

AMG WA Pty Ltd

Peel Landfill Facility, Lot 3 Buller Road Waroona

Waste Sorting and Recycling Facility

Asbestos Management Procedure

Procedure Number 002 – Revision 0

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1. Introduction

This draft procedure is to be finalised once the facility operating licence has been issued to reflect any additional asbestos-related conditions.

The AMG WA Pty Ltd (AMG), Lot 3 Buller Road, Waroona waste management facility incorporates a Class I landfill and a waste sorting and recycling facility on site. Due to the two distinctly different asbestos management requirements at each of these two facilities, there are two separate Asbestos Management Procedures (AMP) for the site. This AMP relates only to the management of asbestos at the waste sorting and recycling facility.

The waste sorting and recycling facility is NOT licensed by the Department of Water and Environmental Regulation (DWER) to accept asbestos or asbestos containing material. However, due to the mixed nature of the waste that the Facility handles, there is the possibility that asbestos material could be inadvertently received on site. In this event, this Asbestos Management Procedure sets out the appropriate management of this material.

In addition, all processing of construction and demolition waste (screened or crushing stockpiled material) is to be carried out in accordance with the *DWER Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities – 18 December 2012*. This procedure sets out the relevant aspects of the guideline that are required to be complied with.

The control and handling of materials containing asbestos products is a critical management aspect at the Facility. Consequently, AMG takes the responsibility associated with the appropriate control and handling of asbestos products extremely seriously.

2. Purpose

The purpose of this Procedure is to:

- Provide guidance to the Facility Operator on how best to manage asbestos material if discovered at the Facility.
- Ensure appropriate procedures are carried out for the inspection, sampling and testing for asbestos material in screened or crushing stockpiled material.
- Ensure appropriate procedures are carried out when handling asbestos material.
- Ensure the appropriate removal of asbestos material from the Facility by the Customer or by the Facility Operator to an appropriately licensed facility, which could be the adjacent Class I landfill.
- Ensure the appropriate record keeping of asbestos related incidents.

3. Reference

- DWER Disposal of Material Containing Asbestos – 12 June 2007
- Code of Practice for the Management and Control of asbestos in the Workplace [NOHSC: 2018 (2005)]
- WorkSafe Victoria – Asbestos-contaminated Soil Guidance Note - October 2010
- Department of Health - Guidelines for Asbestos-Contaminated Sites - May 2009
- DWER Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities – 18 December 2012.
- Controlled Waste Fact Sheet – Asbestos – July 2016

4. Distribution

This Procedure is distributed to:

- The Facility Operator.
- All employees and contractors involved in waste management activities within the Facility.
- Department of Water and Environmental Regulation.
- Shire of Waroona.
- Customers as applicable.
- Any other relevant parties.

5. Definitions

Asbestos - means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysolite, crocidolite, tremolite and any mixture containing two or more of those.

Asbestos Containing Material (ACM) - means any products or materials (including fragments) that contain asbestos in an inert bound matrix such as cement or resin in a sound condition and in a form that cannot pass through a 7 mm x 7 mm sieve, including asbestos Waste and asbestos contaminated soil.

Asbestos Fines or Fibres (AF) - means small asbestos fibre bundles, free asbestos fibres and also ACM fragments that can pass through a 7 mm x 7 mm sieve.

Asbestos Incident Report – the incident report detailing any asbestos identified at the Facility.

Asbestos Waste - means all removed asbestos and disposable items used during asbestos work, such as plastic sheeting used to cover surfaces in the asbestos work area, disposable coveralls, disposable respirators, rags used for cleaning.

Competent Person – means a person possessing tertiary qualifications such as environmental science, science or engineering and a minimum of 3 year's experience working with asbestos.

Customer - means an individual or company, responsible for, or delivering waste material to the Facility.

Disposal - the delivery and disposal of asbestos to an appropriately licensed facility.

Facility – means the waste sorting and recycling facility.

Facility Operator - means a person undertaking the operational activities of the Facility.

Facility Owner – is AMG WA Pty Ltd.

Fibrous Asbestos (FA) - means friable asbestos material, such as severely weathered ACM and asbestos in the form of loose fibrous material such as insulation products. Friable asbestos is material that is in a degraded condition such that it can be broken or crumbled to a powder form by hand pressure.

Person in Control - means a person who has control of the Facility. The person with control is the Facility Manager.

