Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L9187/2018/2
Licence holder	TBG GROUP PTY LTD
ACN	633 225 742
Registered business address	45 Clune Street BAYSWATER WA 6933.
DWER file number	DER2017/02127-1
Duration	29/10/2022 to 30/10/2032
Date of issue	21/10/2022
Premises details	Encore Recycling and Resource Recovery 9 Rogers Way LANDSDALE WA 6065 Legal description - Lot 64 on Diagram 57260 Certificate of Title Volume 1559 Folio 837

Prescribed premises category description (Schedule 1, ***Environmental Protection Regulations 1987***)	**Assessed production or design capacity**
Category 13: Crushing of building material	15,000 tonnes per annual period
Category 62: Solid waste depot	78,000 tonnes per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 11 September 2024, by:

Hayden Nebel Digitally signed by Hayden Nebel
Date: 2024.09.11 07:22:54 +08'00'

SENIOR INDUSTRY REGULATION OFFICER
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
29/10/2019	L9187/2018/1	Licence granted.
21/10/2022	L9187/2018/2	Renewed for 10 years and Category 13 added.
11/09/2024	L9187/2018/2	Transfer of licence to TBG GROUP PTY LTD

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(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 licence:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Waste acceptance

1. The licence holder must only accept onto the premises waste of a type that:

(a) does not exceed the rate at which that waste is received; and

(b) meets the relevant acceptance specification,

as set out in Table 1.

Table 1: Waste acceptance criteria

Waste type	Category	Rate at which waste is received	Acceptance specification
Building and Demolition Waste	62	78,000 tonnes per annual period	(a) Must not contain any asbestos or ACM.

2. The licence holder must obtain a signed declaration from the supplier of the waste with each delivery that:

(a) specifies the details of the:

(i) waste (type and description);

(ii) source of the waste load;

(iii) name of the waste carrier;

(iv) registration number of the delivery vehicle; and

(v) date of delivery;

(b) sets out the quantity being delivered; and

(c) declares that the load does not contain any asbestos or ACM.

Pre-acceptance inspection

3. Prior to acceptance of waste onto the premises, the licence holder must visually inspect all loads of waste:

(a) to determine that the waste meets the waste acceptance requirements set out in condition 1;

(b) to determine the risk of a load containing asbestos and/or ACM; and

(c) classify each load as either a ‘low risk load’ or a ‘high risk load’, in accordance with the risk classification procedure provided in Schedule 2: Asbestos risk classification procedure.

Non-conforming waste

4. During visual inspection in accordance with condition 3, where waste does not meet the waste acceptance requirements set out in condition 1, the licence holder must:

(a) reject the waste and not accept the waste onto the premises;

(b) record the details of the:

(i) waste (type, description and volume);

(ii) source of the waste load;

(iii) name of the waste carrier;

(iv) registration number of the delivery vehicle; and

(v) date that the waste load was rejected; and

(c) maintain accurate and auditable records of all waste loads rejected from the premises.

5. At any time after pre-acceptance inspection, the licence holder must ensure that where waste is identified to not meet the waste acceptance requirements set out in condition 1:

(a) it is removed from the premises by the same delivery vehicle; or

(b) the non-conforming waste is stored in a designated quarantine storage area or container and removed to an appropriately authorised facility within 7 days of unloading.

Infrastructure and equipment

6. The licence holder must ensure that the infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

Infrastructure and equipment		Operational requirement	Infrastructure location
1.	Tipping Floor	(a) Must comprise a concrete hardstand of low permeability; and (b) Must be fitted with a misting system to control dust emissions, that is maintained in good working order to ensure availability during tipping and sorting operations.	As depicted on Figure 1
2.	Primary and Secondary Crusher	(a) Must be fitted with a foam suppressant system to control dust emissions, that is maintained in good working order to ensure availability during crushing operations; (b) Must only be operated when all material to be processed has been sufficiently covered with foam suppressant to prevent dust lift off; and (c) Must be located within noise attenuating cladding to reduce noise emissions.	As depicted on Figure 1

