



CERTIFICATE OF REGISTRATION

IN TERMS OF THE NATIONAL NUCLEAR REGULATOR ACT, 1999 (ACT NO. 47 OF 1999)

CERTIFICATE OF REGISTRATION NO. COR-38

Certificate of Registration No. COR-38, is hereby granted by the National Nuclear Regulator (hereinafter referred to as the NNR) in terms of section 22 of the above Act

to

OMNIA FERTILIZERS LTD

Registration number:	1975/000759/06
Registered address :	1 st Floor Omnia House 13 Sloane Street Epsom Downs BRYANSTON

(hereinafter referred to as the holder)

subject to the terms and conditions set out herein.

PART 1

AUTHORISATION CONDITIONS

1.1 SCOPE

- 1.1.1 The holder is authorised to carry out activities associated with radioactive material as set out, and on the site as identified, in section 2.1 of this Authorisation.

1.2 HAZARD ASSESSMENT

- 1.2.1 Assessments, approved by the NNR, shall be conducted by the holder in respect of all the operations and activities involving radioactive material as set out in section 2.1 of this Authorisation and which could give rise to a risk of nuclear damage. The assessments must identify and quantify all potential radiation hazards:

1.2.1.1 to persons employed at or visiting the site

and

1.2.1.2 to members of the public.

- 1.2.2 An annual report confirming the hazards to persons employed at, or visiting, the site shall be submitted to the NNR.

- 1.2.3 Details of any proposed modification to existing facilities or amendment of any procedure or construction of any facility or the use of feed material from a different source, which may have an effect on the risk of nuclear damage and which has not been addressed by the hazard assessments identified in section 2.2 of this authorisation, together with a quantitative assessment of its impact on the risk of nuclear damage, shall be submitted to the NNR by the holder. Such proposals shall be approved by the NNR before being implemented.

1.3 OPERATIONAL RADIATION PROTECTION

1.3.1 GENERAL

- 1.3.1.1 The holder shall, in writing, appoint a Radiation Protection Officer, a Radiation Protection Monitor and an alternate and notify the NNR of their names.

- 1.3.1.2 The holder shall appoint a Responsible Person and an alternate and notify the NNR of their names.
- 1.3.1.3 The Responsible Person and alternate shall have sufficient independence and authority to ensure compliance with authorisation conditions.
- 1.3.1.4 The NNR shall be informed immediately of any change of Responsible Person (or alternate), Radiation Protection Officer or Radiation Protection Monitor (or alternate)
- 1.3.1.5 A respiratory protection programme or a justification that such a programme is not necessary shall be submitted to the NNR for approval.
- 1.3.1.6 The holder shall on an annual basis submit a report on doses received by the occupationally exposed workforce. Verification of those doses shall be provided by a recognised Radiation Protection Specialist.
- 1.3.1.7 No activities involving the demolition or disposal of any plant used for the processing of radioactive material shall be undertaken prior to approval by the NNR of the radiation hazard assessment and the radiation protection programme for such activities.

1.3.2 MAINTENANCE

- 1.3.2.1 None of the maintenance activities listed in section 2.3.1, or a submission referenced in section 2.3.1, of this authorisation shall be undertaken prior to providing the NNR with detail of the planned activities and the letter of appointment of an adequately qualified and trained Radiation Protection Officer who will supervise the activity.
- 1.3.2.2 In carrying out the maintenance activities listed in section 2.3.1, of this authorisation, the control measures as listed in section 2.3.2 of this authorisation and the provisions contained in the revision of documents listed in section 2.3.2 of this authorisation shall be adhered to.

1.3.3 PUBLIC

- 1.3.3.1 Based on the results of the assessments referred to in clause 1.2.1, programmes embodying all aspects as required by the NNR document RD-007: "Requirements for Control over Radioactive Effluent Discharges and Environmental Surveillance: Mining and Minerals Processing", in the revision specified in section 2.3.2 of this authorisation, must be established and be submitted to the NNR for approval. These must ensure and demonstrate that radiation doses to members of the public are in compliance with the radiation

dose limitation system set down in the NNR document RD-010: "Requirements for Radiation Dose Limitation: Mining and Minerals Processing", in the revision specified in section 2.3.1 of this authorisation.

- 1.3.3.2 A programme for the management of equipment released for refurbishment shall be submitted to the NNR for approval.
- 1.3.3.3 The provisions contained in the revision of documents listed in section 2.3.2 of this authorisation, and submitted in terms of conditions 1.3.2.1 and 1.3.2.2 of this authorisation, shall be adhered to.

1.4 RADIOACTIVE WASTE

- 1.4.1 A radioactive waste management programme embodying all the requirements contained in NNR document RD-004: "Requirements for Radioactive Waste Management: Mining and Minerals Processing", in the revision specified in section 2.5 of this Authorisation, shall be established and submitted to the NNR for approval.
- 1.4.2 The provisions contained in the revision of documents listed in section 2.5 of this Authorisation and submitted in terms of condition 1.5.1 of this Authorisation, shall be adhered to.

1.5 PHYSICAL SECURITY

- 1.5.1 A physical security system, approved by the NNR, which will prevent unauthorised access to areas containing radioactive material and will prevent the unauthorised removal of such material, shall be in place.

