



Appeals Convenor
Environmental Protection Act 1986

**REPORT TO THE
MINISTER FOR ENVIRONMENT**

**APPEAL IN OBJECTION TO THE CONDITIONS APPLIED
TO A WORKS APPROVAL**

**WORKS APPROVAL W6304/2019/1: NEXUS RECYCLING,
8-10 WINCHESTER ROAD, BIBRA LAKE**

APPLICANT: FTR OPERATIONS PTY LTD

Appeal Number 019 of 2020

June 2020

Appeal Summary

This report relates to an appeal in objection to the conditions applied by the Department of Water and Environmental Regulation (DWER) to a works approval authorising the construction and commissioning of the Nexus Recycling facility. The facility is for the recycling of used lead acid batteries, and is located in the City of Cockburn.

The appellant raised concerns relating to DWER's assessment of wastewater and stormwater management, and air emissions.

In relation to wastewater, DWER advised that the wastewater system is a closed system and that the treatment and disposal of wastewater is being regulated through a Trade Waste Permit under the *Water Services Act 2012*. DWER also noted that there is no risk of accidental overtopping or spills provided the infrastructure is constructed in accordance with its intended design, and as such applied a condition to ensure that this occurs.

In granting the works approval, DWER applied a condition to ensure that the stormwater does not have the potential to become contaminated through interaction with the areas of the premises where operations occur. The management of uncontaminated stormwater from the premises is considered to be outside of the scope of the works approval application and is managed through the relevant planning authority.

In relation to air emissions, DWER advised that there are no emissions or discharges to air from the reprocessing equipment, the purpose of condition 9 is to ensure that the mist eliminator pipe is effective and that emissions from the diesel generator are unlikely to cause environmental or public health impacts as it is only to be used as an emergency power source.

Following consideration of the issues raised in the appeal, advice from DWER and the works approval holder, it is considered that DWER had regard for the matters raised through the appeal and applied appropriate conditions to manage the identified environmental risks and impacts.

Recommendation

It is recommended that the Minister dismiss the appeal.

- a report from the decision-making authority of the decision under appeal, as required by section 106(1).

This document is the Appeals Convenor's report to the Minister.

In order to properly advise the Minister, the Appeals Convenor conducted an investigation into the matters raised on appeal. The investigation included:

- review of and regard for the matters raised in the appeal submitted by the appellant
- review of and regard for the response to the appeal provided by FTR
- review of and regard for the report from DWER provided under section 106 of the EP Act
- meetings with FTR and its representative from Coterra Environment on 5 June 2020
- review of other information, policy and guidance as considered necessary.

The appellant was invited on several occasions to meet with the Appeals Convenor however a response was not received.

The environmental appeals process is a merits-based process. Appeal rights in relation to a works approval are normally against the specifications of a works approval and whether the conditions of the works approval are adequate or appropriate to control the environmental impacts of the design and construction of the plant. Issues of whether the plant operates so as to manage or abate pollution and to ensure that it operates in an environmentally acceptable manner are normally considerations of the licensing process rather than a works approval. Consistency with previous Ministerial appeal determinations is also relevant, subject to new information or evidence being presented that was not previously considered.

OUTCOME SOUGHT BY APPELLANT

In summary, the appellant was of the view that condition 1 relating to wastewater and stormwater management and condition 9 relating to air emissions within the works approval are inadequate to mitigate and manage potential environmental impacts resulting from the proposed operations. The appellant sought to have these conditions revised to consider the matters raised on appeal.

GROUND OF APPEAL

The ground of appeal have been summarised as follows:

1. Wastewater treatment – laundry
2. Stormwater management
3. Air emissions.

These grounds will be dealt with in turn below.

GROUND 1: WASTEWATER TREATMENT – LAUNDRY

By this ground of appeal, the appellant raised concerns about the adequacy of condition 1 of the works approval which specifies that:

Waste water from all washing machines is to be plumbed for disposal to the wastewater treatment system.

In summary, the appellant raised the following concerns in relation to condition 1:

- inadequate information was provided to DWER as to the design and operation of the wastewater treatment system

- the laundry is not included on the process flow diagram provided and the works approval does not acknowledge any inputs from a laundry into an identifiable wastewater treatment plant
- no information was provided on the water balance of the battery recycling process, including estimates to support predicted daily trade water discharge volumes and the effect of the laundry on water volumes and quality.

Consideration

DWER described the wastewater treatment system under sections 3.3.6, 3.3.11, 3.3.12, 3.3.14 and 4.2.3 of its decision report.

The disposal of wastewater is regulated by the Water Corporation under the *Water Services Act 2012*. In order to discharge wastewater from the premises to the sewer, FTR is required to obtain a Trade Waste Permit from Water Corporation, which specifies conditions for any pre-treatment or limitations.

