GENERAL NOTICE

NOTICE 467 OF 2013

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008)

NATIONAL NORMS AND STANDARDS FOR THE REMEDIATION OF CONTAMINATED LAND AND SOIL QUALITY IN THE REPUBLIC OF SOUTH AFRICA

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby give notice of my intention to make national norms and standards for the remediation of contaminated land and soil quality in the Republic of South Africa, under section 7(2)(d) read with section 73(1)(a) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), set out in the Schedule hereto.

Members of the public are invited to submit to the Minister, within 30 (thirty) days after the publication of the notice in the *Gazette*, written representations or objections to the following addresses:

By post to: The Director-General: Department of Environmental Affairs
Attention: Mr. Mpho Tshitangoni
Private Bag X447
Pretoria
0001

By hand at: 2nd Floor (Reception), Fedsure Forum Building, 315 Corner Pretorius and Lillian Ngoyi streets, Pretoria, 0001.

By e-mail: MTshitangoni@environment.gov.za, or by fax to: 012 310 3753.

Any inquiries in connection with the notice can be directed to Mr. Mpho Tshitangoni at 012 310 3380.

Comments received after the closing date may not be considered.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

Definitions

In these norms and standards, unless the context indicates otherwise, word or expression that is defined in the National Environmental Management: Waste Act, 2008 and the National Environmental Management Act, 1998, has the same meaning—

"Contaminant" means any substance present in an environmental medium at concentrations in excess of natural background concentrations;

"Informal Residential" means an unplanned settlement on land which has not been proclaimed as a residential consisting mainly of makeshift structure not erected according to approved architectural plans;

"Remediation" means the management of a contaminated site to prevent, minimises, or mitigates damage to human health or the environment;

"Soil Screening Value 1" means soil quality values that are protective of both human health and eco-toxicological risk for multi-exposure pathways, inclusive of contaminant migration to the water resource;

"Soil Screening Value 2" means soil quality values that are protective of risk to human health in the absence of a water resource;

"Standard Residential" means settlement that is formally proclaimed and serviced, and generally developed with formal permanent structures including land parcels such as plots or erven.

1. Purpose

The purpose of these norms and standards is to—

(a) provide for a uniform national approach relating to the remediation of contaminated land;

(b) limit uncertainties about the most appropriate criteria and method to apply in the assessment of contaminated land; and

(c) provide minimum standards for assessing necessary environmental protection measures for remediation activities.

2. Application

The requirements set out in these norms and standards apply to the land owner or any person who undertakes any site assessment and remediation activity within the Republic of South Africa.

3. Scope of this Norms and Standards

(1) These norms and standards must be used for the screening of sites contaminated with compounds listed in Table 1 and Table 2.

(2) In a case where a contaminant is not listed in Table 1 or Table 2, the site assessment report must provide the type of contaminant, concentration level and the level at which it will be remediated to.

(3) The Soil Screening Values in Table 1 and Table 2 must not be seen as—

(i) absolute minimum values;

(ii) screening values applicable to occupational circumstances; or

(iii) default remediation values.

4. Soil Screening Values

(1) The Soil Screening Values in Table 1 and Table 2 below are for screening purpose.

(2) In a case where the site assessment report does not provide remediation values, the site must be remediated to the Soil Screening Values in Table 1 and Table 2.

