

CONTAMINATION

PURPOSE AND SCOPE

The intent of this document is to eliminate or minimise the risk of environmental harm as a result of contaminants on Gamuda Australia (GA) projects / workplaces.

CRITICAL CONTROLS

- A specific risk assessment is conducted for contamination aspects.
- A Remediation Action Plan (RAP) is developed and implemented for significant remediation / contamination activities.
- Where contaminants are identified, materials are effectively handled, stockpiled, treated, and reused and/or disposed of correctly.
- Water runoff from contaminated land and stockpiles will be contained, treated and/or disposed of appropriately.
- All vehicles, plant and other machinery that have been in contact with contaminated soil are decontaminated prior to leaving site.
- All movement of contaminated materials are tracked and monitored.
- All relevant personnel are informed of the requirements of the contamination management / remediation action plan/s.
- Regular inspections are completed and recorded for all contamination / remediation aspects.

Note: The above controls are to be read in conjunction with the Regulations, Standards and Codes listed below.

CONTAMINANT CONSIDERATIONS

Contaminated land refers to land that contains substances that are actually or potentially hazardous to health or the environment, often resulting from commercial, industrial, and agricultural activities.

Contaminants include, but not limited to, the following:

- Hydrocarbons
- Polyaromatic hydrocarbons
- Polychlorinated biphenyls (PCBs) and pesticides
- Heavy metals such as lead, arsenic, cadmium, and mercury
- Radioactive waste
- Unexploded ordinance
- Asbestos
- Acid Sulfate Materials (ASM), (Acid Sulfate Soils (ASS) and/or Potential Acid Sulfate Soils (PASS)
- Biologically pathogenic materials and waste.

Where actual or potential contamination has been identified:

- A Phase 1 Investigation must be undertaken, and a Report must be developed which includes the findings of the assessment. If the risk of contamination is determined to be moderate (or higher) a Phase 2 Investigation needs to be undertaken.
- A Phase 2 investigation must be undertaken prior to the commencement of any activities on site. The findings of this investigation will be documented in a Report which provide a detailed analysis on presence and concentration of contamination, ASS/PASS, and asbestos.
- If a Remediation Action Plan is required, the Project Contamination Auditor will be required to review and approve this document before it can be implemented.

REGULATIONS, STANDARDS AND CODES

- National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999, National Environment Protection Council (NEPC 2013)
- Protection of the Environment Operations Act 1997 (POEO Act) (NSW)
- Contaminated Land Management Act 1997 (NSW)
- Guidelines for the NSW Auditor Scheme (2nd Edition), Department of Environment and Conservation NSW (DEC 2006)
- Environment Protection Act 1970 (Victoria)
- Environmental Protection Act 2017 (Victoria)
- Environment Protection Amendment Act 2018 (Victoria)
- Environmental Protection Act 1994 (Queensland)
- Contaminated Sites Act 2003 (WA)
- Environment Protection Act 1993 (SA)
- Environmental Management and Pollution Control Act 1994 (Tasmania)
- Environment Protection Act 1997 (ACT)
- Waste Management and Pollution Control Act 1999 (Northern Territory)

FORMS AND CHECKLISTS

- **GA-FRM-HSE-153** Waste Tracking Register
- **GA-FRM-HSE-154** Environment and Sustainability Inspection