

# **Decision Report**

## **Application for Works Approval**

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

Works Approval Number W6701/2022/1

| Applicant<br>ACN | Tronox Management Pty Ltd<br>009 343 364   |
|------------------|--|
| File number      | DER2022/000181   |
| Premises         | Tronox Kwinana Pigment Plant<br>Lot 22 Mason Road Kwinana Beach, Western Australia                                   |
|                  | Legal description<br>Lot 22 on Plan 88339<br>As defined by the premises map attached to the issued<br>works approval |
| Date of report   | 19/09/2022   |
| Decision         | Works approval granted   |

Chris Malley Manager, Process Industries Regulatory Services an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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## 1. **Decision summary**

The decision report documents the assessment of potential risks to the environment and public health from emissions and discharges associated with the proposed upgrades to the scour sand system at the licensed (L5320/1988/14) Tronox Pigment Plant (pigment plant) on Mason Road in Kwinana. As a result of this assessment, works approval W6701/2022/1 has been granted.

## 2. Scope of assessment

#### 2.1 Regulatory framework

In completing the assessment documented in this report, the department has considered and given due regard to its regulatory framework and relevant policy documents which are available at <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

#### 2.2 Application summary and overview of premises

Tiwest Pty Ltd (applicant) is a subsidiary company of Tronox Management Pty Ltd and holds a licence for the Kwinana Pigment Plant at Lot 22 Mason Road, Kwinana Beach, WA (the premises), about 2.4 km west of the town of Medina within the Kwinana Industrial Area. The premises uses chloride process technology to produce pigment used by manufacturers of paint, coatings, and plastics.

The applicant lodged an application for a works approval under Division 3 Part V of the *Environmental Protection Act 1986* (EP Act) on 22 April 2022. The application relates to category 31 - chemical manufacturing under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations).

The applicant proposes to replace the existing scour sand system, including pollution control equipment. The applicant provided a summary of the pigment production process noting that currently scour sand is added in the oxidation step as an inert scouring material to ensure produced titanium oxide (TiO2) does not build up on the oxidiser and reactor tubes to enable the conversion of titanium tetrachloride (TiCl4) to TiO2 to continue. The applicant proposes to replace the existing scour sand system with a ceramic bead as scour sand is not ideal leading to high rates of equipment erosion, it flows poorly and breaks down rapidly.

Ceramic beads are more spherical and harder than sand, so expects the beads to scour better and are less abrasive, causing less wear on the oxidiser tubes and scour media conveying system.

The installation of the new scour ceramic bead system will involve modifications to the existing scour media recovery building, installation of a replacement dryer, screening, handling, recovery, pneumatic conveying, and baghouse system. Key changes to emission infrastructure are:

- removal of S308 baghouse and emission point to be replaced with S3044 baghouse with new emission point, to manage potential dust from the drying stage (this is considered as a like-for-like replacement of the existing scour media dryer system); and
- install a new baghouse and stack (S3047) and new associated air emission point, to improve the scour media transfer ventilation system. The applicant advised this new baghouse and emission points provides ventilation and extraction to meet required current health and safety conditions.

Plant construction will be within the existing footprint, with the bulk of fabrication occurring offsite. Decommissioning of the existing sand scour system and construction of the upgraded bead scour system is expected to take four months with environmental commissioning to follow.

Prior to the new equipment operating, equipment will be dry and partially wet commissioned. The various stages of commissioning include, construction verification, testing, pre (or dry) commissioning, process (or wet) commissioning, and plant performance assessment at the premises.

Key environmental commissioning will involve:

- testing of the monitoring instruments, pipework and pumps installed to convey the scour beads, and
- testing the bead system dust collector bag filters perform at a design standard of 25 mg/Nm<sup>3</sup>.

The applicant's view is that the scour bead system is an upgrade from the original scour sand system installed in 1990 and is not expected to increase to the nature or volume of waste, noise, odour, or electromagnetic radiation emitted from the premises. The replacement of sand with recyclable beads will reduce the volume of waste produced at the premises by over 8,000 tonnes per year.