Personal Protective Equipment (PPE) - means equipment and clothing that is used or worn by an individual person to protect themselves against, or minimise their exposure to, workplace risks. It includes items such as facemasks and respirators, coveralls, goggles, helmets, gloves and footwear.

Site – means Lot 3 Buller Road, Waroona.

Temporary Asbestos Storage Area – the area within the Facility that is specifically dedicated to the temporary storage of asbestos.

6. Responsibility

The Facility Owner has the duty of care to:

- Compile, maintain and update this Asbestos Management Procedure.
- Ensure that all employees have a copy and are aware of the content of the Asbestos Management Procedure.
- Ensure that where appropriate, the employees are complying with the Asbestos Management Procedure.

The Person in Control of a Facility has a duty of care to:

- Implement this Asbestos Management Procedure.
- Ensure adequate, appropriate training of Facility Operators.
- Ensure adequate, appropriate information is provided to Customers.
- Undertake the necessary inspection, sampling and analysis of screened or crushing stockpiled material as required by this Procedure.
- In conjunction with the Facility Operator, assess the condition of any asbestos that is found at the Facility, the associated asbestos risks and appropriate handling procedures.
- Develop measures to control and dispose of the asbestos to minimise the risks and prevent exposure to asbestos.
- Maintain a register of asbestos incidents.
- Maintain adequate supplies of appropriate PPE at the Facility.
- Advise the Facility Operator of any recommended changes to the Asbestos Management Procedure that would make it more suitable for application within the Facility.

Facility Operator has a duty of care to:

- Adhere to the Asbestos Management Procedure.
- Inspect incoming waste for the presence of asbestos.
- Undertake the necessary sampling and testing of the processed materials.
- In conjunction with the Person in Control, assess the condition of any asbestos that is found at the Facility and the associated asbestos risks.
- Utilise appropriate PPE.
- Undertake the appropriate control and disposal measures following the identification of asbestos.
- Complete the appropriate Asbestos Incident Report as necessary for all asbestos identified.

Customer:

- To be aware of Facility requirements that no asbestos is acceptable at the Facility and the procedure to be followed should asbestos be identified in an incoming load of waste.
- Comply with the Facility asbestos removal procedures.

7. Awareness Training

Information and training is to be provided to Facility Operators and others who may come into contact with asbestos at the Facility, either directly or indirectly.

Awareness training is to be carried out for all new employees, with refresher training for all employees on a two-yearly basis.

Training will be carried out by suitable external training providers.

Asbestos awareness training is to include:

- The purpose of the training.
- The health risks associated with asbestos.
- The types, uses and likely occurrence of asbestos in buildings, plant and/or equipment in the workplace (Refer Appendix No. 1).
- How to identify asbestos.
- The trainees' roles and responsibilities under the Asbestos Management Procedure.
- Facility operating licence conditions surrounding the non-acceptance of asbestos.
- The processes and procedures to be followed in inspection, sampling and testing of processed materials.
- The processes and procedures to be followed following the identification of asbestos at the Facility.
- The mechanism for the disposal of asbestos.
- The processes and procedures to be followed to prevent exposure to asbestos.
- How Asbestos Incident Report forms can be accessed.
- The processes and procedures to be followed when completing the Asbestos Incident Report.

A record of all attendees at the awareness training is to be maintained.

8. Application

The Facility will operate primarily as a waste sorting and transfer stations, incorporating recycling activities, which separate recyclable materials for reuse or reprocessing. There will be screening of material to separate the finer fraction to assist in the sorting process and crushing of bricks and concrete rubble.

In accordance with the DWER guidelines for asbestos management (*Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities – 18 December 2012*), the Risk Classification Matrix (*Section 3.3*) identifies skip bins as being High Risk Loads of waste and hence are required to be handled in accordance with the High Risk Load Procedure (*Section 3.4* of the guidelines). Accordingly, all waste material delivered to the Facility in skip bins is to be dealt with as High Risk Loads.

Commercial loads of clean concrete (without formwork), clean brick and clean bitumen/asphalt are deemed at low risk loads and hence can be accepted accordingly.

Although the Facility is not licensed to accept loads of asbestos, due to the nature of the waste material being received, there is the possibility that asbestos material may be inadvertently received at the Facility; consequently, it is important that the appropriate Facility waste handling and inspection procedures be carried out to ensure adequate inspection of the incoming waste material.

