

Guidelines for Environmental Site Assessments at Adelaide and Parafield Airports

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Background

Activity at leased federal airports is controlled by the *Airports Act 1996* (Airports Act) and *Airports (Environment Protection) Regulations 1997* (Airports Regulations). Since 1998 the framework for managing airports has consisted of an airport-lessee company leasing the land from the Federal Government. On behalf of the government the Department of Infrastructure and Transport (DoIT) administers the Airports Act and the airport-lessee company is responsible for managing airport activity and reporting back to DoIT. To ensure that protection of the environment on airports remains paramount, an Airport Environment Officer (AEO) is employed by DoIT to administer the Airports Act and the Airports Regulations.

In certain circumstances, under the Airports Regulations there may be a requirement for an Environmental Site Assessment (ESA) to be undertaken on Airport for the purpose of determining the existence of soil and/or groundwater pollution.

The determination of the need for any ESA is the responsibility of the AEO for the Airport in the following circumstances:

- When the soil or groundwater in an area of environmental significance, or otherwise, is contaminated by a specified pollutant to the extent defined in the Airports Regulations, or is possibly migrating to another place
- When the area is likely to have previously been subject to a contaminating activity and is subject to a sub-lease, or license, that is proposed to be terminated or transferred (in which case an ESA is necessary two months before lease expiration or assignment)
- When the soil in an area of land is effected by a proposed change of use under a Master Plan that warrants greater environmental protection measures because the future use will result in the land being used in a way, or for a purpose, that it is reasonably likely to cause greater harm to the environment, or to the health and safety or welfare of occupants or stakeholders.

Under relevant leasehold tenure, being predominantly ground leases for land with a history of activities likely to cause contamination, an initial ESA is considered prudent, or may be specified as a condition precedent of the lease, specifically to ascertain the contamination status of the land and set a baseline as necessary for eventual lease relinquishment (if such is deemed necessary by the AEO under the above circumstances).

Where an ESA is included as a lease requirement, it will be referred to the AEO by Adelaide Airport Limited (AAL) or Parafield Airport Limited (PAL) in the event of or risk of soil and/or groundwater pollution.

Objectives

The objectives of an **'initial'** ESA should be to:

1. Ascertain the contamination status of the site prior to activities being undertaken by the new lessee
2. Provide baseline information to determine if proceeding tenant activities cause soil and/or groundwater contamination requiring clean up prior to lease relinquishment by the lessee.

The objectives of a **'final'** ESA should be to:

1. Ascertain the contamination status of the site from preceding activities undertaken by the lessee
2. Provide sufficient site contamination information to compare against the results of the initial ESA to determine if tenant activities undertaken on that site have caused contamination requiring clean up prior to lease relinquishment.

Consultants

An ESA on airport land should involve an assessment of soil and/or groundwater and must be undertaken by a competent person/organisation with adequate environmental experience and training. There are a number of specialist consultancy companies who offer services for undertaking such works that meet the general requirements of the South Australian Environment Protection Authority (SA EPA).

Careful consideration should be taken when choosing a consultant as individual site assessments may require specific background knowledge and expertise. The following options are available for choosing a suitably qualified consultant:

- Contact a company that employs a Site Contamination Auditor accredited by the EPA. The auditor register is available on the EPA website (available at www.epa.sa.gov.au)
- Contact the South Australian branch of the Australian Contaminated Land Consultants Association (ACLCA) for a list of current members on 08 8243 2505 or available at www.aclca-sa.org.au
- Seek advice from a trusted person who has previously engaged a consultant who successfully demonstrated acceptable standards of competency and completed similar projects successfully.

