

## **Appendix G**

### **WASTE LICENCE APPLICATION FORM**

**In terms of the National Environmental Management:**

**Waste Act, 2008 (No. 59 of 2008)**





**WASTE LICENCE  
APPLICATION PROCESS  
FOR WASTE ACTIVITIES  
IN TERMS OF THE  
NATIONAL  
ENVIRONMENTAL  
MANAGEMENT :WASTE  
ACT 2008 (No. 59 of 2008)**

---



## TABLE OF CONTENTS

PART 1: WASTE ACTIVITIES LICENSING APPLICATION PROCESS EXPLAINED: .....	4
1.1 Licensing process: .....	4
1.2 Where to submit applications .....	4
1.3 Making an Application .....	6
2. DEFINITIONS:.....	7
3. THE WASTE LICENSING APPLICATION STAGES: .....	7
3.1 Stage 1: Pre-application .....	7
3.2 Criteria for determining whether basic assessment or scoping is to be applied to applications .....	7
PART 2: APPLICATION FORM FOR NEW LICENCE .....	8
SECTION 1 – TYPE OF APPLICATION AND FACILITY: .....	9
SECTION 2: SITE IDENTIFICATION, LOCATION AND LANDUSE .....	11
Size of Site and Classification .....	12
Current land-use where the site is situated: .....	12
Geographical coordinates of all external corner points of the site: .....	12
Site Address: .....	13
SECTION 3: CONTACT INFORMATION .....	13
Operational times .....	14
SECTION 4: PROCESS/ACTIVITY DESCRIPTION:.....	14
Project Title .....	14
Project Description: .....	15
SECTION 5: WASTE QUANTITIES.....	17
Recovery, Reuse, Recycling, treatment and disposal quantities: .....	17
SECTION 6: GENERAL.....	18
Prevailing wind direction (e.g. NWW) .....	18
The size of population to be served by the facility .....	18
The geological formations underlying the site: .....	18
SECTION 7: COMPETENCE TO OPERATE SITE.....	18
Legal compliance .....	18
Technical competence .....	19
Financial Provisions .....	20
SECTION 8: LANDFILL PARAMETERS .....	21
The method of disposal of waste: .....	21
The dimensions of the disposal site in metres .....	21



The total volume available for the disposal of waste on the site.....	21
The total volume already used for waste disposal:.....	21
The Salvage method .....	22
Fatal Flaws for the site: .....	22
Wettest six months of the year .....	22
Location and depth of ground water monitoring boreholes: .....	23
Location and depth of landfill gas monitoring test pit:.....	24
SECTION 9: DECLARATIONS.....	25
The independent Environmental Assessment Practitioner .....	25
The Applicant .....	26
PART 3: APPLICATION FORM FOR AMENDMENT TO AN EXISTING AUTHORISATION.....	27
Details of Current Licence: .....	27
The Proposed Modification: .....	27
Change of Information .....	28
PART 4: APPLICATION FORM FOR CLOSURE .....	29
Details of Current Licence: .....	29
Section of this form to fill:.....	29
Documentation Requirements: .....	29
APPENDIX: A1 .....	31
APPENDIX B1 .....	32
APPENDIX B2 .....	34





**THE WASTE LICENSING APPLICATION PROCESS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT 2008 (No. 59 of 2008) "NEMWA".**

**PART 1: WASTE ACTIVITIES LICENSING APPLICATION PROCESS EXPLAINED:**

**1.1 Licensing process:**

- 1.1.1 The waste licensing process for listed activities under Schedule 1 in the National Environment Management Waste Act 2008 is as defined in the environmental impact assessment (EIA) regulations made under section 24(5) of the National Environment Management Act 2008 (NEMA) No. 107 of 1998.
- 1.1.2 This application form is the official form in terms of Regulation 13 (2) (a) of the EIA regulations R385 of 2006 and must accompany every licence application pertaining to waste activities in terms of NEMWA.

**1.2 Where to submit applications**

- 1.2.1 The Minister of Water and Environmental Affairs is the licensing authority in respect of all activities listed in both categories of Schedule 1 of NEMWA pertaining to hazardous waste. The application for a waste licence in terms of section 45 of the National Environment Management Waste Act 2008 (59 of 2008) for hazardous waste activities must be submitted by lodging an application with the National Department of Environment. The application must be marked for the attention of:

The Director: Authorisation and Waste Disposal Management  
Private Bag X447  
Pretoria 0001  
Tel: 012 310 3920  
Fax: 012 310 3753

- 1.2.2 The Member of the Executive Council of a province who is responsible for waste management in the province "MEC" is the licensing authority in respect of all activities listed in both categories of Schedule 1 of NEMWA pertaining to general waste. The application for a waste licence in terms of section 45 of the National Environment Management Waste Act 2008 (No. 59 of 2008) for general waste activities must be submitted by lodging an application with the relevant provincial department and applications must be marked for the attention of the Head of Department in the relevant province at the following addresses:

Head of the Department  
Department of Environmental Affairs and Development Planning  
Private Bag X 9086  
**CAPE TOWN**  
8000  
Fax: 021 483 4425  
Tel: 021 483 5109



Head of Department  
Department of Economic Development and Environmental Affairs  
Private Bag X 0054  
**BHISHO**  
5605  
Fax: 040 609 4700  
Tel: 040 609 4702

Head of Department  
Department of Economic Development Tourism and Environment Affairs  
Private Bag X 20801  
**BLOEMFONTEIN**  
9300  
Fax: 051 400 4772  
Tel: 051 400 4917

Head of Department  
Department of Agriculture and Rural Development  
P.O. Box 8769  
**JOHANNESBURG**  
2000  
Fax: 011 333 0667  
Tel: 011 355 1927

Head of Department  
Department of Agriculture Environmental Affairs and Rural Development  
Private Bag X 9059  
**PETERMARITZBURG**  
3200  
Fax: 033 355 9593  
Tel: 033 355 9621

Head of Department  
Department of Economic Development, Environment and Tourism  
Private Bag X 9484  
**POLOKWANE**  
0700  
Fax: 015 291 5809  
Tel: 015 291 5447

Head of Department  
Department of Economic Development Environment and Tourism  
Private Bag X 11219  
**NELSPRUIT**  
1200  
Fax: 013 766 8445  
Tel: 013 766 6063



Head of Department  
Department of Agriculture, Conservation and Rural Development  
Private Bag X 2039  
**MMABATHO**  
2735  
Fax: 018 389 5006  
Tel: 018 389 5341

Head of Department  
Department of Environmental Affairs and Nature Conservation  
Private Bag X 6102  
**KIMBERLEY**  
8300  
Fax: (053) 807 7367

### **1.3 Making an Application**

- 1.3.1 The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 14 days of receipt of the application. Sections in the form that do not apply to the applicant must be marked "not applicable"
- 1.3.2 There is no prescribed fee.
- 1.3.3 This application form is in effect as of 01 July 2009. It is the responsibility of the Applicant/Environmental Assessment Practitioner "EAP" to ascertain whether subsequent versions of the form have been published or produced by the licensing authority. It is the applicant's responsibility to download the current version of the application form from the South African waste information centre website ([www.sawic.org.za](http://www.sawic.org.za)).
- 1.3.4 The application form may be submitted electronically **and** four hardcopies of the form must be submitted to the Directorate: Authorisation and Waste Disposal Management where the national department is the licensing authority. The applicant must contact the relevant provincial office regarding the number of copies required to process the application where provincial departments are the licensing authorities. All application forms must be signed as stipulated in the form. Applications that are not signed or completed accordingly will not be considered.
- 1.3.5 Where the national department is the licensing authority, all applications forms must be accompanied by four copies of reports and other documents required in terms of the EIA Regulations.
- 1.3.6 Where the provincial department is the licensing authority, all applications forms must be accompanied by the number of copies required by that province for reports and other documents required in terms of the EIA Regulations.
- 1.3.7 The applicant must clearly mark confidential sections of the information submitted in the application form and supporting documents. All other information will become public information on receipt by the licensing authority.



## **2. DEFINITIONS:**

- 2.1 Definitions in this form are as per EIA Regulation in terms of Chapter 5 of the National Environmental Management Act, 1998 and waste management activities list in terms of the National Environmental Management: Waste Act 2008, No. 59 of 2008.

## **3. THE WASTE LICENSING APPLICATION STAGES:**

### **3.1 Stage 1: Pre-application**

Before making an application:

- The applicant must appoint an EAP in terms of EIA regulations
- The EAP must comply with general requirements as given in EIA regulations
- The EAP may be disqualified in terms of EIA regulations

### **3.2 Criteria for determining whether basic assessment or scoping is to be applied to applications**

- 3.2.1 Basic assessment must be applied to an application if the authorisation applied for is in respect of an activity listed in Category A in schedule 1 of the NEMWA (59 of 2008).
- 3.2.2 Scoping and EIA must be applied to an application if the authorisation applied for is in respect of an activity listed in Category B in schedule 1 of the NEMWA (59 of 2008).







# **WASTE LICENCE APPLICATION FORM**

**PART 2: APPLICATION FORM FOR NEW LICENCE**





(For official use only)

<b>File Reference Number:</b>	
<b>Date Received:</b>	
<b>Classification:</b>	

**WASTE LICENCE APPLICATION FORM**  
**in terms of the National Environmental Management: Waste Act, 2008 (No. 59 of 2008)**

THE APPLICATION FORM MAY BE TYPED OR HAND-WRITTEN.

**SECTION 1 – TYPE OF APPLICATION AND FACILITY:**

Indicate the type of application by marking with a cross and fill in the required sections only

TYPE OF APPLICATION	MARK	SECTIONS OF THE FORM TO BE FILLED IN
A new licence	<b>X</b>	Part 2 and see table of activities below for relevant sections of part 2
A licence amendment		Part 3 and Part 2 only if there are changes to the information or the applicant holds a permit issued in terms of section 20 of ECA (No. 78 of 1989) as amended.
A licence for closure		Part 4, Section 2, 3a, 3b, & 3c. of part 2 of this application form

Indicate the type of facility/operation and fill in the required sections only

TYPE OF ACTIVITY	MARK	SECTIONS OF THE FORM TO BE FILLED IN
Recycling and/or recovery Facility	<b>X</b>	All except Section 8
Storage and or transfer Facility	<b>X</b>	All except Section 8
Treatment facility	<b>X</b>	All except Section 8
Disposal facility		All



## Activities applied for

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	ACTIVITY NUMBERS (AS LISTED IN THE WASTE MANAGEMENT ACTIVITY LIST):	DESCRIBE EACH LISTED ACTIVITY:
NEM:WA Government Notice Regulation 718 (3 July 2009)	Category A: Activity 2	The storage including temporary storage of hazardous waste at a facility that has the capacity to store in excess of 35m <sup>3</sup> of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons.
	Category B: Activity 2	The reuse and recycling of hazardous waste.
	Category B: Activity 3	The recovery of hazardous waste including the refining, utilisation or co-processing of waste at a facility with a capacity to process more than 500kg of hazardous waste per day excluding recovery that takes place as an integral part of an internal manufacturing process within the same premises or unless the Minister has approved re-use guidelines for the specific waste stream.
	Category B: Activity 5	The treatment of hazardous waste using any form of treatment regardless of the size or capacity of such a facility to treat such waste.