Where material is suspected as being asbestos, it will be assumed to be and treated as asbestos unless suitable analysis of a representative sample by a Competent Person demonstrates otherwise.

9. Material Pre-Acceptance Procedures

The following material pre-acceptance procedures apply:

- At the point of sale, Customers are advised that asbestos is not accepted at the Facility.
- In the event that waste bins are operated by the Facility Operator or related companies "No Asbestos" is to be stencilled on each bin.
- Facility entrance sign identifies that asbestos is not accepted at the Facility.
- On entry to the Facility, the waste receipt docket issued to each driver identifies that asbestos is not accepted at the Facility.
- All material loads arriving at the Facility are registered on waste receipt dockets identifying the type of material being received, with the vehicle driver signing to confirm the identification of the load and confirming that asbestos is not present in the incoming load.

10. Material Acceptance Procedures

High Risk Loads (all skip bins)

The following material acceptance procedures are to be applied and are in accordance with the DWER High Risk Load Procedure for the acceptance of skip bin waste:

- On arrival at the Facility drivers identify the material type(s) in the load.
- The tarps are removed from the load and as far as is possible, the load inspected prior to off-loading.
- Should any asbestos be identified during the Facility entrance inspection, the complete load is then rejected and removed from the Facility, with the appropriate record being maintained of the details of the nonconforming load. The record includes details of the waste producer, waste carrier, vehicle registration number of the vehicle and the date of rejection.
- Acceptable loads are then directed to the High Risk Load tipping area where the load is wet down and unloaded in the materials inspection area.
- During unloading, the material is again inspected by a Facility Operator.

- Once unloaded, the material is further wet down and spread out in a layer approximately 300 mm thick. The spread load is then inspected by a Facility Operator for the presence of any nonconforming material, including asbestos.
- On completion of the inspection, the load is turned over and re-inspected.
- If no asbestos or other nonconforming material is identified, the load is then added to the uncontaminated waste pile and handled accordingly.
- If asbestos is identified and the Customer is still at the Facility, the load is immediately reloaded, and the Customer removes the material from the Facility.
- If asbestos is identified and the Customer has already departed the Facility, the load is isolated and additional inspections undertaken to assess the degree of asbestos contamination.
- If the asbestos contaminated load only contains a few random large pieces of Asbestos Contaminated Material (ACM), the asbestos is removed and the remainder of the load is then added to the uncontaminated waste pile. If the ACM is not easily removed, the complete load is then treated as asbestos contaminated.
- If the asbestos contaminated load contains Asbestos Fines or Fibres (AF) or Fibrous Asbestos (FA), the complete load is then isolated and treated as being asbestos contaminated.
- Due to the screening and crushing activities, asbestos sampling and laboratory testing is undertaken on stockpiled materials.
- All confirmed asbestos contaminated material is removed from the Facility within 48 hours of identification and sent to an appropriately licensed disposal facility (by the Customer or Facility Operator), which may be the on-site Class I landfill facility.

Low Risk Loads

Loads classified as “low risk” (commercial loads of clean concrete - without formwork, clean brick and clean bitumen/asphalt), 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 or Fibres (AF) are detected, the load must be isolated, kept wet and once appropriately contained and redirected to an appropriately authorised disposal facility, which may be the on-site Class I landfill facility. If suspect ACM is identified, the load must be reclassified as “high risk” and continue to be processed in accordance with the High Risk procedure. 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 eg screening.

11. Material Processing Procedures

The following material processing procedures are to be applied to all material being processed at the Facility:

- Screening or Crushing:
 - Inspection of the course material during the screening process.
 - Sampling and analysis of the fine post-screening material.
 - If a few random, large pieces of Asbestos Contaminated Material (ACM) are identified, the asbestos is removed and the remainder of the material is then processed as usual.
 - If Asbestos Fines or Fibres (AF) or Fibrous Asbestos (FA) are identified, the relevant portion of the material is then isolated and treated as being potentially asbestos contaminated.
- Hand-sorting:
 - Inspection of all material on the hand-sorting conveyor;
 - If any asbestos material is identified on the hand-sorting conveyor, the sorting line is immediately shut down and the input feedstock and the output separated products inspected for any additional asbestos material.
 - If a few random, large pieces of Asbestos Contaminated Material (ACM) are identified, the asbestos is removed and the remainder of the material is then processed as usual.
 - If Asbestos Fines or Fibres (AF) or Fibrous Asbestos (FA) are identified, the relevant portion of the material is then isolated and treated as being potentially asbestos contaminated.
- All confirmed asbestos contaminated material is placed in the Temporary Asbestos Storage Area and subsequently removed from site within 48 hours of identification and sent to an appropriately licensed disposal facility (by the Facility Operator), which may be the on-site Class I landfill facility.

