



<b>Works Approval Number</b>	W6198/2018/1
<b>Works Approval Holder</b>	Denaya Nominees Pty Ltd
<b>ACN</b>	109765219
<b>Registered business address</b>	DG Business Services Pty Ltd Suite 11, 2 Hardy St SOUTH PERTH WA 6151
<b>File Number</b>	DER2018/001566
<b>Duration</b>	06/05/2019 to 05/05/2020
<b>Date of issue</b>	6 May 2019
<b>Prescribed Premises</b>	Category 13: Crushing of building material
<b>Premises</b>	Hamilton Hill Senior High School  8 Purvis Street Hamilton Hill WA 6163  Legal description - Lot 850 on Deposited Plan 404605 Certificate of Title Volume 2941 Folio 241

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 6 May 2019, by:

**A/MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES**

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

## Explanatory notes

These explanatory notes do not form part of this Works Approval.

### Defined terms

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Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

### Department of Water and Environmental Regulation

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The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

### Works Approval

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Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

### Responsibilities of Works Approval Holder

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Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and

- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

### Reporting of incidents

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The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

### Offences and defences

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The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

### Authorised Emissions and Discharges

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The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

### Amendment of Works Approval

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The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative

of the CEO without an application being made.

#### [Duration of Works Approval](#)

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The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

#### [Suspension or revocation](#)

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The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

# Definitions and interpretation

## Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
ACM	means Asbestos containing material and has the meaning defined in the <i>Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia</i> (DOH, 2009)
Asbestos	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those.
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6027 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.
Damp	Means moist to touch.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
DER Asbestos Guidelines	means the document titled "Guidelines for managing asbestos at construction and demolition waste recycling facilities", published by the Department of Environment and Conservation, as amended from time to time.
Discharge	has the same meaning given to that term under the EP Act.

DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997</i> (WA)
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Stockpile	means a stockpile of material that has been processed or is intended to be processed by the crushing and screening plant on the Premises.
Stockpile Base	refers to the toe of a stockpile, being the furthest point at the base of the stockpile that the material extends to.
Time Limited Operation of Primary Activities	refers to the limited operation of the Primary Activities described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to Condition 5 to Condition 26 (inclusive).
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works	

Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.54 of the EP Act, subject to the Conditions.
Works Approval Holder	refers to the occupier of the Premises being the person to whom this Works Approval has been granted, as specified at the front of this Works Approval.

## Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a Condition, each row in a table constitutes a separate Condition;
- (d) any reference to an Australian or other standard, guideline or code of practice in this Works Approval means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

## Conditions

### Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
  - (a) specified in Column 1;
  - (b) to the requirements specified in Column 2; and
  - (c) at the location specified in Column 3 of Table 2 below.
2. The Works Approval Holder must not depart from the requirements specified in Column 2 of Table 2 except:
  - (a) where such departure does not increase risks to public health, public amenity or the environment; and
  - (b) all other Conditions in this Works Approval are still satisfied.
3. Subject to Condition 1, within 14 days of the completion of the Works specified in Column 1 of Table 2, the Works Approval Holder must provide to the CEO a report confirming each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 below has been constructed or installed with no material defects and to the requirements specified in Column 2 of Table 2 and at the location specified in Column 3 of Table 2.
4. Where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 2(b).

**Table 2: Infrastructure and equipment requirements table**

Column 1	Column 2	Column 3
Infrastructure/Equipment	Installation requirements	Location
Kleeman EVO 110 mobile crushing and screening plant	Includes: <ol style="list-style-type: none"><li>a) misting water sprays at mouth of plant;</li><li>b) dribble bar on the plant conveyor between crusher and screen; and</li><li>c) spray nozzles fitted to plant discharge belt.</li></ol>	Crusher location as shown in site layout map in Schedule 1
Front end loaders	N/A	N/A
Excavator	N/A	N/A
Sprinklers for stockpiled product	Capable of wetting Stockpiles of demolition material	N/A
Water tanker	Capable of wetting trafficked areas and Stockpiles of demolition material	N/A



Column 1	Column 2	Column 3
Infrastructure/Equipment	Installation requirements	Location
Shipping containers to act as noise barriers	Double height installation (having a total height of 4.2m)	Shipping containers location as shown in site layout map in Schedule 1
4x portable asbestos fibre monitors	Must be able to collect a sample in accordance with the <i>Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition, [National Occupational Health and Safety Commission (NOHSC): 3003(2005)]</i> .	Positioned variably: monitors will be placed on the basis of professional judgement taking account of daily wind directions and with regards to nearby sensitive receptors.