NB: Authorisation issued will only cover activities applied for and listed above. Activities added in the middle or after the processing of this authorisation may mean a totally new application.

### Application for Category A (equivalent to Basic Assessment)

Is this an application for a basic assessment (as defined in the EIA regulations)?

YES	NO
YES	NO

If, YES, is a basic assessment report attached?

If, NO, please indicate when the basic assessment report will be submitted:

**This is not an application for a Basic Assessment**

Is information required as per Appendix B1 of this form attached?

YES	NO
-----	----

If, NO, please ensure that it is submitted together with the basic assessment report (BAR)

### Application for Category B (equivalent to Scoping and Environmental Impact Assessment (EIA))

Is this an application for Scoping and EIA (as defined in the EIA regulations)?

YES	NO
-----	----

Please indicate when the Scoping Report and Plan of Study for EIA will be submitted:

First quarter of 2012.

Please ensure that both Appendix B1 and B2 are completed and included in reports

The scoping report and/or the plan of study for EIA will be submitted after consultation with the competent authority

A consultation with the competent authority is hereby requested:

YES	NO
YES	NO



**SECTION 2: SITE IDENTIFICATION, LOCATION AND LANDUSE**

Please indicate all the Surveyor-general Cadastral Code 21 digit site (erf/farm/portion) reference numbers:

T	O	J	S	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	6	0
T	O	J	S	0	0	0	0	0	0	0	0	0	3	1	0	0	0	1	0	1
<b>1</b>	<b>2</b>			<b>3</b>			<b>4</b>						<b>5</b>							

**LEGEND:**

1. Refers to the Surveyor's-General Office (T = Pretoria, F = Free State, C = Cape Town & N = Kwazulu-Natal)
2. Major Code (Registration Division)
3. Minor code
4. Property No (i.e. Farm No./Erf No./Holding Area No./Sheme No.)
5. Portion Number

If the property type is not surveyed, complete the following: **The property is surveyed.**

Full name of leader of village, community or tribal authority

Local Authority

Magisterial District

Tribal Authority/Council


Ownership of the property (mark only one with an X)

Property owned by applicant (100% Share value)	<b>X</b>	Property leased by applicant	
Property owned by applicant (Share value less than 100%)		The property is communal land	





**Size of Site and Classification**

Size of facility for a waste management activity	56.2810 ha
Area where the waste management activity takes place	2.25 ha storage; < 1 ha for treatment plant
Classification of facility in terms of climatic water balance	B-
Classification of Facility in terms of the type and the quantity of waste received	H:H

**Current land-use where the site is situated:**

Industrial	<b>X</b>	Recreation	
Agriculture		Commercial	
Residential		Mining & quarrying	
Forestry		Wilderness areas	
Wetlands		Nature area	
Open spaces			

Other current land-use.....

	MARK YES/NO	SECTION IN THE REPORTS WHERE RELAVANT AUTHORISATION IS ATTACHED
Is a change of land-use or a consent use application required?	NO	
Must a building plan be submitted to the local authority for approval?	NO	

**Geographical coordinates of all external corner points of the site:**

Number of corner	Latitude			Longitude		
1	25°	51'	30.05"	29°	13'	48.48"
2	25°	51'	46.35"	29°	13'	23.00"
3	25°	51'	58.73"	29°	13'	34.68"
4	25°	51'	51.50"	29°	13'	44.32"
5	25°	51'	52.83"	29°	14'	04.32"
6	25°	51'	45.61"	29°	14'	07.17"
7	25°	51'	44.47"	29°	13'	57.03"
8	25°	51'	35.56"	29°	14'	00.43"
.....	°	'	"	°	'	"
.....	°	'	"	°	'	"
.....	°	'	"	°	'	"



**Site Address:**

Building Name or Number	Silicon Smelters (Pty) Ltd - Rand Carbide		
Street	Voortrekker Road		
City/Closest Town	eMalahleni		
Province	Mpumalanga		
Local Municipality	eMalahleni Local Municipality		
District Municipality	Nkangala District Municipality		
Property Description (Deeds Act or name of farm, town, city or agricultural holding)	Remaining extent of Portion 60 and Portion 101 of the farm Joubertsrust 310 JS		
Postal address	P.O. Box 214		
	eMalahleni		
Postal code:	1035	Cell:	082 894 5856
Telephone:	013 690 8263	Fax:	013 690 8384
E-mail:	kerry.beamish@siliconsmelters.co.za		

Local authority in whose jurisdiction the proposed activity will fall:	eMalahleni Local Municipality		
Contact person:	Mr H.S. Maisela (Manager in the municipal manager's office)		
Postal address:	P.O. Box 3, eMalahleni		
Postal code:	1035	Cell:	
Telephone:	013 690 6356	Fax:	013 690 6479
E-mail:			

In instances where there is more than one local authority involved, please attach a list of local authorities with the contact person and contact details to this application.

**SECTION 3: CONTACT INFORMATION**

**A) Person to contact about application (EAP)**

First name & Surname	Ms Paulette Jacobs		
Company name (if any):	HydroScience cc		
Company Registration/Identity number for individuals	2008/056910/23		
Physical address:	169 Yvonne Street, Ruimsig Country Estate, Ruimsig		
	Gauteng		
Postal address:	P.O. Box 1322		
	Ruimsig (Gauteng)		
Postal code:	1732	Cell:	082 850 5482
Telephone:	082 850 5482	Fax:	086 692 8820
Email Address	paulette@hydroscience.co.za		



**B) Person wishing to hold licence**

First name & Surname of Applicant	Ms Kerry Beamish		
Company name (if any):	Silicon Smelters (Pty) Ltd - Rand Carbide		
Company Registration/identity number for individuals	1998/19036/07		
Physical address	Voortrekker Road		
	eMalahleni		
Postal address	P.O. Box 214		
	eMalahleni		
Postal code:	1035	Cell:	082 894 5856
Telephone:	013 690 8263	Fax:	013 690 8384
E-mail:	kerry.beamish@siliconsmelters.co.za		

**C) Landowner where activity takes place**

First name & Surname	Ms Kerry Beamish		
Company name (if any):	Silicon Smelters (Pty) Ltd - Rand Carbide		
Company Registration/identity number for individual(s)	1998/19036/07		
Physical address	Voortrekker Road		
	eMalahleni		
Postal address	P.O. Box 214, eMalahleni		
	1035	Cell:	082 894 5856
Telephone:	013 690 8263	Fax:	013 690 8384
E-mail:	kerry.beamish@siliconsmelters.co.za		

**Operational times**

PERIOD	FROM	UNTIL
Weekdays	This facility runs 24 hours a day and 7 days a week.	
Saturdays		
Sunday		
Public holidays		

**SECTION 4: PROCESS/ACTIVITY DESCRIPTION:**

<b>Project Title</b>	Waste Management Licence application for the reworking of the historic waste dump located on the Silicon Smelters (Pty) Ltd - Rand Carbide site.
----------------------	--



## Project Description:

Please provide a brief description of the activities and operations at the site. Provide a flow chart of the operation showing all inputs and outputs of the process. Give particulars of the source, location, nature, composition and quantity of emission to the atmosphere, surface water, sewer, and ground-water including noise emissions. Solid waste must be in tons and specify units for liquids and gases.

**History of waste dump:** Rand Carbide has a historic waste disposal facility which was started around 1926 and was actively used until 2006 for the discarding/dumping of most unwanted materials on site. The waste disposal area extends over 2.25 ha (length of 225 m; width of 100 m and height of 30 m) and contained about 500 000 tonnes of dry waste material. Currently, no waste is discarded onto the dump.

**Waste material:** Material on the historic dump includes the following:

- Contaminated Ferro-silicon (40 tons/annum)
- Amorphous silica fume
- Tarry materials
- Oil soaked calcined anthracite
- Paste
- Char (80 tons/annum)
- Slag (64 tons/annum)
- Coal fines/dust (52 tons/annum)
- Aluminium (18 tons/annum)
- Silica/Quartz fines
- Char/coal fines
- Anthracite fines/dust
- Sweepings (coal dust etc.)
- Stoker refractory (large lumps)
- Stoker ash (fly ash)
- Ladle refractory
- Carbon stoker mix fines
- Refractory bricks
- Paper/wood

**Reprocessing:** In 2005, Highveld Steel & Vanadium Corporation Limited entered into a memorandum of agreement with Enviroserv Mineral Beneficiation (Pty) Ltd (previously Chargold) to reduce the volume of the unlicensed waste dump as part of an on-going rehabilitation process. Enviroserv Mineral Beneficiation (EMB, a joint venture between Rand Carbide and Enviroserv) is currently processing the Rand Carbide current plant arising residues as well as the historic waste material. According to Mr Franco Boot (EMB site manager), it will take approximately another eight (8) years to fully process the dump at the current processing rate. EMB currently extracts about 50% of the material on the dump for placement back into the Rand Carbide process. The entire dump will be processed and material that cannot be utilised (recycled or put back into the Rand Carbide process) will be disposed off-site at suitable facilities.

In terms of the memorandum of agreement signed in 2007, Rand Carbide (as part of Highveld) appointed EMB as its agent, to not only recover material, but to market and sell the recovered material on behalf of Rand Carbide. This contract was for a period of three years and no renewals, contract extension or subsequent contracts were made available (the agreement expired 20 August 2010). These contracts were drawn up between Highveld Steel & Vanadium Corporation Limited and Chargold on a legal basis. The project however seems to proceed as originally agreed.