12. Stockpile Management

In complying with the DWER asbestos management guidelines, there is a need to undertake regular sampling and analysis of the fine material that is screened at the Facility, consequently, material stockpiles are well managed to ensure that each stockpile is clearly identified, sampled and tested in accordance with the sampling and analysis program set out in this Procedure.

Due to the potential financial exposure involved in disposing of an asbestos contaminated stockpile, care is taken to operate the screening and crushing activities with as small a stockpile as is reasonably possible. The ideal being that no single stockpile is greater than 140 m³ (a “two-sample stockpile”). Material is to be stockpiled within clearly demarked areas to ensure accurate identification of each stockpile.

13. Dust Management

To reduce the potential risk of asbestos fibres entering the atmosphere as a result of Facility activities, all reasonable and practical measures are taken to ensure that all waste material is adequately wet down prior to handling and processing. To assist in this operation, the Facility has a water supply, hoses and sprinklers. The Facility Operators ensure that adequate water is applied to the waste material throughout the Facility operations to keep dust generation to an absolute minimum.

For additional information on dust management refer to the **Facility Waste Management Plan**.

14. Monitoring and Testing

Monitoring is undertaken to confirm that the management measures are effective in controlling the delivery of asbestos to the Facility, the identification of inadvertent ACM and the adequacy of testing for ACM at the Facility.

14.1 Qualitative Monitoring

Facility Operators undertake visual inspections whilst the Facility is operating to ensure that fugitive emissions of dust are being adequately controlled and are not being carried beyond the Facility boundaries. Where fugitive dust emissions are identified, their source is investigated, and all reasonable and practical measures implemented to prevent or minimise the release.

Where risk management measures are ineffective in preventing visible dust crossing the Site boundaries, waste processing activities are ceased until additional measures have been put in place to prevent the discharge or until the adverse weather conditions have passed.

14.2 Quantitative Environmental Monitoring

Due to the relatively low quantity of waste being processed through the Facility annually, there is no ongoing air quality monitoring for ambient dust or asbestos fibres.

15. Sampling and Analysis Program

Due to the screening and crushing activities at the Facility, there is a requirement under the DWER asbestos guidelines (*Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities – 18 December 2012*) to undertake regular sampling and analysis of the processed material.

In accordance with the guidelines and based on the Facility activities relating to the processing of inert building material (screening and crushing), sand screened to <10 mm is sampled and analysed.

15.1 Product Specification

The asbestos content of the screened material is not to exceed 0.001% asbestos weight for weight (w/w). That is, there is to be less than 1g of asbestos per 100 kg of screened material for the material to be deemed uncontaminated. In calculating the weight of asbestos, ACM is deemed to contain 15% asbestos.

15.2 Inspection and Sampling Requirements

All types of recycled products are inspected and or sampled and tested for ACM, FA and AF, as outlined below. Inspections and sampling are undertaken by Facility Operators that have received the required asbestos training.

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

The material is sampled from stockpiles. The Facility Operator adequately identifies the location within the stockpile from where the samples have been taken to allow further testing or stockpile separation to occur if asbestos contamination is detected.

15.3 Stockpile Inspection and Sampling

Sampling of the screened fines is spread evenly over the whole stockpile surface. Suspect asbestos material or areas are targeted for sampling.

The sampling of screened products occurs at a minimum rate of 40 locations through 4,000 tonnes or 14 samples per 1,000 m³ of product or parts thereof depending on the stockpile size.

For a “two-sample stockpile”, this represents a stockpile of 140 m³.

15.4 Sample Treatment

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

The <7 mm fraction sample taken is a minimum of 500 mL, whetted, and submitted for laboratory analysis.

15.5 Reduced Sampling Criteria

There is an opportunity that if the Facility can demonstrate that its procedures are able to consistently produce a recycled product that meets the product specification and undertakes the activities to a high standard, the DWER may authorise a reduced product testing rate including down to 5 locations per 4,000 tonnes (one sample per 600 m³) of product.

