



## Certificate Of Registration

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

**CERTIFICATE OF REGISTRATION NO. COR-101**

Certificate of Registration No. COR-101 is hereby granted by the National Nuclear Regulator (hereinafter referred to as the NNR) in terms of section 22 of the above Act

to

**THE NEW RECLAMATION GROUP (PTY) LIMITED**

**RICHARDS BAY**

|                     |   |   |
|---------------------|---|---|
| Registration Number | : | 2005/041029/07                                    |
| Registered address  | : | 84 Alumina Allee<br>Alton<br>Richards Bay<br>3900 |

(hereinafter referred to as the holder)

subject to the terms and conditions set out herein.

BM Mkhize  
CHIEF EXECUTIVE OFFICER

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**AUTHORISATION CONDITIONS**  
**PART 1: GENERAL CONDITIONS****1.1 SCOPE**

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

**1.2 OPERATIONAL RADIATION PROTECTION****1.2.1 GENERAL**

- 1.2.1.1 The holder must, appoint a Radiation Protection Officer and Radiation Protection Monitor each with an alternate and notify the NNR of their names.
- 1.2.1.2 The holder must appoint a Responsible Person and an alternate and notify the NNR of their names.
- 1.2.1.3 The Responsible Person must ensure compliance with the conditions of this authorisation.
- 1.2.1.4 The NNR must be informed immediately of any change of personnel mentioned in 1.2.1.1 and 1.2.1.2.

**1.2.2 RADIATION PROTECTION PROGRAMME - WORKFORCE**

- 1.2.2.1 The holder must adhere to the control measures listed in section 2.2 and the provisions contained in the revision of documents listed in section 2.2 of this authorisation.
- 1.2.2.2 The holder must, on an annual basis, submit a report on the doses received by the occupationally exposed workforce. Verification of these doses must be provided by a recognised Radiation Protection Specialist.
- 1.2.2.3 The holder must, on an annual basis, submit a revised medical surveillance protocol or a motivation for maintaining the existing protocol, prepared 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.

**1.3 RADIOACTIVE WASTE**

- 1.3.1 The holder must adhere to a radioactive waste management programme approved by the NNR in the revision mentioned in section 2.3. The radioactive waste management programme must embody all the requirements listed in section 2.3 of this authorisation.
- 1.3.2 A quarterly report must be submitted to the NNR summarising the information recorded in terms of the radioactive waste management programme.

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## 1.4 TRANSPORTATION

- 1.4.1 Transportation of radioactive material or of any equipment or objects contaminated with radioactive material off the site or on roads which are accessible to the public must be carried out in terms of the provisions of the Regulations for the Safe Transport of Radioactive Material of the International Atomic Energy Agency in the revision specified in section 2.4 of this Authorisation.

For the purpose of compliance with this condition, the National Nuclear Regulator is the National Competent Authority as provided in the National Nuclear Regulator Act.

- 1.4.2 An annual report must be submitted to the NNR detailing the number of consignments made during the preceding year, the radioactive content per consignment, the nature of the packaging and the names of the consignees.

## 1.5 PHYSICAL SECURITY

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

## 1.6 ACCIDENTS AND INCIDENTS

- 1.6.1 The NNR must be notified of any accidents and incidents within the timescales required in terms of section 2.6 of this authorisation. Such notification must be carried out as in accordance with NNR document RD-009: "Verbal Emergency Communication with the National Nuclear Regulator: Mining and Minerals Processing", in the revision specified in section 2.6 of this authorisation.

## 1.7 QUALITY MANAGEMENT

- 1.7.1 The quality management provisions set out in section 2.7 of this authorisation must be complied with.

## 1.8 SCHEDULE

- 1.8.1 The actions and completion dates listed in section 2.8 of this authorisation, must be adhered to.

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

Issued at Centurion on the 9<sup>th</sup> day of November 2011.

  
BM Mkhize  
CHIEF EXECUTIVE OFFICER

**AUTHORISATION CONDITIONS  
PART 2: SPECIFIC CONDITIONS**

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## DOCUMENT CONTROL TABLE

18 OCTOBER 2011

|         |      | REVISION |   |   |   |   |   |   |   |   |   |    |    |    |
|---------|------|----------|---|---|---|---|---|---|---|---|---|----|----|----|
| SECTION | PAGE | 0        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2.1     | 3    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.2     | 4    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.3     | 5    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.4.1   | 6    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.4.2   | 7    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.5     | 8    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.6     | 9    | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.7     | 10   | X        |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.8     | 11   | X        |   |   |   |   |   |   |   |   |   |    |    |    |

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**SECTION 2.1: SCOPE**

- 2.1.1 The authorised site is the surface areas encircled and marked stand 9013, 9014 on the site diagram submitted with the application for a COR for The New Reclamation Group (Pty) Ltd – Richards Bay.