Infrastructure and equipment		Operational requirement	Infrastructure location
3.	Primary and Secondary Screen	(a) Must be fitted with a misting system to control dust emissions, that is maintained in good working order to ensure availability during screening operations; (b) Must only be operated when all material being processed is dampened to prevent dust lift off; and (c) Must be located within noise attenuating cladding to reduce noise emissions.	As depicted on Figure 1
4.	Output Conveyors	(a) Must be fitted with a misting system to control dust emissions, that is maintained in good working order to ensure availability during operations; and (b) Must only be operated when all material being conveyed is dampened to prevent dust lift off.	N/A
5.	Generator	(a) Must be located within noise attenuating cladding to reduce noise emissions.	As depicted on Figure 1
6.	Picking Station	(a) Residual waste must be stored in designated receptacles for offsite removal.	As depicted on Figure 1
7.	Water Storage Containers	(a) Must provide a minimum total capacity of 160 kL; and (b) Sufficient volumes of water must be maintained for dust control and fire suppression.	N/A
8.	Fencing	(a) Suitable fencing must be maintained to prevent unauthorised access to the premises; and (b) 90% block shade cloth must be maintained in a fixed state around boundary fences to control dust emissions.	Premises boundary
9.	Signage	(a) Clear visible signage must be erected and maintained at the entry to the premises specifying “No Asbestos”.	Entry to the premises
10.	Stockpile height markers	(a) Must be installed and maintained to verify the relevant height limit for stockpiles (8 m for unprocessed waste stockpiles and 4 m for recycled products); and (b) Must be placed adjacent to stockpiles so they are clearly visible to assist with compliance to specified height restrictions.	Waste and product stockpile areas

Waste processing and operations

7. The licence holder must ensure that the waste types specified in Table 3 are only subjected to the corresponding processes, subject to the corresponding process limits and/or specifications.

Table 3: Waste processing

Waste type		Processes	Process limits and/or specifications
1.	Building and Demolition Waste	Acceptance, handling and storage of unprocessed waste	(a) Must not contain any visible asbestos or ACM; and (b) Stockpiles must not exceed: (i) 8 m in height; and (ii) a minimum separation distance of 1.5 m from the premises boundary.
2.		Mechanical treatment via crushing and screening	(a) No more than 15,000 tonnes of materials specified in sub-provision (b) shall be subject to mechanical treatment via crushing and screening; (b) Only bricks, concrete, masonry material, sand and Clean Fill shall be subject to crushing processes; (c) Asbestos or ACM must not be subjected to the corresponding processes; and (d) Authorised materials must be maintained in a damp state during mechanical treatment.
3.		Storage of recycled product	(a) Stockpiles must not exceed: (i) 4 m in height; and (ii) a minimum separation distance of 1.5 m from the premises boundary.

Asbestos management (load inspection)

8. Upon acceptance of waste, the licence holder must direct each classified load to an unloading area designed and constructed to ensure the classified load will not mix with other waste prior to further inspection.

9. The licence holder must dampen each classified load prior to unloading and maintain the waste in a damp state throughout the inspection process.

10. The licence holder must:

(a) visually inspect each ‘low risk load’ while the material is being unloaded, and continue to do so at all stages of the storage, sorting, and screening process, to determine whether any asbestos and/or ACM can be identified;

(b) where asbestos and/or ACM is suspected or identified in a ‘low risk load’, reclassify that load as a ‘high risk load’; and

(c) visually inspect and handle each ‘high risk load’ in accordance with the procedure provided in Schedule 3: Post-acceptance inspection procedure.

Asbestos management (waste and recycled product stockpiles)

11. The licence holder must ensure that:

(a) materials on the premises are maintained in at least three separate stockpiles for unprocessed waste, recycled product tested for asbestos or ACM, and recycled product awaiting testing for asbestos or ACM;

(b) unprocessed waste and recycled product stockpiles are kept clearly separated at a minimum 3 m distance from the base of the stockpile;

(c) recycled product tested for asbestos or ACM and recycled product awaiting testing for asbestos or ACM are clearly separated by a minimum 3 m distance from the base of the stockpile; and

(d) clearly visible and legible signage is erected on individual stockpiles to clearly identify and delineate tested recycled product, untested recycled product, and unprocessed waste.

Asbestos management (recycled product supply)

12. The licence holder must ensure that recycled products are only supplied to customers if they have been tested in accordance with condition 18 and shown to conform to the specification of 0.001% asbestos weight for weight (w/w) for asbestos content (in any form) within any recycled products.

Emissions and discharges

Dust emissions

13. The licence holder must manage dust emissions at the premises by:

(a) limiting all vehicle traffic within the premises to speeds of less than 10 km/hr; and

(b) ceasing dust-generating activities during strong wind conditions.

