



## **Gauteng Department of Agriculture, Conservation and Environment**

### **Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2006 (Version 1)**

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**Kindly note that:**

1. This **Basic Assessment Report** is the standard report required by GDACE in terms of the EIA Regulations, 2006 and must be submitted together with the application form.
  2. This application form is current as of 26 June 2006. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
  3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
  4. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
  5. An incomplete report may be returned to the applicant for revision.
  6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
  7. Five (5) copies of this report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
  8. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
  9. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
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#### **DEPARTMENTAL DETAILS**

Gauteng Department of Agriculture Conservation and Environment  
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch  
P.O. Box 8769  
Johannesburg  
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch  
18<sup>th</sup> floor Glen Cairn Building  
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345  
Department central telephone number: (011) 355 1900

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(For official use only)

**File Reference Number:**

**Application Number:**

**Date Received:**


## SECTION A: ACTIVITY INFORMATION

### 1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Basic Assessment for the Above-Ground Storage of Dangerous Goods, Proposed Expansion of Existing Facilities, Temporary Storage of Hazardous Waste, Recovery of Hazardous Waste, and Execution of Scheduled Processes

Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

Describe the activity and associated infrastructure, which is being applied for, in detail

Industrial Distillers and Refiners CC is situated in no 51 Potgieter Street in Alrode within the Ekurhuleni Metropolitan Municipality jurisdiction. The site is located in an industrial area and has a total area of 15000 m<sup>2</sup> of which only 6000 m<sup>2</sup> will be used for the proposed activities.

#### Current and Future Zoning

The current site zoning is industrial II

#### Site Ownership

The owner of the site is Industrial Distillers and Refiners CC

#### Site Access

The site is accessed from Potgieter Street

#### Current Operations

Industrial Distillers and Refiners CC is currently trading in a variety of chemicals. They buy and resell the following products; lime, caustic, coumarone resin, sulphuric acid, naphthalene, Poly naphthalene SP, Heavy Solvent Naphtha SY, Shellsol AB, sodium sulphate, cresols and creosote.

Some of the above products are bought in bulk and repacked into smaller quantities. They also do blending and mixing of various chemicals like diluting or concentrating Sodium Lauryl Sulphates (SLES) and blending tar acids in small quantities. Apart from this they periodically produce distilled water and dehydrate some products by distillation.

**Proposed Activities**

Industrial Distillers and Refiners would like to expand their operations to include the distillation of heavy solvent naphtha into different fractions and possibly also Coal Tar Naphtha. The process involves splitting naphtha into different fractions containing C10+alkyl aromatics mixtures. Some of the heavier fractions would be reacted to form resins e.g. Poly naphthalene condensate SP and Coumarone resin.

They are considering sulphonating naphthalene to produce a different polymer (NaSP40). Another application is the separation of Shellsol AB and butyl Oxitol from printing ink by distillation. Their planned storage capacity is 980 m<sup>3</sup>.

The hazardous material and waste will be stored on site prior to processing. The by- products that will be produced during the recovery processes are Sodium Sulphate (Na<sub>2</sub>SO<sub>4</sub>) and black ink. The Na<sub>2</sub>SO<sub>4</sub> will be re-sold and the black ink will be collected by the original waste supplier for re-use or disposal in a hazardous waste disposal site.

**2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES**

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act (Act 107 of 1998)	GN Regulation 386 (2006): Item 7	<i>The above-ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters but less than 1 000 cubic meters at any one location or site.</i>
National Environmental Management Act (Act 107 of 1998)	GN Regulation 386 (2006): Item 25	<i>The expansion of or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of emissions, pollution, effluent.</i>
Atmospheric Pollution Prevention Act (Act 45 of 1965)	APPA Scheduled Process 1	<i>Sulphuric Acid Processes: That is to say, processes for the manufacture of sulphuric acid or processes in which sulphur trioxide is evolved or used.</i>
Atmospheric Pollution Prevention Act (Act 45 of 1965)	APPA Scheduled Process 14	<i>Hydrocarbon Processes: That is to say- a) the processing (such as distilling, cracking and refining) of crude shale oil, crude petroleum, natural gas, hydrocarbons from coal and used lubricating oils; or b) the bulk storage of crude petroleum products, in storage facilities with individual tank capacities of at least 1 000 cubic meters each.</i>
Atmospheric Pollution Prevention Act (Act 45 of 1965)	APPA Scheduled Process 16	<i>Tar Processes: That is to say, processes in which tar, creosote or any other product of the distillation of tar is distilled or is heated in any manufacturing process.</i>

### 3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

**Note:** After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
1	<b>Proposal</b>	<p>Industrial Distillers and Refiners would like to expand their operations to include the distillation of heavy solvent naphtha into different fractions and possibly also Coal Tar Naphtha. The process involves splitting naphtha into different fractions containing C10+alkyl aromatics mixtures. Some of the heavier fractions would be reacted to form resins e.g. Poly naphthalene condensate SP and Coumarone resin.</p> <p>They are considering sulphonating naphthalene to produce a different polymer (NaSP40). Another application is the separation of Shellsol AB and butyl Oxitol from printing ink by distillation. Their planned storage capacity is 980 m<sup>3</sup>.</p> <p>The hazardous material and waste will be stored on site prior to processing. During the distillation process scrubbers will be used to reduce the concentration of the pollutants that will be released into the atmosphere by more than 90 %.</p>
2	<b>Alternative 2</b>	The third option would be to store the dangerous goods off site and transport them in by a road tanker when they are needed.
3	<b>Alternative 3</b>	The second alternative is to continue with the proposed activity on this similar site but use a different technology of knock out pots and filter bags; however this is less efficient than the proposed scrubbers and will result in more pollutants being released to the atmosphere.