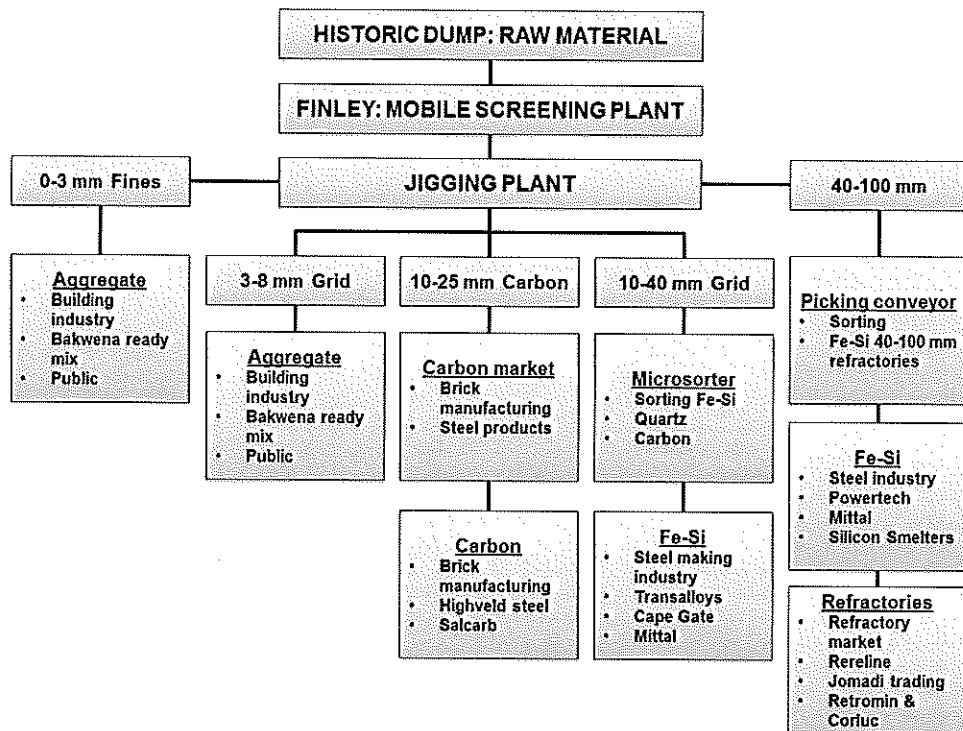


In terms of the agreement, EMB handles the recovery of certain material from the existing Rand Carbide waste dump as well as from current arisings. Feed material comprises primarily mixed quartz and char, which arise from the screening plant, ferro-silicon slag which has been crushed to liberate residual ferro-silicon, as well as refractory materials arising from furnace breakout.

**Reprocessing plant:** The plant is a small mobile pre-fabricated 15 ton per hour jiggging plant which uses recirculated water to separate the fractions. The process uses the density of the material and gravity to separate the fractions. The plant has a footprint size of approximately 50 m<sup>2</sup> installed on a concrete slab next to the paste plant.

**Process:** Material is loaded into a feed bin, conveyed to a slurry tank, where it is mixed with water and washed over a desliming screen. The slimes (-1mm) is then pumped through a dewatering cyclone onto an existing draining pad, alongside the plant. Water drains off into the sump, from where it is pumped into a recirculation water tank. The residual moisture in the slimes material is expected to be about 10%. Slimes is either sold or taken to a landfill site.

The coarse material (+1 mm) passes from the screen to a jib and is separated into coal, quartz, refractory/slag and ferro-silicon fractions. The slag/refractory is sold as aggregate and the ferro-silicon is mixed with current Rand Carbide product or sold.



Process flow diagram

**Water use:** Apart from residual water remaining in the product, all water is circulated with make-up water approximately 30 – 50 m<sup>3</sup>/day.

The quantities of material recovered by EMB and sold to various clients are as follows:



Type:	Monthly average (ton):	Annual average (ton):
Sand	241	2 892
Fe-Si	254	3 048
Anthracite	50	600
Dust pellets	1 900 (once in six months)	22 800
Scrap metal	1 633 (once in six months)	19 596

### SECTION 5: WASTE QUANTITIES

Indicate or specify types of waste and list the estimated quantities expected to be managed daily (should you need more columns, you are advised to add more)

Hazardous waste	Non hazardous waste	Total waste handled (tonnes per day)
EMB utilises a small mobile pre-fabricated 15 ton per hour jigging plant to process the current plant arising residues and historic waste dump material.		

Source of information supplied in the table above Mark with an "X"

Determined from volumes

Determined with weighbridge/scale

Estimated

<b>X</b>

### **Recovery, Reuse, Recycling, treatment and disposal quantities:**

Indicate the applicable waste types and quantities expected to be disposed of and salvaged annually:

TYPES OF WASTE	MAIN SOURCE (NAME OF COMPANY)	QUANTITIES		ON-SITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE DISPOSAL
		TONS/MONTH	M <sup>3</sup> /MONTH	method & location	method location and contractor details	
Quantitative and qualitative information regarding wastes will be given in the reports.						



**SECTION 6: GENERAL**

Prevailing wind direction (e.g. NWW)

November – April	<b>ESE</b>
May - October	<b>SE</b>

The size of population to be served by the facility

	Mark with "X"	Comment
0-499	<b>X</b>	<b>Only industrial clients will be served.</b>
500-9,999		
10,000-199,999		
200,000 upwards		

The geological formations underlying the site:

Granite	<input type="checkbox"/>	Quartzite	<input type="checkbox"/>
Shale	<b>X</b>	Dolomite	<input type="checkbox"/>
Sandstone	<b>X</b>	Dolerite	<input type="checkbox"/>

Other \_\_\_\_\_

**SECTION 7: COMPETENCE TO OPERATE SITE**

It is imperative that the holder of the waste licence is a fit person in terms of section 59 of the NEMWA (59 of 2008). To assess the holder's competence to operate the site, please disclose the following:

**Legal compliance**

Has the applicant ever been found guilty or issued with a non compliance notice in terms of any national environmental management legislation?

YES/NO	DETAILS
<b>YES</b>	On 8 February 2011, Rand Carbide was issued with the following from the National Department of Environmental Affairs: "Notice of Intention to issue a compliance notice in terms of Section 31L of the National Environmental Management Act (107 of 1998) (as amended) and/or a directive in terms of section 28(4) of the NEMA and/or a directive in terms of Section 31A of the Environment Conservation Act, 1989 (73 of 1989): Air Pollution" (Ref 62-11-2010) In terms of: non-compliance with the provisions of the law; serious harm, significant pollution or environmental degradation. A fine was paid.



Has the applicant's licence in terms of the Waste Act 2008 ever been revoked?  
 Has the applicant ever been issued with a non compliance notice or letter in terms of any South African Law?

NO	
YES	See above.

**NB:** Details required above include any information that the applicant wants the Department to take into consideration in determining whether they are a "fit person" and this includes reasons why the offence happened and measures in place to prevent recurrence

### Technical competence

What technical skills are required to operate the site?

Minimum requirements will comprise of:

- National Senior Certificate (Grade 12).
- At least two (2) years' experience in the field.

How will the applicant ensure and maintain technical competency in the operation of the site?

Only candidates with relevant experience will be appointed.  
 Continuous training of personnel.  
 Results are used as part of personnel evaluation.  
 Annual external audits are undertaken to ensure compliance.

Details of applicant's experience and qualification along with that of relevant employees must be summarised as shown in the table below:

NAME	POSITION	DUTIES AND RESPONSIBILITIES	QUALIFICATIONS AND EXPERIENCE
Ms Kerry Beamish	SHEQ unit manager	Responsible for safety and health of workers as well as environmental management and quality control.	13 years' experience in safety and environmental fields





## Financial Provisions

Provide a plan of estimated expenditure for the following:

	ATTACHED/NOT ATTACHED	SECTION OF THE REPORT WHERE IT IS ATTACHED
Environmental Monitoring	Attached to final report.	Rand Carbide has invested more than R1.6 million over the last financial year in reducing their impacts on the surrounding environment and undertaking monitoring. This included: external audit; waste removal services; and monitoring. R124 612 was spent in 2011 on water monitoring.
Provision and replacement of infrastructure	Attached to final report.	A budget of R31 million has been allocated over the next eight (8) years to put a storm water management plan and infrastructure in place.
Restoration and aftercare		



**SECTION 8: LANDFILL PARAMETERS Not applicable to this application**

**The method of disposal of waste:**

Land-building  Land-filling  Both

**The dimensions of the disposal site in metres**

	At commencement	After rehabilitation
Height/Depth		
Length		
Breadth		

**The total volume available for the disposal of waste on the site:**

Volume Available	Mark with "X"	Source of information (Determined by surveyor/ Estimated)
Up to 99		
100-34 999		
35 000- 3,5 million		
>3,5 million		

**The total volume already used for waste disposal:**

- (a) Will the waste body be covered daily
- (b) Is sufficient cover material available
- (c) Will waste be compacted daily

YES
YES
YES

NO
NO
NO

If the answers (a) and/or (b) are No, what measures will be employed to prevent the problems of burning or smouldering of waste and the generation of nuisance?



### The Salvage method

Mark with an "X" the method to be used.

At source

Recycling installation

Formal salvaging

Contractor

No salvaging planned


### Fatal Flaws for the site:

Indicate which of the following apply to the facility for a waste management activity:

Within a 3000m radius of the end of an airport landing strip

Within the 1 in 50 year flood line of any watercourse

Within an unstable area(fault zone, seismic zone, dolomitic area, sinkholes)

Within the drainage area or within 5 km of water source

Within an area with shallow and/or visible water table

Within an area adjacent to or above an aquifer

Within an area with shallow bedrock and limited available cover material

Within 100 m of the source of surface water

Within 1km from the wetland

Indicate the distance to the boundary of the nearest residential area

Indicate the distance to the boundary of the industrial area

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
0 metres	
0 metres	

### Wettest six months of the year

November- April

May -October




For the wettest six month period indicated above, indicate the following for the preceding 30 years

	Total rainfall for 6 months	Total A-pan evaporation for 6 months	Climatic water balance
For the 1 <sup>st</sup> wettest year			
For the 2 <sup>nd</sup> wettest year			
For the 3 <sup>rd</sup> wettest year			
For the 4 <sup>th</sup> wettest year			
For the 5 <sup>th</sup> wettest year			
For the 6 <sup>th</sup> wettest year			
For the 7 <sup>th</sup> wettest year			
For the 8 <sup>th</sup> wettest year			
For the 9 <sup>th</sup> wettest year			
For the 10 <sup>th</sup> wettest year			

**Location and depth of ground water monitoring boreholes:**

Codes of boreholes	Borehole locality	Depth (m)	Latitude			Longitude		
			°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"





**Location and depth of landfill gas monitoring test pit:**

Codes of boreholes	Borehole locality	Latitude			Longitude		
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11



**Location and depth of landfill gas monitoring test pit:**

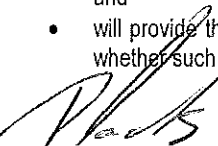
Codes of boreholes	Borehole locality	Latitude			Longitude		
		0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11
.....	.....	0	1	11	0	1	11

**SECTION 9: DECLARATIONS**

**The independent Environmental Assessment Practitioner**

I, Paulette Jacobs, declare under oath that I –

- act as the independent environmental assessment practitioner in this application ;
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2006;
- have and will not have no vested interest in the proposed activity proceeding;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- undertake to disclose, to the competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2006;
- will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- will keep a register of all interested and affected parties that participated in a public participation process; and
- will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

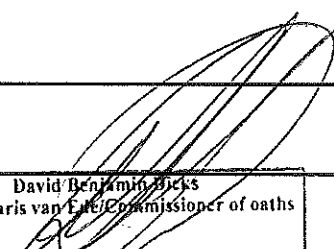
  
Signature of the Environmental Assessment Practitioner:

**HydroScience**

Name of company:

**2012-02-20**

Date:

  
David Benjamin Hicks  
Kommissaris van Ede/Commissioner of oaths

Handtekening / Signature

Signature of the Commissioner of Oaths:

**2012-02-20**

Date:

Designation:

Official stamp (Above)

**The Applicant**

I, Kerry Beamish, declare under oath that I -

- Am, or represent, the applicant in this application;
- appointed the environmental assessment practitioner as indicated above to act as the independent environmental assessment practitioner for this application;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2006, including but not limited to –
- costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
- costs incurred in respect of the undertaking of any process required in terms of the regulations;
- costs in respect of any fee prescribed by the Minister in respect of the regulations;
- costs in respect of specialist reviews, if the competent authority decides to recover costs; and
- the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these regulations;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify, the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible in terms of these regulations; and
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to an appeal being decided in terms of these regulations.



