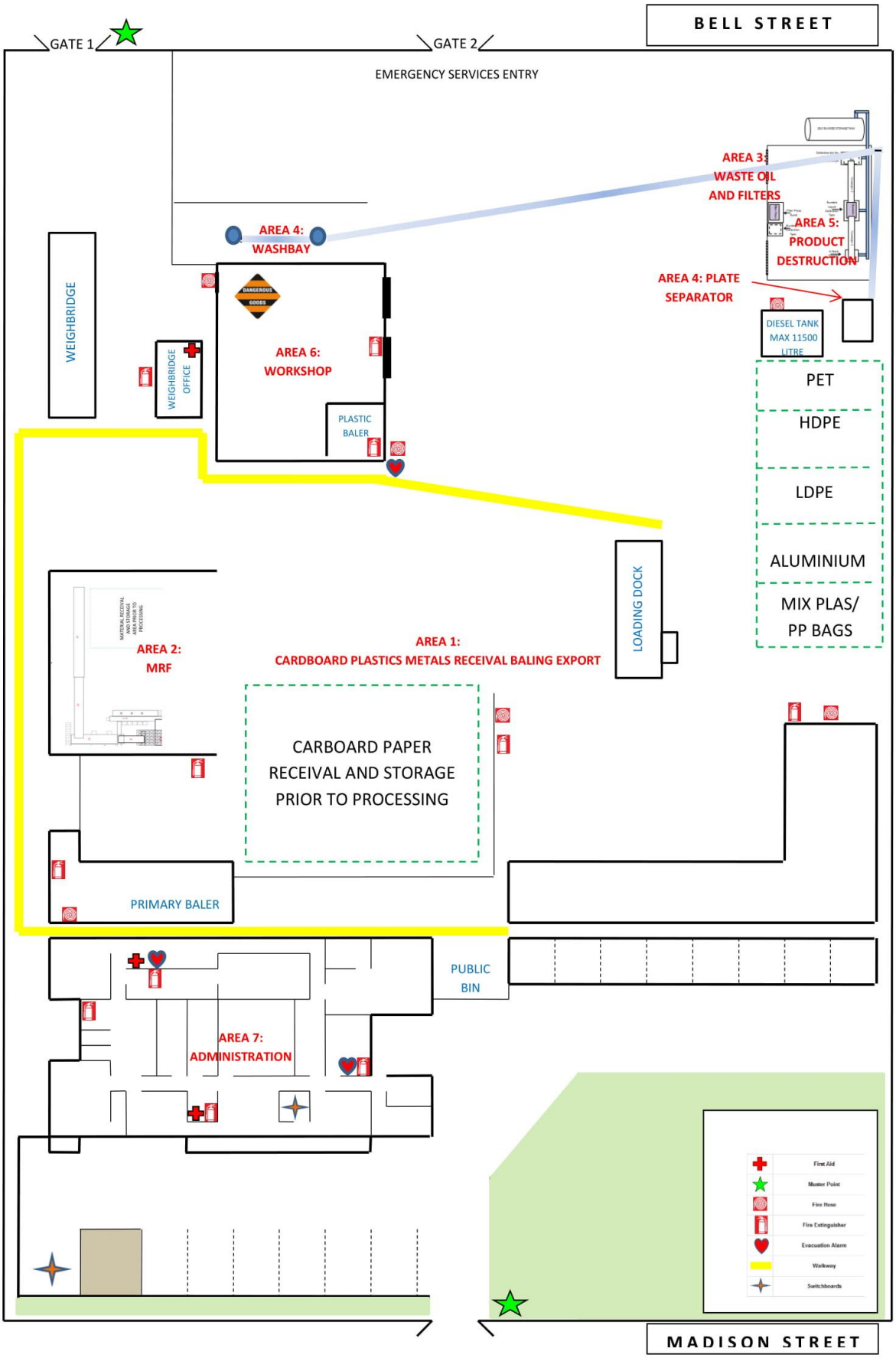
DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the approval under the EP Act.

Stephen Checker
Digitally signed by Stephen Checker
Date: 2019.01.04 15:57:32 +08'00'

Steve Checker
MANAGER WASTE INDUSTRIES

Delegated Officer
Under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Premises maps


BELL STREET
GATE 1
GATE 2
EMERGENCY SERVICES ENTRY
AREA 3:
WASTE OIL
AND FILTERS
AREA 5:
PRODUCT
DESTRUCTION
AREA 4:
WASHBAY
AREA 4: PLATE
SEPARATOR
WEIGHBRIDGE
WEIGHBRIDGE
OFFICE
AREA 6:
WORKSHOP
PLASTIC
BALER
DIESEL TANK
MAX 11500
LITRE
PET
HDPE
LDPE
ALUMINIUM
MIX PLAS/
PP BAGS
LOADING DOCK
AREA 2:
MRF
AREA 1:
CARDBOARD PLASTICS METALS RECEIVAL BALING EXPORT
CARBOARD PAPER
RECEIVAL AND STORAGE
PRIOR TO PROCESSING
PRIMARY BALER
PUBLIC
BIN
AREA 7:
ADMINISTRATION
First Aid
Muster Point
Fire Hose
Fire Extinguisher
Evacuation Alarm
Walkway
Switchboards
MADISON STREET

Appendix 2: Key documents

Document title	In text ref	Availability
REMONDIS Canning Vale – Licence application	Application	DWER records (A1716289)
CHP, June 2018. Noise Survey – REMONDIS Australia P/L. Prepared by Corporate Health Professionals for REMONDIS Australia. (Amended June 2018)	CHP, 2018	
REMONDIS, 2017. Emergency Action Plan – Canning Vale.	REMONDIS, 2017	DWER records (A1716914)
DoW, 2004. Perth Groundwater Map, Department of Water, Perth.	DoW, 2004	accessed at www.water.wa.gov.au
DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	DER, 2015a	accessed at www.dwer.wa.gov.au
DER, October 2015. *Guidance Statement: Setting Conditions.* Department of Environment Regulation, Perth.	DER, 2015b	
DER, August 2016. *Guidance Statement: Licence Duration.* Department of Environment Regulation, Perth.	DER, 2016	
DER, February 2017. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	DER, 2017a	
DER, February 2017. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	DER, 2017b	