1.6 OCCURRENCES

- 1.6.1 The NNR shall within the timescales specified in section 2.6 of this authorisation, be notified of any occurrences identified in section 2.6 of this authorisation according to an occurrence reporting mechanism approved by the Responsible Person.

1.7 QUALITY MANAGEMENT

- 1.7.1 The quality management provisions as set out in section 2.7 of this authorisation, shall be adhered to.

1.8 SCHEDULE

- 1.8.1 A programme scheduling the assessment of radiation hazards referred to in clause 1.2.1, the establishment of programmes and submission of documents as set out in the conditions above and as set out in section 2.8 of this authorisation, shall be adhered to.

This Certificate of Registration is effective from the date of issue.

Issued at Centurion on the *22nd* day of *December* 2003.



L B ZONDO
CHIEF EXECUTIVE OFFICER

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PART 2

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SECTION 2.1: SCOPE

2.1.1 The Authorised site is:

All shaded surface areas on the diagram headed, "OMNIA PHOSPHATES (PTY) LIMITED NUCLEAR LICENCE", annexed to Controlled Copy NNR of this authorisation.

2.1.2 The authorised activities that may be undertaken:

The activities that may be undertaken under the authority of this authorisation are restricted to the following:

2.1.2.1 The processing of phosphate rock to produce phosphoric acid.

SECTION 2.2: HAZARD ASSESSMENT

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SECTION 2.3: MAINTENANCE ACTIVITIES

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SECTION 2.3.2: CONTROL MEASURES

The area where activities identified in section 2.3.1 of this authorisation are carried out shall be classified as a Controlled Area and the following control measures implemented.

1. The area shall be suitably demarcated and appropriate radiation warning signs in the form specified in SABS 1186-1978 shall be displayed at the access points to the area.
2. Access shall be restricted to personnel whose duties require access to the area and who shall be designated as occupationally exposed persons. Such personnel shall:
 - Be eighteen years of age or older,
 - Be given instructions in the nature of radiation hazards, the principles of radiation protection and appropriate facility procedures controlling radiation hazards,
 - Be medically examined and declared fit for employment in the conditions of work proposed for each individual in accordance with a protocol, approved by a Medical Practitioner who is registered with the South African Medical and Dental Council and who has successfully completed the appropriate training in radiation protection,
 - Have their individual doses assessed according to an approved surveillance programme
3. The personnel carrying out activities in the area shall wear appropriate protective clothing and respiratory protection.
4. Personnel, tools and equipment shall appropriately be monitored for
 - Contamination upon leaving the area and cleaning facilities shall be available to ensure that the levels of skin or personal clothing contamination are below:

Alpha emitters:	0.04 Bq.cm^{-2}
Beta and gamma emitters:	0.4 Bq.cm^{-2}

(averaging over 300 cm^2 is permitted when monitoring for such contamination)

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5. Activities shall be carried out in such a way as to minimise the potential spread of contamination.
6. Eating, drinking, smoking and loitering shall not be permitted in the area.
7. On completion of the activities in the area, the area shall be monitored to demonstrate that the contamination levels in the area are below, or equal to, those used in the hazard assessment listed in section 2.2 of this authorisation.

2.3.2.1 OP3-020-RPF-100 (Rev 0) Radiation Protection Function.

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SECTION 2.3.3: RADIATION PROTECTION PROGRAMME - PUBLIC

- | | | | |
|---------|-----------|---------|---|
| 2.3.3.1 | RD-007 | (Rev 0) | Requirements for the Control over
Radioactive Effluent Discharges and
Environmental Surveillance: Mining and
Minerals Processing |
| 2.3.3.2 | OP-RPP-01 | (Rev 1) | Radiation Protection Programme |

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SECTION 2.4: RADIOACTIVE WASTE

2.4.1	RD-004	(Rev 0)	Requirements for Radioactive Waste Management: Mining and Minerals Processing
2.4.2	OM-UC-01	(Rev 1)	Scrap Metal Release Procedure
2.4.3	WMP-01	(Rev 1)	Waste Management Procedure

SECTION 2.5: PHYSICAL SECURITY

2.5.1 OP3-020-PS-100 (Rev 0) Physical Security System

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SECTION 2.6: OCCURRENCES

2.6.1 The NNR shall forthwith be notified of the following occurrences:

1. Any violations of the management programme for the release of scrap material as listed in section 2.4 of this authorisation
2. Violations of conditions 1.3.2.1 and 1.3.2.2
3. Transport accidents involving radioactive material

2.6.2 OMN-NOF-01 (Rev 1) Occurrence Notification Procedure

SECTION 2.7: QUALITY MANAGEMENT

- 2.7.1 The executive manager shall define and issue a policy statement which includes objectives for and commitment to safety and quality.
- 2.7.2 Compliance with licence conditions shall be reviewed on an annual basis by executive management. During this review, non-compliance reports, corrective actions requests and records of any other performance related reporting mechanism shall be evaluated.
- 2.7.3 Documents related to the authorisation conditions in part 1 of this authorisation shall be prepared and reviewed by competent personnel and authorised for implementation by an individual designated by the executive manager.
- 2.7.4 An approved document control system, for ensuring the correct utilisation of document revision shall be established, documented, authorised and implemented.
- 2.7.5 Measures shall be established, documented, authorised and implemented to ensure that non-compliance with authorisation conditions are identified, corrected and recorded.

SECTION 2.8: SCHEDULE

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