14. The licence holder must ensure that waste and recycled product stockpiles are maintained in a damp state to prevent dust lift off.

15. The licence holder must ensure that all recycled products removed from the premises are wetted down prior to loading.

Noise emissions

16. The licence holder must ensure that operations at the premises only occur between the hours of 07:00 to 19:00, and on the days of Monday through to Saturday.

Monitoring

Waste inputs and outputs

17. The licence holder must record the total amount of waste accepted onto and removed from the premises according to the specifications in Table 4.

Table 4: Monitoring of waste and recycled product volumes

Input/Output	Parameter	Unit	Frequency
Waste inputs	Building and Demolition Waste	Tonnes - as measured by certified load scales OR m^3 and calculated tonnes – a conversion factor must be used to calculate tonnage.	Each load arriving at the premises
Waste outputs	Waste type as defined in the Landfill Definitions		Each load leaving or rejected from the premises
Waste derived material outputs	Recycled product		Each load leaving the premises

Asbestos management (verification testing)

18. The licence holder must ensure that testing of all recycled products is undertaken in accordance with the recycled product testing procedures specified in Schedule 4: Asbestos monitoring and testing.

19. The licence holder is not authorised to implement a Reduced Product Testing Rate.

Records and reporting

Records (asbestos management)

20. The licence holder must maintain accurate and auditable records of all loads that have been inspected and suspected or found to contain asbestos and/or ACM showing the source (person) and originating site (location), and actions taken to address the issue with the source of the load.

21. The licence holder must maintain accurate and auditable records of all recycled product testing undertaken in accordance with condition 18, including:

(a) details of the 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) a description of any asbestos detected; and

(e) an estimate of the concentration of asbestos detected.

Records (general)

22. The licence holder must record the following information in relation to complaints received by the licence 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 licence holder to investigate or respond to any complaint.

23. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 6 of this licence;

(c) monitoring programs undertaken in accordance with conditions 17 and 18 of this licence; and

(d) complaints received under condition 22 of this licence.

24. The books specified under condition 23 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

Reporting

25. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 1 March after the end of that annual period an Annual Audit Compliance Report in the approved form.

26. The licence holder must submit to the CEO by no later than 1 March 2024 and then biennially thereafter, an Environmental Report for the previous two annual periods (or part thereof) for the conditions in Table 5 and which provides information in accordance with the corresponding requirement set out in Table 5.

Table 5: Environmental Report requirements

Condition	Requirement
4	A summary of all loads rejected from the premises during the annual period.
6	A summary of any maintenance undertaken during the annual period.

Condition	Requirement
17	The records of inputs and outputs monitoring during the annual period including a summary of: (a) Waste types and quantities; (b) Wastes that were accepted at the Premises; and (c) Removed and rejected loads in the reporting year.
20	A summary of asbestos load inspections undertaken during the annual period.
21	The records of all recycled product testing for asbestos content undertaken during the annual period.
22	A summary of any complaints received during the annual period and the actions taken to address them.

Notifications

27. The licence holder must ensure that the parameters listed in Table 6 are notified to the CEO in accordance with the notification requirements of the table.

Table 6: Notification requirements

Parameter	Notification requirements	Format
Any: (a) fire on the premises; or (b) accident, malfunction or emergency which could result in the discharge of fire-fighting washwater or other wastes from the premises.	Immediately	To the Pollution Watch hotline, via: - pollutionwatch@dwer.wa.gov.au; and - 1300 784 782

Specified actions

28. The licence holder must submit to the CEO the information in Table 7 in accordance with the requirements and timescale specified in Table 7.

Table 7: Specified action requirements

Information	Requirements	Timescale
Asbestos Management Plan	An updated Asbestos Management Plan with respect to the operational procedures undertaken at the Premises and in accordance with the *Guideline: Managing asbestos at construction and demolition waste recycling facilities*.	31 January 2023