### 2.3 Part IV of the EP Act

The applicant holds Ministerial Statement 452 (MS452) granted in 1997 under Part IV of the EP Act for a staged expansion of the Kwinana Pigment Plant up to 180,000 tpa. The delegated officer formed the view that the works approval application to replace to scour sand system did not relate to expansion project authorised by MS452. A decision to grant a works approval and any conditions on the works approval will not be contrary or inconsistent with the MS452 decision under Part IV of the EP Act.

## 3. Applicant's noise emissions assessment

The application made general statements that noise emissions will not change which led the department to request further information. Further noise information provided by the applicant noting that operational sources of noise for the proposed scour bead system are the exhaust fans for the baghouses and the two baghouses themselves.

The delegated officer considered the following in the applicant's information:

- The applicant has an internal specification for fans of 75dB(A) at 1m from the casing. Both fans have been selected to minimise noise;
- The S3044 exhaust fan will be situated within the existing scour system building and the S3047 exhaust fan external to the building;
- The applicant's justifications for no predicted noise increase relates to:
  - o supplied noise calculations from within the premises;
  - o a previous 2009 noise survey at the premises boundary;
  - the current scour system is not identified as a significant contributor to noise in previous studies; and
  - the expanded plant was included in the 2010 Kwinana Industrial Area Kwinana acoustic model updated in 2019. The applicant advised the 2019 noise predictions were not significantly different to 2010.

## 4. Applicant's air emissions assessment

The department requested the applicant to provide further information on air emissions. Further air emission information provided by the applicant indicated that the main sources of air emissions were from the proposed baghouses consisting of natural gas combustion products and particulates.

The delegated officer considered the following in applicant's further information:

- Bags filters installed in the two proposed baghouses (S3044 and S3047) have a design performance of 25 mg/Nm<sup>3</sup>.
- The new scour bead system and baghouse contained pollution control updated technologies.
- The air quality screening analysis (based on DWER Air Quality Guideline) for predicted emissions for S3044 and S3047 stacks in isolation.

- The applicant predicted that there would be no increase to the air emission profile from the premises for the replacement baghouse (S3044) and new baghouse (S3047) based on:
  - the updated technologies and pollution control equipment proposed for the scour bead system;
  - emission source characteristics for the proposed baghouse emissions for S3044 and S3047, were predicted using the synthetic rutile recovery plant (SRRP) dryer stack 2021 stack testing results, and
  - preventative maintenance and continuous monitoring process operating during baghouse operations.

## 5. 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.

#### 5.1 Source-pathways and receptors

#### 5.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and time limited operations 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.

| Emission                                   | Sources   | Potential pathways   | Proposed controls  |  |  |
|--|---|----------------------|--|--|--|
| Construction                               |   |                      |  |  |  |
| Noise/vibration                            | Installation of replacement dryer,  | Air /                | Bulk of fabrication taking place off site.   |  |  |
|  | screening, handling,<br>recovery, pneumatic<br>conveying, and<br>baghouse systems | windborne<br>pathway | Construction within existing plant footprint.  |  |  |
| Commissioning                              |   |                      |  |  |  |
| Air emissions -<br>particulates<br>and NOx | - Commissioning of<br>upgraded scour bead<br>system pathwa                        |                      | Stack testing at S3044 dryer baghouse and S3047 dust collector baghouse stacks within 3 months of commissioning.   |  |  |
|  |   |                      | S3044 stack will be tested for flow rate, temperature, velocity, moisture, CO <sub>2</sub> and O <sub>2</sub> , NO <sub>X</sub> , SO <sub>2</sub> , CO, and TPS. |  |  |
|  |   |                      | S3047 stack will be tested for temperature, velocity, moisture, and TPS.   |  |  |
|  |   |                      | S3047 stack will be built 11 mabgl.  |  |  |

