

To: *National Brownfield Forum*

Please feel free to pass on to any of your contacts who might be interested.

This occasional newsletter is intended to provide a window on current activity of BSI committees EH/4-Soil quality and B526/7-Ground properties and its sub-committees (B526/7/1,2,3), and associated CEN and ISO Technical Committees. It provides a listing of current BSI, CEN and ISO projects, including recently published standards and draft documents open for comment.

INTRODUCTION

BSI EH4 Soil Quality is the BSI technical committee responsible for production of standards relating to soil quality including contaminated land and natural and near-natural sites (e.g. farmland). Standards cover sampling, chemical analysis, physical testing, biological testing, and soil and site assessment. EH4 also deals with standards for the analysis and testing of wastes, standards relating to soil and climate change, and ecosystem services.

BSI EH4 shadows ISO (International Organization for Standardization) Technical Committee TC 190-Soil Quality and CEN TC444-Environmental characterization of solid matrices. CEN is the European standards organisation.

EH4 actively seeks to broaden its membership. The wider the membership, the greater the confidence that the standards produced are technically sound and known about by potential users from a wide variety of backgrounds. Participation in BSI, CEN and ISO committees can contribute to CPD. Contact the Committee Manager, Joanna Macnamara (joanna.macnamara@bsigroup.com) for more information.

Mike Smith



CEN TC444 Plenary Meeting, May 2026

CEN TC444-*Environmental characterization of solid matrices* and its eight Working Groups (WGs) held meetings in May with some of the WGs meeting jointly with the equivalent ISO TC190 *Soil quality* WGs. All meetings were hybrid (i.e. face-to-face and on-line).

Obviously, too much transpired during the week to summarize here. TC444 continues to discuss what new standards and guidance are required to support the introduction of the EU's Soil Monitoring Law (SML). One issue identified during preparations for its introduction, is that TC444 standards are not easily found during classical literature searches or even when using some popular AI chatbots. This is also a problem in the UK. Standards for which BSI EH/4 is responsible (there are over 200) are neither well known within the wider soils community nor easy to find. This is partly because BSI is dependent on CEN & ISO systems for listing standards. CEN TC444 plans to actively pursue the issue within CEN in cooperation with ISO TC190.

CEN TC444 WG7 *Sampling* plans to review and revise as necessary all CEN documents relating to sampling of wastes. We will need of "experts" to represent the UK in these deliberations and to comment on draft documents. Volunteers welcome. The WG discussed the current status and future relevance of the five members of the [BSI/PD] CEN/TR 15310:2005 series⁽¹⁻⁵⁾ and [BS] EN 14899:2005 *Characterization of waste - Sampling of waste materials - Framework for the preparation and application of a sampling plan* including the potential conversion of certain Technical Reports into standards. The discussion highlighted the importance of clearly defining the objectives of sampling, as different purposes may require different sampling approaches and levels of methodological flexibility. Participants noted that sampling requirements vary depending on intended use, regulatory objectives, and end-of-waste criteria. WG7 is also charged with producing guidance on sampling soils for micro-plastics.

1. **BSI/PD CEN/TR 15310-1:2006** *Characterization of waste. Sampling of waste materials. Guidance on selection and application of criteria for sampling under various conditions*
2. **BSI/PD CEN/TR 15310-2:2006** *Characterization of waste. Sampling of waste materials. Guidance on sampling techniques*
3. **BSI/PD CEN/TR 15310-3:2006** *Characterization of waste. Sampling of waste materials. Guidance on procedures for sub-sampling in the field*
4. **BSI/PD CEN/TR 15310-4:2006** *Characterization of waste. Sampling of waste materials. Guidance on procedures for sample packaging, storage, preservation, transport and delivery*
5. **BSI/PD CEN/TR 15310-5:2006** *Characterization of waste. Sampling of waste materials. Guidance on the process of defining the sampling plan*

REVISION OF BS8576:2013

Work continues on revision of **BS 8576:2013- *Guidance on investigations for ground gas. - Permanent gases and Volatile Organic Compounds (VOCs).***

PROPOSED BS 10777 - Soil and soil-like materials quality assessment – Use on site of [handheld/portable] energy dispersive x-ray fluorescence spectrometers – Code of Practice

This standard will provide guidance on how handheld/portable XRF equipment can be used during investigations in accordance with BS 10175, including to provide quantitative data of sufficient quality and reliability to be used in human health and other risk assessments. It is intended for use in conjunction with **BS EN ISO 13196:2026** *Soil quality – Screening soils for selected elements by energy dispersive X-ray fluorescence spectrometry using a handheld or portable instrument* which was published earlier this month. The standard is progressing well but there are important issues to explore regarding sampling strategies and QA/QC.