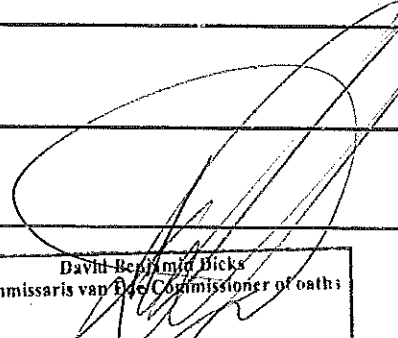
Signature of Applicant

**Silicon Smelters (Pty) Ltd. Rand Carbide**

Name of company:

**2012-02-20**

Date:



David Benjamin Dicks  
Kommissaris van Oath / Commissioner of oaths  
Handtekening / Signature

Signature of the Commissioner of Oaths:

Date:

Designation:

Official stamp (Above)





# WASTE LICENCE APPLICATION FORM

## PART 3: APPLICATION FORM FOR AMENDMENT TO AN EXISTING AUTHORISATION

Not applicable, this application is for a new waste licence.

### Details of Current Licence:

Current Licence or Permit reference number	
--	--

### The Proposed Modification:

Give details of changes required in the authorisation:

Condition Number	Condition as written in the current authorisation	Proposed condition	Motivation for change

Will the amendment amount to increase in the environmental impact regulated by the waste management licence?

YES/NO

If yes:

- attach waste impact report
- Attach proof of notification of relevant organs of state
- Attach proof of notification of interested and affected parties





**Change of Information**

Will there be any changes to information supplied in the original application?

YES/NO
--------

If yes fill in sections that have changed of Part 2: Application for new licence

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Name of company:

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Signature of the Commissioner of Oaths:

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Designation:

Official stamp (Above)





# WASTE LICENCE APPLICATION FORM

## PART 4: APPLICATION FORM FOR CLOSURE

**Details of Current Licence:**

<b>Current Licence or Permit reference number</b>	
---	--

**Section of this form to fill:**

Section 2, 3a, 3b, 3c of part 2 of this form.

**Documentation Requirements:**

Every closure application for facilities shown in the table below must as a minimum be accompanied by documentation as indicated hereafter

Requirements	Recycling &/ recovery Facility	Storage &/ transfer Facility	Treatment facility	Disposal facility
Design of storm-water management	X	X	X	X
Design of leachate management				X
Design & duration of landfill gas monitoring and management				X
Design of settlement/surface pondage				X
Design of access roads				X
Topographic Map indicating the property	X	X	X	
Topographic Map indicating the landfill property boundary, cells (fill areas), wells, and structures within and surrounding the landfill site				X
Plan Drawings (including Final Contour Grade Map) indicating (a) the final contours and vegetation in relationship to the surrounding land and any run-off control structures				X



Plan Drawings (including Final Contour Grade Map) indicating (b) well location(s), depth to groundwater and flow direction				X
Plan Drawings (including Final Contour Grade Map) indicating (c) the locations at which gas monitoring takes place				X
drawings showing the proposed final restored profile for the landfill accompanied by calculations of the remaining tonnages of waste (void space) and materials necessary to close, cap and restore the landfill				X
Provision of services that were provided by the facility being closed	X	X	X	X
Post Closure Site management & Operation	X	X	X	X
Monitoring Plan	X	X	X	X
Emergency Preparedness plan	X	X	X	X
Rehabilitation measures including removal of site structures,	X	X	X	X
Rehabilitation measures including waste compaction and capping; application of topsoil & vegetation establishment				X
Procedures for the inspection or auditing of the rehabilitation process and mechanisms for reporting to the licensing authority,	X	X	X	X
long and short term stability				X
procedures and timescales for ensuring final levels are achieved				X

---

Signature of Applicant

---

Name of company:

---

Date:

---

Signature of the Commissioner of Oaths:

---

Date:

---

Designation:

Official stamp (Above)



## APPENDIX: A1

### Information needed when applying for scheduled activities listed under Category A, but is not limited thereto:

**Basic Assessment Report which must include supplementing documentation such as:**

Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity  
Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity  
Conducting public participation as outlined in EIA Regulations  
Waste disposal facility designs  
Closure plan (report)  
Operational plan  
All applicable legislation, policies and/or guidelines  
End-use plan (only apply to site landfill closure)  
Closure/Remedial designs (only apply to the landfill closure)  
Latest external audit report (only apply for permit amendment)  
Application and report documents (four hard copies for all applications)  
A3 size layout plans (four hard copies for all applications)  
Landfill conceptual designs (only apply for construction and decommissioning of landfill sites)  
Geo-hydrological report (only apply to landfill sites, storage facilities and treatment of waste)  
Consideration of alternatives  
Description of mitigation measures and risk assessment  
Any inputs made by specialists to the extent that may be necessary  
Any specific information as may be required by the competent authority

### Information needed when applying for scheduled activities listed under Category B, but is not limited thereto:

**Scoping and Environmental Impact Assessment Report which should include:**

Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity  
Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity  
Conducting public participation as outlined in EIA Regulations  
Closure plan (report)  
Operational plan  
Waste disposal facility designs  
End-use plan (only apply to site closure)  
Closure/Remedial designs (only apply to site closure)  
Latest external audit report (only apply to permit amendment)  
Application and report documents (four hard copies for all applications)  
A3 size layout plans (four hard copies for all applications)  
Landfill conceptual designs  
Geo-hydrological report (only apply to landfill sites, storage and treatment of waste)  
Consideration of alternatives  
Description of mitigation measures and risk assessment  
Any inputs made by specialists to the extent that may be necessary  
Any specific information as may be required by the competent authority  
**Plan of study for environmental impact assessment which must among others include:**  
Description of the tasks to be undertaken as part of the environmental impact assessment process, including specialist report or specialized processes, and a manner in which such tasks will be undertaken  
An indication of stages of stages at which the competent authority will be consulted  
Description of methods for assessing issues and alternatives, including the no-go alternative  
Particulars of participation process that will be conducted during the EIA process  
**NB: Compilation of EIA report must be based on tasks outlined in the Plan of Study for EIA, and the below listed reports must also be attached.**  
Draft environmental management plan (only apply to EIA reports. No draft EMP should be included in the scoping report)  
Copies of any specialist reports and specialized processes (only apply to EIA reports. No copies of specialist studies and specialized processes should be included in the scoping report)





## APPENDIX B1

The following MUST be included in the application as supporting documentation and the applicant must indicate specific section(s) where they are appended in the reports.

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COMMENTS (if any)
1. Extremely clear Google Earth colour picture of the site (dated not more than a month from the date of the application)	page 4 in the Environmental Impact Assessment Report	
2. 1:50 000 topography /topo-cadastral map of the area showing	page 3 in the Environmental Impact Assessment Report	
2.1 the site and 5km radius	page 3 in the Environmental Impact Assessment Report	
2.2 Existing residential and industrial areas	page 4 in the Environmental Impact Assessment Report	
2.3 Possible future development (indicate the type of development)	page 4 in the Environmental Impact Assessment Report	The project area is situated in an already developed area and it is unlikely that there will be any large future expansions or developments.
2.4 Other waste handling sites (existing or closed) in the area	page 64 in the Environmental Impact Assessment Report	All waste storage and handling areas on the site are indicated.
2.5 Existing and possible future residential areas.	page 4 in the Environmental Impact Assessment Report	The project area is situated in an already developed area and it is unlikely that there will be any large future expansions or developments.
2.7 Sites which are listed as national monuments or archaeological, paleontological and cultural historical sites or objects worthy of conservation;	-	There are none
3. Security and access aspects of the site		Entire property is fenced and access controlled (closed gates, security guards etc) due to the industrial nature of the site and associated hazards. Warning signs are visible along the boundary fence.
4. The site plan drawn to scale showing the site's boundary showing:	page 7 in the Environmental Impact Assessment Report	
4.1 Activities or development existing on all 4 directions of the site.	page 7 in the Environmental Impact Assessment Report	
4.2 Waste receipt, storage and handling areas	page 64 in the Environmental Impact Assessment Report	
4.3 Impermeable surfaces	page 64 in the Environmental Impact Assessment Report	
4.4 Sealed drainage systems	Storm Management Plan in Appendix C of the Environmental Impact Assessment Report	Concrete lined drainage channels throughout the plant – plan 1 shows existing infrastructure and plan 2 planned additional infrastructure.
4.5 Drainage system for the site including sumps and discharge points	Storm Management Plan in Appendix C of the Environmental Impact Assessment Report	Plan 3 is a combination of existing and planned infrastructure.
4.6 Road names and access from all major roads in the area	page 4 in the Environmental Impact Assessment Report	
4.7 Land Owner's consent (letter with signature)		Not applicable as the land owner is the applicant
5. Waste hierarchy implementation plan	Section 2 and pages 10 - 13 in the Environmental Impact Assessment Report	All historic waste is currently being reprocessed. Recycling/reclamation of current waste generated (oil, general and process waste). No on-site disposal.
6. Emergency preparedness plan	See Appendix C of this application	







**APPENDIX B2 Not applicable to this application**

The following **MUST** be included in the application documentation for landfill sites and the applicant must indicate specific section(s) where they are appended in the reports.