| Emission                        | Sources   | Potential<br>pathways | Proposed controls   |
|---------------------------------|---|-----------------------|---|
|                                 |   |                       | S3044 stack will be replaced to 21 mabgl.   |
|                                 |   |                       | A port will be fitted to the S3047 and S3044 stacks to AS4323.1 to allow periodic sampling.   |
|                                 |   |                       | Bags filters installed in the baghouses have a design performance of 25 mg/Nm <sup>3</sup>  |
|                                 |   |                       | During operations if emission exceedances or<br>unplanned emissions and/or discharges occur the<br>feed will be reduced until satisfactory conditions are<br>reached. |
|                                 |   |                       | Incidents or community complaints will be managed under existing Tronox procedures.   |
| Noise                           |   |                       | Exhaust fans for two new baghouses have a sound power level of 75 dB at 1 m from the casing.  |
| Time limited op                 | perations   |                       |   |
| Air emissions -<br>particulates | Operation of upgraded scour bead system   | Air /<br>windborne    | Bags filters installed in the baghouses have a design performance of 25 mg/Nm <sup>3</sup>  |
| and NOx pathway                 | Incidents or community complaints will be managed under existing Tronox procedures. |                       |   |
|                                 | Baghouse operated and maintained as per manufactures specifications.                |                       |   |
|                                 |   |                       | Bag filters checked and replaced as per manufactures specifications.  |
|                                 |   |                       | Baghouse operating parameters continuously monitored by plant control system.   |
|                                 |   |                       | Baghouse has alarms to identify when non normal operating conditions occur, including broken bags.  |
|                                 |   |                       | S3047 stack will be built 11 mabgl.   |
|                                 |   |                       | S3044 stack will be replaced to 21 mabgl.   |
|                                 |   |                       | A port will be fitted to the S3047 and S3044 stacks to AS4323.1 to allow periodic sampling.   |
| Noise                           |   |                       | Exhaust fans for two new baghouses have a sound power level of 75 dB at 1 m from the casing.  |

#### 5.1.2 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 receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

#### Table 2: Sensitive human receptors and distance from prescribed activity

| Human receptors              | Distance from prescribed activity                                |  |  |  |
|------------------------------|--|--|--|--|
| Closest residential receptor |  |  |  |  |
| Medina                       | 2.4 km from eastern edge of the premises boundary                |  |  |  |
| East Rockingham              | 3.9 km from the south southwestern edge of the premises boundary |  |  |  |
| Industrial receptors         |  |  |  |  |
| BP Refinery Kwinana          | 50 m from the western edge of the premises boundary              |  |  |  |
| Premium Grain Holdings Pty   | 56 m from the eastern edge of the premises boundary'             |  |  |  |
| CSBP                         | 280 m from the southwest edge of the premises boundary           |  |  |  |
| Covalent Lithium Pty Ltd     | 770 m north from the eastern edge of the premises boundary       |  |  |  |
| Cleanaway Co Pty Ltd         | 220 m from the northern edge of the premises boundary            |  |  |  |

## 5.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and considers potential source-pathway and receptor linkages as identified in Section 5.1. 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 5.1), 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 works approval 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.

Works approval W6701/2022/1 that accompanies this decision report authorises construction, commissioning, and time limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence amendment is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. scour bead system and emission points. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

#### Table 3: Risk assessment of potential emissions and discharges from the premises during construction, commissioning, and time limited operation