REVISION OF EN 12457-1, EN12457-2, EN 12457-3 and EN 12457-4

Revised versions of EN 12457-1:2002, EN12457-2:2002, EN 12457-3:2002 and EN 12457-4:2002 renamed

Granular waste materials, sludges, soil, soil-like materials and sediments – Leaching – Compliance test for leaching – [Part X]

to reflect changes in their Scopes have started their formal progress to approval with submission of New Work Item Proposals in February. All were approved without comment and will now proceed to the DIS (Draft International Standard) stage. The DISs are scheduled for publication for comment in June 2026. When published (target date November 2027), the new versions will be adopted as British Standards.

LISTINGS

Note: This is not necessarily a complete listing of on-going projects in ISO TC190 and CEN TC444 and, in the case of geotechnical standards, ISO TC182 and CEN TC341. At any one time there are also likely to be other chemical analytical, biological testing, geotechnical and ground engineering standards, progressing through the ISO/CEN/BS system.

KEY
Drafts - New or amended entries – 1 January to 31 November 2024
Drafts - New or amended entries – 1 December 2024 to 31 December 2025
Drafts - New or amended entries – 1 to 28 February 2026
Drafts - New or amended entries – 1 to 30 April 2026
Drafts - New or amended entries – 1 to 31 May 2026
Drafts - New or amended entries – 1 to 30 June 2026
Published standards – 1 to 31 May 2026
Published standards – 1 to 30 June 2026

ISO terminology: NWIP = New Work Item Proposal, WD = Working Draft, CD = Committee Draft, DIS = Draft International Standard, FDIS = Final Draft International Standard.

CEN terminology: prEN = enquiry stage (equivalent of DIS), FprEN = for Final Vote (equivalent of FDIS)

Draft International Standards (DISs) and their CEN equivalents are publically available documents. Some are posted for comment on the standards development area of BSI's web-site. Committee Drafts and their CEN equivalents are not publically available but can be distributed within organisations represented on the relevant BSI committee.

Copies of draft standards are available from the representatives of organisations that are members of the BSI Technical Committee concerned. In the case of EH4, these include for example, AGS, EIC, SCI (see "background" note at the end of this Newsletter for other members). If you do not know who represents an organisation to which you belong, you need to ask the organisation – this is not information that BSI is permitted to supply. However, in most cases I can supply copies for review. The BSI Committee Manager might also be willing to supply a copy.

RECENTLY PUBLISHED STANDARDS		
BS EN ISO 13196:2026	Soil quality – Screening soils for selected elements by energy dispersive X-ray fluorescence spectrometry using a handheld or portable instrument <i>(Revision of BS EN ISO 13196:2013)</i>	Published June 2026
BS ISO 20951:2026	Soil quality — Guidance on methods for measuring greenhouse gases (CO ₂ , N ₂ O, CH ₄) and ammonia (NH ₃) fluxes between soils and the atmosphere	Published April 2026