Information	Requirements	Timescale
Dust Management Plan	An updated Dust Management Plan with respect to fugitive dust emissions from activities on the premises, including but not limited to: (a) A descriptive overview of the premises and activities that could result in fugitive dust emissions, with details about the process areas and equipment; (b) A fugitive dust source list that includes: (i) each potential equipment or activity source of fugitive dust; (ii) location of each source within the premises (or reference id on an included site map); (iii) relevant factors influencing the generation of dust for each source (e.g. wind conditions, operational activities); and (iv) identification of the dust-generating material for each source (e.g. aggregate, mixed waste, road dust). (c) The specific operational practices and control methods that will be implemented to address the identified fugitive dust sources and activities that considers; (i) how the mitigation measures will address the specific mechanism that causes dust generation for each source; (ii) what equipment/systems will be used; (iii) under what frequency and conditions the mitigation measures will be applied; (iv) who is responsible for implementing mitigation measures; (v) contingency measures if mitigation measures are insufficient or no longer efficient; and (vi) the monitoring and maintenance that will be implemented to ensure mitigation measures are effective. Where quantitative monitoring is proposed, the *Guideline: Managing asbestos at construction and demolition waste recycling facilities* should be considered.	31 January 2023

Definitions

In this licence, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
ACM	asbestos-containing material
ACN	Australian Company Number
AF	asbestos fines or fibres
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website)
annual period	a 12 month period commencing from 1 January until 31 December of the same year
asbestos	as defined in the DWER Asbestos Guidelines
asbestos-containing material	as defined in the DWER Asbestos Guidelines
asbestos fines or fibres	as defined in the DWER Asbestos Guidelines
books	has the same meaning given to that term under the EP Act
Building and Demolition Waste	means waste material comprising bricks, concrete and associated unavoidable small quantities of paper, plastics, glass, metal and timber resulting from the demolition, erection, construction, refurbishment or alteration of buildings or from the construction, repair or alteration of infrastructure-type development such as roads, bridges, dams, tunnels, railways, and airports, and which is not mixed with any other type of waste (specifically green and food waste), and does not contain any asbestos, PFAS or chemically treated timber
C&D waste	construction and demolition waste
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
chemically treated timber	means timber treated with compounds such as copper chrome arsenate (CCA), high temperature creosote (HTC), pigment emulsified creosote (PEC) and light organic solvent preservative (LSOP)

Term	Definition
classified load	means a load classified as either low risk or high risk in accordance with the risk classification procedure provided in Schedule 2 of this licence
Clean Fill	as defined in the Landfill Definitions
construction and demolition waste	as defined in the DWER Asbestos Guidelines
conversion factor	means the default bulk densities listed in the Waste Avoidance and Resource Recovery Regulations 2008 (Regulation 18d) Notice Of Information Required For An Annual Return Of Liable Recyclers
damp	means wet enough that dust cannot be generated
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3
designated quarantine storage area or container	means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel
discharge	has the same meaning given to that term under the EP Act
DWER	Department of Water and Environmental Regulation
DWER Asbestos Guidelines	means the *Guideline: Managing asbestos at construction and demolition waste recycling facilities* published by the department
emission	has the same meaning given to that term under the EP Act
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	Environmental Protection Regulations 1987 (WA)
FA	fibrous asbestos
Fibrous asbestos	as defined in the DWER Asbestos Guidelines
high risk load	means a load classified as “high risk” in accordance with the Risk Classification Matrix included in Schedule 2 of this licence
Landfill Definitions	*Landfill Waste Classification and Waste Definitions 1996* (as amended from time to time)
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted
low risk load	means a load classified as “low risk” in accordance with the Classification Matrix included in Schedule 2 of this licence

Term	Definition
non-conforming waste	means waste that does not meet the waste acceptance requirements set out in condition 1 of this licence
pre-acceptance inspection	means visual inspection in accordance with condition 3
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence
prescribed premises	has the same meaning given to that term under the EP Act
recycled product	refers to bricks, concrete, masonry material, sand and Clean Fill which have undergone processing via crushing and/or screening to create a useable recycled product and which is awaiting asbestos testing or has been tested and conforms to the specifications of this licence
Reduced Product Testing Rate	means the reduced product testing rate referred to in *Section 4.3.6 Reduced sampling criteria* of Schedule 4: Asbestos monitoring and testing
residual waste	means unavoidable small quantities of paper, plastics, glass, metal and timber material associated with the Building and Demolition Waste stream which has been accepted at the premises and is unsuitable for the crushing and screening process
Schedule 1	means Schedule 1 of this licence unless otherwise stated
Schedule 2	means Schedule 2 of this licence unless otherwise stated
Schedule 3	means Schedule 3 of this licence unless otherwise stated
Schedule 4	means Schedule 4 of this licence unless otherwise stated
strong wind conditions	means wind speeds of 38 km/hr or greater, or a Beaufort Scale rating of 6 or greater
waste	has the same meaning given to that term under the EP Act

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Site plan and map of the boundary of the prescribed premises

Schedule 2: Asbestos risk classification procedure

3.3 Acceptance procedures

When waste arrives at the recycling facility, acceptance procedures must serve to confirm the characteristics of the waste are consistent with the waste types permitted by the Part V licence, and determine the risk of the load containing asbestos.