**NOTE: The numbering in the above table must be consistently applied throughout the application report and process**

**4. PHYSICAL SIZE OF THE ACTIVITY**

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

**Alternative:**

- Alternative 1 (Proposed activity)
- Alternative 2 (if any)
- Alternative 3 (if any)

**Size of the activity:**

	15000m <sup>2</sup>
	15000 m <sup>2</sup>
	15000 m <sup>2</sup>

or, for linear activities:

**Alternative:**

- Alternative 1 (Proposed activity)
- Alternative 2 (if any)
- Alternative 3 (if any)

**Length of the activity:**

	N/A
	N/A
	N/A
	N/A

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

**Alternative:**

- Alternative 1 (Proposed activity)
- Alternative 2 (if any)
- Alternative 3 (if any)

**Size of the site/servitude:**

	Ha/m2

**5. SITE ACCESS**

**Alternative 1 (Proposal)**

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
	N/A

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

**Alternative 2**

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
	N/A

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

**Alternative 3**

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
	N/A

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

**PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives**

Section A 6-8 has been duplicated  Number of times  
(only complete when applicable)

**6. SITE OR ROUTE PLAN**

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document. The site or route plans must indicate the following:

- the scale of the plan, which must be at least a scale of 1:2000 ( scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;

## BASIC ASSESSMENT REPORT [REGULATION 23(1)]

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- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

### **7. SITE PHOTOGRAPHS**

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

### **8. FACILITY ILLUSTRATION**

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity. To be attached in the appropriate Appendix.

## SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

**Note:** Complete Section B for the proposal

**Further:**

### Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route  times

### Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives  times (complete when appropriate)

### Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 2 is to be completed and attached in a chronological order; then
- all significantly different environments identified for Alternative 3 is to be completed and attached chronological order
- etc

# BASIC ASSESSMENT REPORT [REGULATION 23(1)]

Section B - Section of Route  (complete only when appropriate for above)

Section B – Location/route Alternative No.  (complete only when appropriate for above)

## 1. PROPERTY DESCRIPTION

**Property description:** ERF 623, Alrode Ext 4  
(Farm name, portion etc.)

## 2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

**Alternative: Proposed**

Latitude (S):	Longitude (E):
26°19.188	28° 8.069

**In the case of linear activities:**

**Alternative:**

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):	Longitude (E):
°	°
°	°
°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached N/A

## 3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

<b>Flat</b>	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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## 4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	<b>Plain X</b>	Undulating plain/low hills	River front
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## 5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

- Shallow water table (less than 1.5m deep)
- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	<b>NO</b>
<b>YES</b>	NO
YES	<b>NO</b>
YES	<b>NO</b>
<b>YES</b>	NO
YES	<b>NO</b>
YES	<b>NO</b>

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

## BASIC ASSESSMENT REPORT [REGULATION 23(1)]

b) are any caves located on the site(s)  YES  NO X  
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

c) are any caves located within a 300m radius of the site(s)  YES  NO X  
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

d) are any sinkholes located within a 300m radius of the site(s)  YES  NO X  
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

<b>Latitude (S):</b>	<b>Longitude (E):</b>
°	°

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

### 6. AGRICULTURE

Does the site have high potential agricultural soils as contemplated in the Gauteng Agricultural Potential Atlas (GAPA)?  YES  NO X

**Please note:** The Department may request specialist input/studies depending on the nature of the soil type and location of the site

### 7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =	Veld dominated by alien species % = 20	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =	Building or other structure % = 75	Bare soil % = 5

**Please note:** The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site  YES  NO X

If YES, specify and explain:

	N/A	
Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban edge, May 2002) or within 600m (if outside the urban edge, May 2002) radius of the site	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO X	

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO X	
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If YES, specify and explain:

Was a specialist consulted to assist with completing this section	<input checked="" type="checkbox"/> YES X	<input type="checkbox"/> NO
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If yes complete specialist details

Name of the specialist:	
Qualification(s) of the specialist:	
Postal address:	
Postal code:	
Telephone:	
E-mail:	
Cell:	
Fax:	

Are any further specialist studies recommended by the specialist?  YES  NO

If YES, specify: \_\_\_\_\_

If YES, is such a report(s) attached?  YES  NO

If YES list the specialist reports attached below

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Signature of specialist: \_\_\_\_\_ Date: \_\_\_\_\_

## BASIC ASSESSMENT REPORT [REGULATION 23(1)]

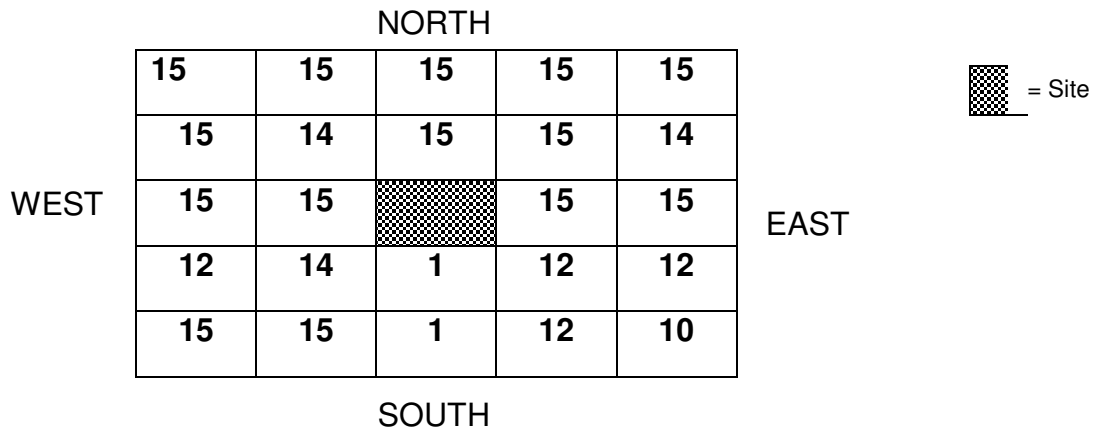
**Please note;** If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

### 8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial <sup>AN</sup>	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport <sup>N</sup>	23. Train station or shunting yard <sup>N</sup>	24. Railway line <sup>N</sup>	25. Major road (4 lanes or more) <sup>N</sup>
26. Sewage treatment plant <sup>A</sup>	27. Landfill or waste treatment site <sup>A</sup>	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam <sup>A</sup>	34. Small Holdings	
Other land uses (describe):				

**NOTE:** Each block represents an area of 250m X250m



**Note:** More than one (1) Land-use may be indicated in a block

**Please note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an <sup>A</sup> and with an <sup>N</sup> respectively.

Have specialist reports been attached  
If yes indicate the type of reports below

YES X	NO
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Geohydrology
Biodiversity and Wetland Assessment
Air quality Assessment

**9. SOCIO-ECONOMIC CONTEXT**

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The Ekurhuleni region covers approximately 2 000 square kilometers, which translates into 11.63% of Gauteng and 0.16% of the national areas, respectively. Ekurhuleni houses approximately 5.7% of the country's population and 27.32% of the Gauteng province's total population. It accounts for nearly a quarter of the Gauteng economy, which in turn contributes over a third of the national Gross Domestic Product. Ekurhuleni contributes + 7% to the country's spending power and + 7.4% to the nation's production. Manufacturing in Ekurhuleni accounts for just less than 20% of the GDP of Gauteng. In Ekurhuleni itself, manufacturing accounts for some 28% of total production output. The economically active population is 57% compared to 40% nationally. Household income and per capita income exceed the national average by 10% and 33% respectively. The percentage of people living in poverty nationally is 44.4%, compared to 24.2% in Ekurhuleni.

