

Waste derived fill specification 2012

Issued May 2012

EPA 974/12: This specification is hereby approved by the Environment Protection Authority pursuant to clause 4(a) of the Environment Protection (Waste to Resources) Policy 2010 and applies to waste derived fill.

Title

This specification is to be known as the 'Waste Derived Fill Specification'

Definition

Waste derived fill is clay, sand, soil, silt, rock or gravel with a maximum particle size of 50 mm that meets the physical and chemical criteria set out in Tables 1 and 2 below.

Commencement

This specification comes into operation on 1 June 2012

Legislation

Clause 4 of the *Environment Protection (Waste to Resources) Policy 2010* states that:

For the purposes of the definition of **waste** in section 3(1) of the Environment Protection Act 1993, waste or material resulting from the treatment of waste continues to be waste except insofar as—

- (a) it constitutes a product that meets specifications or standards published from time to time or approved in writing by the Authority
- (b) ...

Dilution of waste prohibited

Having regard to section 10 of the *Environment Protection Act 1993* and the principles of ecologically sustainable development the blending of wastes in order to satisfy the physical or chemical characteristics of this specification is prohibited. Each waste component in waste derived fill must comply with the chemical and physical characteristics of this specification.

Chemical and physical characteristics of waste derived fill

Waste derived fill continues to be waste pursuant to the Environment Protection Act 1993 except in so far as it meets the following specifications in relation to both the physical criteria set out in Table 1 and the chemical criteria set out in Table 2 below.

Table 1 Physical criteria

Waste derived fill must not contain foreign inclusions excepting those set out in Table 1

Material	Percentage by mass
Maximum particle size of 50mm	
Clay, Sand, Soil, Silt, Rock, Gravel	≥94.25%
Foreign Inclusions	
Crushed glass, metal, ceramics, asphalt	≤0.5%
Rigid plastic, flexible plastic film, paper, cardboard, cloth, plaster, rubber and wood	≤0.25%
Vegetative matter	≤4%
Combustible material <2.36 mm in size (see test requirements page 3)	≤1%

Table 2 Chemical criteria

Chemical substance	Concentration (mg/kg)	Chemical substance	Concentration (mg/kg)
Aldrin/dieldrin (total)	2	Ethylbenzene	3.1
Arsenic	20	Heptachlor	2
Barium	300	Lead	300
Benzene	1	Manganese	500
Benzo(a)pyrene	1	Mercury	1
Beryllium	20	Nickel	60
Cadmium	3	Petroleum hydrocarbons TPH C6-C9 (total)	65
Chlordane	2	Phenolic compounds (total)	0.5
Chromium (III)	400	Polychlorinated biphenyls (PCBs)	2
Chromium (VI)	1	Polycyclic aromatic hydrocarbons (PAH) (total)	5
Cobalt	170	Petroleum hydrocarbons TPH>C9	1,000
Copper	60	Toluene	1.4
Cyanides (total)	500	Xylene (total)	14
DDT	2	Zinc	200
pH must be between 6–9			

Sampling and testing

When sampled and tested in accordance with the following methods, waste derived fill must meet the physical and chemical criteria in Tables 1 and Table 2.

Sampling method

- 1 1 sample must be taken per 25 m³ of waste derived fill with a minimum of 3 samples.
- 2 Sampling must be undertaken in accordance with the method set out in *Australian Standard AS1141: Methods for sampling and testing aggregates*: Method 3.1: Sampling—Aggregates.

Test methods

Physical criteria

- 1 Test method for physical criteria in Table 1—*NSW Roads & Traffic Authority Test Method T276: Foreign Materials Content of Recycled Crushed Concrete* using a 2.36 mm sieve. Testing to be carried out by NATA accredited laboratory. Report result as a percentage of the mass of the original test portion.
- 2 Test method for measuring the mass of combustible material smaller than 2.36 mm: *AS 3583.3 Loss on ignition at 500°C*. Report as a percentage of the mass of the original test portion

Chemical criteria

The analytes listed in Table 2 must be tested by a NATA accredited laboratory.

Further information

Legislation

Legislation may be viewed on the Internet at: <www.legislation.sa.gov.au>

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet
Adelaide Service SA Centre
108 North Terrace
Adelaide SA 5000

Telephone: 13 23 24
Facsimile: (08) 8204 1909
Website: <shop.service.sa.gov.au>

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