To follow on from the pre-acceptance procedures, all persons bringing waste onto the premises must be asked to sign a declaration or provide a 'customer warranty' on a vehicle load-specific basis confirming their load is free from asbestos. The associated documentation should be retained on the premises and be available for the department to inspect. Where an individual is not prepared to sign this disclaimer or provide such a warranty, the load shall be refused entry.

All loads must be visually inspected when they arrive at the recycling site. Where the inspection identifies the wastes are not permitted by the licence and/or asbestos is visually identified in the load, it shall be rejected for acceptance. A record of all rejected loads must be maintained on the premises and be available for the department to inspect. As a minimum, a record must be made of the waste producer, waste carrier, registration number of the vehicle and the date of rejection.

The risk of a load containing asbestos is related to the type and source of the waste. In general, buildings and structures constructed after 1990 are unlikely to have ACM within them, whereas buildings and structures constructed before this date may have been built using ACM.

Because large buildings and structures undergo regulated asbestos removal programs and inspections before they are demolished, the probability of asbestos being present in the demolition debris should be low. However, a risk of contamination can remain from asbestos formwork embedded or attached to concrete columns that cannot be readily identified through the asbestos clearance certification process, and from asbestos piping from reclaimed road, car park areas and water supply systems.

It is also common for mixed waste from unknown sources, particularly those in skip bins or from small-scale demolition or refurbishment activities, to contain amounts of asbestos waste. These sources must be considered high risk.

To determine the risk of an incoming load containing asbestos the gatehouse operator shall establish:

- the source of the load, including the site location and, if possible, the age of any building or structure from which the C&D waste originated
- the content/waste types within the load
- the type of load.

Where the source of the load can clearly be determined to be a building or structure constructed after 1990 then the load can be considered to represent a low risk of asbestos contamination and managed as outlined in the following section. Where the waste originates from a building constructed before 1990 or there is uncertainty over this issue, the risks associated with asbestos in the load must be established in line with the Risk Classification Matrix below.

Once classified, each load must be directed to the appropriate area for unloading and further inspection in line with the following sections.

Risk Classification Matrix			
	Type of load		
Material type	**Commercial**	**Public, utes, cars and trailers***	**Skip bins**
Clean concrete (without formwork)	Low	High	High
Clean brick	Low	High	High
Clean bitumen/ asphalt	Low	High	High
Mixed construction waste	High	High	High
Mixed demolition waste	High	High	High

* If it is possible to view the entire load of incoming C&D material (e.g. a small trailer with a shallow load) then consideration may be given to classifying these loads as low risk
(Risk Matrix Classification *adapted from WorkSafe Victoria 2006 and WMAA 2009*).

Schedule 3: Post-acceptance inspection procedure

Each accepted and classified load shall be directed to an unloading area at the site, which is appropriately designed and constructed to ensure the waste will not mix with other waste. Where feasible, separate unloading areas shall be provided for low-risk and high-risk wastes.

All loads shall be dampened before unloading and maintained in a dampened state throughout the inspection process. Operators will need to ensure there are adequate facilities on the premises to achieve this.

3.4.1 Low-risk load procedure

Loads classified as 'low risk' must be visually inspected while the material is being unloaded to determine whether any asbestos can be identified.

If suspect fibrous asbestos (FA) or asbestos fines/fibres (AF) are detected, the load must be isolated, kept wet and once appropriately contained in accordance with the Asbestos factsheet in Appendix A, redirected to an appropriately authorised disposal facility. If suspect ACM is identified, the load must be reclassified as 'high risk' and be processed in accordance with the high-risk procedure below. Where the visual inspection confirms that the load is clear of suspect ACM, FA and AF, the load may then be added to the waste stockpiles awaiting further processing (e.g. crushing and screening).

