



## **environmental affairs**

Department:  
Environmental Affairs  
**REPUBLIC OF SOUTH AFRICA**

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA  
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2882

**NEAS Reference: DEA/EIA/0000765/2011**

**DEA Reference: 12/12/20/2318**

**Enquiries: Masina Litsoane**

**Telephone: 012-395-1778 Fax: 012-320-7539 E-mail: [MLitsoane@environment.gov.za](mailto:MLitsoane@environment.gov.za)**

Mr. Terence Govender  
SolarReserve SA (Pty) Ltd  
Office L6 B-1, 6th Floor SinoSteel Plaza  
159 Rivonia Road  
**SANDTON**  
2191

Fax no: (011) 784 7549

**PER FACSIMILE / MAIL**

Dear Mr Govender

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 2010: GN R.544, GN R.545 AND GN R548: HUMANSRUS SOLAR THERMAL ENERGY POWER PLANT ON THE FARM 469 HAY RD, NORTHERN CAPE PROVINCE**

With reference to the above application, please be advised that the Department has decided to partly grant authorisation. The environmental authorisation (EA) and reasons for the decision are attached herewith.

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations, 2010 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 12 (twelve) days of the date of the EA, of the Department's decision in respect of your application as well as the provisions regarding the submission of appeals that are contained in the Regulations.

Your attention is drawn to Chapter 7 of the Regulations, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached document. Kindly include a copy of this document with the letter of notification to interested and affected parties.

Should the applicant or any other party wish to appeal any aspect of the decision a notice of intention to appeal must be lodged by all prospective appellants with the Minister, within 20 days of the date of the EA, by means of one of the following methods:

By facsimile: 012 320 7561;  
By post: Private Bag X447,  
Pretoria, 0001; or

By hand: 2nd Floor, Fedsure Building, North Tower,  
Cnr. Van der Walt and Pretorius Streets,  
Pretoria.

If the applicant wishes to lodge an appeal, it must also serve a copy of the notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection, should you intend to submit an appeal.

Please include the Department (*Attention: Director: Environmental Impact Evaluation*) in the list of interested and affected parties, notified through your notification letter to interested and affected parties, for record purposes.

**Appeals must be submitted in writing to:**

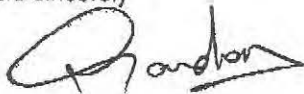
Mr T Zwane, Senior Legal Administration Officer (Appeals) of this Department at the above mentioned addresses or fax number. Mr Zwane can also be contacted at:

Tel: 012-310-3929

Email: [tzwane@environment.gov.za](mailto:tzwane@environment.gov.za)

The authorised activities shall not commence within twenty (20) days of the date of signature of the authorisation. Further, please note that the Minister may, on receipt of appeals against the authorisation or conditions thereof suspend the authorisation pending the outcome of the appeals procedure.

Yours sincerely



**Mr Mark Gordon**  
**Chief Director: Integrated Environmental Authorisations**  
**Department of Environmental Affairs**

**Date:** 6 August 2012

CC:	Ms L. Rautenbach	WorleyParsons RSA	Fax: 012-460-9978
	Mr S. Henge	Tsantsabane Local Municipality	Fax: 053-313-1602
	Mr T Zwane	Appeals Authority (DEA)	Fax: 012-320-7561

**APPEALS PROCEDURE IN TERMS OF CHAPTER 7 OF THE NEMA EIA REGULATIONS, 2010 (THE REGULATIONS) AS PER GN R.543 OF 2010 TO BE FOLLOWED BY THE APPLICANT AND INTERESTED AND AFFECTED PARTIES UPON RECEIPT OF NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION (EA)**

<b>APPLICANT</b>	<b>INTERESTED AND AFFECTED PARTIES (IAPs)</b>
1. Receive EA from the relevant Competent Authority (the Department of Environmental Affairs [DEA]).	1. Receive EA from Applicant/Consultant.
2. Within 12 days of date of the EA notify all IAPs of the EA and draw their attention to their right to appeal against the EA in terms of Chapter 7 of the Regulations.	2. N/A.
3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA with the Minister of Water and Environmental Affairs (the Minister).	3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA. with the Minister of Water and Environmental Affairs (the Minister).
4. After having submitted your notice of intention to appeal to the Minister, provide each registered IAP with a copy of the notice of intention to appeal within 10 days of lodging the notice.	4. After having submitted your notice of intention to appeal to the Minister, provide the applicant with a copy of the notice of intention to appeal within 10 days of lodging the notice.
5. The Applicant must also serve on each IAP: <ul style="list-style-type: none"> <li>• a notice indicating where and for what period the appeal submission will be available for inspection.</li> </ul>	5. Appellant must also serve on the Applicant within 10 days of lodging the notice, <ul style="list-style-type: none"> <li>• a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.</li> </ul>
6. The appeal must be submitted in writing to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.	6. The appeal must be submitted to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.
7. Any IAP who received a notice of intention to appeal may submit a responding statement to that appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.	7. An Applicant who received notice of intention to may submit a responding statement to the appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.