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

- Activities at the premises have been validated through a DWER inspection or audit to comply with the guidelines;
- DWER has confirmed through an inspection or audit that the conditions of the Part V licence are being met;
- DWER has not undertaken any enforcement action in relation to the activities at the Facility in the last six months;
- Product testing has demonstrated that the product specification has been consistently achieved at the premises for a continuous six-month period;
- 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;
- The quantity of waste processed in the last six months and the different sources/types of materials processed at the Facility; and,
- Department of Health has agreed to the reduction in product sampling rate at the premises.

15.6 Sample and Analysis Method

The following are the Sampling and Analysis Methods set out in the DWER asbestos guidelines:

>7 mm Sample Fractions

Asbestos concentrations (ACM and FA) will 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*. As detailed in the DoH guidelines, averaging asbestos levels across the stockpile is not appropriate and asbestos levels within each sample will 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* (AS4964-2004) or be demonstrated to be able to achieve the equivalent level of result to this Australian Standard.

AS4964-2004 is currently the only method in Australia that has NATA certification; however, the practical 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, DWER 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. One of the following analytical approaches shall be adopted:

- Detected/not 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 that is, the frequency and occurrence of any positive result 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,
- 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; and,
 - Measuring the width and length (ie. volume) of individual fibre by Phase Contrast Microscopic (PCM) and calculating the weight of fibre in the extracted sub-sample.

Whichever analysis methods adopted, the DWER 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 the Limit of Detection of the analysis;
- Results in relation to asbestos detected or not - note that AS4964-2004 allows for a nil detection if the asbestos is less than a certain concentration and is non-respirable; however, the DWER would consider a positive result to exceed the 0.001% w/w limit;
- Description of any asbestos detected; and,
- Estimate of the concentration of asbestos detected if practical to do so.

15.7 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 will 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 will be made of the decision making and action taken eg 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 will 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 Facility will be made.

As a guide, in the case of recycled drainage rock identification of a piece of ACM or FA per 10 m² of surface would be deemed to exceed the specification for that area, and for the whole stockpile if repeated in 2 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 4,000 tonnes) may not be deemed contaminated if repeat samples of immediately adjacent areas do not demonstrate specification exceedances.

The same approach can be applied to the results of the >7mm sieve sampling in regard to the recycled sand material. In this case, a 1 cm³ fragment of ACM or FA would be deemed to exceed the specification for a 10L sample.

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

15.8 Product Supply

Recycled products will only be supplied to Customers from stockpiles that have been sampled and tested in accordance with the DWER Guidelines and shown to conform to the product specification.

16. Asbestos Identified on Site

In addition to the above stockpile sampling and testing process, on identification of any other asbestos at the Facility, the following activities are to be undertaken:

From Known Source or Customer:

- Notification of the Person in Control.
- Notification of the Customer.
- If Customer is still at the Facility, reload asbestos material and Customer removes it from the Facility.
- If Customer has departed the Facility, instruct Customer to immediately return to the Facility to remove the asbestos material.
 - If Customer returns immediately, reload material and Customer removes it from the Facility.
 - If Customer is unable to return to the Facility immediately, handle asbestos as described below as if From Unknown Customer; however, when Customer eventually returns to the Facility, the Customer removes the asbestos from the Facility.
 - If the Customer is unable to return to the Facility within 48 hours of the asbestos material being identified, the Facility Operator is to remove the asbestos from the Facility within 48 hours.
- The Facility Operator is to complete an Asbestos Incident Report (refer Appendix No. 3).

From Unknown Source or Customer:

- Notification of the Person in Control.
- Assess the type and condition of asbestos.
- Utilise the appropriate PPE (Refer Appendix No. 2).
- Separate the asbestos from general loads.
- Wrap the asbestos in accordance with the "Asbestos Wrapping" procedure below.
- Load the wrapped or bagged asbestos into an empty waste bin, truck or loader bucket:
 - Loading operation to ensure that the plastic sheet wrapping or bag is not ripped.
 - The load is not to be dropped, but placed in the bottom of the bin, truck or loader bucket.
- Immediately remove the asbestos to the Temporary Asbestos Storage Area.
- The Facility Operator is to complete an Asbestos Incident Report (refer Appendix No. 3).
- The Person in Control is to review the incident to assess the appropriateness of the existing Asbestos Management Procedure.
- Should any continuous improvement activities be identified, the Person in Control is to carry out the necessary amendment to the Asbestos Management Procedure.