3.4.2 High-risk load procedure

Loads classified as 'high risk' must be unloaded and spread over a sufficiently large area to enable a comprehensive visual inspection of all sides of the material. One method of achieving this is to spread the material to a depth of less than 30 cm and to turn over the material with the use of an excavator or similar. Where appropriate, larger sections of concrete should be inverted to permit a visual check for embedded or underlying asbestos product debris.

If suspect FA or AF are detected, the load must be isolated and kept wet. Once appropriately contained in accordance with the Asbestos factsheet in Appendix A, it should be redirected to an appropriately authorised disposal facility.

Where suspect ACM is identified within a load and is not capable of being easily removed by hand, the load must be rejected and should be isolated and kept wet. Once appropriately contained in accordance with the Asbestos factsheet in Appendix A, it should be 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 load 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 load in line with the above procedure the residual waste can be added to the stockpile awaiting further processing.

Records must be kept to ensure the process from receipt of C&D material to the completion of the unloading procedure is auditable and that any loads found to contain suspect asbestos can be traced back to the customer and originating site. Through Part V licence conditions, the department will require records to be submitted on a regular basis detailing loads found to contain asbestos and action taken by the C&D recycler to address this issue with the customer. The department will take follow-up action with customers delivering asbestos-containing waste to the premises as necessary.

Schedule 4: Asbestos monitoring and testing

To ensure recycled products have been produced to the required specification in relation to asbestos content it is necessary for product testing to be undertaken. The testing procedures detailed in this section have application for the three main recycled products:

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

The testing must be documented as outlined under section 5.3.

4.3.1 Product specification

To ensure the health of those using or coming into contact with recycled C&D products is protected, the asbestos content (in any form) of any recycled products must not exceed 0.001 per cent asbestos weight for weight (w/w).

4.3.2 Inspection and sampling requirements

All types of recycled product must be inspected and/or sampled and tested for ACM, FA and AF, as outlined below. Inspections and sampling may be undertaken by staff employed by the licensee as long as they have received the required asbestos training for operational staff set out in section 5.2.

ACM and FA are subject to visual inspection and sampling procedures since they are larger in size (>7 mm). AF (<7 mm) is assessed by submitting samples for laboratory analysis.

Recycled products may be sampled from conveyors or stockpiles. Whichever approach is adopted, the operator will need to ensure they have appropriate systems in place to allow them to identify where in the product stockpiles each sample is from to allow further testing or separation to occur if required.

4.3.3 Stockpile inspection and sampling

In the case of recycled drainage rock and recycled road base, a visual inspection should be undertaken in a systematic grid fashion over any new stockpile to identify any suspect asbestos material.

No sampling is required for recycled drainage rock, other than to determine by laboratory analysis if necessary 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 asbestos material 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 1000 m^3 of product.

4.3.4 Conveyor sampling

Sampling of road base and screened sand products must occur at a minimum rate of one sample per 70 m^3 of a product output. Suspect asbestos material or areas must be targeted for sampling.

4.3.5 Sample treatment

Each sample collected must be at least 10 litres in volume and then be divided into two size fractions (>7 mm and <7 mm) in the field by sieving though a 7 mm screen or spread out for inspection on a contrasting colour fabric. The >7 mm fraction should be examined for any suspect asbestos material and this be retained to calculate the level of contamination.

The <7 mm 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.

4.3.6 Reduced sampling criteria

Once premises have demonstrated their procedures are able to consistently produce recycled product that meets the product specification and that they undertake their activities to a high standard, the department may authorise a reduced product testing rate, including down to five locations per 4000 tonnes (one sample per 600 m^3) of product.

The criteria that the department will use to consider and determine a reduction in product sampling frequency are:

1. activities at the premises have been validated through an inspection or audit to comply with these guidelines
2. the department has confirmed through an inspection or audit that the conditions of the Part V licence are being met
3. the department has not undertaken any enforcement action in relation to the activities at the premises in the past six months
4. product testing has demonstrated that the product specification has been consistently achieved at the premises for a continuous six-month period
5. the presence of mitigating factors such as best practice management measures, high control of source material or use of the product for low-risk purposes
6. the quantity of waste processed in the past six months and the different sources/types of material processed at the premises
7. DoH has agreed to the reduction in product sampling rate at the premises.