**NOTES:**

1. **An appeal against a decision must be lodged with:-**
  - a) the Minister of Water and Environmental Affairs if the decision was issued by the Director- General of the Department of Environmental Affairs (or another official) acting in his/ her capacity as the delegated Competent Authority;
  - b) the Minister of Justice and Constitutional Development if the applicant is the Department of Water Affairs and the decision was issued by the Director- General of the Department of Environmental Affairs (or another official) acting in his/ her capacity as the delegated Competent Authority;
2. **An appeal lodged with:-**
  - a) the Minister of Water and Environmental Affairs must be submitted to the Department of Environmental Affairs;
  - b) the Minister of Justice and Constitutional Development must be submitted to the Department of Environmental Affairs;
3. **An appeal must be:-**
  - a) submitted in writing;
  - b) accompanied by:
    - a statement setting out the grounds of appeal;
    - supporting documentation which is referred to in the appeal; and
    - a statement that the appellant has complied with regulation 62 (2) or (3) together with copies of the notices referred to in regulation 62.



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

Integrated Environmental Authorisation Issued in terms of

The National Environmental Management Act, 1998 and the Environmental Impact  
Assessment Regulations 2010

and

The National Environmental Management: Waste Act, 2008 and Government Notice 718  
of 2009

**Humansrus Concentrated Solar Power Facility on the Farm 469 Hay RD within Tsantsabane,  
Northern Cape Province**

**Siyanda District Municipality**

<b>Authorisation register number:</b>	12/12/20/2316
<b>Last amended:</b>	First Issue
<b>Holder of integrated authorisation:</b>	SolarReserve SA (Pty) Ltd
<b>Location of activities:</b>	NORTHERN CAPE PROVINCE: On the Farm 469 Hay RD, within Tsantsabane Local Municipality

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

**1. DECISIONS**

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this integrated environmental authorisation ("the environmental authorisation") that the applicant should be authorised to undertake the NEMA EIA and NEMWA listed activities specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure "I" to this environmental authorisation.

**2. NEMA EIA AND NEMWA ACTIVITIES AUTHORISED**

By virtue of the powers conferred on it by NEMA, the NEMA EIA Regulations, 2010, NEMWA and Government Notice 718 of 3 July 2009 the Department hereby authorises –

**SOLARRESERVE SA (PTY) LTD**

with the following contact details –

Mr. Terence Govender  
SolarReserve SA (Pty) Ltd  
Office L6 B-1, 6th Floor SinoSteel Plaza  
159 Rivonia Road  
**SANDTON**  
2191

Tel: (083) 449 0433  
Fax: (011) 784 7549  
E-mail: [Terence.Govender@solarreserve.com](mailto:Terence.Govender@solarreserve.com)

to undertake the following activities (hereafter referred to as "the activities"):

Notice number	Activity number	Activity description (as per the relevant notice)
GN R. 544	9	The construction of facilities or infrastructure exceeding 1 000 metres in length for the bulk transportation of water, sewage, sewage or storm water –

		<ul style="list-style-type: none"> <li>i. With an internal diameter of 0.36 metres or more;</li> <li>ii. Or with a peak throughput of 120 litres per second or more</li> </ul> <p>Excluding where:</p> <ul style="list-style-type: none"> <li>a. Such facilities or infrastructure are for bulk transportation of water, sewage or storm water drainage inside a road reserve; or</li> <li>b. Where such construction will occur within urban areas but further than 32 metres from the water course, measured from the edge of the water course.</li> </ul>
GN R. 544	10	<p>The construction of facilities or infrastructure for the transmission and distribution of electricity –</p> <ul style="list-style-type: none"> <li>i. outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts.</li> </ul>
GN R. 544	11	<p>The construction of: (ii) channels; (iii) bridges; (v) weirs; (x) buildings exceeding 50 square metres in size; or (xi) infrastructure or structures covering 50 square metres or more</p> <p>Where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>
GN R. 544	12	<p>The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50000 cubic metres or more, unless such storage falls within the ambit of activity 19 of Notice 545 of 2010</p>
GN R. 544	22	<p>The construction of a road, outside urban areas, (ii) where no reserve exists where the road is wider than 8m</p>
GN R. 545	1	<p>The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20MW or more.</p>
GN R. 545	3	<p>Construction of facilities or infrastructure for the storage and handling of dangerous goods, where such storage occurs in containers with a combined capacity of more than 500 cubic metres</p>
GN R. 545	15	<p>Physical alteration of undeveloped, vacant or derelict land to (ii) residential, retail, commercial, recreational, industrial or institutional use where the total to be transformed is 20ha or more.</p>
GN R. 546	2	<p>The construction of reservoirs for bulk water supply with a capacity of more than 250 cubic metres.</p>