### Time limited operation

5. The Works Approval Holder may undertake Time Limited Operation of Primary Activities from the date of submission of the report required by Condition 3, for a maximum period of 90 calendar days.
6. The Works Approval Holder must ensure that during Time Limited Operation of Primary Activities, that the infrastructure and equipment specified in Column 1 of Table 3 is maintained in good working order and operated in accordance with the requirements specified in Column 2 of Table 3 and at the location specified in Column 3 of Table 3.

**Table 3: Time limited operations infrastructure and equipment requirements table**

Column 1	Column 2	Column 3
Infrastructure/Equipment	Operational requirement	Location
Kleeman EVO 110 mobile crushing and screening plant	The following equipment must be operating when the plant is operating: <ol style="list-style-type: none"> <li>a) misting water sprays at mouth of plant;</li> <li>b) dribble bar on the plant conveyor between crusher and screen; and</li> <li>c) spray nozzles fitted to plant discharge belt.</li> </ol>	Crusher location as shown in site layout map in Schedule 1
Front end loaders	N/A	N/A
Excavator	N/A	N/A
Sprinklers for stockpiled product	N/A	N/A
Water tanker	N/A	N/A

Column 1	Column 2	Column 3
Infrastructure/ Equipment	Operational requirement	Location
Shipping containers to act as noise barriers	N/A	Shipping containers location as shown in site layout map in Schedule 1
4x portable asbestos fibre monitors	N/A	Positioned variably: monitors will be placed on the basis of professional judgement taking account of daily wind directions and with regards to nearby sensitive receptors.

#### Waste Acceptance and Processing

7. The Works Approval Holder must not accept waste from outside the Premises.
8. The Works Approval Holder must ensure that material to be crushed or relocated is Damp at the time of crushing or relocation.
9. The Works Approval Holder must ensure that all Stockpiles:
  - (a) do not exceed 3.5 metres in height from the Stockpile Base; and
  - (b) are maintained in a damp state or otherwise covered to prevent dust lift off.
10. The Works Approval Holder must ensure that unsealed access areas within the Premises are maintained in a Damp state.
11. The Works Approval Holder must ensure that vehicles do not exceed a speed of 10 kilometers per hour within the Premises.
12. The Works Approval Holder must ensure that no visible dust generated from the Time Limited Operation of Primary Activities crosses the boundary of the premises.
13. The Works Approval Holder must ensure that Time Limited Operation of Primary Activities only occurs between the hours of 7:00 to 17:00 from Monday to Saturday.
14. The Works Approval Holder must ensure that all stormwater runoff generated or entering the Premises is contained within the Premises.
15. The Works Approval Holder must ensure that Asbestos and ACM are not crushed or screened with the Premises.
16. The Works Approval Holder must visually inspect all waste intended to be crushed or screened prior to crushing or screening of that waste and where the visual inspection identifies Asbestos or ACM, the waste must be handled in accordance with the procedure set out in Attachment 1.
17. The Works Approval Holder must continue to visually inspect waste on the Premises at all stages of the storage, sorting and crushing process. Suspected Asbestos or ACM identified at any stage of the process must be handled in accordance with the procedure set out in Attachment 1 and records maintained in accordance with Condition 22.
18. The Works Approval Holder must ensure that:
  - (a) material intended to be crushed or screened on the Premises is maintained in at least three separate Stockpile areas for unprocessed waste, waste tested for Asbestos or ACM and processed waste awaiting testing for Asbestos or ACM;

- (b) waste tested for Asbestos or ACM and waste awaiting testing for Asbestos or ACM are clearly separated by a minimum three metre distance from the toe of the Stockpile; and
  - (c) clearly visible and legible signage is erected on individual Stockpiles to clearly identify and delineate tested waste, untested waste and unprocessed waste.
19. The Works Approval Holder must ensure that testing of all processed waste is undertaken in accordance with the Product testing procedures specified in Attachment 2.
20. The Works Approval Holder must, upon receiving a complaint about noise emissions from the Premises, ensure that a person competent in environmental noise assessment undertakes noise monitoring at the premises of the complainant as soon as possible to assess whether noise emissions from the Time Limited Operation of Primary Activities comply with the Noise Regulations.