**10. CULTURAL/HISTORICAL FEATURES**

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

*38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-*

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) the construction of a bridge or similar structure exceeding 50m in length;*
- (c) any development or other activity which will change the character of a site-*
  - (i) exceeding 5 000 m2 in extent; or*
  - (ii) involving three or more existing erven or subdivisions thereof; or*
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;*
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	<b>NO X</b>
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If YES, explain:

**N/A**

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

**No specialist inputs were required**

Will any building or structure older than 60 years be affected in any way?  
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	<b>NO X</b>
YES	<b>NO X</b>

If yes, please attached the comments from SAHRA in the appropriate Appendix

## SECTION C: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a notice in a conspicuous place, on the property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made.
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place a notice in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

### 2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

Has any comment been received from the local authority?

YES    **NO x**

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

A notice of intent was submitted to the Local authority but no response was received it is anticipated that the local authority will comment on the Basic Assessment report during the public review period.

### 3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

**YES x**    NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

1. Gauteng Department of Agriculture and Rural Development requested a biodiversity investigation to confirm of existence of *lithops lesliei* and wetlands on site.
  2. Department of Agriculture, Forestry and Fisheries has no comment
  3. Department of Water Affairs will comment on receipt of the Assessment report
  4. ESKOM has no comments
  5. WESSA requested for a geotechnical investigation and a guideline on handling of waste or by-product

If "NO" briefly explain why no comments have been received

#### **4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS**

The Environmental Assessment Practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

#### **5. APPENDICES FOR PUBLIC PARTICIPATION**

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – minutes of any public and or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

# SECTION D: RESOURCE USE AND PROCESS DETAILS

**Note:** Section D is to be completed for the proposal

## Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives "insert No. of duplicates" times

(complete only when appropriate)

Section D Alternative No. "insert alternative number" (complete only when appropriate for above)

## 1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

### Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? YES    **NO X**  
 If yes, what estimated quantity will be produced per month? N/A  
 How will the construction solid waste be disposed of (describe)? N/A

Where will the construction solid waste be disposed of (describe)? N/A

Will the activity produce solid waste during its operational phase? **YES X**    NO  
 If yes, what estimated quantity will be produced per month? **1 Ton**  
 How will the solid waste be disposed of (describe)?

The waste will be collected by Enviro-Serve for disposal at a hazardous waste disposal site

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? YES    **NO X**

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?  
The waste will be collected by a private contractor and disposed in a hazardous waste disposal site

**Note:** If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? **YES X**    NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.  
 Is the activity that is being applied for a solid waste handling or treatment facility? **YES X**    NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

The project itself aims to recycle waste that would otherwise be disposed in a hazardous waste disposal site into a reusable product. During the proposed recovery process 10 tons of waste will be recycled and only 1 tone will be a by- product that would be sold and the other by- product will be returned to the waste supplier for re-use or disposal in a waste disposal site.

### Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? YES    **NO X**

If yes, what estimated quantity will be produced per month? N/A

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? YES    **NO X**

Will the activity produce any effluent that will be treated and/or disposed of on site? Yes    **NO X**

If yes, what estimated quantity will be produced per month? N/A

If yes describe the nature of the effluent and how it will be disposed.  
 

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility? YES    **NO X**

If yes, provide the particulars of the facility:

# BASIC ASSESSMENT REPORT [REGULATION 23(1)]

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

### Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES	<b>NO X</b>
If yes, what estimated quantity will be produced per month?	N/A	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity (ies)?	YES	<b>NO X</b>
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	<b>NO X</b>
If yes describe how it will be treated and disposed off.		

### Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	<b>YES X</b>	NO
If yes, is it controlled by any legislation of any sphere of government?	<b>YES X</b>	NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.		
If no, describe the emissions in terms of type and concentration:		

## 2. WATER USE

Indicate the source(s) of water that will be used for the activity

<b>Municipal X</b>	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: N/A

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs and Forestry? YES **NO X**

If yes, list the permits required N/A

If yes, have you applied for the water use permit(s)?	YES	<b>NO X</b>
If yes, have you received approval(s)? (attached in appropriate appendix)	YES	<b>NO X</b>

## 3. POWER SUPPLY

Please indicate the source of power supply e.g. Municipality / Eskom / Renewable energy source

**Ekurhuleni Metropolitan Municipality**

If power supply is not available, where will power be sourced from?

**Generators**

## 4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

**All heated tanks and pipes are insulated to conserve energy**

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

**Coal fired boilers are used to generate steam**

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

1. Stormwater contamination from the storage of the hazardous goods
2. Geotechnical study request
3. The inclusion of the exact guidelines on the full disposal of all hazardous by-product waste
4. Concerns on the water table and the ground water contamination

Summary of response from the practitioner to the issues raised by the interested and affected parties  
(A full response must be provided in the Comments and Response Report that must be attached to this report):

1. Recommendations to improve the management of stormwater have been included in the EMP.
2. The air quality license application will be lodged with the Ekurhuleni Metropolitan Municipality and the listed or scheduled processes will be undertaken in accordance with the conditions contained in the Air Emission Permit. Additionally the applicant will install scrubbers to reduce the concentration of the emitted substances.
3. A desktop geohydrology study was conducted for the site to determine the geology of the site. It should be noted that these activities will be undertaken on an existing industrial site and the storage tanks already exist. No construction of new structures will be undertaken. All the storage will be above ground and it is recommended on the EMP that the storage facility should be on hard surface to ensure that there is no contamination of the groundwater.  
  
