

# Land Standard

AGL-HSE-STD-008.1

## 1. Scope and Applicability of Standard

This Standard applies to, and must be adhered to during all stages of activities and works (including planning, development, construction, operation, maintenance and decommissioning) that are, or will be, carried out in respect of AGL sites that are owned, occupied, operated, managed or controlled by an AGL Entity or third party appointed by an AGL entity unless stated otherwise in the contract.

If there is any doubt about the applicability of this Standard, contact the AGL HSE team and AGL Legal.

Definitions of terms used in this Standard are set out in section 3.

## 2. Requirements

### 2.1 Planning

STD Ref No.	Minimum Controls
2.1.1	<p>Planning for works that may have actual or potential land impacts must:</p> <ul style="list-style-type: none"> <li>involve the AGL Environmental Representative and other subject matter experts where required;</li> <li>review internal and regulator contaminated land registers and historical land uses where encountering contaminated land is identified as a risk;</li> <li>review the relevant legal and regulatory requirements that apply to the site and proposed activities;</li> <li>determine if existing or new regulatory, planning or other approvals apply; and</li> <li>determine if an internal permit to work (e.g. Ground and Vegetation Disturbance Approval Procedure) is required.</li> </ul>
2.1.2	<p>The site approach to applying the AGL Health, Safety and Environmental Management System (<b>HSEMS</b>) to activities with respect to land is to be documented in the site Environmental Management Plan (<b>EMP</b>).</p> <p>A specific Land Management Plan (or similar), Remediation Action Plan (<b>RAP</b>) or Contaminated Land Management Plan (<b>CLMP</b>) (as appropriate) is to be developed where:</p> <ul style="list-style-type: none"> <li>required by legislation; or</li> <li>the potential for offsite land impacts has been identified; or</li> <li>the potential for regulatory or approval breaches have been identified.</li> </ul>
2.1.3	<p>A Rehabilitation Plan must be developed, documented and implemented for land requiring rehabilitation.</p>

STD Ref No.	Minimum Controls
2.1.4	<p>Before works commence:</p> <ul style="list-style-type: none"> <li>• all approvals, including licences and internal permits to work, must be obtained; and</li> <li>• measures must be taken to ensure all approval requirements, including monitoring and reporting, will be adhered to during the carrying out of works.</li> </ul>
2.1.5	<p>If a regulatory authority issues an order or notice requesting or requiring:</p> <ul style="list-style-type: none"> <li>• a contaminated land assessment to be conducted;</li> <li>• contaminated land to be remediated;</li> <li>• ongoing prevention of contamination; or</li> <li>• ongoing maintenance of contaminated land,</li> </ul> <p>all timeframes and other requirements must be complied with.</p> <p>If there is any doubt as to the regulator’s authority or ability to require the relevant information or actions to be carried out, contact AGL Legal.</p>
2.1.6	<p>Review available spatial data (Geographical Information Systems) information.</p>

## 2.2 Risk Management

STD Ref No.	Minimum Controls
2.2.1	<p>In accordance with AGL’s Fully Integrated Risk Management (FIRM) process, actual and potential land risks must be identified and documented before works commence and controls to mitigate those risks must be implemented. Control measures are to be aligned with legislative, contractual and approval requirements, and the requirements of this Standard.</p>
2.2.2	<p>Where activities that may impact land cannot be avoided, they must be managed in accordance with the following management hierarchy where practicable:</p> <ul style="list-style-type: none"> <li>• minimise extent of disturbance or activity; and</li> <li>• manage impacts in accordance with relevant guidelines prescribed by the regulatory authority, site EMP and other relevant plans.</li> </ul>

## 2.3 Acid Sulfate Soils

STD Ref No.	Minimum Controls
2.3.1	If there is a risk of disturbing Potentially Acid Sulfate Soils ( <b>PASS</b> ) or Acid Sulfate Soils ( <b>ASS</b> ) regulatory guidelines must be followed. When these are not available, comparable or internationally recognised PASS & ASS management protocols must be used.