		<p>a) In Northern Cape Province</p> <p>i. Outside urban areas, in:</p> <p>(bb) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority.</p>
GN R. 546	4	<p>The construction of a road wider than 4 metres with a reserve less than 13.5 metres –</p> <p>a) In Northern Cape:</p> <p>ii. Outside urban areas in:</p> <p>(cc) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</p>
GN R. 546	10	<p>The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 cubic metres but not exceeding 80 cubic metres.</p> <p>a) In Northern Cape Province</p> <p>(ii) Outside urban areas in:</p> <p>(cc) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</p>
GN R. 546	12	<p>The clearance of an area of 300m<sup>2</sup> or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, with an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004. Within critical biodiversity areas identified in bioregional plans.</p>
GN R. 546	13	<p>The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes vegetation, except</p>

		<p>where such removal of vegetation is required for:</p> <p>1) The undertaking of a process or activity included in the list of waste management activities published in terms of section 19 of the National Environmental Management : Waste Act, 2008 (Act no.59 of 2008) in which case the activity is regarded to be excluded from this list.</p> <p>(a) Critical biodiversity areas and ecological support areas as identified in the systematic biodiversity plans adopted by the competent authority.</p> <p>(c) In Northern Cape Province</p> <p>ii. Outside urban areas, in:</p> <p>(cc) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority</p>
GN R. 546	14	<p>The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes vegetation, except where such removal of vegetation is required for:</p> <p>2) The undertaking of a process or activity included in the list of waste management activities published in terms of section 19 of the National Environmental Management : Waste Act, 2008 (Act no.59 of 2008) in which case the activity is regarded to be excluded from this list.</p> <p>(a) In Northern Cape Province</p> <p>(i) Outside urban areas</p>
GN R. 546	16	<p>The construction of:</p> <p>i. Buildings with a footprint exceeding 10 square metres in size, or</p> <p>ii. Infrastructure covering 10 square metres or more</p> <p>Where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p> <p>a) In Northern Cape Province</p> <p>(ii) Outside urban area in:</p> <p>(cc) Sensitive areas as identified in an environmental</p>



		management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.
GN 718 Category B	1	The storage including the temporary storage of hazardous waste in lagoons
GN 718 Category B	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;
GN 718 Category B	6	The treatment of hazardous waste in lagoons.
GN 718 Category B	7	The treatment of effluent, wastewater or sewage with an annual throughput capacity of 15 000 cubic metres or more.
GN 718 Category B	11	The construction of facilities for activities listed in Category B of this schedule (not in isolation to associated activity).

as described in the Environmental Impact Report (EIR) dated January 2012 and Addendum Report dated March 2012 at:

Alternative S1	Latitude	Longitude
Humansrus CSP (Centre co-ordinates of the site)	28°17'31.95"S	23°22'21.17"E

- for the establishment of a 100MW Concentrated Solar Power Facility (CSP) and associated infrastructure on the Farm 469 Hay Rd to be known as the Humansrus CSP, within Tsantsabane Local Municipality hereafter referred to as "the property".

**The facility comprises of the following:**

- A collector field consisting of approximately between 10 300 and 17 500 dual-axis tracking heliostats, each approximately between 64 m<sup>2</sup> - 116 m<sup>2</sup>, providing approximately 1 200 000m<sup>2</sup> of reflective surface area;
- An approximately 200 meter tall slip-form concrete tower and thermal receiver rated at approximately 565 MW thermal (MWt);
- A thermal to electric power block with an approximately 115 MW reheat and multiple extractions high temperature subcritical steam turbine and generator;

- Two molten salt thermal storage tanks;
- An air-cooled condenser and/or a cooling tower for the steam cycle in order to minimise the consumption of water;
- Water reticulation and purification works. This includes water reticulation from the Sediberg Bulk Water Supply Pipeline for industrial water use, and a water treatment and purification system to provide water for both domestic and process use;
- Sewer reticulation and treatment works;
- An evaporation pond consisting of three compartments with a combined area of approximately 8.0 ha, to completely contain all rejected water from the water treatment system and the steam cycle;
- Roads and storm water infrastructure;
- Two liquid gas or diesel auxiliary burners for start-up;
- Two emergency diesel generators;
- Sub-station and switchyard of approximately 100 m x 100 m containing transformers and associated structures;
- Approximately 8km overhead power lines connecting to the Eskom grid;
- Construction camp - accommodation and associated facilities for approximately 600 people;
- Administrative and office buildings;
- Visitors centre;
- Equipment and materials lay down area;
- Assembly Plant;
- Concrete batching plant;
- Vehicle workshops and wash bays;
- Fuel storage area;
- Temporary general waste storage facility; and
- Hazardous material storage facility.