The authorised site is located at No. 84 Alumina Allee, Alton Richards Bay, 3900

- 2.1.2 The holder may, subject to the conditions in part 1 of this authorisation, carry out the following actions:

- 2.1.2.1 Recycling and clean up of radioactively contaminated material from facilities handling naturally occurring radioactive material as received from clients.

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**SECTION 2.2: OPERATIONAL RADIATION PROTECTION**

2.2.1 The areas where actions involving equipment contaminated with radioactive material are carried out, must be classified as Controlled Areas ("the areas") and the following control measures implemented:

2.2.1.1 The areas must be suitably demarcated and appropriate warning signs must be displayed at the access points to the areas.

2.2.1.2 Personnel whose duties require access to the areas must be designated as occupationally exposed person. Such personnel must:

- be eighteen years of age or older,
- be given instruction in the nature of radiation hazards, the principles of radiation protection and appropriate facility procedures controlling radiation hazards
- be medically examined in accordance with an approved protocol
- have their personal radiation doses assessed.

2.2.1.3 A Radiation Dose Register which records the dose to occupationally exposed persons must be maintained. This register must be retained by the holder for a period of fifty years from the date of the last entry, unless otherwise directed by the NNR.

2.2.1.4 Personnel carrying out actions in the area must wear gloves, boots and overalls that may not be removed from the authorised site.

2.2.1.5 The holder must submit to the NNR, for approval, a programme to provide reasonable assurance that skin contamination on persons leaving the area, and prior to them eating, drinking and smoking, is removed to as low as reasonably achievable and in any case to below the following limits:

|                         |   |                          |
|-------------------------|---|--------------------------|
| Alpha emitters          | : | 0.04 Bq.cm <sup>-2</sup> |
| Beta and gamma emitters | : | 0.4 Bq.cm <sup>-2</sup>  |

(averaging over 300 cm<sup>2</sup> is permitted when monitoring for such contamination).

2.2.1.6 Activities in the areas must be carried out in such a manner as to minimise the spread of contamination.

2.2.1.7 Eating, drinking, smoking and loitering is not permitted in the areas.

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- 2.2.1.8 On a quarterly basis, the Radiation Protection Monitor must conduct an open-probe, beta-gamma, on-contact survey of the areas on a 1 m<sup>2</sup> grid with a surface contamination monitor.

On an annual basis, the Radiation Protection Monitor must conduct an open-probe, beta-gamma, on-contact survey of the areas on a 5 m<sup>2</sup> grid with a surface contamination monitor.

Records of these surveillances must be maintained and kept.

- 2.2.1.9 The holder must submit to the NNR for approval, a surveillance programme for the purpose of individual dose assessment.
- 2.2.1.10 The holder must submit to the NNR for approval, a procedure to be followed in the event of the specified set-point of the drive-through gamma dose-rate monitor or other appropriate monitoring device being triggered, as well as all documentation related to the calibration and operation of the monitoring device.
- 2.2.1.11 The holder must maintain and keep a record of all the measurements taken by the drive-through bulk gamma dose-rate monitor or other appropriate monitoring device.
- 2.2.2 HA-RRB-11/2010 (Rev 0) Hazard Assessment Report for The New Reclamation Group (Pty) Limited, Richards Bay Site.
- 2.2.3 RPP-RRB-11/10 (Rev 0) Radiation Protection Programme for The Management of Radioactively Contaminated Scrap At The New Reclamation Group (Pty) Ltd, Richards Bay Site.
- 2.2.4 MSP-RECLAM-11/10 (Rev 0) The New Reclamation Group (Pty) Ltd Medical Surveillance And Control Protocol.

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**SECTION 2.3: RADIOACTIVE WASTE**

2.3.1 The radioactive waste management programme must make provision for:

- 2.3.1.1 the identification of wastes with a specific alpha (U-238, U-234, Th-230, Ra-226, Po-210, Th-232 and Th-228) activity concentration above and below 1000 Bq/g;
- 2.3.1.2 the collection of the radioactive waste;
- 2.3.1.3 the disposal and/or storage of the radioactive waste;
- 2.3.1.4 a system of record keeping which details the content of all packages of radioactive waste, the nature of the packaging material as well as the location of storage and/or disposal.

2.3.2 WMP-RRB-11/10 (Rev 0) Waste Management Programme For The Management of Radioactively Contaminated Scrap At The Reclamation Group (Pty) Ltd, Richards Bay Site.

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**SECTION 2.4: TRANSPORTATION**

2.6.1 TS-R-1 (ST-1, Revised)

Regulations for the Safe Transport of  
Radioactive Material 2009 Edition  
(Revised).