All requests for a reduced product sampling rate must be submitted in writing to the relevant industry regulation regional leader for the premises, details of which can be found in the interpretation section of the Part V licence for the premises.

The department will refer all requests to the DoH and operators must ensure that all requests include sufficient evidence, particularly in relation to product testing, to support compliance with the above criteria.

Proponents should note, however, that despite a premises meeting the above reduced sampling criteria, there may be occasions where a reduced sampling rate is not approved by the department. This may occur, for example, where the site is close to sensitive receptors, is contentious and/or there is a need to provide public confidence in the activities at the site.

Where a reduced sampling rate is approved at a premises, the department will provide written notification of the approval and will continue to closely monitor that premises to ensure it remains compliant with the reduced sampling criteria. The department's monitoring of the premises will be further supported by the annual process audits required by section 5.1 and the results of the product sampling.

The department will withdraw the approval to implement a reduced sampling frequency where the reduced sampling criteria are not being met on an ongoing basis. Where the department withdraws approval for a reduced sampling frequency, proponents will be provided with the reasons for the withdrawal.

In the event that approval for a reduced sampling rate is withdrawn by the department, proponents will be required to make a new reduced sampling frequency request and demonstrate that:

1. they have implemented appropriate measures to prevent a reoccurrence of the non-compliance that caused the previous agreement for a reduced sampling frequency to be withdrawn
2. the product specification (sampled at the 40 samples per 4000 tonnes rate) has been consistently met for a six-month period following the implementation of the measures identified in 1. above.

4.3.7 Sample analysis method

>7 mm sample fractions

Asbestos concentrations (ACM and FA) should be calculated in accordance with the methods detailed in section 4.1.7 of DOH's *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (May 2009). As detailed in the DoH guidelines, averaging asbestos levels across the stockpile is not appropriate and asbestos levels within each sample should be reported.

< 7 mm sample fractions

Each <7 mm sample fraction must be analysed for FA and AF.

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* (AS 4964–2004) or be demonstrated to be able to achieve the equivalent level of results to this Australian Standard.

AS 4964-2004 is currently the only method in Australia that has NATA certification; however, the practicable level of detection for this standard polarised 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, the department 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 specification for asbestos content, samples must be a minimum of 500 ml 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. A number of laboratories have developed such semi-quantitative methods for the analysis of low levels of asbestos. Techniques include:
    - the extraction and weighing of fibre bundles or fibre cement material from the total sample
    - 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.

The use of either of these methods is considered acceptable to the department.

Whatever analysis methods are adopted by an operator, the department expects a number of assessment-based statements to be included in all laboratory analytical reports. These include:

- details of the sample size
- a statement of limit of detection of the analysis
- results in relation to asbestos detected or not – note that AS 4964-2004 allows for a nil detection if the asbestos is less than a certain concentration and is non-respirable; however, the department would consider a positive result to exceed the 0.001% w/w limit
- a description of any asbestos detected
- an estimate of the concentration of asbestos detected if practical to do so.

4.3.8 Interpreting inspection and sampling results

If the visual inspection, sieve sample or analytical results identify asbestos above or possibly 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.

As a guide, in the case of recycled drainage rock, identification of a piece of ACM or FA per 10 m^2 of surface would be deemed to exceed the specification for that area, and for the whole stockpile if repeated in two or more other separate areas. A single fragment exceedance can be considered an isolated occurrence in the absence of other contamination evidence and the stockpile allowed for beneficial use. If there is multiple contamination only of a localised area then that area can be excavated to the extent of any visible asbestos and then the remainder of the stockpile considered to be suitable for use.

For laboratory analysis it is important that each result be considered on its own merits in regard to the asbestos control specification and that there is no averaging across samples. In the case of a single exceedance at a level less than 0.01% w/w, the stockpile (nominally 4000 tonnes) may not be deemed contaminated if repeat samples of immediately adjacent areas do not demonstrate specification exceedances.

The same approach as indicated in the preceding paragraph can be applied to the results of the >7 mm sieve sampling in regard to recycled sand material and road base. In this case a 1 cm^3 fragment of ACM or FA would be deemed to exceed the specification for a 10-litre sample.

It should be noted that specification exceedances in regard to different assessment methods for the same type of stockpile should not be viewed in isolation from each other.

4.3.9 Product supply

Recycled products should only be supplied to customers from stockpiles that have been sampled and tested in accordance with section 4.3 and shown to conform to the product specification.