FTR advised that a Trade Waste Permit has been obtained for the premises (permit 62907, granted on 21 February 2020) and authorises the disposal of 35 kilolitres (KL) of wastewater per day. FTR advised that the assessment of the application included a review of anticipated discharge volumes and quality. Although the permit authorises a disposal volume of 35 KL per day, FTR advised that based on the operating hours it is expected that discharge will be 24 KL per day.

DWER advised that it does not duplicate requirements imposed under another written law or approval, such as the Trade Waste Permit. As the discharge of trade waste to sewer is not considered to be discharge to the environment for the purposes of the EP Act, and in DWER's view has been adequately controlled by the Water Corporation, DWER determined not to assess the risks relating to the discharge to sewer or impose conditions on the discharge.

In response to the appeal, DWER advised that it requires a water balance or water quality study where it informs the assessment of potential spills or overtopping from a wastewater system to public health and the environment. DWER advised that in this case, the recycling process is fully enclosed where inputs are automated and controlled. Wastewater generated within the system is decontaminated in the wastewater treatment tanks prior to reuse within the reprocessing plant or disposed to the sewer system. It is also understood that the wastewater system does not comprise ponds or water tanks that are at risk of overtopping.

As DWER did not identify any risk of overtopping or spills as a result of the construction or commissioning of the facility, FTR was not required to conduct a water balance or water quality study for the works approval.

The exception to the enclosed system is the additional wastewater generated in the laundry utilised for the washing of work clothing. As advised by FTR, it is considered best practice to launder employees' workwear 'onsite to minimise tracking of any particulates offsite, water from laundry should be collected and treated'.¹ In relation to the contribution of the wastewater from the laundry, FTR advised that the output of wastewater from the laundry is approximately 400 litres (L) of wastewater per day (approximately 1 per cent of the authorised discharge).

In order to ensure that the system is constructed in accordance with the proposed design and mitigate potential emissions during the operation of the infrastructure from leaks or

¹ Commission for Environmental Cooperation. 2016. Environmentally sound management of spent lead-acid batteries in North America. Technical Guidelines.

defects, DWER applied condition 1 to the works approval requiring that the plant be constructed in accordance with the intended design. DWER included the laundry in Table 1 to ensure that soiled laundry water was directly plumbed into the wastewater treatment tanks to prevent spills or accidental discharge.

Furthermore, DWER applied condition 11 to the works approval requiring that FTR submit an Environmental Compliance Report detailing performance against the conditions and is to be submitted to the Chief Executive Officer (CEO) for review prior to the issue of a licence to operate the plant.

Conclusion

Noting that the wastewater system is a closed system, that the treatment and disposal of wastewater is being regulated through a Trade Waste Permit under the *Water Services Act 2012* and that there is no risk of accidental overtopping or spills provided the infrastructure is constructed in accordance with its intended design, it is considered that condition 1 of the permit was appropriate.

It is therefore recommended that this ground of appeal be dismissed.

GROUND 2: STORMWATER MANAGEMENT

The appellant submitted that condition 1 (Table 1) relating to the design and construction of infrastructure for stormwater drainage is inadequate based on DWER's assessment being limited to water quality and did not consider the capacity of the stormwater management system.

The appellant submitted that the condition should be reviewed to consider:

- a calculation of stormwater volumes required to be managed
- acceptable flow rates for discharge of stormwater off-site
- best-practice guidelines, *Better Urban Water Management* (WAPC, 2008) and the *Stormwater Management Manual for Western Australia* (DWER 2004–2007).

Consideration

DWER, in response to the appeal advised:

The *Planning and Development Act 2005* is the main legislation that governs planning in Western Australia. Local planning schemes are administered by local governments and provide a basic template for the development of land in a local area by controlling what types of development can occur and where. The management of stormwater generated on developed land is one such issue that sits within the remit of the relevant planning authority. The regulation of stormwater which has not been contaminated by activities is generally considered to be outside the scope of regulation under a licence (Division 3, Part V of the EP Act).

DWER advised that condition 1, relating to the construction of stormwater drainage external to the warehouse, ensures that all uncontaminated stormwater received at the premises is directed for disposal to the City of Cockburn's stormwater system. The intent of the condition is to ensure that the stormwater does not have the potential to become contaminated through interaction with the areas of the premises where operations occur.

DWER's decision report noted that the proposed infrastructure will be fully enclosed within the warehouse which is constructed with a concrete base and bunded by a curb to prevent the escape of any spilled liquids from the facility.²

² DWER Decision Report W6304/2019/1 Nexus Recycling, page 3.

For its part, FTR advised that the size of the stormwater system was assessed by the City of Cockburn as a part of the development application. FTR further advised that it is required by the condition of the development application to meet a '1 in 100 year' storm event capacity.