- The Person in Control is to enter the Asbestos Incident Report into the Asbestos Register.
- Asbestos to be removed from the Facility within 48 hours of being identified at the Facility.

17. Asbestos Wrapping

Asbestos is to be wrapped in accordance with the following requirements:

- Utilise the appropriate PPE (Refer Appendix No. 2) while wrapping asbestos.
- Separate the asbestos from general loads.
- Double wrap and tape asbestos in black plastic sheeting (minimum 200 µm thickness) to prevent asbestos fibres entering the atmosphere. In the case of asbestos contaminated soil or asbestos fines, the material is to be damp (not saturated) and packaged in suitable sealed containers (bulka bags, sealed bags)
- Label warning of asbestos – “CAUTION ASBESTOS” in letters not less than 50 mm high is to be adhered to the wrapped bundle or bag of asbestos.
- Bundles and bags of asbestos are to be sized to allow for the appropriate loading and unloading so as to prevent damage to the plastic wrapping or sealed bag.

18. Temporary Asbestos Storage Area

Asbestos is only to be stored in Temporary Asbestos Storage Areas.

At all times there is to be a Temporary Asbestos Storage Area available for the temporary storage of identified asbestos. The Temporary Asbestos Storage Area is to enable the secure, temporary (less than 48 hours) storage of identified asbestos.

In the event that the standard operating procedure is to immediately send the asbestos to the on-site Class I landfill, then there is no requirement to maintain a Temporary Asbestos Storage Area.

19. Asbestos Record Keeping

Records are an important aspect of site operations and there is to be a clear and logical system for keeping records on site. All records relating to environmental protection need to be retained and where appropriate include information relating to:

- Material accepted and material dispatched, rejected materials, including as a minimum;
 - The details of loads arriving/received at the site which have been found to contain asbestos;
 - All rejected loads, with details of:
 - The waste producer;
 - The waste carrier;
 - Vehicle registration number; and,
 - The date of rejection.

- The decision-making process and action taken eg. removal and disposal, further assessment undertaken etc, in relation to identification of asbestos within a stockpile.
- The investigation into the likely cause of the presence of asbestos and its findings together with the details of any preventative measures implemented at the site.
- Asbestos Register containing all Asbestos Incident Reports;
- Emissions or process monitoring results and interpretation;
- Any on or offsite environmental effects including pollution incidents and any associated management response;
- Complaints received and management response;
- Maintenance;
- Non-conformances such as emission limit breaches and associated management response;
- Documentation associated with stockpile inspections and sampling results and details of actions taken in regard to stockpiles or material not meeting the asbestos control specification;
- Training records; and,
- Audit findings and any improvement strategies.

Records must be kept to ensure that the process from receipt of material to the final disposal is auditable and that any loads found to contain suspect asbestos can be traced back to the Customer and originating site.

All records must be available on site, but maybe stored electronically. Records must be made available for inspection by officers from WorkSafe, DoH and DWER on request.

20. Facility Monitoring

Facility monitoring will be undertaken by the Person in Control. Monitoring will be undertaken to confirm the efficiency of the risk management measures are consistent with the objectives of this Procedure.

Monitoring will include visual inspections whilst the Facility is operational to ensure that fugitive emissions of dust are being adequately controlled and are not being carried outside of the premises. Where fugitive dust releases are identified their sources are to be investigated and all reasonable and practicable measures implemented to prevent or minimise the release.

Where risk management measures are ineffective or likely to be ineffective at preventing visible dust crossing the Facility boundary, waste processing activities are to cease until additional measures have been put in place to prevent the discharge or until the adverse weather conditions have passed.

Monitoring is also to include the inspection of asbestos material handling activities to confirm that the handling procedures are in accordance with the requirements of this Procedure.

21. Facility Audit

The Person in Control is to undertake an annual compliance audit to confirm the effectiveness and implementation of materials acceptance, receipt, classification, unloading and inspection procedures. The audit is also to include confirmation of the effectiveness of personnel training including the staff's ability to recognise asbestos, records and document retention, the effectiveness of the AMP and degree to which it reflects on Facility operations.

An annual audit will be carried out by an independent third party (Competent Person) to confirm the appropriateness of the implementation of this Asbestos Management Procedure.