It is further recommended that the groundwater boreholes be established to determine the baseline groundwater quality on site and to continuously monitor the impact of the activity on the groundwater resource.
4. The management of by-products is addressed on the EMP

## 2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The impacts are evaluated on the parameters of **nature, extent, duration, intensity** and **probability** from which the significance of the impact is derived.

### Nature of Impact

This is an appraisal of the type of effect the activity would have on the affected environment, as well as a description of what is being affected and how.

### Extent

This determines the impact on:

- Site** - impacts occurring only within the boundaries of the site, e.g.: loss of vegetation.
- Local** - impacts occurring within the boundaries of the site and outside the boundaries of the site but restricted to the immediate surrounding area e.g.: noise created by the construction process.
- Regional** – impacts that occur on a regional scale e.g.: excessive surface water pollution impacting on communities a significant distance downstream of the site.

### Intensity

- Low** – the impact does not affect physical, biophysical or socio-economic functions and processes.
- Medium** – the impact has an affect on physical, biophysical and socio economic functions and processes, but in such a way that these processes can still continue to function albeit in a modified fashion.
- High** – where the physical, bio-physical and socio economic functions and processes are impacted on in such a way as to cause them to temporarily or permanently cease.

### Duration

- Short term** – impacts occurring within 0-2 years.
- Medium term** – impacts occurring within 2-10 years.
- Long term** – impacts that will only cease after the operational phase.

### Probability

This determines the likelihood of the impact occurring:

- Improbable** – the probability of the impact occurring is low.
- Probable** – there is a distinct probability of the impact occurring.
- Highly probable** – where it is most likely that the impact will occur.
- Definite** – where the impact will occur regardless of any prevention measures.

### Significance

Significance of the impact is determined by evaluating the cumulative impact of nature, extent, duration, intensity and probability. Significance will be described as:

- Low** – where it will not have a significant impact on the environment.
- Medium** – where it will have a medium significance on the environment.
- High** – where it will have a high significance on the environment.

**Fatal flaw** – where it will cause the planning for development to be suspended.

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

<b>Alternative 1 (Proposal)</b>			
<b>Potential impacts:</b>	<b>Significance rating of impacts:</b>	<b>Proposed mitigation:</b>	<b>Significance rating of impacts after mitigation:</b>
<b>OPERATIONAL PHASE</b>			
<b>BENEFICIAL IMPACTS</b>			
<b>Socio -Economic</b> The introduction of new processes will generate income and will assist in keeping the applicant in business as well as to save the current jobs.	<b>Very High</b>		
<b>Waste Reduction</b> The proposed activity will reduce the volumes of hazardous waste that would require disposal at a hazardous landfill site	<b>Very High</b>		
<b>Skills development</b> The addition of new process will provide new skills for the employees	<b>Low</b>		
<b>ADVERSE IMPACTS</b>			
<b>Air pollution</b> Some of the proposed expansion activities will emit pollutants to the atmosphere.	<b>High</b>	<ul style="list-style-type: none"> <li>▪ The installation of distiller scrubbers will reduce the concentration of emissions released to the atmosphere</li> <li>▪ An emergency procedure should be compiled and implemented in case of failures in technology or operations to prevent the emissions of high concentration of pollutants into the atmosphere</li> </ul>	<b>Medium</b>
<b>Noise</b> The operation of machinery on site may result in increased ambient noise level on site and the surroundings. However, as the proposed development is located adjacent to Potgieter Street and is in an industrial area this is not anticipated to be significant.	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Where necessary, the machines must be equipped with appropriate noise reduction equipment and all vehicles must be roadworthy (including meeting maximum noise specifications).</li> <li>▪ Workers must be supplied with hearing protection if noise levels exceed 85 decibels.</li> <li>▪ The machine systems must be maintained regularly to ensure that the noise from the machinery is within the required noise specification.</li> </ul>	<b>Low</b>
<b>Impacts on biodiversity</b> The site and surrounding industrial areas are completely transformed habitats of low conservation for both fauna and flora.	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ If any faunal or floral of species of concern are observed on site, the Environmental Control Officer (ECO) must be contacted immediately and she/he must inform GDARD.</li> </ul>	<b>Low</b>
<b>Soil erosion</b> Insufficient stormwater control	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Measures should be implemented to distribute storm water</li> </ul>	<b>Low</b>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

<p>measures on site may result in soil erosion in areas that are not covered by any vegetation or the buildings.</p>		<p>discharge as evenly as possible to avoid point sources of erosion.</p> <ul style="list-style-type: none"> <li>▪ The stormwater channels on site must be upgraded and formalised</li> </ul>	
<p><b>Soil and water pollution</b> Improper handling and disposal of waste, stormwater and raw products that will be used in the proposed processes might pollute soil and water. Pollution of water is a higher risk on site, since the site has a high water table.</p>	<p><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ An emergency response and spillage kit must be in place and training should be provided to all personnel in order to handle chemical spillages</li> <li>▪ All spillages must be rectified immediately. This is necessary to prevent the spillage from spreading and to mitigate the impact of the spillage on the environment.</li> <li>▪ Proper stormwater control should be implemented on all areas on site.</li> <li>▪ Dirty areas should be separated from clean areas and the stormwater arising from these areas should be handled separately</li> <li>▪ Inspect storage containers and transport vehicles regularly for leaks.</li> <li>▪ All hazardous waste produced during processing activities should be disposed of at a registered hazardous landfill site.</li> <li>▪ All containers for chemicals that will be used in the proposed processing activity should be placed on an impermeable surface within a bund wall.</li> </ul>	<p><b>Low</b></p>
<p><b>Impacts due to storage facilities</b> Mismanagement and improper location of storage facilities might result in negative impacts.</p>	<p><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ The storage area should be the minimum size reasonably required and cause the least disturbance to the surroundings.</li> <li>▪ The area should be securely fenced.</li> <li>▪ Construct walls and floors of the storage areas with impervious material.</li> <li>▪ The area should be banded with bund walls to accommodate 110% of the storage capacity of the storage tanks</li> <li>▪ Suitably covered receptacles must be available at all times and should be placed conveniently for the disposal of waste.</li> <li>▪ Proper storm water management measures should be implemented</li> </ul>	<p><b>Low</b></p>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