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COMMENTS (if any)
Design for site roads		
The 1 in 50 year flood-line of all watercourses		
Laboratory facilities		
Design and location of fuel storage areas		
Design and location waste quarantine areas		
Design and location of waste inspection areas		
Site's drainage system		
Site's emergency control system and plan		
Liner specifications		
Leak detection system and monitoring		
Leachate management plan		
Calculations of leachate generation		
Leachate collection and treatment		
Gas generation and management		
Air quality monitoring and management		
Co-disposal ratio calculation		
Stability monitoring and management		
Daily and intermediate cover requirements		
Temporary and permanent capping requirements		



## APPENDIX C Emergency preparedness plan

### 1. PURPOSE

To ensure effective plans and processes are implemented for responding to actual and potential emergencies and incidents in order to prevent and/or mitigate the likelihood of harm or damage occurring following such situations.

### 2. SCOPE

This SHEQ primary procedure is applicable to all activities and covers the requirements that relate to emergency preparedness and response that are related to the environment as well as occupational health and safety. It addresses the requirements in terms reference clause 4.4.7 of OHSAS 18001:2007 and ISO 14001:2004.

### 3. OBJECTIVES

In order to comply with the relevant requirements relating to ISO 14001:2004 and OHSAS 18001:2007, the following objectives are of importance:

- i) Establishing and maintaining plans and procedures to identify the potential for, and responses to, actual or potential incidents and emergency situations, and for preventing and mitigating the likelihood of illness, harm or risk that may be associated with them. **It is important to note that the determination of actual or potential incidents and emergency situations take cognizance of significant hazards and risks as determined in accordance with the Hazard Identification and Risk Control primary procedure PP4A.**
- ii) To periodically test or simulate emergency preparedness and response plans and procedures to review their effectiveness and implementing such actions as may be necessary to improve such plans and procedures.
- iii) The establishment and implementation of actions to mitigate control and contain risk following emergency situations and incidents.
- iv) Conduct regular and scheduled reviews on the effectiveness of emergency plans and procedures following the occurrence of emergency situations and incidents and shall where necessary revise these plans and procedures accordingly.

### 4. RESPONSIBILITY AND AUTHORITY

#### 4.1 *General Manager*

The General Manager has the responsibility, designated authority and ultimate accountability to ensure compliance to this procedure. The General Manager has the designated authority to assign any duty to any person under his direction in ensuring as far as is reasonable practicable that the applicable legal requirements are adhered to.

#### 4.2 *Management*

Management has the responsibility, designated authority and accountability to ensure that:





- i) Plans and procedures are established, implemented and maintained to identify the potential for, and responses to, incidents and emergency situations and for preventing and mitigating the potential for harm or damage that may be associated with them. Such plans and procedures shall take cognizance of the most significant hazards and risks determined during the HIRA process as well as previous incidents and emergency situations.
- ii) Emergency preparedness and response plans and procedures shall make provision for the following:
  - Communication processes for ensuring appropriate responses to and containment of potential incidents and emergency situations by emergency services and by personnel such as first-aiders, fire coordinators, etc.
  - 1. Roles, responsibilities and authority of personnel responsible for various specific roles and duties during potential incidents and emergency situations.
  - 2. Identification and location of hazardous materials and emergency actions required (Material Safety Data Sheets).
  - 3. Identification and location of emergency equipment. This may for instance include:-
    - Alarm systems,
    - Emergency lighting and power,
    - Means of escape/evacuation including assembly points,
    - Critical isolation valves, switches and cut-outs,
    - Fire fighting equipment and breathing apparatus sets,
    - First-aid equipment including emergency showers eye wash stations,
    - Safe refuges,
    - Environmental spillage containment and clean-up materials and chemicals/neutralizing agents, etc.
- iii) The necessary training is provided for incident and emergency preparedness response personnel and shall ensure that personnel in the division as well as contractors, vendors and visitors are made aware of emergency preparedness and response plans and procedures.
- iv) Regular testing and/or simulation of potential incidents are conducted on a regular basis and review the effectiveness of emergency preparedness and response plans and where necessary revise emergency preparedness and response plans and procedures accordingly.
- v) Reviews of the effectiveness of emergency preparedness and response plans are conducted following the occurrence of actual incidents and emergency situations and where necessary revise emergency preparedness and response plans.
- vi) Adequate resources are provided so as to ensure that the potential and or damage following the occurrence of incidents and emergency situations are prevented and/or mitigated.
- vii) Records are maintained of testing and/or simulations conducted in terms of emergency preparedness and responses of potential and actual incidents and emergency situations including records of the review of effectiveness of these plans and procedures;
- viii) The requirements as stipulated in this procedure are established, implemented and maintained for all divisions under their scope of control.
- ix) The necessary resource needs are provided for each relevant division falling under their scope of control.



#### 4.3 *SHEQ Department*

SHEQ Department has the responsibility, designated authority and accountability to ensure that:

- (a) emergency response personnel are available to attend to the specific calls;
- (b) reviews of the effectiveness of emergency preparedness and response plans and procedures after the occurrence of emergency situations and incidents in conjunction with the relevant units as and when required
- (c) on request by the respective units, conduct training sessions on the appropriate and correct use of fire extinguishers etc. and, in addition, test and /or simulate various emergency scenarios in conjunction with unit personnel

#### 4.4 *All Rand Carbide Employees*

All Rand carbide Employees have the responsibility to ensure that they familiarize themselves with the emergency response plans applicable to their area of operation and shall accordingly follow these plans and procedures in the case of emergencies and incidents as well as during tests and simulations. In addition, employees shall, when the need arises, promptly report any emergency situation or incident and ensure that all reasonable care is taken in terms of their own health and safety as well as their fellow employees.

### 5. **PROCESS CONTROL REQUIREMENTS**

- 5.1 Rand Carbide need to establish, implement and maintain emergency preparedness and response plans and procedure in consultation with the fire and emergency sections. Conditions before emergencies, during emergencies and after emergencies must be addressed in divisional plans and procedures.
- 5.2 All units need to make employees and persons working for or on behalf of the unit aware of unit's emergency preparedness and response plans and procedures.
- 5.3 Management must make suitable emergency response equipment available at the work place (see PP4 F – Work Environment).
- 5.4 Management must establish, implement and maintain suitable structures for the response to emergency situation and incidents. Such structures shall indicate the applicable responsibility and appointments as may be required in terms of legal and statutory requirements.
- 5.5 Rand Carbide must on an annual basis test (emergency evacuation drills), emergency preparedness and response plans and procedures.
- 5.6 Rand Carbide must implement and maintain processes to review divisional emergency preparedness and response plans and procedures after incidents and after tests and simulations.
- 5.7 Rand Carbide shall, as appropriate, provide the necessary training to personnel in order to ensure that emergency preparedness and response plans are effective so as to mitigate and contain any negative effects caused by emergency situations and the occurrence of incidents as far as is practically possible.

### 6. **PROCESS MAP**



See below,

In addressing the necessary requirements Rand Carbide shall take due regard of the following:

## **6.1 Safety Health and Environmental Considerations**

### **➤ Identification of hazards**

Management must identify all occupational health, safety and environmental hazards relating to the work environment in accordance with the Hazard Identification, Risk Assessment and Risk Control Primary Procedure (PP 4A)

### **➤ Fire prevention**

All facilities or proposed facilities must have adequate fire control equipment.

Fire prevention equipment and its availability and location are of utmost importance and divisional management should obtain advice from either a suitable professional or the Rand Carbides Fire Department.

Management must ensure that all fire equipment is clearly identified, demarcated and the locations must be displayed at strategic points. Divisional management must ensure that all fire prevention equipment is serviced annually.

Management must also ensure that the facility is supplied with a fire alarm system/s.

### **➤ Emergency programmes**

Management must implement and maintain processes for all incidents to be reported and investigated in accordance with the incident reporting, investigation, corrective and preventive action primary procedure PPI9 B.

Management must ensure that facilities or proposed facilities have a plan/procedure for prompt first aid treatment in case of injury or emergencies. A list of all First Aiders must be drawn up indicating the expiry date on the First Aid Certificates and to have a First Aider readily available during normal working hours.

If the need for any employee, contractor, or visitor is to be hospitalized for any reason, only the Rand Carbides Emergency department can accompany that person off site {NB! where no Emergency department personnel is available, the person must be accompanied by the highest level of supervision on site at that time, assisted by the SHEQ Department/SHEQ Stand-by).

Management must ensure that facilities or proposed facilities have sufficient emergency exits. Management must ensure that programmes for emergency evacuation and the safe gathering of employees are displayed at strategic points and that evacuation programmes are tested and reviewed annually for effectiveness.

### **➤ Access control**



SHEQ Department must implement adequate access control programmes to ensure the safety of personnel, equipment and property. SHEQ management must ensure that all staff is sensitized to security within the workplace, whether through security control, vigilance, key padlocks, lock-and-key or passwords (PC's and Alarm Codes).

➤ **Stacking, Ladders, Ramps, Vessels under pressure, Flammable liquids, Lifting equipment, Explosives and Machinery**

Management must ensure that usage, access or storage to stacking areas (Act 85 of 1993 GSR 8); ladders (Act 85 of 1993 GSR 13 A); ramps (Act 85 of 1993 GSR 13 B); vessels under pressure (Act 85 of 1993 VUP); flammable liquids (Act 85 of 1993 GSR 4); lifting equipment (Act 85 of 1993 LEPC); explosives (Act 85 of 1993 ER); and machinery (Act 85 of 1993 GMR) within the facility/ies are suitably identified, demarcated and/or cordoned off.

Management must provide notices and signage (Act 85 of 1993 GSR 2 B) and inspection at these areas as prescribed in relevant inspection programmes or legalisation must be done by an appointed employee familiar with all relevant risks.

➤ **Construction work**

When Principal Contractors need to perform any work on any facility or proposed facility in connection with the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure, SHEQ Co-ordinator must:

- Ensure that each principal contractor is registered with the compensation fund , prior to carrying out of construction work;
- Supply each principal contractor with information that might affect the health and safety of any person in carrying out construction work; ( Health and Safety Specifications)
- Appoint each principal contractor in writing before he can carry out any construction work;
- Review and keep active the health and safety plan of each principal contractor/s during the construction work;
- Do periodic inspection at construction site;
- Stop any work that is not in accordance with the principal contractor/s health and safety plan;

## **6.2 Occupational Health and Hygiene Considerations**

➤ **Employees with disabilities.**

Management should reasonably accommodate the needs of people with disabilities. The aim of the accommodation is to reduce the impact of the impairment of the





person's capacity to fulfill the essential function of the job. Employment Equity Act 55 of 1998 Code of Good Practice (6) Addendum I.