2.4.1 TRS-RRB-11/10

(Rev 0)

Transport of Radioactively Contaminated  
Material From The Mining And Minerals  
Processing Facilities By The New  
Reclamation Group (Pty) Ltd, Richards  
Bay Site.

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## SECTION 2.5: PHYSICAL SECURITY

2.5.1 PSP-RRB-11/10

(Rev 0)

Physical Security Procedure At The New  
Reclamation Group (Pty) Ltd, Richards  
Bay Site.

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**SECTION 2.6: ACCIDENTS AND INCIDENTS**

2.6.1 The NNR must be notified forthwith of the following accidents and incidents:

- 2.6.1.1 transport accidents involving radioactive material;
- 2.6.1.2 triggering of the specified set-point of the alarm on the drive-through bulk gamma dose-rate monitor or equivalent monitoring device;
- 2.6.1.3 personal injury involving equipment contaminated with radioactive material;

2.6.2 ORN-RRB-11/10

(Rev 0)

Occurrence Reporting and Notification  
Procedure For The New Reclamation  
Group (Pty) Ltd, Richards Bay Site.

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**SECTION 2.7: QUALITY MANAGEMENT**

- 2.7.1 The executive manager must define and issue a policy statement, which includes objectives for and commitment to safety and quality.
- 2.7.2 Compliance with authorisation conditions must 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 must 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 must be established, documented, authorised and implemented.
- 2.7.5 Measures must be established, documented, authorised and implemented to ensure that non-compliances with authorisation conditions are identified, corrected and recorded.
- 2.7.6 QMP-RRB-11/10 (Rev 0) Quality Management Programme For the Management of Radioactively Contaminated Scrap At The New Reclamation Group (Pty) Ltd, Richards Bay Site



**SECTION 2.8: SCHEDULE**

| <b>Radiation Protection Programme - Workforce</b> | <b>Action</b> | <b>Completion</b>   |
|---|---------------|---|
| 6 Monthly dose reports for surface operations     | Submission    | End of July<br>End of January<br>(include summary for year) |

| <b>Integrated Radioactive Waste Management Programme</b>                               | <b>Action</b> | <b>Completion</b>   |
|--|---------------|---|
| Quarterly waste reports for surface operations including the Inventory of consignments | Submission    | End of July<br>End of January<br>(include summary for year) |

| <b>Occurrences</b> | <b>Action</b> | <b>Completion</b> |
|--------------------|---------------|-------------------|
| Occurrence Report  | Submission    | As appropriate    |

| <b>Quality Management</b>          | <b>Action</b> | <b>Completion</b> |
|------------------------------------|---------------|-------------------|
| Self -Inspection Schedule and plan | Submission    | November 2011     |



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# Natural Occurring Radioactive Material

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## Record of Decision

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LB/35/6/11/101

**Re: Application for Certificate of Registration lodged by The New Reclamation Group (Pty) Ltd- Richards Bay in terms of the provisions of National Nuclear Regulator Act No. 47 of 1999.**

### 1. INTRODUCTION

**The New Reclamation Group (Pty) Ltd- Richards Bay** has lodged an application for Certificate of Registration in terms of section 22(1) of the National Nuclear Regulator Act, Act 47 of 1999, to process scrap metal potentially contaminated with uranium-based scales from mining and mineral processing facilities. These actions will be carried out at following address location:

STANDS 9013 and 9014  
84 Alumina Allee  
Alton  
Richards bay  
3900

### 2. TECHNICAL FINDINGS FROM THE SUBMISSIONS

**The New Reclamation Group (Pty) Ltd- Richards Bay** has provided all information as per the prescribed application format including, a completed application form, site of area where the actions will be carried out and certified copy of certificate of incorporation of the company.

In addition to the above information, a safety assessment as well as all operational safety procedures has been submitted as required.

### 3. KEY FACTORS THAT LED TO THE DECISION

**The New Reclamation Group (Pty) Ltd- Richards Bay** has provided information as per the prescribed format including, a completed application form, area where the action will be carried out and certified copy of Certificate of Incorporation of the company. In addition to these documents, a safety assessment as well as all operational safety procedures has been submitted as required.

The hazard assessment conducted at **The New Reclamation Group (Pty) Ltd-Richards Bay** indicated surface soil activity concentrations of a range between 65.66 Bq/kg – 229.86 Bq/kg. Since these values are around the background levels they could be used as reference levels during clean-up period when the applicant ceases the operations. However the entire site will be designated as supervised area due to the likelihood of enhanced levels of surface contamination expected during normal operation, above 0.04 Bq/cm<sup>2</sup> and 0.4 Bq/cm<sup>2</sup> for alpha and beta respectively.