<p><b>Waste Storage</b> Improper waste management practices may lead to environment pollution</p>	<p align="center"><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ The bi-products that will be produced during the proposed activities must be stored in a closed container in a bunded area with a concrete floor prior to collection and disposal by the original waste generator</li> <li>▪ Quantities of waste entering the site for processing until it leaves the site as recovered product and bi-product should be recorded. These records should be safely kept and produced when required by the authorities.</li> <li>▪ The site manager has to submit a method statement for the storage of hazardous materials and the emergency procedures to be taken in case of an emergency.</li> <li>▪ Material Safety Data Sheets (MSDSs) must be available on site for all chemicals and hazardous substances to be used on site, including information on their ecological impacts and how to minimise their impacts in case of leakage.</li> </ul>	<p align="center"><b>Low</b></p>
<p><b>Fire Risk</b> Negligence on the part of the workers might result in fires and explosions.</p>	<p align="center"><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ Hold fire prevention talks and reminders regularly with the staff on fire prevention.</li> <li>▪ Ensure adequate fire fighting equipment on site and in all major working areas and train workers on how to use it.</li> <li>▪ Ensure that all workers on site know the proper procedure in case of a fire incidence on site.</li> <li>▪ Smoking must not be permitted in those areas considered a fire hazard.</li> <li>▪ Smoking should only be allowed in designated areas.</li> <li>▪ “No-smoke” signs must be placed at areas with high fire risk.</li> </ul>	<p align="center"><b>Low</b></p>
<p><b>Health and safety</b> The introduction of hazardous material and increased capacity for storage of dangerous goods might increase the health and safety risk of workers if proper preventive measures are not put in place.</p>	<p align="center"><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ The site manager must implement the standards set out in the OHS Act (No. 85 of 1993). This act aims at protecting workers with regards to their activities at work.</li> <li>▪ The site manager must ensure that emergency procedures applicable are set up prior to commencing work. Emergency procedures shall include, but are not limited to, fire, spills, contamination of the ground,</li> </ul>	<p align="center"><b>Low</b></p>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		<p>accidents involving employees, use of hazardous substances, etc.</p> <ul style="list-style-type: none"> <li>▪ Workers must be provided with appropriate Personal Protection Equipment (PPE).</li> <li>▪ Proper signage must be strategically placed in the area of the construction site.</li> <li>▪ Workers are not allowed to drink alcohol during working hours.</li> <li>▪ The site manager must respect the workers' right to refuse to work in an unsafe and unhealthy environment.</li> <li>▪ Provide first aid equipment and have a qualified first aid practitioner on site during operation.</li> <li>▪ All work to be carried out under strict supervision and according to best practices.</li> <li>▪ All dangerous or no-go-areas on site should be clearly marked as such, including areas for storing dangerous materials.</li> <li>▪ Keep record of injuries on site.</li> </ul>	
<p><b>Traffic and road safety</b> There is a possibility of occurrence of accidents and spillages during the transportation of hazardous materials that will be processed in the proposed activity</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Vehicle drivers that will be transporting the hazardous materials should comply with Chapter 8 of the National Road Traffic Act and its regulations on Transportation of dangerous goods and substances.</li> <li>▪ All accidents and incidents resulting in injury or death during operation are to be recorded by the Site manager and reported in accordance with the requirements of the Occupational Health and Safety Act 85 of 1993, and any other statutory requirements.</li> </ul>	<b>Low</b>

**Alternative 2: OFF SITE STORAGE OF WASTE MATERIAL**

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
<b>BENEFICIAL IMPACTS</b>			
<p><b>Health and Safety</b> The workers exposure to the hazardous material will be limited to only the period of usage.</p>	<b>Low</b>		
<p><b>Cost implications</b> Less cost implication on upgrading</p>	<b>Low</b>		

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

the storage area to meet required standards			
<b>ADVERSE IMPACTS</b>			
<p><b>Traffic and road safety</b></p> <p>The probability of occurrence of accidents and spillages will be increased with the frequent transportation of hazardous materials being used for processing.</p>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ Truck drivers that will be transporting the hazardous materials should comply with Chapter 8 of the National Road Traffic Act and its regulations on Transportation of dangerous goods and substances.</li> <li>▪ All accidents and incidents resulting in injury or death during operation are to be recorded by the Site manager and reported in accordance with the requirements of the Occupational Health and Safety Act 85 of 1993, and any other statutory requirements</li> </ul>	<b>Low</b>
<p><b>Air pollution</b></p> <p>Some of the proposed expansion activities will emit pollutants to the atmosphere.</p>	<b>High</b>	<ul style="list-style-type: none"> <li>▪ The installation of distiller scrubbers will reduce the concentration of emissions released to the atmosphere</li> <li>▪ An emergency procedure should be compiled and implemented in case of failures in technology or operations to prevent the emissions of high concentration of pollutants into the atmosphere</li> </ul>	<b>Medium</b>
<p><b>Noise</b></p> <p>The operation of machinery on site may result in increased ambient noise level on site and the surroundings. However, as the proposed development is located adjacent to Potgieter Street and is in an industrial area this is not anticipated to be significant.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Where necessary, the machines must be equipped with appropriate noise reduction equipment and all vehicles must be roadworthy (including meeting maximum noise specifications).</li> <li>▪ Workers must be supplied with hearing protection if noise levels exceed 85 decibels.</li> <li>▪ The machine systems must be maintained regularly to ensure that the noise from the machinery is within the required noise specification.</li> </ul>	<b>Low</b>
<p><b>Impacts on biodiversity</b></p> <p>The site and surrounding industrial areas are completely transformed habitats of low conservation for both fauna and flora.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ If any faunal or floral of species of concern are observed on site, the Environmental Control Officer (ECO) must be contacted immediately and</li> </ul>	<b>Low</b>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		she/he must inform GDARD.	
<p><b>Soil erosion</b> Insufficient stormwater control measures on site may result in soil erosion in areas that are not covered by any vegetation or the buildings.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>▪ Measures should be implemented to distribute storm water discharge as evenly as possible to avoid point sources of erosion.</li> <li>▪ The stormwater channels on site must be upgraded and formalised</li> </ul>	<b>Low</b>
<p><b>Soil and water pollution</b> Improper handling and disposal of waste, stormwater and raw products that will be used in the proposed processes might pollute soil and water. Pollution of water is a higher risk on site, since the site has a high water table.</p>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ An emergency response and spillage kit must be in place and training should be provided to all personnel in order to handle chemical spillages</li> <li>▪ All spillages must be rectified immediately. This is necessary to prevent the spillage from spreading and to mitigate the impact of the spillage on the environment.</li> <li>▪ Proper stormwater control should be implemented on all areas on site.</li> <li>▪ Dirty areas should be separated from clean areas and the stormwater arising from these areas should be handled separately</li> <li>▪ Good house keeping should be implemented on site to prevent surface ad stormwater pollution</li> <li>▪ Inspect storage containers and transport vehicles regularly for leaks.</li> <li>▪ All hazardous waste produced during processing activities should be disposed of at a registered hazardous landfill site.</li> <li>▪ All containers for fuels and chemicals that will be used in the proposed processing activity should be placed on an impermeable surface within a bund wall.</li> </ul>	<b>Low</b>
<p><b>Impacts due to storage facilities</b> Mismanagement and improper location of storage facilities might result in negative impacts.</p>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ Storage facilities should be established within the boundaries of the site.</li> <li>▪ The chosen area should be the minimum size reasonably required and cause the least disturbance</li> </ul>	<b>Low</b>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		<p>to the surroundings.</p> <ul style="list-style-type: none"> <li>▪ The area should be securely fenced.</li> <li>▪ Construct walls and floors of the storage areas with impervious material.</li> <li>▪ The area should be bunded with bund walls to accommodate 110% of the storage capacity of the storage tanks</li> <li>▪ Suitably covered receptacles must be available at all times and should be placed conveniently for the disposal of waste.</li> <li>▪ Proper storm water management measures should be implemented</li> </ul>	
<p><b>Fire Risk</b> Negligence on the part of the workers might result in fires and explosions.</p>	<b>Medium</b>	<ul style="list-style-type: none"> <li>▪ Hold fire prevention talks and reminders regularly with the staff on fire prevention.</li> <li>▪ Ensure adequate fire fighting equipment on site and in all major working areas and train workers on how to use it.</li> <li>▪ Ensure that all workers on site know the proper procedure in case of a fire incidence on site.</li> <li>▪ Smoking must not be permitted in those areas considered a fire hazard.</li> <li>▪ Smoking should only be allowed in designated areas.</li> <li>▪ "No-smoke" signs must be placed at areas with high fire risk.</li> </ul>	<b>Low</b>