➤ **Lighting**

Management must ensure that sufficient lighting is provided to all areas of the operation as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Environmental Regulations for Workplaces (3) supplemented by the Schedule on Luminance values

➤ **Ventilation**

Management must ensure that sufficient ventilation is provided to all areas of the operation as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Environmental Regulations for Workplaces (5)

➤ **Sanitation**

Management must ensure that sufficient sanitation is provided to all areas of the operation as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Facilities Regulation (2)

➤ **Seats**

Management must ensure that sufficient seats is provided to all areas of the operation as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Facilities Regulation (8)

➤ **Drinking water**

Sufficient drinking water must be provided to all areas of the operation as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Facilities Regulation (7)

➤ **Change rooms**

Engineering management must ensure that sufficient change rooms are provided to all facilities as prescribed by the Occupational Health and Safety Act ; Act 85 of 1993 Facilities Regulation (4)

➤ **Canteens**

Where canteens are provided for the requirements as prescribed in the Occupational Health and Safety Act 85 of 1993 Facilities Regulation (5) must be addressed. In addition, these services must also comply with all Health Regulations.

➤ **Health hazards**

Where it is not practical to safeguard employees against hazards to their health, personal protective equipment must be supplied by the divisional management of



the facility {See Occupational Health and Safety Act 85 of 1993 General Safety Regulations 2.2 .}

➤ **Hazardous biological agents**

See Occupational Health and Safety Act 85 of 1993 Regulation for Hazardous Biological Agents.

➤ **Prohibition**

See Occupational Health and Safety Act 85 of 1993 Facilities Regulation (6)

### **6.3 Environmental considerations for Work places**

➤ **Identification of Hazards and Risks**

Management must identify all environmental hazards and risks relating to work environment in accordance with the Hazards Identification, Risk Assessment and Risk Control Primary Procedure (PP 4A)

➤ **Neighbouring facilities**

Management of facilities or proposed facilities need to identify, manage and control environmental impacts that the operations may have on any neighbouring facility so as to minimize any negative impact on the environment.

➤ **Pollution**

Management of facilities or proposed facilities needs to identify, manage and control environmental pollution from operations, so as to minimize any negative impact on the environment.

➤ **Waste disposal**

Management of facilities or proposed facilities needs to manage and maintain waste disposal as prescribed in the Waste Disposal Procedure (PP 19)

➤ **Housekeeping**

Management of facilities or proposed facilities must implement and maintain housekeeping programmes applicable to all areas of the operations.

➤ **Thermal**

See Occupational Health and Safety Act 85 of 1993 Environmental Regulations for Workplaces. (2)

### **6.4 Training**



Where training facilities are provided or contemplated, management of the facilities or proposed facilities must provide suitable training to all people relating to, but will not be limited to, the relevant considerations mentioned in this procedure. Training must be conducted in accordance with the Competence, Awareness and Training Primary Procedure (PP 18).

#### **6.5 Hazard Identification, Risk Assessment and Risk Control**

Due regard must also be taken of hazard identification, risk assessment and risk controls established within divisions / business units when emergency preparedness and response plans are established, implemented and maintained to ensure that any additional hazards and their associated risks are adequately identified and included in the HIRA process as non-routine activities (refer to PP4A Hazard identification, risk assessment and risk control).

The process maps shall illustrate and detail the following:

- i) the nature of on site hazards ( eg. Flammable liquid, storage tanks, hazardous installations [gas pipe line] etc.) and measures to be taken in the event of emergency situations and incidents.
- ii) the potential for emergency situations and incident occurrence relating to these hazards
- iii) the most likely type and scale of an emergency situation or incident to occur
- iv) the potential for emergency situations or incidents at a nearby facility (eg. road, plant, railway line etc.)

Note: In determining points 1 to 4 the hazard identification and risk assessment profiles must be used as a guideline to rank the significance in order of magnitude

- v) make reference to methods and action plans for responding to emergency situations and incidents (eg. emergency response plan 1)
- vi) make reference to training of emergency personnel
- vii) make reference to communication plans (internal and external)
- viii) the frequency of testing emergency and incident response plans
- ix) the frequency of review of emergency and incident response plans for effectiveness particularly after incidents and testing and the verification process of corrective and preventive action implemented as a result of the review process
- x) the potential for emergency situations or incidents arising from material or substances transported to and from site

#### **6.6 Emergency preparedness and response plans**

In drawing up the emergency preparedness and response plans it is important that the following criteria be considered and included in these plans:

- i) emergency organisation and responsibility of key personnel
- ii) a list of key personnel and aid agencies, including contact details



- iii) responsibility, authority and duties of personnel with specific roles during the emergency, or occurrence of incidents
- iv) interface and availability of local emergency services and details of any emergency and incident response arrangements that have been agreed upon with essential agencies
- v) identification and location of hazardous material and substances and emergency action required
- vi) evacuation procedures taking into account visitors and contractors
- vii) plant layout drawings
- viii) hazardous material data including information relating to procedures to be followed in case of emergencies and incidents
- ix) identifying emergency equipment needs and testing of such equipment.  
Examples may include:
  - alarm systems
  - evacuation routes and means of escape
  - fire fighting and gas rescue equipment
  - emergency lighting and power
  - safe refuge areas
  - protection of vital equipment and records
  - first aid equipment including emergency showers, eye wash stations etc.
  - communication facilities
  - critical isolation valves, switches and cut-outs
- x) experiences from previous emergencies and incidents – lessons learnt and best practices within the organisation as well as similar types of organisation
- xi) training requirements of key personnel
- xii) containment responses to limit the effects and consequences of emergency situations and incidents
- xiii) identifying any additional response plans that may be required in terms of non-routine activities such as plant shutdowns, etc.

## **6.7 Emergency preparedness and response plan testing and review process**

The testing of emergency preparedness and response plans are essential for determining response capability and effectiveness. It is essential that such plans are tested through appropriate means at least annually. Such testing shall not be limited to desk top exercises only but through simulation or practise drills as far as is practicably possible.

Following the occurrence emergency situations and situations including testing, it is required that a review be carried out to evaluate the response capability and effectiveness thereof by the divisions.

Records of such testing and reviews must be maintained in accordance with record control requirements (refer to PP2) and responsible management must ensure that where corrective and preventive actions are indicated such is implemented effectively.





**Purpose** is to provide guidelines for the most appropriate method for responding to emergency situations and incidents occurring at Rand Carbide.

**Emergency situations and incidents include:**

- Fires
- Damage / threat of damage to building and / or plant
- Any other threat to property or persons
- Natural disasters
- Evacuation drills
- Environmental emergencies
- Serious / major gas leaks
- Rand Carbide Hazards and Risks

Refer to Rand Carbide Emergency Preparedness and Response Procedure which is available on the shared directory and displayed on all notice boards. (This SHEQ Procedure has been incorporated and considered when compiling the Rand Carbide Emergency Preparedness and Response Procedure).

**Training of employees:**

- Fire extinguisher training – conducted by the Fire & Emergency Services
- First aid training – done at the Central Training Unit
- Safety induction – done during Rand Carbide induction and various courses presented at the Central Training Unit
- Safety representative training – various courses presented at the Central Training Unit
- Fire & emergency co-ordinator's training – done at the Central Training Unit
- Work instructions on the portal
- Emergency spillage and containment training
- General training through on-the-job experience



**Assembly points and exit areas** are detailed in the Rand Carbide Emergency Preparedness and Response Procedure which is available on the portal and displayed on all notice boards. These are also discussed in Rand Carbide Induction training.

**Duties of emergency co-ordinator: in the event of an emergency / fire**

1. Establish the risk of life and property
2. Evaluate the situation in consultation with the Fire & Emergency Services
3. Decide on the shutdown of the plant and order the evacuation of key operating personnel
4. Keep in constant contact with the emergency co-ordinator in order to establish mechanical, electrical and hydraulic shutdown procedures.
5. Advise and maintain contact with executive management.
6. Be responsible for notification to law enforcement agencies and other responsible departments
7. Notify and direct the activities of emergency officials and teams
8. Maintain a status list showing each area of the plant and record the current status of each area
9. Despatch support services as required
10. Document all events to the SHE Control Department or police officials
11. When deemed safe, ensure all employees return to the workplace to resume their normal duties.

**Duties of emergency co-ordinator: in the event of a bomb or bomb threat:**

1. Ensure that all machines are stopped
2. Ensure that all gas lines are shut off
3. Ensure that all doors and windows are open
4. Ensure that all employees proceed to their designated assembly points
5. Ensure that employees do not run, shout or push past other employees
6. Ensure that all employees do not return to the plant or workplace until it is deemed safe to do so



Complete all the above in liaison with all other emergency co-ordinators and Fire & Emergency Services. Remain in contact with them at all times.

**Duties of emergency co-ordinators:**

2. Control evacuation of their designated group
3. Ensure all persons leave the plant and / or office block immediately in an orderly manner
4. Ensure that all persons in their designated group go straight to the respective assembly point
5. Advise and co-ordinate with the divisional emergency co-ordinator
6. Proceed with the emergency isolation procedure and inform once the plant is electrically and mechanically safe
7. Conduct a roll-call against the manning list and roster for the designated group
8. Advise and assist the Fire & Emergency Services
9. When ordered by the divisional emergency co-ordinator, have employees return to their regular duties.

**Duties of all employees, visitors and contractors:**

1. Ensure that all machines / equipment is switched off
2. Shut off all gas lines
3. Do not run
4. Do not shout
5. Do not push past other personnel
6. Keep away from all dangerous machinery
7. Know your nearest exit route
8. Know your alternative exit route
9. Know your designated assembly point
10. Do not return to the plant until instructed to do

Witbank Fire & Emergency Services will evaluate the situation and, once the plant / workplace is safe, will inform the divisional emergency co-ordinator, who will inform the workforce that it is safe to return to the plant / workplace



Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	1 OF 10
Prepared by	AA
Approved by	KB

## **EMERGENCY PREPAREDNESS AND RESPONSE PROCEDURE**

### **1. PREAMBLE**

To establish an orderly procedure known to all personnel in the division, whereby all persons will leave the plant and or office blocks avoiding congestion or injury, in the event of an emergency or for other requested reasons. A pre-requisite of this plan is the need for every individual to know his or her responsibilities and duties to ensure effective control and evacuation of all personnel.

