# EMS APPENDIX K – CONTAMINATED MATERIALS PROTOCOL

## Procedure

During excavation works there is the potential of encountering in-ground unexpected contamination. Unexpected contamination may include (but not be limited to):

- Asbestos containing materials.
- Buried building rubble.
- Unusual soil staining and discoloration.
- Odours emanating from the ground during earthworks.

Where unexpected finds are uncovered:

- Works are to cease immediately in the vicinity of the excavation.
- The site supervisor is to be informed immediately.
- If deemed necessary the area surrounding the unexpected find is to be barricaded to ensure the area is not further disturbed.
- If required a suitably qualified environmental specialist is to visit the site, assess the discovery and undertake assessment/provide recommendations.

The environmental specialist is to advise on the required course of action for the unexpected contamination, this may include:

- Sample collection and analysis.
- A detailed assessment (if required).
- Preparation of an assessment report and remediation plan (if required).

All reports are to be prepared in accordance with relevant NSW EPA guidance and provided to the relevant regulatory/approval authority and Boral for record keeping.

Where analysis of unexpected contamination indicates a potential risk to either human health and/or the environment, a task specific works plan (as detailed below) may be prepared. The plan is to be developed to outline task specific procedures/processes to be adopted to minimise the risk to human health and/or the environment from any unexpected contamination.

## Task specific works plan

If suspected contamination is encountered, Boral will ensure a task specific works plan is prepared by a suitably qualified environmental professional to ensure all environmental risks are appropriately managed.

1. The works plan should be prepared for the specific works to be undertaken.
2. The works plan should be prepared in accordance with industry best practice standards at the time of works and must comply with all relevant NSW EPA regulatory guideline criteria relating to contaminated sites including measures to ensure compliance with the requirements of SafeWork NSW.

The plan should include (but not be limited to) the following details:

- Risks to human health and the environment – potential risks associated with the work should be highlighted.
- General site management – details of required inductions of employees or contractors.
- Procedures and methods to be used for undertaking the works.

- Specific details of ways to limit disturbance of impacted soils/groundwater/redundant site drainage infrastructure etc.
- Mitigation measures.
- Air/dust monitoring action levels, including monitoring procedures for lower exposure limit and volatile organic compounds around areas of residual hydrocarbon impacts.
- Personal protective equipment.
- Other protection measures (cabin ventilation, etc.).
- Roles and responsibilities for implementing the mitigation measures.
- Soil and groundwater management controls – as a minimum the following requirements should be detailed:

    - Procedures for the testing, removal and disposal of potentially contaminated material.
    - Any groundwater extracted during intrusive works is to be disposed in accordance with NSW EPA waste disposal guidance.
    - Excavated soils should be placed in a bunded area to minimise potential run off.
    - Excavated concrete containing asbestos formwork should be covered following excavation to prevent wind-blown emissions of potential asbestos.
    - Soil / concrete material should be kept moist to limit dust.
    - Excavated materials, where possible, be replaced in the same location. Where this is not practical, material must be disposed of in accordance with NSW EPA waste disposal regulations.
    - Excavated concrete materials containing asbestos formwork are not to be replaced in the site and are to be disposed offsite in accordance with NSW waste disposal requirements at the time of works.

- Reinstatement of the site surface.
- Waste management including waste disposal.
- Record keeping, audit and review.

## Emergency response

In the event of any incident, the first priority shall be the safety of all personnel and the community in the immediate vicinity.

In the event of an incident involving suspected contaminated material at the site, the site's emergency response plan is to be followed. The instructions for this will be found on the duty card specific to asbestos/suspected contaminated material (refer Attachment 1).

The duty card details stopping of work, evacuations as necessary and handling of the contaminated materials.

Following emergency response, all practical steps should be taken to minimise the risk of further environmental damage as soon as possible after the event. The situation should be stabilised by following the appropriate incident management or contingency plan procedures. The appropriate staff should be notified and emergency procedures enacted.

Typical first response actions may include:

1. Assessment of vapour concentrations/asbestos fibre counts from air monitoring in excavation areas and associated risk to human health.
2. Temporary repair or isolation of failed plant/equipment component.
3. Sampling of impacted site media, be it soil, groundwater and/or surface water.

Follow-up action will include the development of a work plan to remediate or manage the impacted site media. The work plan would detail any sampling and analysis requirements to define the nature and extent of impact, methods for the recovery, handling, storage and treatment of

impacted material, disposal and/or reuse options for impacted material and personal protective equipment requirements.

Records will be kept of any incidents, accidents, hazardous situations, unusual events and unsafe health exposures and the corrective action taken. Where necessary, this procedure should be updated based on findings of corrective actions/improvements etc.

# Reporting

Reporting in relation to unexpected contamination is summarised in Table 1.