| Risk events  |  |  |   |   | Risk rating <sup>1</sup>                        |                                      |   |   |
|--|--|--|---|---|---|--------------------------------------|---|---|
| Sources / activities   | Potential emission   | Potential<br>pathways and<br>impact                                  | Receptors   | Applicant controls  | C = consequence<br>L = likelihood               | Applicant<br>controls<br>sufficient? | Conditions <sup>2</sup> of works approval               | Justification for add   |
| Construction   |  |  |   |   |   |                                      |   |   |
| Installation of<br>replacement dryer,<br>screening,<br>handling,<br>recovery,<br>pneumatic<br>conveying, and<br>baghouse systems | Noise /<br>vibration   | Air/windborne<br>pathway causing<br>impacts to health<br>and amenity | Residential dwellings<br>approx. 2.4 km east<br>and 3.9 km south-<br>southwest of<br>prescribed premises<br>boundary. Industrial<br>premises 50 to 220 m<br>in all directions from<br>the premises<br>boundary. | Applicant will undertake bulk of<br>fabrication off-site, and<br>construction is within existing<br>plant footprint.<br>Refer to Section 5.1  | C = Slight<br>L = Unlikely<br>Low Risk          | Y                                    | No conditions   | The delegated officer has also considered the short-term separation in place to offsite residential receptors (2.4 km works will impact on off-site human receptors.  |
| Commissioning  |  |  | 1   |   |   |                                      | I   |   |
| Commissioning of<br>upgraded scour<br>bead system  | Gas emissions<br>including<br>particulates,<br>SO <sub>2</sub> and NO <sub>x</sub> | Air/windborne<br>pathway causing<br>impacts to health<br>and amenity | Residential dwellings<br>approx. 2.4 km east<br>and 3.9 km south-<br>southwest of<br>prescribed premises<br>boundary. Industrial<br>premises 50 to 220 m<br>in all directions from<br>the premises<br>boundary. | Applicant will undertake stack<br>testing of baghouse emissions<br>within 3 months of<br>commissioning. Bag filters<br>installed will have a design<br>performance of 25 mg/Nm <sup>3</sup> .<br>During commissioning if<br>baghouse emissions have<br>exceedances or unplanned<br>emissions the feed will be<br>reduced. Incidents and<br>community complaints will be<br>recorded. A new stack will be<br>built (to AS4323.1) to allow stack<br>testing of S3047 emissions.<br>Refer to Section 5.1 | C = Minor<br>L = Unlikely<br>Medium Risk        | Ν                                    | Condition1<br>Condition 5<br>Condition 6<br>Condition 7 | <ul> <li>While the applicant presented minimal information in the ordelegated officer considered that one baghouse and emist there is one new baghouse and point source. The isolate were negligible (&lt;3%) compared to the Kwinana EPP star guideline values. The delegated officer determined that if and emissions are validated against predictions, any char no expected changes to the premises air emissions risk p</li> <li>Conditions will be as follows:</li> <li>Construction <ul> <li>Bag filters installed in the baghouses have a determinental commissioning</li> <li>Stack on S3047 will be built 11 mabgl and fitted</li> <li>Stack on S3044 will be rebuilt to 21 mabgl and Environmental commissioning</li> <li>S3044 stack – Two sample events with one in the completion of the environmental commissioning moisture, CO<sub>2</sub> and O<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, and TPS</li> <li>S3047 stack - Frequency as per the S3044 start TSP.</li> <li>Baghouse monitoring system alarms must be in upon becoming aware of baghouse damage or The delegated officer notes that the commissioning require controls.</li> </ul> </li> </ul> |
|  | Noise  |  |   | Applicant will install exhaust fans<br>for two new baghouses with a<br>maximum sound power level of<br>73 dB at 1 m from the casing.  | C = Slight<br>L = Unlikely<br>Low Risk          | Y                                    | Condition 1   | The delegated officer considered the distance to receptor<br>controls including maximum exhaust fan sound power lev<br>The applicant's controls were assessed and were conside<br>impacting on sensitive receptors. The delegated officer ap<br>and considered that it was critical for maintaining an acce<br>minimise noise emissions.<br>The applicant's control to be conditioned is:<br><u>Construction</u><br>Exhaust fans for two new baghouses have a sound power   |
| Time limited operat  | ions   | 1  |   | 1   |   |                                      |   |   |
| Operations of<br>upgraded scour<br>bead system   | Gas emissions<br>including<br>particulates,<br>SO <sub>2</sub> and NO <sub>x</sub> | Air/windborne<br>pathway causing<br>impacts to health<br>and amenity | Residential dwellings<br>approx. 2.4 km east<br>and 3.9 km south-<br>southwest of<br>prescribed premises  | Applicant will install the<br>baghouse with a design<br>performance of 25 mg/Nm <sup>3</sup> .<br>Operation of baghouse to<br>manufactures specifications.  | C = Minor<br>L = Unlikely<br><b>Medium Risk</b> | Y                                    | Condition1<br>Condition 5<br>Condition 6                | As per reasoning and outcomes for environmental commi   |

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| ditional regulatory controls | ditional | l regula | atory o | controls |
|------------------------------|----------|----------|---------|----------|
|------------------------------|----------|----------|---------|----------|

| m nature of the works that will occur and that there is sufficient |
|--|
| m) and does not reasonably foresee that noise from construction    |

the context of cumulative site wide emission contribution, the emission point is a replacement with improved technology, and plated conservative screening predictions for these two sources e standards and draft *Guideline: Air Emissions* recommended hat if the applicant installs pollution control equipment as proposed, changes to cumulative emission are likely to be marginal. There is isk profile.