### **2. POSSIBLE REASONS FOR EVACUATION**

- 2.1 Fire at furnaces, veld, raw material bunkers or calciners;
- 2.2 Damage or threat of damage to building and or the plant – all plants;
- 2.3 Any other threat to property or persons;
- 2.4 Natural disaster, i.e. floods, earthquake or excessive snowfall;
- 2.5 Emergency preparedness and response drills;
- 2.6 Chemical spillage's;
- 2.7 Bomb threat;
- 2.8 Breakdown of electrical power especially at night or bad weather conditions;
- 2.9 Electrical Explosions or electrocution – transformers, mcc's and ht yard;
- 2.10 Scaffolds and cranes (heights);
- 2.11 Furnace tapping floor (compressed gasses and molten metal);
- 2.12 Heavy moving vehicles (maintenance, operations);
- 2.13 FeSi furnaces (eruptions or explosions) ;
- 2.14 Furnace tapping floor, charging floors, casting dams (heat);
- 2.15 Furnace hydraulics (compressed gasses and fluids);
- 2.16 Cranes and conveyors (crushing/entanglement);
- 2.17 Static water in furnace building;
- 2.18 Noise;
- 2.19 Dust;
- 2.20 Fumes;
- 2.21 Poor illumination.

### **3. ASSEMBLY POINTS**

#### **3.1 Administration Building, Clinic & Stoking Plant**

Intermediate sub station at weighbridge.

#### **3.2 Furnace Employees**

Railway area between furnace building and FeSi processing, same side as crawler;

#### **3.3 FeSi Processing Plant**

D & E Dust Plant entrance outside the building.

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	2 OF 10
Prepared by	AA
Approved by	KB

**3.4 Paste Plant**

Paste Plant Workshop.

**3.5 Stokers**

Intermediate sub station at weighbridge.

**3.6 Engineering**

Clock station or the closest point from where work is done at time of emergency.

**3.7 Stockpile Personnel and Canteen**

Clock Station

**3.8 Laboratory, Instrumentation, Transport, Stores and Training Centre**

Grass area between Laboratory building and the Transport workshop.

**3.9 All Employees**

If for any reason you are not close to your assembly point or your assembly point is not safe to go to at the time of the emergency, then move to the closest assembly point.

**4. EMERGENCY CO-ORDINATORS**

- 4.1 Emergency Evacuation Co-ordinator - K. Beamish
- 4.2 Furnaces - B. Bierman
- 4.3 Stokers and Paste Plant - H. Landman, R Erasmus
- 4.4 FeSi Processing - W Jagers
- 4.5 Transport - A Collyer
- 4.6 Engineering - A Collyer & N. van der Merwe
- 4.7 Administration - S Solani
- 4.8 Clinic - Sister on duty
- 4.9 Instrumentation - F. Van der Westhuizen & A. Slinger
- 4.10 Laboratory - O.J Mahlangu & D. Bodibe
- 4.11 Stores - I Pieterse & N Bezuidenhout

**5. SIREN**

The siren will be interlocked with the security main gate. The siren will sound for longer than 10 seconds up to 5 minutes until everyone is successfully evacuated. The siren will sound the same for all scenarios whether it is fire, injury or natural disaster.

**6. EMERGENCY BACK-UP SIREN**

- 6.1 The hand-cranked siren will be used in the case of the existing siren being out of working condition, i.e., no power in the plant; it is to be pulled up and down the main road of the works.



Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	3 OF 10
Prepared by	AA
Approved by	KB

**7. DUTIES OF UNIT EMERGENCY CO-ORDINATORS**

- 7.1 Control evacuation of the designated groups.
- 7.2 Ensure that all persons leave the building immediately; keep to the left, in demarcated walkways, in single file and not running.
- 7.3 Ensure that all people who have evacuated the building proceed to the respective assembly points, moving away from any glass windows or any other objects that may endanger their lives.
- 7.4 Advise and co-ordinate the emergency activities with the Emergency Coordinator / SHEQ;
- 7.5 Proceed with the emergency isolation procedure on the plant, once instructions are received from the Emergency Coordinator / S.H.E.Q.
- 7.6 Report the progress and completion of the isolation procedures to the Emergency Coordinator / S.H.E.Q. Declare that the plant is electrically and mechanically safe after the completion of the isolation procedure.
- 7.7 Co-ordinate the switching in operation after receiving the all clear signal from the Emergency Coordinator / S.H.E.Q.
- 7.8 Advise and assist the emergency services.
- 7.9 Conduct a roll call against the manning lists and rosters for the designated groups.
- 7.10 When ordered by the Emergency Coordinator / S.H.E.Q has employees returned to their work place and resume their normal duties.

**8. DUTIES OF ALL EMPLOYEES**

- 8.1 Ensure that all machines and or equipment have been switched off.
- 8.2 Do not shout.
- 8.3 Do not push past other personnel.
- 8.4 Keep away from all dangerous machinery.
- 8.5 Know your nearest exit route.
- 8.6 Know your alternate exit route.
- 8.7 Know your designated assembly point.
- 8.8 Do not return to your place of work unless instructed to do so by your Emergency Coordinator / S.H.E.Q.

**9. Fire and Emergency**

- 9.1 Establish risk to life and property.
- 9.2 Receive and evaluate the situation.
- 9.3 Decide on the shutdown of the building and order the evacuation of the key operation personnel.
- 9.4 Do not forget about crane operators.
- 9.5 Keep in constant contact with the Emergency Co-ordinator in order to establish mechanical and electrical shutdown procedures.
- 9.6 Advise and maintain contact with Management.
- 9.7 Be responsible for notification to law enforcement agencies and other responsible departments.
- 9.8 Notify and direct the activities of emergency officials and teams.
- 9.9 Maintain a status list showing each area of the plant, and record the current status of each area.
- 9.10 Dispatch support services as required.
- 9.11 Where possible, arrange for a nominated company photographer to take photographs of the damage.
- 9.12 Hand diary of events to the SHEQ Department or Police Officer.
- 9.13 When deemed safe, have employees resume their normal duties.

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	4 OF 10
Prepared by	AA
Approved by	KB

**10. Bomb and Bomb Threat**

Only when instructed by the Emergency Coordinator / S.H.E.Q:-

- 10.1 Stop all machinery.
- 10.2 OPEN ALL DOORS AND WINDOWS!
- 10.3 Proceed to your designated assembly point.
- 10.4 Do not run.
- 10.5 Do not shout.
- 10.6 Do not push past other personnel.
- 10.7 Report to the designated assembly point.
- 10.8 Do not return to the plant until instructed to do so by the Unit Emergency Co-ordinator.

**11. Chemical Spillage**

- 11.1 Stop the source of the spillage as quick as possible;
- 11.2 Prevent the spillage from entering storm water, sewer water drains, soil or any area where it can cause harm to the environment or people;
- 11.3 Contain the spillage using anti static equipment to prevent sparks which can cause a fire or explosion;
- 11.4 Dispose off contaminated objects and waste in hazardous waste skip;
- 11.5 Record the incident via the incident system used at Rand Carbide;
- 11.6 Rehabilitate area as soon as possible;
- 11.7 If water system are contaminated, inform local municipality;

**12. FIRE CO-ORDINATORS**

- 12.1 To assist with all emergency activities as directed by the Emergency Co-ordinator.
- 12.2 To assist the emergency services.

**13. FIRE SERVICES**

Emalahleni Municipality emergency services.

**14. FIRST AIDERS**

Although there is a 24-hour clinic available, at least one person from each section to be trained and ready for emergency reaction at all times (one per shift).

- 14.1 To assist with all medical cases as directed by the Emergency Co-ordinator.
- 14.2 To assist the medical and emergency services if required to do so.

**15. TWO WAY RADIO'S**

Communication will be done on channel 2 of the two way radios during the duration of the emergency evacuation or situation. Radio silence must be maintained except when the emergency co-ordinators communicate with the Emergency Coordinator / S.H.E.Q.

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	5 OF 10
Prepared by	AA
Approved by	KB

**16. EMERGENCY ESCAPE ROUTES**

Emergency escape routes are allocated as follows;

- 1. Furnace Building;**
  - a. Both exits, at Furnace F and Furnace at Batching Plant;
  - b. Escapes behind control rooms;
  - c. Any other door leading to safe escape.
- 2. Stokers;**
  - a. Door leading to railway behind stores;
  - b. Stairway leading to concrete slab in front of stokers;
  - c. Any other door leading to safe escape.
- 3. Paste Plant;**
  - a. Main opening leading to cooling shed;
  - b. Door opening leading to green area;
  - c. Any other door leading to safe escape.
- 4. Low Aluminium;**
  - a. Main door at F-furnace;
  - b. Stairway next to green area leading to D/E dust plant;
  - c. Any other door leading to safe escape.
- 5. FeSi Processing;**
  - a. Main door leading to D/E Dust Plant;
  - b. Any opening with stairway leading to railway;
  - c. Door leading to railway past the drum packaging session;
  - d. Any other door leading to safe escape.
- 6. Laboratory, Instrumentation and Stores;**
  - a. Any other door leading to safe escape;
  - b. Main door at the entrance of the Laboratory;
  - c. Side door at the Laboratory leading to sorting area;
  - d. Door from Instrumentation leading to back close to waste skip;
  - e. Main door at Stores leading to Transport;
  - f. Side door at Stores between Stokers and Stores;
  - g. Gate at Stores yard leading to Stokers.
- 7. General; (Casing Plant, Engineering, Transport, Laboratory, Training Centre, Administration, Workshops, Canteen, Medical Clinic & Open Areas**
  - a. Any door or opening leading to safe escape.

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	6 OF 10
Prepared by	AA
Approved by	KB

## 17. PROCEDURE TO BE FOLLOWED IN CASE OF INJURY, FIRE OR EXPLOSION

The following must be done in case of an injury, fire, explosion or spillage;

- Supervisor or any other employee in the area must contact the medical sister at the clinic immediately in case of an injury (8241);
- Supervisor to contact main gate security (8266) to alert them of any emergency vehicles which may enter the premises;
- Supervisor must complete incident report with details of incident;
- If injured person are at risk on the scene of the accident, he/she must be moved to a safe area taking care of any injuries and not exposing anyone to danger when he/she is moved;
- Machinery or process must be stopped immediate if it affects the safety of the employee or could cause more injuries to the employee;
- Injured person must be stabilized by a first aider whilst waiting for the medical personnel;
- Area around injured must be barricaded to prevent any unauthorized personnel from entering;
- In case of fatality the scene must not be disturbed in order for the investigation to continue as required by the Policy, Department of Labour or any other investigators;
- Crowd control must be initiated in order to ensure that there are only the necessary people on the scene;
- If injured person is capable to be taken to the clinic, then employees can assist the injured employee to the clinic taking care not to cause any other injury or deteriorate injured person's injuries;
- Injured person must be out of harms way and first aider treating injured person must attempt to do the following;
  - Calm the injured person by taking to him/her and informing him/her that professional assistance is on the way and that he/she will be fine;
  - If possible ask the person questions, such as their name, what day it is, where they stay in order to see if the person is fully conscious;
  - Observe to see if any blood, broken bones or any physical injuries to injured person;
  - When medical personnel are on the scene, relay all available information regarding the incident/injury to them.