## 2.4 Land Contamination

STD Ref No.	Minimum Controls
2.4.1	<p>Areas where hazardous chemicals, wastes and plant are used, stored and/or handled must be:</p> <ul style="list-style-type: none"> <li>• fitted with appropriate engineering spill and containment controls;</li> <li>• located considering the risk of such areas being impacted by site activities, third party activities and extreme weather events (e.g. flooding);</li> <li>• used, operated and maintained according to manufacturer guidelines; and</li> <li>• regularly inspected so any deficiencies are promptly rectified.</li> </ul>
2.4.2	Land suspected or identified as being contaminated must be documented in the AGL Contaminated Land Register.
2.4.3	Contaminated land must be reported to the regulatory authority where required by legislation.
2.4.4	<p>Where areas of suspected or known contamination have been identified, works cannot proceed until:</p> <ul style="list-style-type: none"> <li>• the areas are confirmed as not contaminated; or</li> <li>• those areas are clearly demarcated on site to prevent inadvertent disturbance apart from planned and approved remediation works; and</li> <li>• once remediated, validated as being suitable for the proposed activities in accordance with the RAP or CLMP.</li> </ul>

## 2.5 Land Rehabilitation

STD Ref No.	Minimum Controls
2.5.1	Rehabilitation of disturbed land must be carried out in a safe, stable, and non-polluting condition and to the agreed land use(s) in consultation with stakeholders in accordance with relevant legislation, approvals, agreements and the Rehabilitation Management Plan.

## 2.6 Monitoring and Improvement

STD Ref No.	Minimum Controls
2.6.1	The effectiveness of controls must be monitored through inspections and assurance activities at a frequency that is consistent with the level of risk.
2.6.2	Sampling and measurement equipment must be calibrated, inspected, tested, and maintained in accordance with licence/approval conditions, and relevant regulatory, manufacturer and Australian Standard (AS/NZS) requirements.
2.6.3	Accredited environmental laboratory services (i.e. certified by National Association of Testing Authorities ( <b>NATA</b> ) or equivalent accreditation bodies) must be used for analysis of land samples.
2.6.4	Data Quality Assurance (QA) and Quality Control (QC) procedures must be implemented for conducting sampling and analysis of land samples.
2.6.5	Upload all available relevant spatial data (Geographical Information Systems) information to site databases.

## 2.7 Training and Competency

STD Ref No.	Minimum Controls
2.7.1	Land requirements (including monitoring, reporting and regulatory requirements), risks and controls, particularly areas that cannot be disturbed, must be communicated to employees, contractors and third parties (such as suppliers or visitors) through site inductions, toolbox talks, training programs and contractual documentation relevant to their scope of work.
2.7.2	<p>A suitably qualified contaminated land professional must be engaged where prescribed by legislation, including to prepare any Remediation Action Plan and/or Contaminated Land Management Plans (CLMP) as prescribed by the regulatory authority.</p> <p>In addition, where specialist expertise is not available in-house, the professional advisor's scope of work may include to:</p> <ul style="list-style-type: none"> <li>• assist with and/or undertake assessments of suspected and known contaminated land as prescribed by the regulatory authority;</li> <li>• support AGL to obtain the necessary approvals to manage the contaminated land; and</li> <li>• support AGL implement the requirements of the CLMP, RAP and approvals.</li> </ul>

## 2.8 Incidents

STD Ref No.	Minimum Controls
2.8.1	Releases, spills, leaks or loss of containment incidents must be cleaned-up promptly in accordance with site procedures.
2.8.2	Where breaches or non-compliances are identified, corrective actions must be implemented within a timeframe commensurate with the risk.
2.8.3	The site Emergency Response Plan must include management of significant environmental incidents resulting in land contamination (i.e. major releases, spills, leaks or loss of containment) where identified as a potential risk.
2.8.4	Hazards, near misses and incidents resulting in potential or actual land contamination must be reported and investigated in accordance with the AGL HSE Incident, Near Miss and Hazard Management Standard (AGL-HSE-STD-011.1).
2.8.5	Incidents that result in land contamination must be reported to the regulatory authority, in accordance with legislative notification requirements, the site EMP and other relevant plans.  If there is any doubt as to notification requirements to the regulator, contact the Environmental Representative and AGL Legal.