22. Procedure Review

This Procedure is to be reviewed by the Facility Operator at least annually or more regularly if circumstances warrant. This review is in addition to the annual audit and is to consider industry and regulatory changes since the previous review. Where necessary, this Asbestos Management Procedure is to be updated to reflect industry best practice with regards to asbestos management.

Appendices

The following appendices are applicable to this Procedure:

Appendix No. 1 – Examples of Asbestos Containing Materials

Appendix No. 2 – Selection and Use of Personal Protective Equipment

Appendix No. 3 - Asbestos Incident Report

Appendix No. 1 – Examples of Asbestos Containing Materials

(This is not an exhaustive list)

A

Air-conditioning ducts: exterior or interior acoustic and thermal insulation
Arc shields in lift motor rooms or large electrical cabinets
Asbestos-based plastics products - as electrical insulates and acid-resistant compositions or aircraft seat
Asbestos ceiling tiles
Asbestos cement conduit
Asbestos cement electrical fuse boards
Asbestos cement external roofs and walls
Asbestos Cement in the use of formwork when pouring concrete
Asbestos cement internal flues and downpipes
Asbestos cement moulded products such as gutters, ridge cappings, gas meter covers, cable troughs and covers
Asbestos cement pieces for packing spaces between floor joists and piers
Asbestos cement (underground) pits, as used for traffic control wiring, telecommunications cabling, etc
Asbestos cement render, plaster, mortar and coursework
Asbestos cement sheet
Asbestos cement sheet behind ceramic tiles
Asbestos cement sheet internal over exhaust canopies such as ovens, fume cupboards, etc.
Asbestos cement sheet internal walls and ceilings
Asbestos cement sheet underlays for vinyl
Asbestos cement storm drain pipes
Asbestos cement water pipes (usually underground)
Asbestos-containing laminates (e.g. formica) used where heat resistance is required, e.g. ships
Asbestos-containing pegboard
Asbestos felts
Asbestos marine board, e.g. marinate
Asbestos mattresses used for covering hot equipment in power stations
Asbestos paper used variously for insulation, filtering and production of fire resistant laminates
Asbestos roof tiles
Asbestos textiles
Asbestos textile gussets in air-conditioning ducting systems
Asbestos yarn
Autoclave / steriliser insulation

B

Bitumen-based waterproofing such as malthoid, typically on roofs and floors but also in brickwork

Bituminous adhesives and sealants

Boiler gaskets

Boiler insulation, slabs and wet mix

Brake disc pads

Brake linings

C

Cable penetration insulation bags (typically Telecom)

Calorifier insulation

Car body filters (not common)

Caulking compounds, sealant and adhesives

Cement render

Chrysotile wicks in kerosene heaters

Clutch faces

Compressed Asbestos cement panels for flooring, typically verandas, bathrooms and steps for demountable buildings

Compressed Asbestos fibres (CAF) used in brakes and gaskets for plant and automobiles

D

Door seals on ovens

E

Electric heat banks - block insulation

Electric hot water services - normally not Asbestos but some millboard could be present

Electric light fittings, high wattage, insulation around fitting (and bituminised)

Electrical switchboards – see Pitch-based

Exhausts on vehicles

F

Filler in acetylene gas cylinders

Filters - beverage; wine filtration

Fire blankets

Fire curtains

Fire door insulation

Fire-rated wall rendering containing Asbestos with mortar

Fire-resistant plaster board, typically on ships

Fire-retardant material on steel work supporting reactors on columns in refineries in the chemical industry

Flexible hoses

Floor vinyl sheets

Floor vinyl tiles

Fuse blankets and ceramic fuses in switchboards

G

Galbestos™ roofing materials (decorative coating on metal roof for sound proofing)
Gaskets - chemicals, refineries
Gaskets - general
Gauze mats in laboratories / chemical refineries
Gloves - Asbestos

H

Hairdryers - insulation around heating elements
Header (manifold) insulation

I

Insulation blocks
Insulation in electric reheat units for air-conditioner systems

L

Laboratory bench tops
Laboratory fume cupboard panels
Laboratory ovens - wall insulation
Lagged exhaust pipes on emergency power generators
Lagging in penetrations in fireproof walls
Lifts shafts - Asbestos cement panels lining the shaft at the opening of each floor, and Asbestos packing around penetrations
Limpet Asbestos spray insulation
Locomotives - steam; lagging on boilers, steam lines, steam dome and gaskets