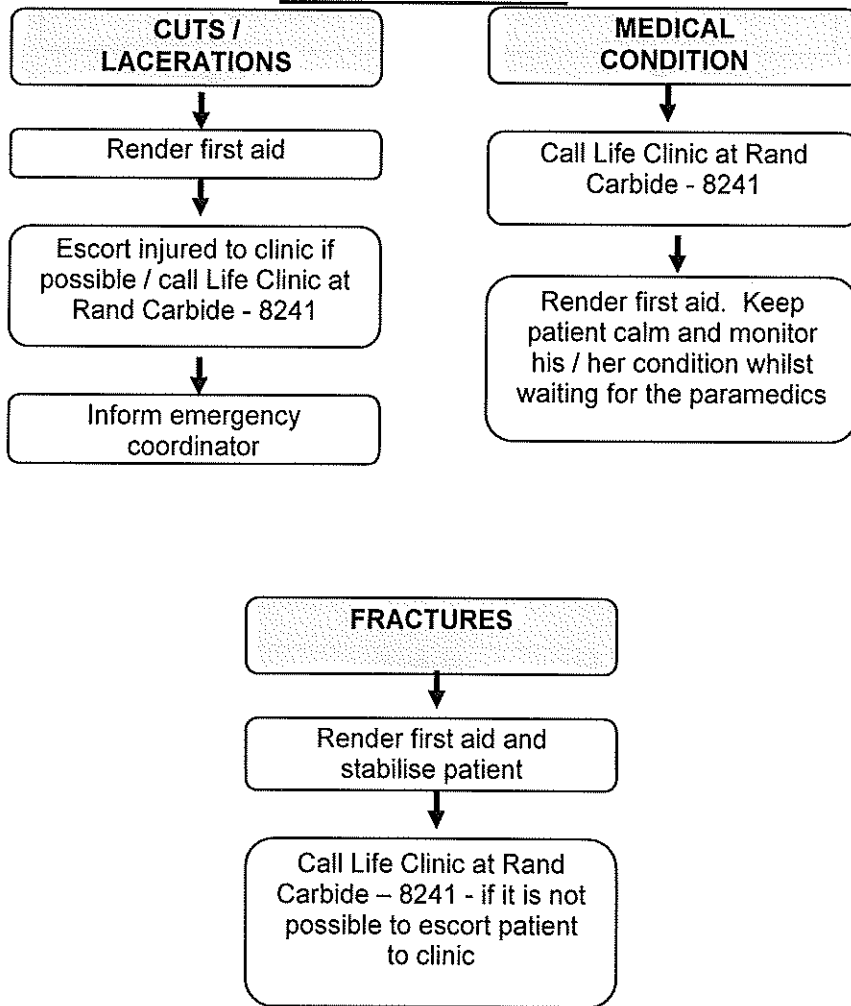
### **In case of a fire or explosion the following steps must be followed;**

- Contact your Supervisor immediately and inform them of the fire/spillage or explosion;
- Reception (4) must be contacted immediately to notify the emergency services and Rand Carbide SHEQ personnel (8263) aswell as security (8266);
- Supervisor must complete incident report with details of incident;
- Affected area must be made safe as far as practicable and barricaded;
- Trained employees must contain spillage where possible, extinguish fire if it is safe;
- Machinery or process must be stopped immediate if it affects the safety of the employees or could cause more damage to property;

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	7 OF 10
Prepared by	AA
Approved by	KB

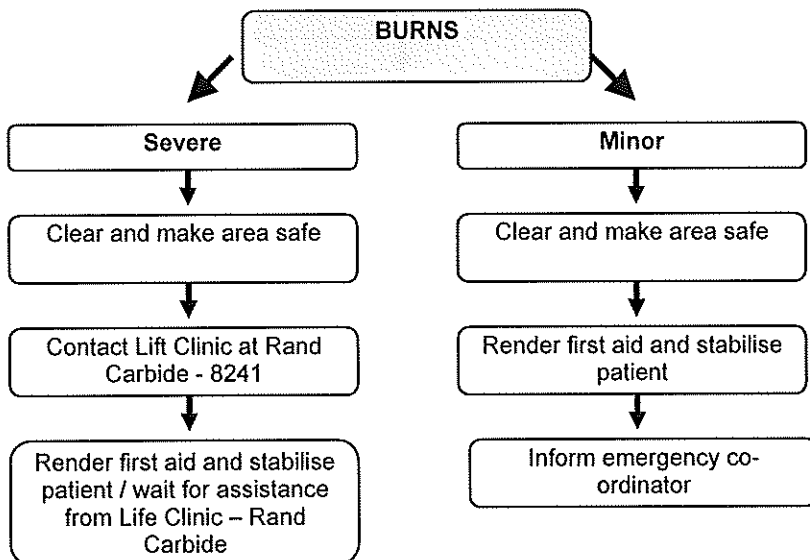
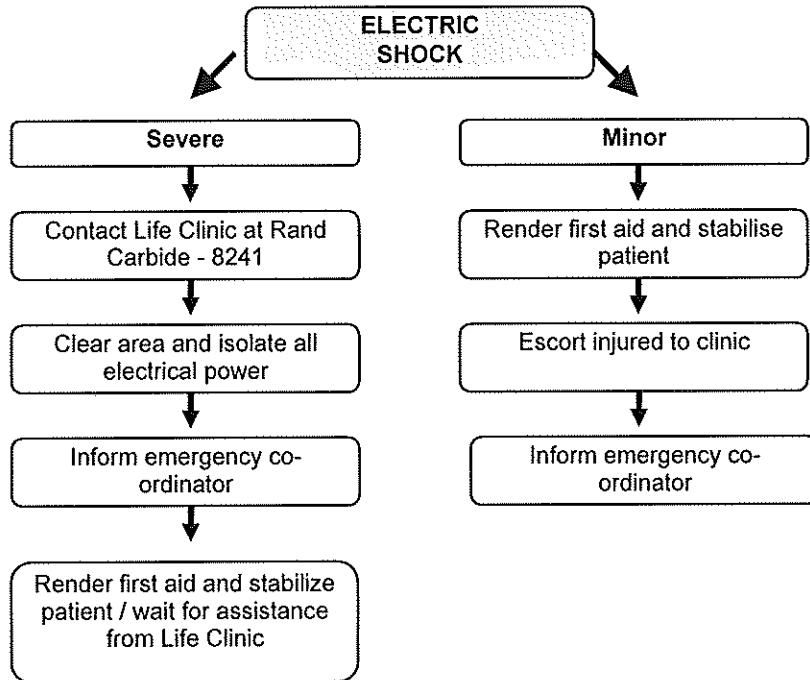
**GENERAL**

**RESPONSE PLANS**

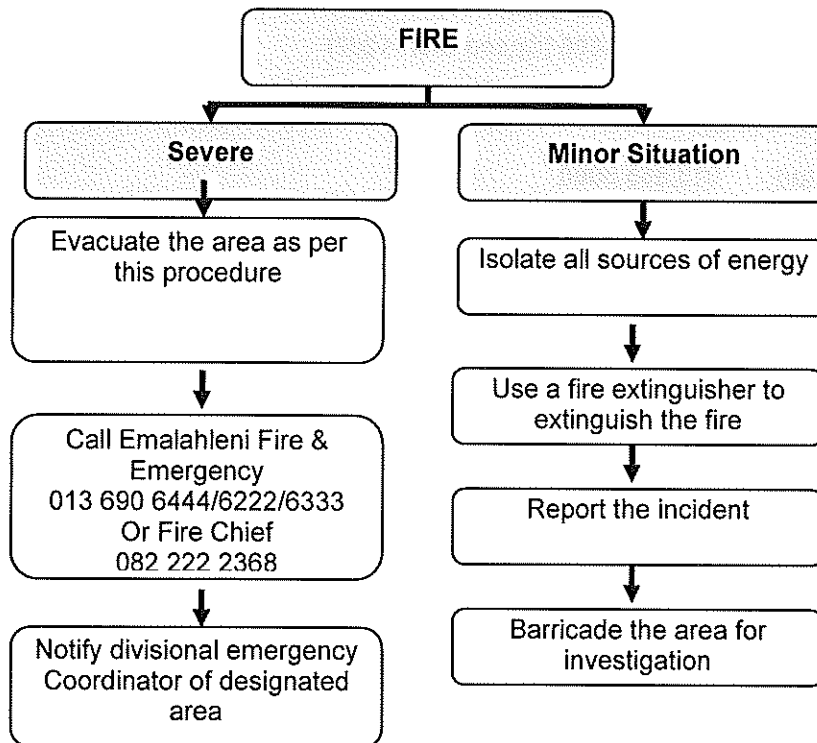


**SECURITY MUST BE CONTACTED ON 8266 TO ALERT THEM TO EXPECT EMERGENCY VEHICLES E.G. FIRE DEPARTMENT OR PARAMEDICS**

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	8 OF 10
Prepared by	AA
Approved by	KB



Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	9 OF 10
Prepared by	AA
Approved by	KB



**SECURITY MUST BE CONTACTED ON 8266 TO ALERT THEM TO EXPECT EMERGENCY VEHICLES E.G. FIRE DEPARTMENT OR PARAMEDICS**

Document Source	Silicon Smelters, Rand Carbide
Document Title	Emergency Preparedness & Response Procedure
Document Number	RC GEN01
Date	06 January 2012
Revision Number	5.0
Page	10 OF 10
Prepared by	AA
Approved by	KB

## **EMERGENCY TELEPHONE NUMBERS**

### **LIFE CLINIC AT RAND CARBIDE**

- Office No. 8241
- Cell No. 073 674 3606 (Speed dial \*1202)

### **POLICE SERVICES**

- Police Station 013 655 5000
- Flying Squad 10111
- Bomb Squad 10111

### **EMERGENCY CO-ORDINATOR**

- Ms Kerry Beamish Office : 8263  
Cellular: 082 894 5856

### **EMALAHLENI FIRE AND EMERGENCY SERVICES**

- Langamed Paramedics 072 344 2344 Speed dial: 1200
- Amcoal hospital 013 656 9500
- Cosmos hospital 013 653 8001 Speed dial: 1210
- Fire Department 013 690 6444/6222/6333
- Fire chief 082 222 2368 Speed dial: 1224
- Omega Security 8266 / 8259

### **CHIEF EXECUTIVE OFFICER**

- Mr AJ Nel Office : 013 690 8245

### **S.H.E.Q**

- Mrs K Beamish Office : 013 690 8263
- Mr A Archer Office : 013 690 8349

### **INSPECTOR OF MACHINERY**

- Switchboard 013 655 8797 / 082 908 1775
- Department of Labour 013 656 1422