

	EGP&TGX/HSEQ	ANNEX B to EGP&TGX_ALL_QSE_GS_001_v.03
		31/07/2023

ANNEX B - MINIMUM REQUIREMENTS FOR EXCAVATED SOIL AND ROCKS MANAGEMENT AT WORKSITES

SECTION 1 - GENERAL INFORMATION

Purpose of the document

The purpose of this document is to define a register format for recording soil and rock excavation activities undertaken within the Enel Green Power & Thermal Generation worksites.

This document supplements the general provisions of the *HSE Requirements*.

In particular, the procedure applies to all contractors/subcontractors carrying out activities at Enel Green Power & Thermal Generation worksites.

The responsibility for the proper management of excavated soil and rocks is entrusted to the Contractor and to each contractor according to the activities undertaken.

All contractors must use the format attached to this technical note for the recording of soil and rock movements.

Reference documents

This Technical Note is an integral attachment of the:
HSE Requirements

SECTION 2 - MANAGEMENT RULES

Classification and scope of this document


Any activity, from small construction/demolition tasks to large works, requires excavation and thus the production of soil and rocks.

Site work will generally require infrastructural and excavation activities, by way of example some cases are summarized below:

- a) generic excavation work (levelling, foundations, trenches, etc.)
- b) civil engineering works (perforations, drilling, piling, consolidation, etc.).
- c) infrastructure work in general (tunnel, dam, road, etc.)
- d) removal and levelling works
- e) stony materials with different particle size fractions from excavations.

Where local regulations do not a priori exclude that excavated soil and rocks may be considered as waste materials, therefore tending to classify them within the waste listings, it has become necessary to examine the specific local regulations themselves in order to identify the criteria which would allow excavation materials to be classified as non-waste so they may be handled without endangering workers' health and without harming the environment.

If local regulations require the drafting of a soil management plan during the project design stages, then excavated material must be handled in compliance with the provisions outlined in that same document.

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Management and Reporting

Management of materials excavated within the worksite

- i. The excavated material may be accumulated close by excavation site at a distance not less than 10 m from the excavation face (compatibly with the space available).
- ii. The piles of material must also be established well away from watersheds and natural drainage lines and not in the vicinity of steep slopes susceptible to landslides;
- iii. Both deposits will be identified by appropriate signs posted in a visible manner.
- iv. The storage must be done carefully so as to avoid erosion of the piles that could cause the dispersal of the materials into the surrounding areas and/or contamination of surface water. In particular, if it is expected that the storage period will extend beyond 2 months, the possibility of seeding the pile surfaces with a protective covering of native herbaceous plants should be considered.
- v. Any volumes of soil with no reusable purpose must be stored and managed as waste according to the regulations.
- vi. If local regulations require the separation and recycling of *top soil*, the latter should be separated from the rest of the excavated material to avoid contamination and treated as required by the same regulations.
- vii. Any stony material suitable for roadwork, protecting river beds and possibly strengthening embankments must be stored separately from other soil components.

To ensure material loading, unloading and storage operations in conditions of total worker safety, all appropriate vehicular traffic regulation devices must be installed.

Reporting

Special site registers (fig. 2) containing information related to the production location, the material quantities handled and the destination location must be kept available to the Enel staff on site. The volumes of soil involved shall be estimated in m³, for example, based on the load capacity of the vehicles used

The daily monitoring of soil and rocks quantities (in m³) must enable a daily reporting of:

- A. Total excavated quantities
- B. Quantity of stored material
- C. Quantity of material re-used internally in the worksite or externally (eg: embankments, landfills, landscaping, etc.)
- D. Disposed quantities.

Such reporting must allow for proper monitoring of the overall quantitative balance of excavated material such that $A = (B+C+D)$.

Fig.2

**REGISTER: EXCAVATED SOIL AND ROCKS ARISING FROM AND HANDLED
DURING WORKSITE ACTIVITY**

Excavation locations	Excavated volume (m ³)	Temporary storage locations	Stored volume (m ³)	Recycling location	Recycled volume (m ³)	Final disposal location	Unused volume (m ³)
Total volume	0	Accumulated		Recycled	0	Unloaded	0

Definitions	
Excavation locations	Identification of the area in which the material was excavated, (eg. excavation at wind turbine site nr, roadworks, excavations for transmission lines, etc.)
Volumes	Enter the total amount of soil and rocks generated from the excavation in cubic meters (also by means of estimates based on truck load capacities)
Location of the temporary accumulation site	Identify the location where the excavated material is to be temporarily stored
Recycled volumes	Indicate the volume of material used for the creation of other works (for example landfills, roadworks etc.)
Recycling location	Indicate the location where the excavated material is recycled (for example: at the wind turbine nr., "x" roadworks, "y" transmission line foundations, etc.)
Unused volumes	Indicate the volume of excavated materials which are not used for the creation of other works related to the project, expressed in cubic metres (also by means of estimates based on truck load capacities)
Final disposal location	Indicate the location for the final disposal of unrecycled excavated material