- a design performance of 25 mg/Nm<sup>3</sup>.
- itted with a port to AS4323.1
- and fitted with a port to AS4323.1

| n the first m | onth of commissioning and a second prior to the     |    |
|---------------|---|----|
| ng period.    | Parameters include flow rate, temperature, velocity | y, |
| PS.           |   |    |

- stack. Parameters include temperature, velocity, moisture, and
- be investigated as soon as possible, and feed reduced or ceased e or malfunction such as a broken bag.
- quirements are generally consistent with the applicant's proposed

ptors (50 m industrial and 2.4 km residential) the works approval level and assessed the risk as low.

isidered acceptable to mitigate the risk of noise emissions er applied the applicants controls for infrastructure requirements acceptable level of risk as a condition within the works approval to

ower level of 75 dB at 1 m from the casing.

nmissioning.

| Risk events             |                    |                                     |   |  | Risk rating <sup>1</sup>               | Annlinent                            |  |   |
|-------------------------|--------------------|-------------------------------------|---|--|--|--------------------------------------|--|---|
| Sources /<br>activities | Potential emission | Potential<br>pathways and<br>impact | Receptors   | Applicant controls   | C = consequence<br>L = likelihood      | Applicant<br>controls<br>sufficient? | Conditions <sup>2</sup> of<br>works approval | Justification for add   |
|                         |                    |                                     | boundary. Industrial<br>premises 50 to 220 m<br>in all directions from<br>the premises<br>boundary. | Alarms maintained and<br>baghouse conditions<br>continuously monitored.<br>Refer to Section 5.1                                      |  |                                      | Condition14<br>Condition 15                  |   |
|                         | Noise              |                                     |   | Applicant will install exhaust fans<br>for two new baghouses with a<br>maximum sound power level of<br>73 dB at 1 m from the casing. | C = Slight<br>L = Unlikely<br>Low Risk | Y                                    | Condition 1                                  | The delegated officer considered the applicants informati<br>considered that changes to the existing noise emission p<br>be negligible and were risk assessed as low with the app |

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 the department. The remaining conditions are reporting requirements.

dditional regulatory controls

nation including noise sources and controls. The delegated officer n profile from the upgraded scour bead system were expected to applicants controls for construction being implemented.

## 6. Consultation

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

#### Table 4: Consultation

| Consultation method  | Comments received   | Department response  |
|--|---|--|
| Application advertised on<br>the department's website<br>on 25 July 2022 | No submissions were received.   | N/A  |
| City of Kwinana was<br>advised of proposal on<br>22 July 2022            | The City of Kwinana<br>replied on 10 August 2022<br>confirming that no planning<br>approvals were required.<br>The city requested that the<br>following are forwarded to<br>the City, a monitoring<br>report demonstrating<br>effective and responsible<br>management of<br>contaminants and emission<br>complaints contact details<br>are forwarded to the City. | The delegated officer notes there are likely to be<br>freedom of information obligations that prevent it<br>providing this type of information ad-hoc. However,<br>the department notes that it will continue to notify the<br>City of Kwinana of applications and decisions as a<br>direct interest stakeholder. The applicant will be<br>required to submit a licence amendment application<br>when it completes environmental commissioning.<br>The department will consider monitoring data from<br>commissioning in its licence amendment assessment,<br>the decision of which will be published. The<br>delegated officer notes that there is also the option<br>that Tronox can opt to provide requested information<br>to the City on request or authorise the department in<br>writing to release this information at its discretion. |
| Applicant provided with<br>draft decision for<br>comment                 | The applicant provided comments on the 7 September.   | Applicant's comments and the delegated officer's consideration is summarised in Appendix 1.  |

## 7. Decisions

The delegated officer has completed an assessment of the application and determined to grant a works approval. The works approval will be subject to conditions consistent with the risk assessment outcomes and generally reflect the applicant's proposed controls that were considered reasonable and adequate to manage the risk of unacceptable impacts.