DRAFT ISO/CEN GEOTECHNICAL STANDARDS <i>These standards form part of the programme of work of BSI committees B526/7/1, B526/7/2 & B526/7/3</i>		
ISO FDIS 16383-1 CEN FprEN 16383-1	Geotechnical investigation and testing – Laboratory testing of rock – Part 1: Determination of water content	Comment period ended 13 May 2025
ISO DIS 16383-2 CEN prEN 16382-2	Geotechnical investigation and testing - Laboratory testing of rock - Part 2: Determination of density and open porosity	Comment period ended 11 March 2026
ISO NWI 16383-3-	Geotechnical investigation and testing — Laboratory testing of rock — Part 3: Determination of the uniaxial compressive strength and deformability	New standard proposal. Approved February 2025
ISO NWI 1683-4	Geotechnical investigation and testing — Laboratory testing of rock — Part 4: Determination of the basic friction angle of flat rock surfaces	New standard proposal. Approved February 2025
CEN ISO NWI 17892-13	Geotechnical investigation and testing — Laboratory testing of soil — Part 13: Swelling test for Soils, Hard Soils and Soft Rocks — Procedure with cycles on a single specimen	New standard proposal. Approved February 2025
ISO DIS 18674-6 CEN prEN18674-6	Geotechnical investigation and testing -Geotechnical monitoring by field instrumentation — Part 6: Measurement of settlement: Hydraulic settlement systems	Commenting period ended 6 June 2026
CEN FprEN, ISO FDIS 18674-7	Geotechnical investigation and testing – Geotechnical monitoring by field instrumentation – Part 7: Measurement of strains: Strain gauges	Comment period ended 9 October 2025
ISO DIS 18674-9 CEN prEN18674-9	Geotechnical investigation and testing — Geotechnical monitoring by field instrumentation — Part 9: Measurement of displacements by geodetic means	Comment period ended 8 May 2026
CEN prEN, ISO DIS 22476-6	Geotechnical investigation and testing - Testing of geotechnical structures - Part 6: Load testing of soil nails and rock bolts (ISO/DIS 22477-6:2025)	Comment period ended 11 May 2025
NWIP	Multi-channel active measurement of the surface wave to estimate shear wave velocity profile	

GEOENVIRONMENTAL STANDARDS FOR SOIL & SITE ASSESSMENT – 30 June 2026
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DRAFT ANALYTICAL AND BIOLOGICAL TESTING STANDARDS etc. <i>These standards form part of the programme of work of BSI committee EH4</i>		
ISO CD TS 10832	Soil quality — Effects of pollutants on mycorrhizal fungi — Spore germination test	Comment period ended 6 May 2025
ISO DIS 11268-1 CEN prEN 11268-1	Soil quality – Effects of pollutants on earthworms – Part 1: Determination of the acute toxicity to <i>Eisenia fetida</i> / <i>Eisenia Andrei</i> and other earthworm species	Comment period ends 2 July 2026
ISO DIS 11277	Soil quality – Determination of particle size distribution in mineral soil material – Method by sieving and sedimentation <i>(will replace ISO 11277:2020/A1:2024)</i>	Comment period ended 20 July 2025
ISO FDIS 15192 CEN FprEN 15192	Soil and waste – Determination of chromium (VI) in solid material by alkaline digestion and ion chromatography with spectrometric detection <i>Will replace ISO 15192:2010</i>	Comment period ended 29 July 2025
ISO DIS 15799 CEN prEN 15799	Soil quality – Guidance on the ecotoxicological characterization of soils and soil materials	Comment period ended 19 February 2026
ISO DIS 15936 CEN prEN 15936	Soil, waste, treated biowaste and sludge – Determination of total organic carbon (TOC) by dry combustion <i>Will replace ISO 10694:1995 and EN 15936:2022</i>	Comment period ended 29 November 2025
ISO DIS 16703 CEN prEN 16703	Environmental soil matrices – Determination of hydrocarbon content in the range C ₁₀ to C ₄₀ by gas chromatography.	Comment period ended 31 October 2024
ISO DIS 18400-206	Soil quality – Sampling – Part 206: Collection, handling and storage of soil under aerobic conditions for the assessment of microbiological processes, biomass and diversity in the laboratory	Comment period ended 2 November 2025
ISO FDIS 18400-105	Soil quality – Sampling – Part 105: Packaging, transport, storage and preservation of samples <i>Will replace BS ISO 18400-105:2017</i>	FDIS cancelled March 2026 Proceeding to second DIS.