**Table 1**

| Report | Requirement |
|---|---|
| **Material classification reports** | ▪ All reports relating to unexpected contamination are to be kept by Boral upon completion of works.<br>▪ Reports are to include detailed laboratory analysis and subsequent classification information and materials tracking information detailing the total volume and final placement/disposal location. |
| **Non-conformance reporting** | ▪ Non-conformances will be recorded in a non-conformance and corrective action report. Details of the non-conformance, including any immediate corrective actions undertaken, are to be recorded by the operational staff.<br>▪ It is the responsibility of the site manager to immediately initiate corrective actions, if required. Once completed, the site manager will provide details of the actions undertaken on the non-conformance report and sign, date and file the report. |
| **Incident reporting** | ▪ Records will be kept of any environmental incidents, accidents, hazardous situations, unusual events and unsafe health exposures and the corrective action taken.<br>▪ The site manager will adequately investigate the cause of any incident so that necessary changes in work practices can be made to prevent the incident recurring. |
| **Performance monitoring** | This procedure should be reviewed by Boral after incidents or reported findings, to ensure that:<br>▪ Information and environmental management strategies remain current.<br>▪ Any opportunities for improvement are identified.<br>▪ Changes to legislation, licence and approval conditions are identified and complied with.<br>The assessment should take into account all changes such as (but not limited to):<br>▪ Changes to site conditions.<br>▪ Work requirements.<br>▪ Legislation.<br>▪ Environmental condition. |

# Attachment 1 - Duty Card

| Emergency Procedure | Asbestos / Suspected Contaminated Material Incident |
|---|---|
| **What happened?** | Where Asbestos Containing Material (ACM) or other suspected contaminated material is thought to have been encountered unexpectedly and/or disturbed |
| **Immediate response** | 1. Any person who believes that friable asbestos or suspected contaminated material is present in their work area should immediately report it to their supervisor and restrict access to the area.<br><br>2. All work associated with the ACM / suspected contaminated material should cease. Any open Authority to Work permits should be cancelled or suspended until the site has been declared safe.<br><br>3. The site manager / WHS Partner should arrange for the material to be sampled by an external competent person; Sample/s must be sent for analysis.<br><br>4. Expert advice from an occupational hygienist or a subject matter expert should be obtained regarding the appropriate course of action.<br><br>5. If sampling confirms the presence of asbestos refer to the “Code of Practice for the Safe Removal of Asbestos”. Broadly the Code of Practice requires:<br><br>▪ The continued restriction of access to the area<br>▪ The identification of a competent/licensed asbestos removalist<br>▪ An asbestos removal control plan<br>▪ An emergency plan<br>▪ Clearance to reoccupy an asbestos work area<br><br>6. For other suspected contaminated material all contamination investigation / management and remediation must only be undertaken by a suitably competent person / contractor |

| Emergency Procedure | Asbestos / Suspected Contaminated Material Incident | |
|---|---|---|
| **Further response** | 7. The event should be recorded as a near miss in the Incident Management System with the description of the event as “Suspect Asbestos or Asbestos Containing Material / Suspected Contaminated Material” identified in the description of the event. The Incident Management System entry should list the exact location of the material identified.<br><br>8. A toolbox meeting should be held informing all affected parties of the action taken to assess the nature of the material, and to advise of the required course of action to be taken in relation to any possible exposures that may have occurred.<br><br>9. The site Workplace Health and Safety Committee should be informed of the occurrence.<br><br>10. On confirmation of the presence of ACM /Suspected Contaminated Material by the testing undertaken, a minimum short form investigation should occur.<br><br>11. In the event that the testing confirms a material not containing asbestos or contaminated material, the SEQuence event should be updated to reflect the findings and closed out (the rating on the event may be downgraded to ‘low’).<br><br>12. A safety notice or similar should be issued to persons working at the site. The issuing of a safety alert should be considered in consultation with the regional WHS Manager. | |
| **Who is in charge?** | The Site Manager is in charge of this type of incident. | |
| **Who to call**<br><br>Upon identifying this type of emergency, urgently contact. | **Name**<br><br>Immediate Supervisor<br><br>Site Manager<br><br>WHS Business Partner<br><br>National Health and Hygiene Manager | **Contact no:**<br><br>Various<br><br>231/261<br><br>0401 895 449<br><br>0401 893 364 |
| **Emergency equipment required** | ▪ Appropriate signage erected to identify materials.<br>▪ Site communication devices. | |

| Emergency Procedure | Asbestos / Suspected Contaminated Material Incident |
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| **Resuming operations** | ▪ All employees and contractors who may have been affected by an accidental release of ACM /Contaminated material should be offered the services of the Boral Employee Assistance Program.<br>▪ Hazardous Materials Register should be updated to reflect the material tested, regardless of whether the results of the testing were positive or negative.<br>▪ Ensure that any asbestos containing material is identified with clear and concise signage. |