The delegated officer's decision considered the following:

- the replacement scour system is not expected to change the profile of noise emissions from the premises, considering proposed design aspects.
- while the cumulative impact on site wide emissions was not quantified by the applicant, the assessment indicated that the emission from the changes (i.e. one replacement baghouse and one new baghouse with associated emission points) were likely to be low risk and have negligible impact on the overall risk profile of emissions to air.
- conditions can be included on a works approval to ensure the works are constructed and designed as proposed, and emissions are verified.
- the nature of the proposed works being a replacement of an existing system with a new system.

At the conclusion of environmental commissioning and transition to time limited operations, the applicant will need to apply to amend its existing licence. The delegated officer will consider monitoring results and the licence amendment application, however, expects that amended licence conditions will be consistent with time limited operation phase conditions on the works approval.

## 8. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determining controls and necessary for administration and reporting requirements.

## 9. 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.
- 4. Tiwest Pty Ltd, 2011, *Kwinana Pigment Plant Licence L5320/1988/14*, Perth, Western Australia.
- 5. Tronox Management Pty Ltd 2022, *Application and supporting documents*, 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  |  |  |  |  |
|--|---|--|--|--|--|--|
| Decision report                                |   |  |  |  |  |  |
| Section 2.2                                    | Tronox clarified that the proponent Tiwest Joint<br>Venture has been withdrawn, as notified to the<br>Environmental Protection Authority in 2017 for<br>MS452.  | Decision Report updated.   |  |  |  |  |
| Works Approval                                 |   |  |  |  |  |  |
| Condition7, Table<br>4                         | Change SO <sub>2</sub> from USEPA 8 to USEPA 6C. The latter method uses a multi gas analyser to test SO <sub>2</sub> and may be done in conjunction with NOx, CO and O <sub>2</sub> .   | The applicant requested a number of<br>changes and corrections related to point<br>source air emission monitoring<br>requirements. The delegated officer<br>noted that the requests were informed<br>by advice from a third party specialist<br>stack testing consultant to the applicant.         |  |  |  |  |
| Condition 7, Table                             | Change the averaging periods to 1 hour.   | Change accepted.<br>Acknowledged to be an error and<br>corrected.  |  |  |  |  |
| Condition 6 Table<br>3, Condition 7<br>Table 4 | Change TPS to PM  | No objection to the update, change accepted.   |  |  |  |  |
| Condition 7 Table<br>4                         | Change for PM from USEPA 5 to USEPA 17.<br>The latter method is more compatible to the<br>gas stream and sampling location without<br>comprising sample accuracy.   | Change accepted.   |  |  |  |  |
| Conditions 1, 2, 3, 4, 5, 7, 10, and 11        | Alllow for two separate stages for construction<br>commissioning and TLO of the two baghouses.<br>No changes to emissions will result from the<br>staged construction, commissioning and TLO.   | Delegated officer agreed that the<br>requested change does not alter the<br>assessed risk profile of emissions and<br>discharges. Works approval transitional<br>conditions updated to allow two phase<br>completion of works and associated<br>transition to commissioning and TLO.               |  |  |  |  |
| Condition 1 Table<br>1                         | Change exhaust fans with a maximum sound<br>power level of 73 dB at 1 metre from the casing<br>to 75 dB. This be consistent with internal<br>specifications and there will be no material<br>change in noise emissions or risks receptors<br>from the change. | Operational noise emissions were<br>assessed to be low risk. Taking into<br>account the noise assessment<br>outcomes, the delegated officer<br>accepted the change on the basis that it<br>was not expected to have meaningful<br>impact on the noise emissions profile or<br>assessment outcomes. |  |  |  |  |