Sampling Requirements

The minimum requirements that need to be met by an ESA include the following:

- The methodology used is to be consistent with the *National Environment Protection (Assessment of Site Contamination) Measure 1999*
- The scope of the assessment must consider previous activities on site that may have caused contamination and deem the site as a whole or in parts as contaminated
- The scope of the assessment must consider the activities to be undertaken as part of the lease, which may cause contamination issues that may be subject to review under the Airports Regulations. For example, if an underground storage tank is to be used/installed, then it is expected that the initial

ESA will provide scope to include soil sampling at depth or down gradient from the proposed location of the underground storage tank and possibly groundwater assessment to provide sufficient background information should the tank leak/rupture during the period of the lease

- The number of soil samples should be adequate enough to characterise the site. The scope may include the sampling (and analysis) of soils from various depths in the soil profile, within any fill layers and natural soil, and will ensure an adequate quality assurance and quality control program is included in the scope of works to verify that the results obtained are indeed viable
- Soil samples should be collected from fill layers as well as from natural soils to provide adequate information for determining the contamination status of the site.

ESA Report Content

The report should provide as a minimum:

- Lease and site description, including tenant details and site address
- Aerial photo indicating site boundary and sampling locations
- Clear statement of ESA objectives
- Brief background to the site's history, in terms of activities/use on site, and details on the new activities to be undertaken
- Methodology and justification, where warranted, for the positioning of soil sampling locations
- Site plan showing any improvements on the site, site boundary, position of sampling locations, orientation (indicate north) and any details relevant to the ESA, such as inferred groundwater flow direction if groundwater investigations formed part of the ESA
- Soil bore logs and groundwater well construction details (including a copy of the Department for Water well permit and GPS locations of the installed groundwater wells)

ESA Report Content (cont)

- Laboratory reports, as received by a National Association of Testing Authorities (NATA) certified laboratory, with a summary table comparing results with Schedule 3 Soil pollution - accepted limits and Schedule 2 Water pollution - accepted limits, of the Airports Regulations, as required. Advice may be sought from AAL/PAL as to which criteria are most appropriate for the site under investigation, based on surrounding land uses
- Assessment of results against Schedules 2 and 3 of the Airports Regulations
- Statement on site condition, based on the results and assessment of the ESA.

Consistent with the provisions for Notices under airport leases, and if not directed to the AEO in accordance with instructions, reports should be in the following format:

- Hardcopy report (x2)
- Electronic file
 - Full report in pdf (not password protected)
 - MS Excel spreadsheet of summarised soil and groundwater data.

These reports will be referred by AAL/PAL to the AEO in the event of actual or potential soil and/or groundwater pollution.



Assessment

The AEO has the right to request additional soil and/or groundwater monitoring based on the results of the ESA and consistent with the provisions of the Airports Regulations.

It should be noted that the airport is on Commonwealth land and therefore soil and groundwater pollution is not in the jurisdiction of the South Australian Environment Protection Authority.

The installation of groundwater wells requires Building Activity Consent and Approval under the *Airports (Building Control) Regulations 1996*. Two approvals are required: one from AAL/PAL and one from the Airport Building Controller. Please refer to the **Building Activity Application Package - Adelaide and Parafield Airports** for further information (available at www.adelaideairport.com.au)

Further Guidance and References

The Environment Manager or members of the AAL/PAL Environment Department can assist in clarifying AAL/PAL's expectations of ESA's and can provide historical information on a site, where required.

Published documentation which may provide further assistance includes:

1. *National Environment Protection (Assessment of Site Contamination) Measure 1999*, National Environment Protection Council (www.nepc.gov.au/nepms)
2. Guidance provided by South Australian Environment Protection Authority (EPA), www.epa.gov.au
3. AS 4482.1:2005, *Guide to the sampling and investigation of potentially contaminated soil - Non-volatile and semi-volatile compounds*;
4. AS 4482.2:1999, *Guide to the sampling and investigation of potentially contaminated soil - Volatile substances*;
5. AS 4964:2001, *Method for the qualitative identification of asbestos in bulk samples*;
6. AS/NZS 5667.11:1998, *Water quality - Sampling - Guidance on sampling of groundwaters*.



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