**Alternative 3 :USE OF KNOCK OFF POTS AND AIRBAG FILTERS**

<b>Potential impacts:</b>	<b>Significance rating of impacts:</b>	<b>Proposed mitigation:</b>	<b>Significance rating of impacts after mitigation:</b>
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**BENEFICIAL IMPACTS**

<p><b>Cost implications</b> The will not be any cost implication on upgrading the storage area to meet required standards.</p>	<b>Low Significance</b>		
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**ADVERSE IMPACTS**

<p><b>Air pollution</b> Some of the proposed expansion activities will emit pollutants to the atmosphere.</p>	<b>High</b>	<ul style="list-style-type: none"> <li>▪ The knock off pots and air bag filters will be installed to reduce the concentration of emissions released to the atmosphere</li> </ul>	<b>High</b>
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**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		<ul style="list-style-type: none"> <li>An emergency procedure should be compiled and implemented in case of failures in technology or operations to prevent the emissions of high concentration of pollutants into the atmosphere</li> </ul>	
<p><b>Noise</b> The operation of machinery on site may result in increased ambient noise level on site and the surroundings. However, as the proposed development is located adjacent to Potgieter Street and is in an industrial area this is not anticipated to be significant.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>Where necessary, the machines must be equipped with appropriate noise reduction equipment and all vehicles must be roadworthy (including meeting maximum noise specifications).</li> <li>Workers must be supplied with hearing protection if noise levels exceed 85 decibels.</li> <li>The machine systems must be maintained regularly to ensure that the noise from the machinery is within the required noise specification.</li> </ul>	<b>Low</b>
<p><b>Impacts on biodiversity</b> The site and surrounding industrial areas are completely transformed habitats of low conservation for both fauna and flora.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>If any faunal or floral of species of concern are observed on site, the Environmental Control Officer (ECO) must be contacted immediately and she/he must inform GDARD.</li> </ul>	<b>Low</b>
<p><b>Soil erosion</b> Insufficient stormwater control measures on site may result in soil erosion in areas that are not covered by any vegetation or the buildings.</p>	<b>Low</b>	<ul style="list-style-type: none"> <li>Measures should be implemented to distribute storm water discharge as evenly as possible to avoid point sources of erosion.</li> </ul>	<b>Low</b>
<p><b>Soil and water pollution</b> Improper handling and disposal of waste, stormwater and raw products that will be used in the proposed processes might pollute soil and water. Pollution of water is a higher risk on site, since the site has a high water table.</p>	<b>Medium</b>	<ul style="list-style-type: none"> <li>An emergency response and spillage kit must be in place and training should be provided to all personnel in order to handle chemical spillages</li> <li>All spillages must be rectified immediately. This is necessary to prevent the spillage from spreading and to mitigate the impact of the spillage on the environment.</li> <li>Proper stormwater control should be implemented on all areas on site.</li> <li>Dirty areas should be separated from clean areas and the stormwater arising from these areas should be handled separately</li> <li>Good house keeping should be implemented on site to prevent</li> </ul>	<b>Low</b>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		<p>surface ad stormwater pollution</p> <ul style="list-style-type: none"> <li>▪ Inspect storage tanks, containers and transport vehicles regularly for leaks.</li> <li>▪ All hazardous waste produced during processing activities should be disposed of at a registered hazardous landfill site.</li> <li>▪ All containers for fuels and chemicals that will be used in the proposed processing activity should be placed on an impermeable surface within a bund wall.</li> </ul>	
<p><b>Impacts due to storage facilities</b> Mismanagement and improper location of storage facilities might result in negative impacts.</p>	<p align="center"><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ Storage facilities should be established within the boundaries of the site.</li> <li>▪ The chosen area should be the minimum size reasonably required and cause the least disturbance to the surroundings.</li> <li>▪ The area should be securely fenced.</li> <li>▪ Construct walls and floors of the storage areas with impervious material.</li> <li>▪ The area should be bunded with bund walls to accommodate 110% of the storage capacity of the storage tanks</li> <li>▪ Suitably covered receptacles must be available at all times and should be placed conveniently for the disposal of waste.</li> <li>▪ Proper storm water management measures should be implemented</li> </ul>	<p align="center"><b>Low</b></p>
<p><b>Waste Management</b> Improper waste management practices may lead to environment pollution</p>	<p align="center"><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ The bi-products that will be produced during the proposed activities must be stored in a closed container in a bunded area on a concrete floor prior to collection and disposal by the original waste generator/supplier.</li> <li>▪ Quantities of waste entering the site for processing until it leaves the site as recovered product and bi-product should be recorded. These records should be safely kept and produced when required by the authorities.</li> <li>▪ The site manager has to submit</li> </ul>	<p align="center"><b>Low</b></p>