The total footprint for the facility is 800ha.

### **3. SCOPE OF AUTHORISATION**

- 3.1 Authorisation is granted for the development of Humansrus CSP and associated infrastructure with site co-ordinates as indicated above. The establishment of a CSP with power tower



system (Alternative 2), hybrid wet/dry cooling system (Alternative 3) and molten salt heat transfer medium is hereby approved.

- 3.2 Authorisation of the activities is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the environmental authorisation.
- 3.3 The Department shall by written notice to the holder of an environmental authorisation suspend with immediate effect an environmental authorisation if suspension of the authorisation is necessary to prevent harm or further harm to the environment.
- 3.4 The activities must commence within a period of three (3) years from the date of issue. If commencement of the activity does not occur within that period, the environmental authorisation lapses and a new application for an environmental authorisation must be made for the activities to be undertaken. Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
- 3.5 The holder of the environmental authorisation shall be responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
- 3.6 Any changes to, or deviations from, the project description set out in this authorisation must follow the amendment processes as prescribed in Chapter 4 (Parts 1-3) of the NEMA EIA Regulations, 2010 and be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.

#### 4. NOTIFICATION OF AUTHORISATION AND RIGHT TO APPEAL

- 4.1 The holder of the authorisation must notify every registered interested and affected party, in writing and within 12 (twelve) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
- 4.2 The notification referred to must –
  - 4.2.1 specify the date on which the authorisation was issued;
  - 4.2.2 inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment (EIA) Regulations, 2010;

- 4.2.3 advise the interested and affected party that a copy of the authorisation will be furnished on request; and
- 4.2.4 give the reasons for the decision.
- 4.3 The holder of the authorisation must publish a notice –
  - 4.3.1 informing interested and affected parties of the decision;
  - 4.3.2 informing interested and affected parties where the decision can be accessed; and
  - 4.3.3 drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in the newspaper(s) contemplated and used in terms of regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.
- 4.4 The holder of the environmental authorisation must, in writing, within 10 days of the date of the decision on the application –
  - (a) notify all registered interested and affected parties of –
    - (i) the outcome of the application; and
    - (j) the reasons for the decision;
  - (b) draw the attention of all registered interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the NEMA EIA Regulations, 2006 if such appeal is available in the circumstances of the decision;
  - (c) draw the attention of all interested and affected parties to the manner in which they can access the decision; and
  - (d) publish a notice –
    - (i) informing interested and affected parties of the decision;
    - (ii) informing interested and affected parties where the decision can be accessed; and
    - (iii) drawing the attention of interested and affected parties to the fact that an appeal may be lodged against the decision in terms of Chapter 7 of the NEMA EIA Regulations, 2006, if such appeal is available under the circumstances of the decision; in the newspapers contemplated in regulation 54(2)(c) and (d) of the NEMA EIA Regulations, 2006 and which newspaper was used for the placing of advertisements as part of the public participation process.

## 5. MANAGEMENT OF THE ACTIVITY

- 5.1 The Environmental Management Plan (EMP) dated January 2012 for the construction and operation of the CSP, submitted as part of application for EA, must be amended to include

measures as dictated by the final site lay-out plan and micro-siting. The final EMP must be submitted to the Department for written approval prior to commencement of the activity. The recommendations and mitigation measures recorded in the EIR dated January 2012 must be incorporated as part of the EMP. Once approved, the EMP must be implemented and adhered to.