Table 1: Soil Screening Values for Metals and Organics

Parameter	Units	SSV1 All Land-Uses Protective of the Water Resource	SSV2 Informal Residential	SSV2 Standard Residential	SSV2 Commercial/ Industrial	Protection of Ecosystem Health
Metals and metalloids						
Arsenic	mg/kg	5.8	23	47	150	580
Cadmium	mg/kg	7.5	15	32	260	37
Chromium (III)	mg/kg	46,000	46,000	96,000	790,000	n/a
Chromium (VI)	mg/kg	6.5	6.5	13	40	260
Cobalt	mg/kg	300	300	630	5,000	22,000
Copper	mg/kg	16	1,100	2,300	19,000	16
Lead	mg/kg	20	110	230	1,900	100
Manganese	mg/kg	740	740	1,500	12,000	36,000
Mercury	mg/kg	1.0	1.0	1.0	6.5	4.1
Nickel	mg/kg	91	620	1,200	10,000	1,400
Vanadium	mg/kg	150	150	320	2,600	-
Zinc	mg/kg	240	9,200	19,000	150,000	240
Petroleum Organics						
Alkanes						
C7-C9	mg/kg	2,300	2,300	2,400	23,000	-
C10-C14	mg/kg	440	440	500	4,400	-
C15-C36	mg/kg	45,000	45,000	91,000	740,000	-
MAHs						
Benzene	mg/kg	0.27	1.3	1.4	10	81
Toluene	mg/kg	25	110	120	1,100	170
Ethylbenzene	mg/kg	26	57	60	540	1,700
Xylenes	mg/kg	45	91	95	880	260

Parameter	Units	SSV1 All Land-Uses Protective of the Water Resource	SSV2 Informal Residential	SSV2 Standard Residential	SSV2 Commercial/ Industrial	Protection of Ecosystem Health
Aromatics						
Naphthalene	mg/kg	28	28	32	290	28
Pyrene	mg/kg	5.2	920	1,900	15,000	5.3
Benzo(a)pyrene	mg/kg	0.34	0.34	0.71	1.7	280
Petroleum Additives						
MTBE	mg/kg	0.03	360	370	5,800	810
Organics						
Carbon Tetrachloride	mg/kg	0.24	0.25	0.26	4	62
Chlorobenzene	mg/kg	610	610	1,200	10,000	960
Chloroform	mg/kg	0.1	0.1	0.1	1.7	11
2 Chlorophenol	mg/kg	140	150	320	2,600	140
1,2 Dichlorobenzene	mg/kg	88	2,700	5,800	47,000	1,400
1,4-Dichlorobenzene	mg/kg	26	1,100	1,200	19,000	520
1,2-Dichloroethane	mg/kg	0.23	0.23	0.24	3.7	2,400
1,1 Dichloroethene	mg/kg	9.5	9.5	10	150	-
1,2,3-Trimethylbenzene	mg/kg	0.28	53	55	860	-
1,2 Dichloroethene	mg/kg	0.36	610	1,200	10,000	18
1,3,5-Trimethtlbenzene	mg/kg	0.26	300	640	5.300	-
Trichlorobenzenes (total)	mg/kg	0.069	310	650	5,300	0.14
Nitrobenzene	mg/kg	2.8	2.8	2.9	45	710
1,1,2,2 Tetrachloroethane	mg/kg	0.32	0.32	0.33	5	190
2,4,6-Trichlorophenol	mg/kg	4	210	320	1,700	-
Vinyl Chloride	mg/kg	0.0037	0.10	0.1	1.5	-

Parameter	Units	SSV1 All Land-Uses Protective of the Water Resource	SSV2 Informal Residential	SSV2 Standard Residential	SSV2 Commercial/ Industrial	Protection of Ecosystem Health
PCBs	mg/kg	0.61	1.7	3.6	11	n/a
Cyanide	mg/kg	14	610	1,200	10,000	20

Table 2: Soil Screening Values for Anions

Anions	Soil Screening Level (mg/kg)
Chlorides	12 000
Fluorides	30
Nitrates-nitrite	120
Sulphates	4000

5. Transitional Arrangements

(1) Any person who is remediating contaminated land in compliance with a directive or compliance notice issued by the environmental management inspector in terms of National Environmental Management Act, 1998, before coming into effect of these norms and standards, must comply with the conditions set out in the directive or compliance notice.

(2) Any person who is remediating contaminated land in terms of a waste management licence issued in terms of the National Environmental Management: Waste Act, 2008, before coming into effect of these norms and standards, must comply with the conditions set out in the waste management licence.

6. Short Title and Commencement

These norms and standards are called the Norms and Standards for the Remediation of Contaminated Land and Soil Quality in the Republic of South Africa, and take effect on a date determined by the Minister in the *Gazette*.

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