M

Mastics
Millboard between heating unit and wall
Millboard lining of switchboxes
Mortar

P

Packing materials for gauges, valves, etc., can be square packing, rope or loose fibre
Packing material on window anchorage points in high rise buildings
Paint, typically industrial epoxy paints
Penetrations through concrete slabs in high rise buildings
Pipe insulation including moulded sections, water-mix type, rope braid and sheet
Pitch-based (e.g. zelemite, ausbestos, lebah) electrical switchboard
Plaster and plaster cornice adhesives

R

Refractory linings
Refractory tiles
Rubber articles - extent of usage unknown

S

Sealant between floor slab and wall, usually in boiler rooms, risers or lift shafts
Sealant or mastik on windows
Sealants and mastics in airconditioning ducting joints
Spackle or plasterboard wall jointing compounds
Sprayed insulation - acoustic wall and ceiling
Sprayed insulation - beams and ceiling slabs
Sprayed insulation - fire retardant sprayed on nut internally, for bolts holding external building wall panels
Stoves - old domestic type; wall insulation

T

Tape and rope - lagging and jointing
Tapered ends of pipe lagging, where lagging is not necessarily Asbestos
Tilux sheeting in place of ceramic tiles in bathrooms
Trailing cable under lift cabins
Trains - country - guards vans - millboard between heater and wall
Trains - Harris cars - sprayed Asbestos between steel shell and laminex

V

Valve, pump, etc. insulation

W

Welding rods
Woven Asbestos cable sheath

Appendix No. 2 – Selection and Use of Personal Protective Equipment

Personal protective equipment may need to be used, in combination with other effective control measures, when working with Asbestos-containing materials. The selection and use of PPE should be based on risk assessments and determined by a competent person.

The ease of decontamination should be one of the factors considered when choosing PPE. Where possible, disposable equipment should be used. All disposable PPE should be disposed of as Asbestos Waste.

Footwear and gloves

Laced boots should be avoided, as they can be difficult to clean and Asbestos dust can gather in the laces and eyelets. Laceless boots, such as gumboots, are preferred where practicable, and boot covers should be worn where necessary.

Safety footwear must be decontaminated before leaving the Asbestos work area for any reason, or sealed in double bags for use only on the next Asbestos maintenance task. Alternatively, work boots that cannot be effectively decontaminated must be disposed of as Asbestos Waste at the end of the job.

The use of protective gloves should be determined by a risk assessment. If significant amounts of Asbestos fibres may be present, disposable gloves should be worn. Protective gloves can be unsuitable if dexterity is required. Workers must clean their hands and fingernails thoroughly after work, and any gloves used they must be disposed of as Asbestos Waste.

Respirators

In general, the selection of suitable respiratory protection equipment depends on the nature of the Asbestos work, the probable maximum concentrations of Asbestos fibres that would be encountered in this work and any personal characteristics of the wearer that may affect the facial fit of the respirator (e.g. facial hair and glasses).

A competent person should determine the most efficient respirator for the task.

Respirators should comply with AS/NZS 1716-2003 Respiratory Protective Devices and be selected, used and maintained in accordance with AS/NZS 1715-1994 Selection, Use and Maintenance of Respiratory Protective Devices. They should always be worn under fitted hoods. Facepieces should be cleaned and disinfected according to the manufacturer's instructions.

Respiratory protective equipment should be used until all contaminated disposable coveralls and clothing has been vacuum cleaned and/or removed and bagged for disposal, and personal washing has been completed. Respirators should be properly stored when not in use.

Appendix No. 3 - Asbestos Incident Report

AMG WA PTY LTD Lot 3 Buller Road, Waroona Sorting and Recycling Facility Licence Number XXX Asbestos Incident Report – Procedure No. 002	
Date Incident Occurred:	_____
Type of ACM Identified:	Sheeting <input type="checkbox"/> Piping <input type="checkbox"/> Dust <input type="checkbox"/> Other <input type="checkbox"/> Specify _____
Quantity of ACM Identified:	_____ _____
Description of Incident:	_____ _____ _____
Person Responsible for Coordinating Activities Name: _____ Designation: _____	
Activities Undertaken:	_____ _____ _____ _____
Future Preventative Measures Adopted:	_____ _____ _____ _____
Facility Manager Name: Signature: Date Report Filed: _____	