- 5.2 The amended EMP must also include the following:
  - 5.2.1 All recommendations and mitigation measures recorded in the EIR dated February 2012.
  - 5.2.2 The requirements and conditions of this authorisation.
- 5.3 The applicant must compile an operational EMP for the operational phase of the sewage works for approval by this Department before operation may begin.
- 5.4 The operation EMP for the sewage works must include among others the following:
  - 5.4.1 A water quality monitoring program for the sewage works, including the timeframes for monitoring of the discharge water as well as the parameters to be monitored and the receiving water quality requirements as approved by DWA. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
  - 5.4.2 An emergency preparedness plan which must be reviewed on an annual basis when conducting an audit and after each emergency incident and or major accident. The plan must, amongst others address:
    - (a) Site Fire;
    - (b) Spillage (through the pipeline network on route and on the site of the sewage works);
    - (c) Natural disasters such as floods;
    - (d) Industrial action; and
    - (e) Contact details of police, ambulances and any emergency centre closer to the site.
- 5.5 The approved EMP and operational EMP for the sewage works must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
- 5.6 Changes to the EMP and the operational EMP for the sewage works which are environmentally defensible, shall be submitted to this Department for acceptance before such changes could be effected.
- 5.7 The Department reserves the right to request amendments to the EMP and the operational EMP for the sewage works should any impacts that were not anticipated or covered in the EIR be discovered.

- 5.8 The provisions of the approved EMP and the operation EMP for the sewage works including the mitigation measures identified in the EIR and specialist studies shall be an extension of the conditions of this EA and therefore noncompliance with them would constitute noncompliance with the EA.
- 5.9 The sewage works must be managed and operated:
- 5.9.1 In accordance with an Environmental Management System (EMS), that *inter alia* identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the holder of the environmental authorisation as a result of complaints;
- 5.9.2 By sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

## 6. ENVIRONMENTAL CONTROL OFFICER

- 6.1 The holder of this authorisation must appoint an **independent** Environmental Control Officer (ECO) with experience or expertise in the field for the construction phase of the development. The ECO will have the responsibility to ensure that the conditions referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMP.
- 6.2 The ECO must be appointed before commencement of any authorised activity.
- 6.3 Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 6.4 The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.
- 6.4.1 The ECO must:
- 6.4.2 Keep record of all activities on site, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.
- 6.4.3 Keep and maintain a detailed incident (including spillage of bitumen, fuels, chemicals, or any other material) and complaint register on site indicating how these issues were addressed, what rehabilitation measures were taken and what preventative measures were implemented to avoid re-occurrence of incidents/complaints.
- 6.4.4 Keep and maintain a daily site diary.
- 6.4.5 Keep copies of all reports submitted to the Department.
- 6.4.6 Keep and maintain a schedule of current site activities including the monitoring of such activities.

1/5

- 6.4.7 Obtain and keep record of all documentation, permits, licences and authorisations such as waste disposal certificates, hazardous waste landfill site licences etc. required by this facility.
- 6.4.8 Compile a monthly monitoring report.

## 7. WASTE MANAGEMENT CONTROL OFFICER

- 7.1 The applicant must designate a Waste Management Control Officer (WMCO), who will monitor and ensure compliance and correct implementation of all conditions and provisions as stipulated in the environmental authorisation and approved EMP related to the sewage works.
- 7.2 The WMCO must report any non-compliance with any environmental authorisation conditions or requirements or provisions of NEMWA to the Department through the means reasonably available.
- 7.3 The duties and responsibility of the WMCO should not be seen as exempting the holder of the environmental authorisation from the legal obligations in terms of the NEMWA.

## 8. RECORDING AND REPORTING TO THE DEPARTMENT

- 8.1 The holder of this authorisation must keep all records relating to monitoring and auditing on site and make it available for inspection to any relevant department and the competent authority in respect of this development.
- 8.2 All records and/or reports required or resulting from activities relating to this environmental authorisation must:
  - 8.2.1 be legible;
  - 8.2.2 be submitted as required and must form part of the external audit report;
  - 8.2.3 if amended, the record and/or report must be amended in such a way that the original and any subsequent amendments remain legible and are easily retrievable; and
  - 8.2.4 be retained in accordance with documented procedures which are approved by the Department.
- 8.3 All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the *Director: Compliance Monitoring* at the Department.
- 8.4 The holder of the environmental authorisation must keep records and update all the information referred to in Annexure II and submit this information to the Department on an annual basis.

FA

## **9. ENVIRONMENTAL AUDIT REPORT FOR CONSTRUCTION**

- 9.1 The holder of the authorisation must submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and within 30 days of completion of rehabilitation activities.
- 9.2 The environmental audit report must:
- 9.2.1 Be compiled by an independent environmental auditor;
  - 9.2.2 Indicate the date of the audit, the name of the auditor and the outcome of the audit;
  - 9.2.3 Evaluate compliance with the requirements of the approved EMP and this environmental authorisation;
  - 9.2.4 Include measures to be implemented to attend to any non-compliances or degradation noted;
  - 9.2.5 Include copies of any approvals granted by other authorities relevant to the development for the reporting period;
  - 9.2.6 Highlight any outstanding environmental issues that must be addressed, along with recommendations for ensuring these issues are appropriately addressed;
  - 9.2.7 Include a copy of this authorisation and the approved EMP;
  - 9.2.8 Include all documentation such as waste disposal certificates, hazardous waste landfill site licences etc. pertaining to this authorisation; and
  - 9.2.9 Include evidence of adherence to the conditions of this authorisation and the EMP where relevant such as training records and attendance records.

