Guideline

Waste Fill Importation and Soil Management

June 2018

Purpose

This document provides guidance on the assessment of fill material imported onto Adelaide and Parafield Airports and the management of excavation spoil within the airports ('on-airport'). It outlines the processes and methodologies for assessing and managing imported fill materials and excavation spoil.

Scope

This guideline applies to the management of soils and imported fill materials on both Adelaide and Parafield Airports.

Definitions

Fill material - any soil, rubble and/or bulk materials imported from off-site sources to be utilised on-site, often sub soil material which contains little organic matter

Quarry rubble/sand - non organic, graded material purchased from a licensed quarry/mine

PFAS – Per- and poly-fluorinated alkyl substances, chemicals principally associated with the historical use of aqueous firefighting foams (AFFF).

Process - Imported Fill

Where it has been established that fill importation will be required for proposed on-airport construction and development activities, the relevant Building Activity (BA) applicant must include a statement in their BA submission that fill will be imported onto the airport. If a requirement for fill importation is identified after the commencement of construction and development works the BA applicant must notify and seek approval from the AAL/PAL Project Officer.

An assessment of the fill material is to be undertaken in a manner consistent with the guidance provided in the AAL Environmental Site Assessment Guideline by a suitably qualified environmental consultant.

All fill material being brought onto the airport site must be certified as compliant with the Waste Fill disposal classification as defined by the SA EPA *'Standard for the production and use of Waste Derived Fill'* and the chemical criteria provided in the associated, *'Current criteria for the classification of waste—including Industrial and Commercial Waste (Listed) and Waste Soil*' document.

Fill material obtained from a licensed quarry or sand mine is defined as quarry rubble and need not be separately sampled, however certification from the quarry that the material is chemically compliant with Waste Fill criteria is required.

Process - Excavation Spoil

Where it is known that excavation spoil is to be generated due to construction and development activities on-airport, the results of previous soil testing (including baseline assessments) can in some circumstances be used to determine how spoil might be managed.

Where previous soil test results are unavailable or deemed to be inadequate by the AAL Environment Department, testing of site soils may be required to assess site soils and determine the appropriate management of excavation spoil. Where it is expected that development and construction activities are expected to generate large volumes of spoil, *in situ* testing undertaken prior to the commencement of site works will allow for:

- the management strategy for excavation spoil to be incorporated into construction environmental management plans
- inclusion of costs for off-site disposal in construction budgets.

Assessment

All assessments are to be undertaken in accordance with the:

- AAL Environmental Site Assessment Guideline
- National Environment Protection (Assessment of Site Contamination) Measure 1999

- Airport (Environment Protection) Regulations 1997 (AEPR 1997)
- AS4482.1-2005: Guide to the investigation and sampling of sites with potentially contaminated soil

Sampling, analysis and reporting must be undertaken by a suitably qualified and competent environmental consultant with sufficient environmental experience and qualifications. Using an appropriately qualified and experienced environmental consultant will help ensure assessments are compliant with the guidance and legislation listed above.

There are a number of specialist consultancy companies who offer services for undertaking such works that meet the general requirements of the SA EPA. Careful consideration should be taken when choosing a consultant for each particular job; further guidance may be found in the Guidelines for Environmental Site Assessments at Adelaide and Parafield Airports.

Assessment of imported fill can be undertaken using either:

- samples collected from stockpiled material; or,
- intrusive *in situ* soil samples collected from all identified fill and natural soils layers to be excavated at the source location.

All chemical analyses must be conducted by a suitably accredited National Association of Testing Authorities (NATA) laboratory.

PFAS Contaminated Excavation Spoil

PFAS contamination is not currently directly regulated under the AEPR 1997. PFAS contamination is instead presently managed in accordance with the Guideline on Environmental Management issued by the Department of Infrastructure and Regional Development (DoIRD) and guidance provided in '*Managing PFC Contamination at Airports Interim Contamination Management Strategy and Decision Framework',* developed by Airservices Australia (AsA) in collaboration with DoIRD.

The interim AsA/DoIRD guidance provides a range of management options for PFAS contaminated soils, including both on-airport and off-airport management. At present the South Australian Environment Protection Authority (SA EPA) does not allow for the disposal of PFAS contaminated soils at licenced waste management facilities.

Management options for PFAS contaminated soil are therefore currently limited to on-airport management in accordance with the interim AsA/DoIRD interim guidance. Decisions on the management of PFAS contaminated soils need to be made in consultation with the AAL/PAL Environment Department and the Airport Environment Officer.

Use of Excavation Spoil

Potential on-airport management of excavation spoil is to be determined using the AEPR 1997. Off-site disposal of excavation spoil must be managed in accordance with the guidance provided for imported fill.

Reinstatement to exactions

Where appropriate (e.g. service trenches) spoil can be reinstated to excavations from which they originated without laboratory testing.

Re-use on-site

Where excavation spoil cannot be reinstated to excavations and the results of soil testing indicate that chemical concentrations are below the AEPR 1997 criteria, AAL/PAL encourage the re-use of excavation spoil on-site for legitimate purposes (e.g. landscaping).

Re-use at other sites on-airport

If excavation spoil cannot be retained for legitimate use/s on the development site and chemical concentrations are below the AEPR 1997, excavation spoil can be used at other sites on the airport, where a legitimate use has been identified.

Re-use on-site or on-airport with chemical concentrations above AEPR 1997

Where chemical concentrations in site soils are above the AEPR 1997, re-use of excavation spoil on-airport will be dependent on soil testing results and the proposed site activities. To assess the suitability of excavation spoil for re-use in these circumstances, the following may also be required:

- additional soil testing
- an assessment of environmental and human health risks
- management measures directed at mitigating any identified risks.

The AAL/PAL Environment Department will provide guidance in assessing potential spoil re-use.

Off-site disposal

Where there is no legitimate opportunity for re-use, excavation spoil is to be disposed of to an appropriately licenced waste management facility, where appropriate testing has been undertaken by a suitably qualified and experience environmental consultant.

Reporting

Prior to the importation of fill or the re-use/disposal of excavation spoil, the AAL/PAL Environment Department must be provided with a copy of any assessment reports, which need to include:

- the location and source of fill/soil/spoil material including a definite statement as to whether the source site has been the location of a potentially contaminating activity
- expected amount to be imported/generated
- general description of the fill/soil/spoil, including any waste content
- analytical results
- comparison of results against the AEPR 1997 and/or waste classification criteria
- where appropriate, a statement of the disposal classification of imported fill or excavation spoil.

References

AAL/PAL Building Approval Application Package

South Australian Environment Protection Authority (SAEPA) Standard for the production and use of Waste Derived Fill
http://www.epa.sa.gov.au/xstd_files/Waste/Guideline/standard_wdf.pdf

AAL/PAL Construction Environmental Management Plan Template

Guidelines for Environmental Site Assessments at Adelaide and Parafield Airports
http://www.adelaideairport.com.au/assets/pdfs/EnviroSiteAssesmentAAL_PAL.pdf

Adelaide Airport Limited
1 James Schofield Drive
Adelaide Airport
South Australia 5950

Parafield Airport Limited
Building 18, Tigermoth Lane,
Parafield Airport 5106

T +61 8 8308 9211
F +61 8 8308 9311
Email: airport@aal.com.au