## 3. Definitions

Term	Definition
AGL Entity	Any AGL entity within the AGL Group, including AGL Energy Limited and any subsidiary, associated Company or related Body Corporate (as defined in the <i>Corporations Act 2001</i> (Cth)), including all controlled or managed entities.
Acid Sulfate Soils (ASS)	Acid Sulfate Soils are naturally occurring soils that contain iron-sulfides, which when exposed to air oxidise and produce acids. The acids can then leach, and release other substances (e.g. heavy metals), causing serious harm to the environment (e.g. can have severe impacts on flora and/or fauna).
Agreed Land Use	Agreed land use refers to the selected land use for an area that has been remediated and/or rehabilitated. Agreement is reached in consultation with key stakeholders (e.g. land owner and regulatory authority) and considers legislation and regulatory requirements, land use of surrounding areas and conservation, ecological and heritage values of the area.
Contaminated Land	The relevant jurisdictional definition of contaminated land under applicable law or policy requirement will apply, however, generally, for the purposes of this Standard (and without limiting any legal definition), contaminated land refers to land where chemical substance(s)

Term	Definition
	<p>or physical substance(s) (e.g. asbestos) are present in concentration(s) above the background or acceptable levels, that result or have the potential to result in real or potential harm to human health and/or the environment.</p> <p>Heavy metals (e.g. arsenic, cadmium, chromium, copper, mercury, nickel, zinc, and lead), petroleum fuels and oils, tars, and chemicals (e.g. solvents) are examples of substances often associated with contaminated land.</p>
Environmental Representative	Applies to the person that has been assigned responsibility for Environmental Management of the facility, location or site.
Hazardous Chemicals/Wastes	Hazardous chemicals/wastes pose a significant threat to human health and/or the environment if people or the environment are exposed to them. Typically, these have toxic, corrosive, flammable, explosive, or radioactive characteristics.
Land	The surface of the Earth that is not covered by water. Land includes soils, rocks, and minerals.
Land Contamination	Land contamination occurs when there is a noticeable (i.e. identified visually and/or by smell) or measurable change in the land characteristics, due to the presence of chemical/physical substance(s) at levels that pose a risk of harm to human health and/or the environment. Refer also to the 'Contaminated Land' definition.
Land Disturbance	Land disturbance refers to a change in the land surface, as a result of clearing, grading or excavation works. These works can be carried out manually and/or by use of machinery.
Land Rehabilitation	<p>Land rehabilitation is the process of returning land to a suitable and safe state, for both people and the environment, after land use activities and/or natural disaster has resulted in its damage.</p> <p>Rehabilitation may be constrained not only by physical attributes of the area (i.e. climate, soil/rock types and size) but also by regulatory requirements such as land use planning and specific approval conditions.</p>
Land Remediation	<p>Actions taken to respond to land contamination, including:</p> <ul style="list-style-type: none"> <li>• removal, dispersion, destruction, reduction, mitigation, or containment of land contamination; or</li> <li>• elimination or reduction of any hazard arising from land contamination (e.g. preventing people or animals entering the land).</li> </ul>
Land Use	Land use refers to how land resources are used by humans. Land uses include the modification and/or management of land for industrial, residential, agriculture, mining, forestry, and other uses (e.g. conservation areas).

Term	Definition
Potential Acid Sulfate Soils (PASS)	Potential acid sulfate soils are soils containing iron sulfides (commonly pyrite) which have the potential to produce sulfuric acid if they are drained or excavated.

## 4. Supporting Documents

The following AGL documents may also apply to land disturbance works and should be reviewed.

Document	Description
AGL-HSE-STD-004.2	Permit to Work Standard
AGL-HSE-STD-007.6	Plant and Equipment Management Standard
AGL-HSE-STD-008.2	Groundwater Standard
AGL-HSE-STD-007.9.1	Hazardous Chemicals and Substances Standard
AGL-HSE-STD-008.6	Biodiversity Standard
AGL-HSE-STD-008.7	Waste Standard
AGL-HSE-STD-011.1	HSE Incident Near Miss and Hazard Management Standard
AGLM-HSE-PRO-008.01	Ground and Vegetation Disturbance Approval Procedure
-	AGL Risk Management & Assessment Standard

## 5. Document Control

Version	Reviewed by	Approved by	Date approved	Next Review
5.0	Head of HSE Systems, Reporting and Governance & Head of Environment	General Manager, HSE	02/05/2025	02/05/2028