

DIN EN ISO 18557:2020-06 (E)

Characterisation principles for soils, buildings and infrastructures contaminated by radionuclides for remediation purposes (ISO 18557:2017)

Contents		Page
European foreword		4
Foreword		5
Introduction		6
1	Scope	9
2	Normative references	9
3	Terms and definitions	9
4	Strategy applied to the remediation of contaminated sites	14
	4.1 Principle	14
	4.2 Characterization and remediation objectives	16
	4.3 Historical analysis	17
	4.4 Documents	17
	4.5 Interviews	17
	4.6 Functional analysis	18
	4.7 Preliminary characterization	18
	4.8 Definition of the zones of interest and contamination tracers	18
	4.9 Surface and/or volumetric characterization program	19
	4.10 Data processing and contamination assessment	20
	4.11 Conformity of the results to the characterization objectives	21
	4.12 Remediation programme	21
	4.13 Final characterization	23
5	Surface characterization programme	24
	5.1 Principle	24
	5.2 Non-destructive analysis	26
	5.2.1 Characterization programme: Determination of the sampling design and the number of data points	26
	5.2.2 Implementation	26
	5.3 Destructive analysis	27
	5.3.1 Characterization programme	27
	5.3.2 Implementation and laboratory analyses	27
	5.4 Preliminary consolidation	27
	5.5 Data processing	28
	5.5.1 Spatial structure of the phenomenon	28
	5.5.2 Data processing in the case of spatially structured contaminations	28
	5.5.3 Result mapping in the case of spatially structured contaminations	28
	5.5.4 Statistical processing in the case of non-structured contaminations	28
	5.6 Conformity of the results with the characterization objective	29
	5.7 Surface characterization file	29
6	Volumetric characterization programme	29
	6.1 Principle	29
	6.2 Volumetric investigations	31
	6.2.1 Characterization programme	31
	6.2.2 Implementation and laboratory analyses	31
	6.3 Preliminary consolidation	31
	6.4 Volumetric Data processing	32

6.4.1	Case of structured contaminations	32
6.4.2	Case of non-structured contaminations	32
6.5	Compatibility of the results with the objectives	32
6.6	Volumetric characterization file	32
7	Final characterization programme	33
7.1	Principle	33
7.2	Final characterization programme	33
7.3	Processing the final characterization results	34
7.4	Final characterization file	35
8	Final report	35
Annex A (informative) Geostatistical data processing and examples of good practices		36
Bibliography		40