BASIC ASSESSMENT REPORT [REGULATION 23(1)]

		<p>a method statement for the storage of hazardous materials and the emergency procedures to be taken in case of an emergency.</p> <ul style="list-style-type: none"> <li>▪ Material Safety Data Sheets (MSDSs) must be available on site for all chemicals and hazardous substances to be used on site, including information on their ecological impacts and how to minimise their impacts in case of leakage.</li> </ul>	
<p><b>Fire Risk</b> Negligence on the part of the workers might result in fires and explosions.</p>	<p><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ Hold fire prevention talks and reminders regularly with the staff on fire prevention.</li> <li>▪ Ensure adequate fire fighting equipment on site and in all major working areas and train workers on how to use it.</li> <li>▪ Ensure that all workers on site know the proper procedure in case of a fire incidence on site.</li> <li>▪ Smoking must not be permitted in those areas considered a fire hazard.</li> <li>▪ Smoking should only be allowed in designated areas.</li> <li>▪ “No-smoke” signs must be placed at areas with high fire risk.</li> </ul>	<p><b>Low</b></p>
<p><b>Health and safety</b> The introduction of hazardous material and increased capacity for storage of dangerous goods might increase the health and safety risk of workers if proper preventive measures are not put in place.</p>	<p><b>Medium</b></p>	<ul style="list-style-type: none"> <li>▪ The site manager must implement the standards set out in the OHS Act (No. 85 of 1993). This act aims at protecting workers with regards to their activities at work.</li> <li>▪ The site manager must ensure that emergency procedures applicable are set up prior to commencing work. Emergency procedures shall include, but are not limited to, fire, spills, contamination of the ground, accidents involving employees, use of hazardous substances, etc.</li> <li>▪ Workers must be provided with appropriate Personal Protection Equipment (PPE).</li> <li>▪ Proper signage must be strategically placed in the area of the construction site.</li> <li>▪ Workers must be supplied with hearing protection if noise levels exceed 85 decibels.</li> <li>▪ Workers are not allowed to drink alcohol during working hours.</li> <li>▪ The site manager must respect</li> </ul>	<p><b>Low</b></p>

**BASIC ASSESSMENT REPORT [REGULATION 23(1)]**

		<p>the workers' right to refuse to work in an unsafe and unhealthy environment.</p> <ul style="list-style-type: none"> <li>▪ Provide first aid equipment and have a qualified first aid practitioner on site during construction.</li> <li>▪ All work to be carried out under strict supervision and according to best practices.</li> <li>▪ All dangerous or no-go-areas on site should be clearly marked as such, including areas for storing dangerous materials.</li> <li>▪ Keep record of injuries on site.</li> </ul>	
<p><b>Traffic and road safety</b> There is a possibility of occurrence of accidents and spillages during the transportation of hazardous materials that will be processed in the proposed activity</p>	<p><b>Low</b></p>	<ul style="list-style-type: none"> <li>▪ Truck drivers that will be transporting the hazardous materials should comply with Chapter 8 of the National Road Traffic Act and its regulations on Transportation of dangerous goods and substances.</li> <li>▪ All accidents and incidents resulting in injury or death during operation are to be recorded by the Site manager and reported in accordance with the requirements of the Occupational Health and Safety Act 85 of 1993, and any other statutory requirements.</li> </ul>	<p><b>Low</b></p>

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Wetland Assessment  
Bio-diversity Assessment Report  
Air Quality Screening Report  
Desktop Geohydrology Assessment Report

**3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE**

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

**DECOMMISSIONING AND CLOSURE PHASE**

The decommissioning phase will be conducted according to the applicable legislative requirements at the time of closure.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

**4. CUMULATIVE IMPACTS**

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

**Air Quality**

Ekurhuleni Metropolitan Municipality (EMM) undertook a baseline air assessment to identify atmospheric pollutants of concern within their area of Jurisdiction. Pollutants that were measured to exceed guideline values within the EMM include PM10 (particulate matter less than 10 microns in aerodynamic diameter), sulphur dioxide and nitrogen dioxide. During this assessment it was found that the significant contributors to ambient air pollutants are Industrial and commercial fuel burning – particularly uncontrolled coal fired Boilers. One of the processes in the proposed activity will have coal fired boilers and will produce sulphur dioxide.

**Water Quality**

The Ekurhuleni Metropolitan Municipality State of the Environment report indicates that the water quality status is deteriorating in EMM and identifies industrial pollution as one of the major contributors to the pollution of the water resources. The majority of industries in EMM are serviced by connections to the municipal sewerage systems and direct discharges of trade effluents are to the municipal sewer. However, the potential for surface spills and accidental discharges do occur to surface water courses, specifically during storm periods, and as a result of illegal connections to stormwater systems and deliberate illegal discharges.

The proposed processes will involve handling of chemical substances that might contribute to the pollution of the water resources if not properly handled.

**5. ENVIRONMENTAL IMPACT STATEMENT**

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative 1 (Proposal)**

Should the proposed activity be approved and environmental impacts mitigated, the following could be expected:

**Air pollution** – emissions will be released at a reduced concentration

**Waste reduction**- Waste that would otherwise be disposed at a landfill site will be reduced

**Soil and water pollution**- accidental spillages might still occur, however the implementation of the emergency procedure and the storage of hazardous material at designated areas will reduce the extent and significance of the pollution

**Health and Safety**- The risk of injury of employees is always possible during the operation however it is minimized by following preventative measures as will be contained in the Health and Safety policies and procedures

**Fire Hazard**- Due to the nature of materials that will be used during the proposed activities a fire hazard risk will always be present; however it is minimized by the implementation of preventative measures.