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ISO DIS 19204	Soil quality — Procedure for site-specific ecological risk assessment of soil contamination (soil quality TRIAD approach)	Comment period ended 1 April 2026
ISO FDIS 19254	Soil quality - Simultaneous determination of multi-class pesticide residues in soil using GC-MS/MS and LC-MS/MS analysis	Comment period ends 16 July 2026
ISO CD TS 21251.2	Soil quality - Guidance for estimating organic carbon stocks in soils according to their biogeochemical stability or residence time	Comment period ended 13 March 2026
ISO DIS 21285 CEN prEN 21285	Soil quality - Inhibition of reproduction of soil mite (<i>Hypoaspis aculeifer</i>) by soil contaminants	Comment period ended 19 February 2026
CEN prEN ISO NWIP & 21744	Environmental solid matrices – Guidance for sample pretreatment <i>Will replace several CEN & ISO standards.</i>	Comment period ended August 2025
ISO FDIS 23611-1 CEN FprEN 23611-1	Soil quality - Sampling of soil invertebrates - Part 1: Hand-sorting and extraction of earthworms	Comment period ended 11 May 2026
ISO FDIS 23611-6 CEN FprEN 23611-6	Soil quality - Sampling of soil invertebrates - Part 6: Guidance for the design of sampling programmes with soil invertebrates	Comment period ended 11 May 2026
ISO FD TS 25008-1	Soil quality — Measurement of sublethal effects of pollutants on soil flora — Part 1: Physiological parameters for stress evaluation	Comment period ended 14 June 2026
ISO FD TS 25008-2	Soil quality — Measurement of sublethal effects of pollutants on soil flora — Part 2: Antioxidant defence enzymes activities	Comment period ended 14 June 2026
ISO DIS 25251	Soil Quality—Determination of inorganic arsenic species in soils and soil-like materials	Comment period ends 8 July 2026
ISO CD 25352	Soil quality — Effects of soluble contaminants on soil algae with paper-disc	Comment period ended 25 September 2025
ISO CD 25370	Soil quality – Guidance on determining key parameters of soil and materials regarding transfer and mobility of components	Comment period ended 24 March 2026
ISO DIS 25652	Sediment, soil, sludge and waste – Analysis of PFAS by HPLC and mass spectrometry	Comment period ended 24 December 2025

NEW WORK ITEM PROPOSALS <i>SUBJECT TO APPROVAL BY CEN TC444 and/or ISO TC190</i>		
NWIP EN 12457-1	Granular waste materials, sludges, soil, soil-like materials and sediments – Leaching – Compliance test for leaching – Part 1: One-stage batch test at a liquid-to-solid ratio of 2 L/kg for materials with particle size below 4 mm (without or with size reduction)	Comment period ended 26 January 2026
NWIP EN 12457-2	Granular waste materials, sludges, soil, soil-like materials and sediments – Leaching – Compliance test for leaching – Part 2: One-stage batch test at a liquid-to-solid ratio of 10 L/kg for materials with particle size below 4 mm (without or with size reduction)	Comment period ended 26 January 2026
NWIP EN 12457-3	Granular waste materials, sludges, soil, soil-like materials and sediments – Leaching – Compliance test for leaching Part 3: – Two-stage batch test at a liquid-to-solid ratio of 2 L/kg and 8 L/kg for materials with high solid content and with particle size below 4 mm (without or with size reduction)	Comment period ended 26 January 2026
NWIP EN 12457-4	Granular waste materials, sludges, soil, soil-like materials and sediments – Leaching – Compliance test for leaching – Part4: One-stage batch test at a liquid-to-solid ratio of 10 L/kg for materials with particle size below 10 mm (without or with size reduction)	Comment period ended 26 January 2026
NWIP EN 16751-1	Sludge, treated biowaste and soil Determination of mercury Part1: Cold vapour atomic absorption spectrometry (CVAAS)	Comment period ended 23 February 2026
NWIP EN 16751-2	Sludge, treated biowaste and soil - Determination of mercury - Part 2: Cold-vapour atomic fluorescence spectrometry (CV-AFS)	Comment period ended 23 February 2026

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ISO NP TS 25672	Soil quality - Determination of phenol oxidase (laccase) activity in soil using micro-well plates	Comment period ended 14 February 2025
ISO NP TS 26042	Evaluation of chromatographic data from the determination of hydrocarbon content in the range of C10 to C40 by gas chromatography	Comment period ended 2 September 2025
ISO NP TS 26548	Soil quality — Guidance on soil parameters contributing to climate change	Comment period ended 9 April 2026

SocEnv Soils and Stones Project

Information about the Society for the Environment's "Soils and Stones project can be found here:

[Soils and Stones Project | Society for the Environment \(socenv.org.uk\)](https://socenv.org.uk/soils-and-stones-project)

The project has three key aims, bringing Chartered Environmentalists (and those pursuing the registration) together to lead the way and deliver change, through:

- Sharing good practice on soils use/re-use.
- Advocating for policies which recognise the value of these hugely valuable resources.
- Making connections and finding solutions via collaboration.