## Emissions

21. The Works Approval Holder must not cause any Emissions from the Works or Time Limited Operation of Primary Activities authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 4, subject to the exclusions, limitations or requirements specified in Column 2, of Table 4.

**Table 4: Authorised Emissions table**

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
<b>Specified Emissions</b>	
N/A	N/A
<b>General Emissions (excluding Specified Emissions)</b>	
Emissions which arise from undertaking the Works and Time Limited Operation of Primary Activities set out in Schedule 2.	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> <li>• Unreasonable Emissions; or</li> <li>• Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or</li> <li>• Discharges of Waste in circumstances likely to cause Pollution; or</li> <li>• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or</li> <li>• Emissions or Discharges which do not comply with an Approved Policy; or</li> <li>• Emissions or Discharges which do not comply with prescribed standard; or</li> </ul>

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
	<ul style="list-style-type: none"> <li>Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> <li>Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the Environmental Protection (<i>Unauthorised Discharges</i>) Regulations 2004.</li> </ul>

## Record-keeping

22. The Works Approval Holder must maintain accurate and auditable records of all waste that have been inspected and suspected or found to contain Asbestos. Those records must show the actions taken by the Works Approval Holder in response to suspected or identified Asbestos
23. The Licence Holder must maintain accurate and auditable records of all Asbestos testing undertaken in accordance with Condition 19. These records must include:
  - (a) details of sample size;
  - (b) a statement of limit of detection of the analysis;
  - (c) results in relation to Asbestos detected (positive result exceeding the 0.001% w/w limit) or not;
  - (d) description of any Asbestos detected; and
  - (e) an estimate of the concentration of Asbestos detected if practical to do so.
24. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and Time Limited Operation of Primary Activities and the Books must:
  - (a) be legible;
  - (b) if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) be retained for at least 3 years from the date the Books were made;
  - (d) be available to be produced to an Inspector or the CEO.
25. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.
26. The Works Approval Holder must record the following information in relation to complaints received by the Works Approval Holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;

- (c) the complete details of the complaint and any other concerns or other issues raised; and
- (d) the complete details and dates of any action taken by the Works Approval Holder to investigate or respond to any complaint.



## Schedule 1: Maps

### Premises map

The Premises boundary is shown by the red line in the map below.





## Site layout map

The location of the crushing and screening plant and sea containers is shown in the map below

(Excerpt from *Hamilton Hill High School Demolition Site Crushing Works Acoustic Assessment*, Herring Storer Acoustics, January 2019)



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## Schedule 2:

### Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 5 were considered in the determination of the risk and related Conditions for the Works Approval.

**Table 5: Authorised Works**

Works	Specifications/Drawings
Installation of Kleeman EVO 110 Mobile Crushing and screening plant	Layout as per site layout map in Schedule 1
Installation of sea containers to act as noise barriers	
Front end loaders	N/A
Excavator	
Sprinklers for stockpiled product	
Water tanker	
4x portable asbestos fibre monitors	

### Primary Activities

At the time of assessment, Emissions and Discharges from the following Primary Activities were considered in the determination of the risk and related Conditions for the Premises.

The Primary Activities are listed in Table 6:

**Table 6: Primary Activities**

Primary Activity		Premises production or design capacity
Site specific description	Prescribed Premises category	
<p>Crush and screen up to 10,000 tonnes of waste sourced from the demolition of the Hamilton Hill High School which is located within the Premises.</p> <p>The crushing and screening process involves the following:</p> <ul style="list-style-type: none"> <li>Material to be processed will be stockpiled adjacent to the mobile crushing and screening plant. These materials will be concrete, bricks, rock, rubble, masonry</li> </ul>	Category 13 – Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	10,000 tonnes per annum



<p>materials and soil.</p> <ul style="list-style-type: none"> <li>• Material will be fed through the mobile crushing and screening plant.</li> <li>• Any ferrous materials in the waste stream being crushed will be removed with the use of an electromagnet fitted to a conveyor belt.</li> <li>• Ferrous materials will be stored in a skip bin pending recycling off-site.</li> <li>• Crushed material will be screened and the oversize material will be re-circulated by the integrated screen for further crushing.</li> </ul>		
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## Infrastructure and equipment

The Primary Activity infrastructure and equipment situated on the Premises is listed in Table 7.