## Appendix 2: Application validation summary

| SECTION 1: APPLICATION SUMMARY   |   |  |   |   |  |  |  |
|--|---|--|---|---|--|--|--|
| Application type   |   |  |   |   |  |  |  |
| Works approval   |   |  |   |   |  |  |  |
| Date application received  |   | 22/04/2022   |   |   |  |  |  |
| Applicant and Premises details   |   |  |   |   |  |  |  |
| Applicant name/s (full legal name/s)   |   | Tronox Management Pty Ltd  |   |   |  |  |  |
| Premises name  |   | Tronox Kwinana Pigment Plant   |   |   |  |  |  |
| Premises location  |   | Lot 22 Mason Road  |   |   |  |  |  |
| Local Government Authority   |   | City of Kwinana  |   |   |  |  |  |
| Application documents  |   |  |   |   |  |  |  |
| HPCM file reference number:  |   | DER2016/000329-1~5   |   |   |  |  |  |
| Key application documents (additional to application form):  |   | Environmental Commissioning Plan<br>Works Approval Supporting Document |   |   |  |  |  |
| Scope of application/assessment  |   |  |   |   |  |  |  |
| Summary of proposed activities or change existing operations.  | Installation and replacement of pollution control equipment involving changes to licenced infrastructure emission points. |  |   |   |  |  |  |
|  |   | sessed production or design<br>bacity                                  |   | Proposed changes to the<br>production or design capacity<br>(amendments only) |  |  |  |
|  |   |  | -   |   |  |  |  |
| Category 31: Chemical Manufacturing  |   |  | _   | N/A   |  |  |  |
| Category 60: Incineration  |   |  |   | N/A   |  |  |  |
| Category 61: Liquid Waste Facility   |   |  |   | N/A   |  |  |  |
| Category 67: Fuel Burning  |   |  |   | N/A   |  |  |  |
| Legislative context and other approvals  | 6   |  |   |   |  |  |  |
| Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal? |   | Yes □ No ⊠   | Referral decision No:<br>Managed under Part V □<br>Assessed under Part IV □ |   |  |  |  |
| Does the applicant hold any existing Part IV<br>Ministerial Statements relevant to the<br>application?                                   |   | Yes 🛛 No 🗆   | Ministerial statement No: 452<br>EPA Report No:                             |   |  |  |  |
| Has the proposal been referred and/or assessed under the EPBC Act?   |   | Yes 🗆 No 🖂   | Reference No:   |   |  |  |  |
| Has the applicant demonstrated occupancy (proof of occupier status)?   |   | Yes 🛛 No 🗆   | Ce  | Certificate of title ⊠  |  |  |  |

| Has the applicant obtained all relevant planning approvals?  | Yes 🗆 No 🗆 N/A 🛛 | Planning approvals not required.   |  |
|--|------------------|--|--|
| Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?  | Yes 🗆 No 🖂       | No clearing is proposed.   |  |
| Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?  | Yes 🗆 No 🛛       | Licence / permit not required.   |  |
| Does the proposal involve a discharge of waste<br>into a designated area (as defined in section 57<br>of the EP Act)?  | Yes 🗆 No 🛛       | Name: N/A  |  |
| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?   | Yes 🗆 No 🛛       | Name: N/A  |  |
| Is the Premises subject to any other Acts or   |                  | Dangerous Goods Safety Act 2004  |  |
| subsidiary regulations (e.g. Dangerous Goods<br>Safety Act 2004, Environmental Protection<br>(Controlled Waste) Regulations 2004, State<br>Agreement Act xxxx) |                  | Environmental Protection (Controlled Waste) Regulations 2004                                 |  |
|  | Yes 🛛 No 🗆       | Environmental Protection (Kwinana)<br>(Atmospheric Wastes) Regulations<br>1992               |  |
|  |                  | Environmental Protection (Noise)<br>Regulations 1997   |  |
|  |                  | State Environmental (Cockburn Sound)<br>Policy 2015  |  |
| Is the Premises within an Environmental<br>Protection Policy (EPP) Area?   | Yes 🛛 No 🗆       | Environmental Protection (Kwinana)<br>(Atmospheric Wastes) Policy 1999 –<br>Area A           |  |
| Is the Premises subject to any EPP requirements?   | Yes 🛛 No 🗆       | Site is subject to TSP requirements of Kwinana EPP.  |  |
| Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?  | Yes 🛛 No 🗆       | Classification: Contaminated –<br>remediation required<br>Date of classification: 24/07/2008 |  |