**Alternative 2**

The off site storage of the hazardous material will increase the probability of occurrence of accidents due to the frequency of transportation. Additionally the applicant will not have control on the facility where the material will be stored in order to implement pollution prevention

The risk of exposure of employees to the hazardous material is reduced to the period when they will be recycling the waste

**Alternative 3**

The air emissions will not be reduced by the use of knock out pots due to their inefficiency in reducing the concentration of pollutants.

**No-go (compulsory)**

**Environmental Impact**

The No Go option will result in more waste being transported and disposed in the hazardous landfill sites there by increasing the demand of space for the establishment of landfill and increasing the environmental impacts that are associated with hazardous landfill sites.

**Socio- Economic Impact**

The business will be shut down since there is no market for the current trade which is the primary reason of introducing new activities that have a market demand. This will result to the retrenchment of employees adding to the current unemployment numbers.

**6. IMPACT SUMMARY OF PREFERRED PROPOSAL**

Identify preferred proposal

Industrial Distillers and Refiners CC is situated in no 51 Potgieter Street in Alrode within the Ekurhuleni Metropolitan Municipality jurisdiction. The site is located in an industrial area and has a total area of 15000 m<sup>2</sup> of which only 6000 m<sup>2</sup> will be used for the proposed activities.

**Current and Future Zoning**

The current site zoning is industrial II

**Site Ownership**

The owner of the site is Industrial Distillers and Refiners CC

**Site Access**

The site is accessed from Potgieter Street

**Proposal**

Industrial Distillers and Refiners would like to expand their operations to include the distillation of heavy solvent naphtha into different fractions and possibly also Coal Tar Naphtha. The process involves splitting naphtha into different fractions containing C10+alkyl aromatics mixtures. Some of the heavier fractions would be reacted to form resins e.g. Poly naphthalene condensate SP and Coumarone resin.

They are considering sulphonating naphthalene to produce a different polymer (NaSP40). Another application is the separation of Shellsol AB and butyl Oxitol from printing ink by distillation. Their planned storage capacity is 980 m<sup>3</sup>.

The hazardous material and waste will be stored on site prior to processing. During the distillation process scrubbers will be used to reduce the concentration of the pollutants that will be released into the atmosphere by more than 90 %. Two by products will be produced during the above processes namely; Sodium Sulphate (Na<sub>2</sub>SO<sub>4</sub>) and the "black ink". The NaSO<sub>4</sub> will be sold as a product and the black ink will be collected together with the recovered product by the waste supplier/ the original waste generator.

## BASIC ASSESSMENT REPORT [REGULATION 23(1)]

Having assessed the significance of impacts of the proposal and various alternatives, please provide an overall summary and reasons for selecting the preferred project proposal.

Due to fact that this is an existing facility and no additional structures will be constructed or erected on site; most of the impacts are related to the operational activities that will be undertaken on the site.

The main environmental impacts associated with the proposed activity are air pollution as well as water and soil pollution. The proposed mitigation measures include the use of scrubbers that will reduce the concentration of the emissions by 90 %, which is a considerable value. The emergency procedures in case of failures of the technology will be put in place to ensure that the atmospheric emissions are kept at minimum.

The storage areas have concrete floors and there are bund walls around the area to prevent soil and water pollution. The bund walls will need to be upgraded to ensure that they can contain 110% of the storage capacity of the storage tanks.

Additional proposed mitigation measures include the development of a waste management guideline procedure; formalization of stormwater management by developing a stormwater management plan and keeping the working areas/dirty areas to the minimum in order to reduce the amount of contaminated stormwater.

The contaminated stormwater will need to be treated and re-used if possible; if it cannot be re-used then it should be discharged into the sewer system according to the applicable by-laws of the Ekurhuleni Metropolitan Municipality. The uncontaminated stormwater should be allowed to flow into the municipality stormwater channels which eventually be discharged into the Natalspruit.

It is further recommended that the applicant drills and establishes groundwater monitoring boreholes prior to commencement with the proposed activities; to establish the background groundwater quality on the site and to monitor the future impacts of his activities on the groundwater resource.

The fire, health and safety hazards are other operational impacts associated with the proposed activity. The implementation of the proposed mitigation measures that entail training, access control and safety policies will reduce these impacts considerably.

The proposed activity will contribute to the atmospheric pollution in the area and might cause soil and water pollution; however, having assessed the significance of impacts of the other alternatives it is believed that in the preferred option the impacts will be more manageable through the implementation of the proposed mitigation measures. The storage of dangerous goods on site will ensure control and minimisation of pollution through the implementation of the proposed mitigation measures.

### 7. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner).

YESX	NO
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If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):


If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

It is recommended that the following be implemented during the operation of the proposed activity:

- Air quality monitoring;
- Proper Stormwater Management;
- Groundwater monitoring;
- Development of a waste management guideline ; and
- Strict adherence to Health and Safety policies

## 8. ENVIRONMENTAL MANAGEMENT PLAN (EMP)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an Appendix

EMP attached

Appendix H

## SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

### Appendix A: Site plan(s)

A1- Locality Map

A2 –Adjacent Properties Land Use

A3- Site & Properties within 50m

A4- Site Plan

A5- Proposed effluent Layout plan

### Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information (N/A)

### Appendix E: Public participation information

E1 – Proof of site notice

E2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

E3 – Proof of newspaper advertisements

E4 –Communications to and from persons detailed in Point 2 and 3 above

E5 – Minutes of any public and or stakeholder meetings (N/A)

E6 - Comments and Responses Report

E7 –Comments from I&APs on Basic Assessment (BA) Report (N/A)

E8 –Comments from I&APs on amendments to the BA report (N/A)

E9 – Copy of the register of I&APs

E10 – Comments from I&APs on the application

E11 – Other

Appendix F: Water use license(s), SAHRA information, service letters from municipalities, water supply information (N/A)

### Appendix G: Specialist reports

G1- Geohydrology Assessment Report

G2- Biodiversity Assessment Report

G3- Air Quality Specialist document

### Appendix H: EMP

### Appendix I: Other information

I1- Notice of Intent

I2- Application Forms

I3- Authority Correspondence

I4-Air Quality Permit Application