**Table 7: Infrastructure and equipment**

Infrastructure and equipment	Location
Kleeman EVO 110 mobile crushing and screening plant	Crusher location as shown in site layout map in Schedule 1
Front end loaders	N/A
Excavator	N/A
Sprinklers for stockpiled product	N/A
Water tanker	N/A
Shipping containers to act as noise barriers	Shipping containers location as shown in site layout map in Schedule 1
4x portable asbestos fibre monitors	Positioned variably: monitors will be placed on the basis of professional judgement taking account of daily wind directions and with regards to nearby sensitive receptors.

## Attachment 1 –Asbestos and ACM Procedure

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- If Asbestos is suspected or detected, the stockpile (or impacted material) must be isolated, kept wet and once appropriately contained in accordance with the Environmental Protection (Controlled Waste) Regulations 2004, and redirected to an appropriately authorised disposal facility.
- Where suspect ACM is identified within a stockpile and is not capable of being easily removed by hand, the stockpile must be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Attachment 3, and redirected to an appropriately authorised disposal facility.
- Where suspected ACM fragments capable of being easily removed by hand are identified in a load, the suspect ACM must be removed from the stockpile and either:
  1. Appropriately isolated and covered for asbestos testing. If testing of representative samples confirms the material is ACM it must be redirected to an appropriately authorised disposal facility. If testing confirms the material is not ACM the Waste can be added to the stockpile awaiting further processing; or
  2. Assumed to be ACM and redirected to an appropriately authorised disposal facility.
- All suspected or assumed ACM must be segregated. Material must be clearly labelled, kept secure and sufficiently contained to prevent the release of Asbestos including wind-blown fibres.
- Once all suspected or assumed ACM has been removed from a stockpile in line with the above procedure, the residual waste can be added to the stockpile waiting further processing.

*(Derived from Section 4.3 of the DER Asbestos Guidelines, page 12)*

## Attachment 2 – Asbestos Monitoring and Testing

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### Product testing and supply

The testing procedures detailed in this attachment have application to the three main recycled Products:

1. Recycled drainage rock 20-27mm;
2. Recycled sand, screened to <10mm; and
3. Recycled road-base, <19mm.

### Stockpile inspection and sampling

- No sampling is required for recycled drainage rock, other than to determine by laboratory analysis whether a suspect fragment is Asbestos.
- For recycled road-base and screened sand, sampling is necessary and must be spread evenly over the whole stockpile surface or samples may be taken at regular intervals (as per conveyor sampling) during construction of the stockpile. Suspect ACM or areas must be targeted for sampling.
- Sampling of road base and screened sand Products must occur at a minimum rate of 40 locations per 4000 tonnes or 14 samples per 1000m<sup>3</sup> of Product.

### Conveyor sampling

- Sampling of road base and screened sand Products must occur at a minimum rate of 1 sample per 70m<sup>3</sup> of a Product output. Suspect ACM or areas must be targeted for sampling.

### Reduced sampling criteria

Once premises have demonstrated that their procedures are able to consistently produce recycled product that meets the product specification and undertake their activities to a high standard, DER may authorise a reduced product testing rate including down to 5 locations per 4000 tonnes (1 sample per 600m<sup>3</sup>) of product.

### Sample treatment

- Each sample collected must be at least 10 litres in volume and then be divided into 2 size fractions (>7mm and <7mm) in the field by sieving through a 7mm screen or spread out for inspection on a contrasting colour fabric. The >7mm fraction should be examined for any suspect ACM and this be retained to calculate the level of contamination.
- The <7mm fraction will need to be a minimum 500 ml, be wetted, and submitted for laboratory analysis. This sample size is considered necessary to improve the limit of detection for Asbestos in the analysis procedure.

## Sample analysis method

- **>7mm sample fractions –**
  - Asbestos concentrations (ACM and Asbestos) should be calculated in accordance with the methods detailed in section 4.1.7 of Department of Health (DoH), 2009, Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia. Averaging Asbestos levels across the stockpile is not appropriate and Asbestos levels within each sample should be reported.
- **<7mm sample fractions**
  - Each <7mm sample fraction must be analysed for Asbestos and ACM.
  - Asbestos analysis must be undertaken by an independent NATA certified laboratory and comply with *Australian Standard Method for the Qualitative Identification of asbestos in bulk samples* (AS4964-2004) or be demonstrated to be able to achieve the equivalent level of results to this Australian Standard.

