

**Saudi Electricity Company**



**الشركة السعودية للكهرباء**

**SEC DISTRIBUTION MATERIALS SPECIFICATION**

**SEC- 02- 01**

**DATE: 6-4-2004G**

**SEC-02-01**

**SPECIFICATIONS**

**FOR**

**INSULATING OIL FOR  
TRANSFORMERS AND SWITCHGEAR**

**This specification is property of SEC and  
subject to change or modification without any notice**

**C O N T E N T S**

<b><u>S. NO.</u></b>	<b><u>D E S C R I P T I O N</u></b>	<b><u>P A G E N U M B E R</u></b>
1.	SCOPE	3
2.	CROSS REFERENCE	3
3.	APPLICABLE CODES AND STANDARDS	3
4.	REQUIREMENTS	3



### 1. SCOPE:

This SEC Distribution Material Specification (SDMS) specifies the minimum technical requirements for materials, testing and inspection for insulated Oil to be used in the Distribution Network of Saudi Electricity Company (SEC) in Saudi Arabia.

### 2. CROSS REFERENCES:

This Material Standard Specification shall be read in conjunction with the SEC Specification No: 01-SDMS-01 (latest revision), titled "General Requirements for All Equipment/Materials", which shall be considered as an integral part of this SDMS, also be read in conjunction with SEC Purchase Order requirements or Contract Schedules.

### 3. APPLICABLE CODES & STANDARDS:

Material or equipment supplied to this specification shall comply with the latest edition of the industry codes and standards listed below, unless otherwise noted. In case of any deviation, the Vendor/Manufacturer may propose Material conforming to an alternate Code or Standard without jeopardizing the requirements of this SDMS. However, the provision of SEC Standard shall supersede the provision of these Standards in case of any differences.

- IEC 296 *Specification for New Insulating Oils for Transformers and Switchgear*
- ASTM D3487 *Standard Specification for Mineral Insulating Oil Used in Electrical Apparatus.*

### 4. REQUIREMENTS:

The oil shall be virgin hydrocarbon mineral oil specifically manufactured for use as electrical insulating oil. The oil shall contain no additives, shall be certified to be PCB (polychlorinated biphenyls) free and shall meet the following requirements:

- IEC 296 Class 1 or ASTM D3487 Type 1.
- The oil shall be delivered in clean oil drums of approximately 200 litres capacity.
- Each oil drum to seal as tight as possible, so that the drum is fully waterproof.
- Each oil drum to be indelibly marked with the following information:

Supplier's name  
Date of drumming  
Class of Oil  
Drum Capacity (litres)  
Filled drum weight Kg.  
Purchase Order No.