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**ESKOM**  
**KOEBERG NUCLEAR POWER STATION**  
**SPECIFICATIONS ENGINEERING**

Specification Title

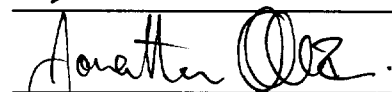
***ACTIVATED CHARCOAL IODINE FILTERS***

PREPARED BY:



DC EVANS

REVIEWED BY:



JS OLIVER

APPROVED BY:



AM KOTZE

DATE:

2005-09-22

**KOEBERG NUCLEAR POWER STATION**

**NUCLEAR ENGINEERING**

	<b>APPROVED:</b> A Dimond	<b>DATE:</b> 08/10/1990
<b>REVISIONS</b>	<b>PREPARED BY</b>	<b>REVIEWED BY</b>
2	JE Keelty	C Cumming
3	DC Evans	JR Mellor
4	DC Evans	JS Oliver

**RECORD OF REVISIONS**

<b>Rev</b>	<b>Date</b>	<b>Description of Revision</b>	<b>Prep.</b>	<b>Rev.</b>	<b>Appr.</b>
2	08/10/90	Revision	KEK	CC	AD
3	05/01/04	Re-word specification technical description to include – manufacturer and type of filter. Include filter element dimensions. Revise certification requirements.	DCE	JRM	ARL
4	05/09/02	Delete manufacturer and type of filter. Replace "Operating requirements" with "Product Requirements" and re-word the requirements. Revise packaging requirements. Revise package labelling requirements. Revise/ re-word certification requirements.	DCE	JSO	AMK

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**ESKOM**  
**KOEBERG NUCLEAR POWER STATION**  
**PROCUREMENT SPECIFICATION**

**PRODUCT:** ACTIVATED CHARCOAL IODINE FILTERS

**TECHNICAL DESCRIPTION:** ACTIVATED CHARCOAL FILTERS FOR THE ABSORPTION OF RADIO-IODINE AND TOXIC GASES.

**DIMENSIONS:**

610mm X 610mm X \*292mm (\*Excluding gasket)

**PRODUCT REQUIREMENTS:**

- Pressure drop requirements: 300Pa @ 1200 m<sup>3</sup>/h nominal flow to ensure correct carbon density.
- Decon factor: ≥ 4000 using Afnor methol iodide test.
- Cell mass: 82kg.
- Carbon volume: 68 litres.
- Impregnation: 1% - 1.5% KI solution
- Material: carbon steel – painted.

**PACKAGING:**

NQA-1:

Filters are to be supplied in a leak-tight seal welded bag

**IDENTIFICATION OF PRODUCT:**

Each filter cell is to be supplied with a multi-flap label which contains the following information;

- Cell reference number and type
- Cell number
- Carbon lot number
- Nominal airflow
- Pressure drop
- Mass of filter unit

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**CERTIFICATON:**

In addition, the supplier shall provide a Certified Test Report detailing;

- Fabrication number
- Cell reference
- Cell number
- Carbon lot number
- Nominal flow rate
- Maximum and minimum pressure drop over cell at rated airflow
- Actual pressure drop over filter cell
- Actual cell leakage value.
- Decontamination factor (acceptance criteria  $\geq 4000$ )
- Mass of carbon

*Full details of all deviations from this specification must be submitted to ESKOM (KOEBERG) in writing for clearance prior to manufacture / dispatch of the product.*