AS4964-2004 is currently the only method in Australia that has NATA certification; however the practicable level of detection for this standard polarized light microscopy method (PLM) and dispersion staining (DS) is 0.01%w/w. It is possible however, to measure Asbestos contamination at or lower than 0.001% w/w where an increased sample size is used, however DER recognises that any reporting of concentrations below 0.01%w/w will be outside the conditions set by NATA.

Therefore, to determine whether recycled Products meet the product specifications for Asbestos content, samples must be a minimum of 500mL in size. Proponents must adopt one of the following analytical approaches:

1. Detected/non-detected – where any quantity of Asbestos is detected by the PLM method it must be assumed, without further analysis, to be in concentrations above the product specification limit of 0.001%w/w. A weight of evidence approach may be adopted i.e. the frequency and occurrence of other positive results in the stockpile can be taken into account to determine whether the stockpile being assessed is considered to meet the product specification or not; or
2. Where any quantity of Asbestos is detected by the PLM method, the sample is subject to further testing in the form of a semi-quantitative method with a lower level of detection for Asbestos. Either of the following methods are considered acceptable by DER:
  - The extraction and weighing of fibre bundles or fibre cement material from the total sample; and
  - Measuring the width and length (i.e. volume) of individual fibre by Phase Contrast Microscopy (PCM) and calculating the weight of fibres in the extracted sub-sample.

### Interpreting inspection and sampling results

- If the visual inspection, sieve sample or analytical results identify Asbestos above or possible above the 0.001%w/w criteria, then that stockpile or product process should be deemed potentially contaminated and considered for off-site disposal as Asbestos Waste, or subject to further actions to remediate it or to demonstrate its acceptability by further assessment. A record should be made of the decision-making and action taken (e.g. off-site disposal, further assessment undertaken etc.) in relation to that stockpile.
- In addition to the above, where Asbestos is identified above or possibly above the 0.001%w/w criteria, an investigation into the likely cause for the presence of Asbestos in the product should be undertaken and measures implemented to prevent a reoccurrence. A record of the investigation and its findings together with the details of any preventative measures implemented at the site should be made.

*(Derived from Section 4.3 of the DER Asbestos Guidelines, pages 15 - 20)*

## Attachment 3 – Asbestos Factsheet

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### Appendix A: Asbestos Factsheet

#### TRANSPORTATION AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL

The transportation and disposal of asbestos-containing material from commercial, industrial and other activities is regulated by the Environmental Protection (Controlled Waste) Regulations 2004 (Regulations). The Regulations apply obligations on the waste transporter to ensure the waste is safely transported to an approved location.

The Regulations define what is considered to be asbestos containing material for the purposes of the Regulations. This definition includes material which contains 0.001% or more of asbestos fibres weight/weight.

Please note that removal, handling, signage, security and onsite packaging of asbestos contaminated material must be carried out in accordance with the Local Government Authority, Department of Health and WorkSafe requirements. Contact the relevant authority for further information (refer to the end of this factsheet).

#### TRANSPORTATION OF ASBESTOS-CONTAINING MATERIAL (ACM)

The Regulations require asbestos containing material to be:

1. Separated from other material for disposal where that is reasonably practicable;
2. Wrapped and contained in a manner that prevents asbestos fibres entering the atmosphere during transportation on a road; and
3. Labelled or marked with the words "CAUTION ASBESTOS" in letters no less than 50 millimetres high on the individual packages and the transport container.

Further guidance on the transportation of asbestos containing materials is set out in the Code of Practice for the Safe Removal of Asbestos 2<sup>nd</sup> Edition [NOHSC:2002(2005)] and the *Health (Asbestos) Regulations (1992 or as amended)*. This Code of Practice recommends that:

- ACM is sealed in heavy duty 200 µm (minimum thickness) polythene plastic and clearly labelled with the appropriate signage warning.
- All drums or bins used to store and dispose of ACM should be in good condition, with lids and rims in good working order. The drums or bins should be lined with polythene plastic (200 µm minimum thickness) and be clearly labelled.
- If a waste skip bin, vehicle tray or similar container is used, the ACM should be double bagged before being placed in to the container or sealed in double-lined, polythene plastic (200 µm minimum thickness), and be clearly labelled. In the case of bulk loads such as contaminated soil an alternative is to double line the vehicle tray with the polythene and completely cover the load with a close fitting durable material such as the double layered polythene or a tarpaulin.