## **10. COMMENCEMENT OF ACTIVITIES**

- 10.1 The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.
- 10.2 An appeal under section 43 of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise.
- 10.3 Should you be notified by the Minister of a suspension of the authorisation pending appeal procedures, you may not commence with the activity until such time that the Minister allows you to commence with such an activity in writing.

FA



- 10.4 The holder of this authorisation must obtain a Water Use Licence from the Department of Water Affairs (DWA) prior to the commencement of the project should the holder impact on any wetland or water resource. A copy of the license must be submitted to the *Director: Environmental Impact Evaluation* at the Department.
- 10.5 The holder of this authorisation must obtain the appropriate permits from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of any such permits obtained must be included in the first audit submitted to the Department.

## 11. NOTIFICATION TO AUTHORITIES

- 11.1 Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence. This notification period may coincide with the Notice of Intent to Appeal period, within which construction may not commence.

## 12. OPERATION OF THE ACTIVITY

- 12.1 Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.
- 12.2 The holder of this authorisation must compile an operational EMP for the operational phase of the activity or alternatively, if the holder has an existing operational environmental management system, it must be amended to include the operation of the authorised activity.

## 13. SITE CLOSURE AND DECOMMISSIONING

- 13.1 Should the activity ever cease or become redundant, the applicant shall undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.



**14. LEASING AND ALIENATION OF THE SITE**

- 14.1 Should the holder of the environmental authorisation want to alienate or lease the site, he/she shall notify the Department in writing of such an intention at least 120 days prior to the said transaction. Should the approval be granted, the subsequent holder of the environmental authorisation shall remain liable to compliance with all licence conditions.

**15. TRANSFER OF ENVIRONMENTAL AUTHORISATION**

- 15.1 Should the holder of the environmental authorisation transfer holdership of this environmental authorisation due to a change of ownership [as provided for in terms of S24E(c) of NEMA], he/she must apply in terms of Section 52 of NEMWA.
- 15.2 Should the transfer of holder ship of this environmental authorisation mentioned above be for any reason other than the change of ownership in the property, the holder of this environmental authorisation must inform the Department of any change in ownership in the property and must request an amendment to this environmental authorisation to reflect such change in ownership.
- 15.3 Any subsequent holder of an environmental authorisation shall be bound by conditions of this environmental authorisation.

**16. INVESTIGATIONS**

- 16.1 If, in the opinion of the Department, pollution, nuisances or health risks may be or are occurring on the site, the holder of the environmental authorisation must initiate an investigation into the cause of the problem or suspected problem, including such investigations as identified by the Department related to the risks posed.
- 16.2 Should the investigation carried out as per conditions 16.1 above reveal any unacceptable levels of pollution, the holder of the environmental authorisation must submit mitigation measures to the satisfaction of the relevant Department.

**17. SPECIFIC CONDITIONS RELATED TO THE SEWAGE WORKS AND EVAPORATION PONDS**

- 17.1 Site Security and Access Control

G.

17.1.1 The holder of the environmental authorisation must ensure effective access control to the centralised sewage treatment plant to prevent unauthorised entry. Weather-proof, durable and legible signs in at least three official languages applicable in the area must be displayed at each entrance to the site. The signs must indicate the risks involved in entering the site, must include the person responsible for the operation of the site.

## 17.2 Permissible waste

17.2.1 The classification, handling and treatment of the sewage effluent must conform to the latest edition of the document "Minimum Requirements for Handling, Classification and Disposal of Hazardous Waste, Waste Management Series, Department of Water Affairs and Forestry" or its successor.

## 17.3 Construction and commissioning of activities

17.3.1 The site construction (existing and new) must be approved by a registered professional engineer and compliant with recognised civil engineering standards and adequately lined to protect surface and ground water resources.

17.3.2 Prior to commencement of construction activities, a final site lay-out plan must be submitted to the Department for approval. The document must be submitted to the Director: Waste Licencing at the Department. This site lay-out plan must indicate the micro-siting of the project dictated by findings of additional drilling and reassessment of the dolomitic stability of the site.

17.3.3 The sewage treatment facility and evaporation ponds must have firm and impermeable base to prevent contamination of ground water.