#### 4. CONCLUSION AND RECOMMENDATIONS

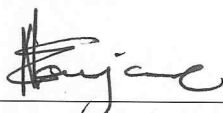
Based on the above, it is recommended that a COR be granted to **The New Reclamation Group (Pty) Ltd- Richards Bay** for carrying out the above-mentioned actions at the location as identified in section 1 above.

It is also recommended that once the COR is issued, **The New Reclamation Group (Pty) Ltd-Richards Bay**, be charged an annual authorisation fee of R27,956.40. This is based on classification provided in government gazette number 790 of 30 September 2011. It should also be noted that the nuclear authorization fee above will be amended from time to time in line with the published government gazette. Once published the fee above will be automatically revised and communicated to the holder.

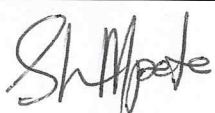
Also attached to this memo is a copy of a COR and a file containing the application information.

Your approval of the above recommendation is respectfully requested.

#### 5. QUALITY ASSURANCE TRAIL

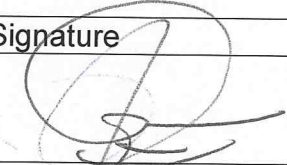
| THIS ROD WAS PREPARED BY: |   |   |            |
|---------------------------|---|---|------------|
| 1. Name                   | Designation                                 | Signature   | Date       |
| P Mohajane                | Principal Specialist:<br>Environment and RP |  | 07-11-2011 |

| THIS ROD WAS REVIEWED BY |  |   |            |
|--------------------------|--|---|------------|
| 1. Name                  | Designation                                      | Signature   | Date       |
| L Mpete                  | Functional<br>Coordinator:<br>Environment and RP |  | 08-11-2011 |

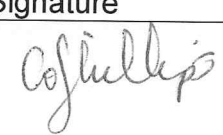
  

|  |  |  |  |
|--|--|--|--|
| <u>Remark/Comment:</u><br><p style="text-align: center;">Recommended for Approval!</p> |  |  |  |
|--|--|--|--|

| 2 Name    | Designation  | Signature  | Date       |
|-----------|--------------|--|------------|
| T Tselane | Manager:NORM |  | 08/11/2011 |

**Remark/Comment:**

Approval Recommended!!

| 3. Name    | Designation             | Signature  | Date      |
|------------|-------------------------|--|-----------|
| O Phillips | Senior Manager:<br>SARA |  | 9/11/2011 |

**Remark/Comment:**

Recommended, for approval:

| THIS ROD WAS APPROVED BY |             |  |         |
|--------------------------|-------------|--|---------|
| Name                     | Designation | Signature  | Date    |
| Adv BM Mkhize            | CEO:NNR     |  | 9/11/11 |

**The New Reclamation Group (Pty) Ltd- Richards Bay (COF MR B Stocks**  
**PO Box 30472**  
**Richards Bay**  
**3900**

| Activity performed  |                    | 035 751 1682(fax) |              | 035 751 1682 |  |
|---|--------------------|-------------------|--------------|--------------|--|
| Description   | Responsible Person | Hours Spent       | Hourly Fee   |              |  |
| Review  | Mr P Mohajane      | 1                 | R 1,130.68   |              |  |
| Preliminary Review of the Application   |                    |                   |              |              |  |
| Hazard assessment Report  | Mr P Mohajane      | 5                 | R 5,653.40   |              |  |
| Radiation Protection Programme  | Mr P Mohajane      | 4                 | R 4,522.72   |              |  |
| Medical Surveillance Programme  | Mr P Mohajane      | 4                 | R 4,522.72   |              |  |
| Waste management Programme  | Mr P Mohajane      | 3                 | R 3,392.04   |              |  |
| Transport Procedure   | Mr P Mohajane      | 3                 | R 3,392.04   |              |  |
| Occurrence reporting and Notification   | Mr P Mohajane      | 3                 | R 3,392.04   |              |  |
| Physical Procedure  | Mr P Mohajane      | 2                 | R 2,261.36   |              |  |
| Quality Management Programme  | Mr P Mohajane      | 4                 | R 4,522.72   |              |  |
| Preparation and Review of Record of decision on approval of application for COR | Mr P Mohajane      | 3                 | R 3,392.04   |              |  |
| Management contribution   | Mr P Mohajane      | 3.2               | R 3,618.18   |              |  |
| Application fee   |                    |                   | -R 17,956.40 |              |  |
|   |                    | 35.2              | R 21,843.54  |              |  |

Prepared by

Pate Mohajane

Signature

*Pate Mohajane*

Date

02-11-2011

Reviewed by

LOUISA MPELE

Signature

*Louisa Mpete*

Date

08-11-2011

Approved by

THABO SELLANE

Signature

*Thabo Sellane*

Date

07/11/2011