- In the case of ACM in the form of contaminated soil, it needs to be wetted down prior to removal and loading onto vehicle or bin.

#### DISPOSAL OF MATERIAL CONTAINING ASBESTOS

All material containing asbestos must be disposed at a disposal site appropriately licensed or registered under *Part V* of the *Environmental Protection Act 1986* to accept asbestos waste.

A person who disposes of material containing asbestos other than at a licensed disposal site commits an offence.

Receipts for the disposal of ACM should be retained or passed on to the disposal client to assist any subsequent regulatory investigation.

#### DUTY TO NOTIFY OTHERS OF THE PRESENCE OF ASBESTOS

A person who takes material containing asbestos to a disposal site **MUST** inform the operator of the facility that the material is, or contains asbestos waste. This notification should be provided in a written form however where notification is verbally provided the disposal site should make a written record of the notification.

#### PENALTIES FOR NON-COMPLIANCE

Penalties apply for offences committed under the *Environmental Protection Act 1986* and the *Environmental Protection (Controlled Waste) Regulations 2004*.

#### DISPOSAL SITES FOR MATERIAL CONTAINING ASBESTOS

For a map of landfills within the Metropolitan area visit the WA Waste Authority website at: [www.zerowastewa.com.au/disposal/community/perthlandfills](http://www.zerowastewa.com.au/disposal/community/perthlandfills)

Please contact the Local Government Authority or the facility on the number provided for more information before visiting the disposal site. In Regional areas contact the Local Government Authority for disposal site locations. Please note this list is subject to change and is only intended as a guide.

COUNCIL OR COMPANY	ADDRESS	SUBURB	POST CODE	PHONE NUMBER	LANDFILL CLASS
Buller Road Refuse Disposal Site	Lot 1701 Buller Rd	Waroona	6215	9733 1277	II
City of Armadale	Hopkinson Rd	Forrestdale	6112	9399 3935	II
City of Canning	Ranford Rd	Canning Vale	6155	9321 0606	II & III
City of Cockburn	Rockingham Rd	Henderson	6166	9411 3444	II
City of Rockingham	Millar Rd	Baldivis	6171	9524 2053	III
City of Stirling	238 Balcatta Rd	Balcatta	6021	9345 8555	Transfer station
Eastern Metro Regional Council	Toodyay Rd (Red Hill)	Gidgegannup	6083	9574 6235	III & IV
Eclipse Resources	Lot 180 Abercrombie Rd	Postans	6167	9381 5600	I
Mindarie Regional Council	1700 Marmion Ave	Mindarie	6030	9306 6300	II
RCG Pty Ltd	Lot 70/717 Hester Ave	Neerabup	6031	9407 5069	I
Shire of Gingin	Lot 10 Cockram Rd	Gingin	6503	9575 2211	II
South Perth Waste Transfer Station	Cnr Hayman Rd Thelma St	Como	6152	9367 2492	Transfer station
Wastestream Management	Ratcliffe Rd	Kwinana	6167	9439 1300	I
West Australian Landfill Services	Lot 200 and Lot 201 Shale Rd	South Cardup	6201	9525 5355	II
Western Metropolitan Regional Council	Cnr Lemnos & Brockway Rd	Shenton	6008	9384 2544	Transfer station

## FURTHER INFORMATION AND CONTACTS

### Local Government Authority

For information on demolition licence requirements and household queries contact an Environmental Health Officer at your Local Government Authority.

### Department of Health

For information on asbestos cement products in your home, asbestos contaminated sites and frequently asked questions on asbestos, visit the Department of Health website at: [www.public.health.wa.gov.au/2/867/2/asbestos.pm](http://www.public.health.wa.gov.au/2/867/2/asbestos.pm) or Tel: 9388 4999.

### Department of Consumer and Employment Protection – Worksafe

For information about asbestos in the workplace, licensed asbestos removalists and appropriate handling of asbestos including safety wear, visit the Worksafe website at:

[www.commerce.wa.gov.au/WorkSafe/Content/Safety\\_Topics/Asbestos/](http://www.commerce.wa.gov.au/WorkSafe/Content/Safety_Topics/Asbestos/) or Tel: 1300 307 877.