17.3.4 The liners of the evaporation ponds must consist of 150mm base preparation layer in situ soil, 1.5mm HDPE liner, 1mm cusped HDPE liner, 15mm HDPE liner, 1mm cusped HDPE liner and 2mm HDPE liner.

17.3.5 The evaporation ponds must be designed in such a way that maintenance can take place without disrupting the normal processes of the CSP plant.

17.3.6 The site plan must only be changed under the supervision of a registered professional engineer.

17.3.7 The holder of authorisation must construct and maintain on a continuous basis, drainage and containment system capable of collecting and storing all contaminated runoff water rising from the sewage works site in the event of 1:100 year rain event. The system must under said rainfall event, maintain a freeboard of one metre.




#### 17.4 Environmental auditing and reporting

##### 17.4.1 Internal Audits

- (a) Internal audits must be conducted annually by the holder of the environmental authorisation in order to audit compliance with conditions related to the sewage works of this environmental authorisation and the approved EMP, and on each audit occasion an official report must be compiled by the relevant auditor to report the findings of the audits, which must be made available to the external auditor specified in condition below.

##### 17.4.2 External Audits

- (a) The holder of the environmental authorisation and approved EMP must appoint an independent external auditor to audit the sewage works biannually subject to the environmental authorisation and this auditor must compile an audit report documenting the findings of the audit, which must be submitted by the holder of the environmental authorisation.
- (b) The audit report must -
- (i) Indicate compliance to requirements related to the sewage works as included in the approved operational EMP for the sewage works;
  - (ii) Specifically state whether conditions related to the sewage works of this environmental authorisation are adhered to;
  - (iii) Include an interpretation of all available data and test results regarding the operation of the site and all its impacts on the environment;
  - (iv) Specify target dates for the implementation of the recommendations by the holder of the environmental authorisation to achieve compliance;
  - (v) Contain recommendations regarding non-compliance or potential non-compliance and must specify target dates for the implementation of the recommendations by the holder of the environmental authorisation and whether corrective action taken for the previous audit non conformities was adequate;
  - (vi) Show results graphically and conduct trend analysis; and
  - (vii) Include the information required in Annexure II.
- (c) The holder of the environmental authorisation must carry out all tests required in terms of this environmental authorisation in accordance with published laboratory analysis methods or those prescribed by and obtainable from the South African Bureau of Standards (SABS), referred to in the Standards Act, 2008 (Act 08 of 2008).
- 

- (d) Each external audit report referred to in condition 10.2 must be submitted to the Department within 30 days from the date on which the external auditor finalised the audit.

#### 17.4.3 Reporting

- (a) The holder of the environmental authorisation must, within 14 days inform the Department from the occurrence or detection of any incident referred to in condition 17.1, must within 14 days period of time specified by the Department submit an action plan, which must –
- (i) Correct the impact resulting from the incident;
  - (ii) Prevent the incident from causing any further impact; and
  - (iii) Prevent a recurrence of a similar incident to the satisfaction of the Department.
- (b) In the event that measures have not been implemented within 21 days of the incident, or within the time period identified by the Department, or the measures which have been implemented are inadequate, the Department may implement the necessary measures at the cost and risk of the holder of the environmental authorisation.
- (c) The holder of the environmental authorisation must keep an incident report and complaints register, which must be made available to the external auditor, representatives of this Department and Department of Water Affairs for the purpose of audit.
- (d) The Department must be notified as soon as the holder of this environmental authorisation becomes aware of the following incidents:
- (i) Any malfunction, breakdown or failure of equipment or techniques, accident or fugitive emission which has caused, is causing or may cause significant pollution;
  - (ii) The breach of this environmental authorisation; and
  - (iii) Any significant adverse environmental and health effects.

#### 17.5 General operation and impact management of waste management activities


- 17.5.1 Waste, which is not sewage from the authorised development, must be dealt with according to relevant legislation or the Department's policies and practices.
- 17.5.2 The holder of environmental authorisation must prevent spillages. Where the spillages occur, the holder of authorisation must ensure the effective and safe cleaning of such spillages.
- 17.5.3 The treatment of effluent must not impact on a water resource or on any other person's water use, property or land and must not be detrimental to the health of the public in the vicinity of the activity.