Conclusion

It is noted that the operational infrastructure is contained within a bunded concrete area to minimise the potential for contamination of stormwater and the disposal of uncontaminated stormwater is assessed under a separate regulatory instrument. It is therefore considered that DWER had appropriate regard to stormwater management and applied an appropriate condition to reduce the potential for stormwater contamination from the premises. It is recommended that this ground of appeal be dismissed.

GROUND 3: AIR EMISSIONS

The appellant submitted that condition 9 (Table 3) which refers to air emission monitoring is inadequate on the basis that DWER did not consider all emissions in its risk assessment as they were not included as a part of the works approval application. The appellant raised that air emissions associated with the shredder, the diesel generator and fugitive diesel emissions via open roller doors were not considered by DWER.

The appellant sought for a comprehensive air emissions assessment to be undertaken, including the sources identified above, the relevant regulatory thresholds, the management of health risks from diesel generator emissions and fugitive emissions. Furthermore the appellant sought for condition 9 to be amended to include additional air emission monitoring points, air quality indicators and emission limits identified in the air emissions assessment.

Consideration

In response to the appeal, DWER advised that in accordance with its *Guidance Statement – Risk Assessments, Part V, Division 3, Environmental Protection Act 1986 (2017)*, it followed a risk-based approach to the identification and assessment of air emissions associated with the proposed works.

Section 9.2 of the decision report identifies emissions, pathways and receptors that were considered by DWER during commissioning and future operation of the infrastructure.

DWER advised that although the works approval application stated that there are no emissions or discharges to air from the reprocessing equipment, DWER sought additional information from FTR during the course of the assessment and had regard to a variety of information including information from other premises with similar emission sources.

In relation to the shredder, DWER advised that lead acid batteries contain solid lead pastes and liquid sulfuric acid which have the potential to be emitted during reprocessing. As discussed in section 3.3.3 of the decision report, the batteries are partly crushed via the shredder to reduce the size of their casing. The shredder blades rotate at a low speed to minimise contact with acids and prevent splashback and mist. The shredder, however, does not heat the batteries and therefore these substances cannot be turned into vapour. It was therefore considered by DWER that there is no risk of air emissions resulting from the shredder.³

Condition 9 of the works approval requires the monitoring of negative pressure and H₂SO₄ mist from the mist eliminator inlet pipe. The monitoring locations are described in Table 3 of condition 9 and indicated on Schedule 1 maps.

³ DWER s106 Response to Appeal W6304/2019/1, page 5.

DWER advised that condition 9 is to monitor for potential emissions that may result from the commissioning of infrastructure and secondly, to provide data to determine if emissions from the ongoing operation of the infrastructure is likely to result in an environmental or public health risk. DWER advised that compliance with condition 9 will be assessed prior to it accepting an application for a licence to operate the infrastructure.

In relation to public health concerns, DWER noted that the health and safety of workers is managed under the *Occupational Safety and Health Act 1984*. DWER noted its discussion in section 4.2.5 of the decision report included methods to protect employees working on the premises during operations, including workers wearing personal air quality monitoring devices and advised that it considered this information in relation to monitoring activities occurring on the premises that may indicate failure of the system to be fully enclosed during operations.

In relation to the diesel generator, as noted in section 3.1 of the decision report, the 320 kW diesel generator is for the supply of emergency power for two stirrers in the event of a power outage. DWER advised that when operational, the diesel generator would consume approximately 9.6 L of diesel per hour and based on Western Power Reporting, estimated that power outages may occur for around four hours per year. All other power is supplied by connection to the Western Power electricity grid.

While DWER acknowledged that the warehouse design does not include an active ventilation system vent, it noted that the roller doors are only expected to be open infrequently for deliveries. While DWER acknowledged that an emission of diesel fumes outside via the roller door during a power failure could occur, it considered that the level of diesel emissions from a generator operating for approximately four hours per year would not result in a potential adverse impact to public health or the environment via exposure to diesel emissions.

Conclusion

Noting DWER's advice that there are no emissions or discharges to air from the reprocessing equipment, the purpose of condition 9 is to ensure that the mist eliminator pipe is effective and that the diesel generator is only to be used as an emergency power source, it is considered that DWER's assessment was justified and condition 9 is appropriate.

It is further noted that air emissions are operational issues and as such will be assessed through the licence application for the premises.

CONCLUSION AND RECOMMENDATION

Following consideration of the issues raised in the appeal, advice from DWER and the information provided by FTR, it is considered that DWER had regard for the matters raised on appeal and applied appropriate conditions to manage the identified environmental risks and impacts of the proposed works. It is therefore recommended that the appeal be dismissed.

Emma Gaunt
APPEALS CONVENOR

Investigating Officer:
Tonya Carter, Senior Appeals Officer