Standards Relating to Investigation, Assessment, Remediation and Development of Potentially Contaminated and Contaminated Sites

This AGS document provides key information required for a proper understanding and use of Standard Guidance documents and Standard Specifications. It also provides information about in which Standards guidance on various topics such as investigation, reporting and remediation can be found. It can be downloaded from:

<https://www.ags.org.uk/item/standards-relating-to-investigation-assessment-remediation-and-development-of-potentially-contaminated-and-contaminated-sites/>

SOIL HUB

The on-line hub for 'all things soil' ([uksoils](https://uksoils.org)) brings together the best available resources, including educational information and school activities, books and films, data and maps, plus guidance for farmers and land managers on how to support healthy soils. It is also a forum to enable the sharing of knowledge and experiences, encouraging people to link up and carry out initiatives to improve soil health and share locations around the country where soil health pioneers are trying out new technologies and management practices.

The hub is supported by a partnership comprising the UK Centre for Ecology & Hydrology (UKCEH), the Sustainable Soils Alliance, Earthwatch, the University of Sheffield, the British Soil Science Society and Scotland's Rural College (SRUC).

LEACHING OF SOILS, WASTES AND CONSTRUCTION PRODUCTS

A web-site concerning leaching tests supported among others by CEN TC444/WG1 and is available at:

<http://www.leachingtests.com/>

This website aims to inform the reader about the availability and suitability of standardized leaching tests to solve their questions. It focusses on interrelationships between existing leaching tests to improve understanding of the meaning of a test result. In addition, it provides information on characteristic leaching behaviour of a range of bulk material streams, for which leaching information may be sought to compare one's own material of product.



ESDAC: <http://esdac.jrc.ec.europa.eu>

The CIRIA Soil Community of Practice web portal (www.ciria.org/SOILCOP/) provides consolidated guidance on soil management for UK construction projects.

BACKGROUND

BSI EH4 Soil Quality is the BSI technical committee responsible for the production of standards relating to soil quality including contaminated land and natural and near-natural sites (e.g. farm land). Standards cover sampling, chemical analysis, physical testing, biological testing, and soil and site assessment. EH4 also deals with standards for the analysis and testing of wastes produced by CEN TC444.

BSI EH4 shadows ISO (International Organization for Standardization) Technical Committee *TC 190 Soil Quality* and *CEN TC444 (Environmental characterization of solid matrices)*. CEN is the European standards organisation.

EH4 is also responsible for BS10175 (investigation of contaminated sites), BS 8576 (ground gas investigations), BS8454 (protection of buildings against gas) and BS 10176 (soil sampling for VOC determination of VOCs).

There are about twenty organisations (e.g. trade bodies, learned societies, professional bodies, quasi-government bodies etc.) represented on the committee at present together with a handful of individual experts who represent the UK on various ISO and CEN Working Groups. To find out who represents a particular organisation, the organisation should be contacted.

Nominated representatives of member organisations receive copies of formal drafts of standards, known in the case of ISO as Committee Drafts (CDs), Draft International Standards (DISs) and Final Draft International Standards (FDISs); and in the case of BSI as Drafts for Public Comment. They also receive copies of published standards for personal use.

Those representing an organisation are expected to circulate papers to, and consult, those they represent. Draft standards can be posted on “members-only” sections of web-sites for downloading or can be e-mailed to all members of the organisation that is represented.

EH4 actively seeks to broaden its membership. The wider the membership of EH4, the greater the confidence there can be that the standards produced are technically sound and known about by potential users from a wide variety of backgrounds. It also increases the pool of people from which it might be possible to draw on from time to time to represent the UK in ISO and CEN Working Groups. BSI can nominate one or more experts to each of the numerous Working Groups in ISO TC190 and CEN TC444. Whilst experts will hopefully attend meetings of the WGs, in practice this is not always possible and so participation is limited to receipt and review of papers.

Member organisations of EH/4 include:

Association of Geotechnical and Geoenvironmental Specialists (AGS), British Geological Survey, Chartered Institute of Environmental Health, Environment Agency, Environmental Industries Commission (EIC), Environmental Industries Association, Environmental Services Association, Institution of Environmental Sciences, National House Building Council (NHBC), Scottish Contaminated Land Forum, Society of Chemical Industry (SCI), the James Hutton Institute, Water UK, Yorkshire & Lincolnshire Pollution Advisory Group.

[13-03-26]