- 17.5.4 The holder of environmental authorisation must prevent the occurrence of nuisance conditions or health hazards.
  - 17.5.5 The pipelines used for the conveyance of effluent must be painted in a conspicuous colour or manufactured of a coloured material distinctly different from the colour of the pipes in which drinking water is flowing to avoid the possibility of any cross-connection of the different pipelines.
  - 17.5.6 The holder of environmental authorisation must ensure that all personnel who work with hazardous waste are trained to deal with these potential hazardous situations so as to minimise the risks involved. Records of training and verification of competence must be kept by the Authorisation Holder.
  - 17.5.7 The holder of environmental authorisation must ensure that the treated sludge adheres to "the Guidelines for the Utilisation and Disposal of Wastewater Sludge", Water Research Commission Reports, Volumes 1-5 published by the Department of Water Affairs and Forestry, dated March 2008.
  - 17.5.8 The holder of authorisation must ensure that the effluent treatment operates within its design parameters at all times.
  - 17.5.9 The holder of environmental authorisation must ensure that non biodegradable solids and the sludge are disposed of at a Waste Management Facility licensed to accept such wastes.
  - 17.5.10 The holder of environmental authorisation must take all reasonable steps to ensure that the integrity of the waterproof base and infrastructure used for the treatment of sewage are routinely monitored and corrective action must be taken before containment integrity is breached.
  - 17.5.11 The holder of environmental authorisation must ensure that the treated effluent that is used for irrigation complies with the General Standards, as published by the Department of Water Affairs in Government Notice 991 of 18 May 1984 or its successor.
  - 17.5.12 No effluent must be discharged into any storm water drain or furrow, whether by commission or by omission.
- 17.6 Water quality monitoring
- 17.6.1 Surface water monitoring shall be performed in all storm water drains on and adjacent to the Site at locations selected in conjunctions with the Department of Water Affairs and at such a frequency as determined by the responsible authority.

**18. SPECIFIC CONDITIONS RELATED TO THE CSP DEVELOPMENT**

- 18.1 Prior to the onset of the construction phase, a detailed walkthrough and thorough quadrant search of the footprint must be undertaken to search for *Lichtops aucampiae subsp. aucampiae var. aucampiae* species in order to rescue affected species. Individual can be translocated to the outside of the footprint or removed to a suitable botanical garden for cultivation and protection. This should only be done after consultation with provincial conservation authorities.
- 18.2 Prior to commencement of construction activities, a final site lay-out plan must be submitted to the Department for approval. This site lay-out plan must indicate the micro-siting of the project.
- 18.3 A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce the impacts associated with glare and light trespass.
- 18.4 The Hydro geological monitoring data must be evaluated bi-annually by a qualified Hydro Geologist and the report from the Hydro Geologist must be included in the annual sewage works audit.
- 18.5 No development is allowed in close proximity to drainage channels and outcrops or ridges. A buffer zone of 35m must be maintained around all of these features.
- 18.6 Only indigenous trees from the area may be used in the landscaping of the development.

Date of environmental authorisation: 6 August 2012



Mr Mark Gordon

**Chief Director: Integrated Environmental Authorisations**  
**Department of Environmental Affairs**

## Annexure I: Reasons for Decision

### 1. Key factors considered in making the decision

All In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The information contained in the EIR dated January 2012 and Addendum Report dated March 2012;
- b) The mitigation measures included in the EIR dated January 2012 and the EMP;
- c) The information contained in the specialist studies contained within EIR dated January 2012;
- d) The comments received from the Directorate: Authorisations & Waste Disposal Management and comments from interested and affected parties as included in the EAIR dated January 2012; and
- e) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

### 2. Conclusions

After consideration of the information and factors listed above the Department reached the following conclusions:

- a) The identification and assessment of impacts are detailed in the EIR dated January 2012 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA regulations, 2006, for public involvement.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the activity can be mitigated to acceptable levels. The application is accordingly granted.



**ANNEXURE II**

**INFORMATION WHICH SHALL BE SUBMITTED ON AN ANNUAL BASIS CONDITION 8.4**

\* = Indicate with an X. Please print legibly.

NAME OF SITE: _____	DATE OF REPORT: _____ (y/m/d)
---------------------	-------------------------------

**1. Registered owner(s) of property on which the effluent treatment facility is situated:**

Name	Telephone	
Postal Address	Fax	
	Postal Code	

**2. Operator in control of the effluent treatment facility:**

Name	Telephone	
Identity number	Tel. After hours	
Educational Qualifications		
Other Relevant competencies:		

**3. Indicate the type of waste and approximate quantities of effluent treated during the year:**

<b>TOTAL</b>	

**4. Indicate the type of waste and approximate quantities of sludge reused, recycled, or disposed of during the year:**

<b>TOTAL</b>	

I, the undersigned, declare that the information stated above is to my knowledge a true reflection of the status at the \_\_\_\_\_ effluent treatment facility.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Capacity: \_\_\_\_\_

Place: \_\_\_\_\_

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