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1. Purpose

This document provides a specification of the make-up of the topsoil to be utilised at Arnot Ash dam. This specification covers the requirements for the supply of topsoil to ash pond embankments in accordance with SANS 2001-BE1. It establishes the technical requirements for materials, workmanship, and execution of works in a manner that ensures environmental protection and successful revegetation.

2. Definitions

- EO: Environmental Officer appointed by Eskom or ERI.
- RE: Engineer's Representative (ERI Site Supervisor).

3. Normative

- SANS 2001-BE1:2008: Construction works - Part BE1: Earthworks (general)
- SANS 2001-BS1: Construction works - Part BS1: Site clearance
- SANS 10403: Formatting and compilation of construction procurement documents
- TMH1-A7: Standard methods of testing road construction materials – Determination of maximum dry density and optimum moisture content of gravel, soil and sand

4. Scope of Work

4.1 General

The Contractor is responsible for the procurement, safe storage, and handling of all materials specified in this document. All materials supplied must undergo inspection and testing by the RE and/or EO. Samples required for testing will be collected at no cost to the Eskom/ ERI. To ensure a representative soil analysis, the RE and/or EO will collect as many samples as necessary from the entire topsoil shipment.

4.2 Topsoil Requirements

Material Composition

1. The topsoil must be a screened, clay-textured or loam-textured dark soil that is fertile, friable, and free from heavy clay or excessively sandy composition.
2. It must contain:
 - a) A minimum organic matter content of 4% for clay loams and 2% for sandy loams, up to a maximum of 25% (including peat, composted material, or rotted manure).
 - b) No more than 30% coarse particles and stones no larger than 25mm in diameter.
 - c) The topsoil must be free from subsoil contamination, roots, baler twine, subsoil clay lumps over 25mm, and any other foreign matter.
 - d) It must not contain weeds, weed seeds, or any noxious plant species

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4.3 Source and Approval

- a) Topsoil may be sourced on-site or imported.
- b) If on-site stockpiled topsoil is used, it must be shredded or screened before reapplication to ensure compliance with the above requirements.
- c) Topsoil must not be sourced from abandoned agricultural fields, where possible residual herbicides, such as atrazine, may be present.
- d) The Contractor must notify Eskom of the proposed topsoil source and arrange a site visit for verification.
- e) The RE/EO reserves the right to reject any topsoil that does not meet the specified requirements.

5. Topsoil Handling and Storage

5.1 Conservation of Topsoil

- a) Existing topsoil from the site, if suitable, shall be stripped and stockpiled for later use in accordance with Section 4.2.1.2 of SANS 2001-BE1
- b) Topsoil shall be handled twice only - once to strip and stockpile, and secondly to replace, level, shape, and scarify

5.2 Stockpiling

- a) Topsoil stockpiles shall not exceed 2 meters in height
- b) Topsoil stockpiles shall be located above the 1:20 year flood line in an area approved by the RE/ECO
- c) Stockpiles shall be positioned on the higher side of disturbed areas and above waterways
- d) Topsoil stockpiles shall be clearly marked and identified
- e) Topsoil which is to be stockpiled for periods exceeding 28 days must be treated with mulch, roughened, and seeded with an approved grass mixture or ground cover specified by the ECO
- f) No vehicles shall be allowed access onto stockpiles after they have been placed
- g) Stockpiles shall be protected against erosion, contamination, and compaction

6. Acceptance

This document has been seen and accepted by:

Name	Designation
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