



Our reference: SO-ENV-1334

29 November 2024

Your Ref: EA nr E/04/02

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Attention: Deputy Director: Environmental Impact Assessment

ENVIRONMENTAL AUTHORISATION EXTERNAL REPORT SUBMISSION

The Environmental Authorisation applicable for Sasol South Africa Limited, Sasolburg Operations was externally audited during November 2022. The external audit was conducted to comply to the requirement contained in Chapter 5 part 3 of the Environmental Impact Assessment Regulations.

Sub regulation 34 (6) of the regulations also requires the holder of the environmental authorisation to notify all potential and registered interested and affected parties of the submission of the report and make the report available on request to anyone and on a publicly accessible website, where available.

The external audit reports will be available on <https://www.sasol.com/esg/environmental-audit-reports>.

Sasolburg Operations appointed WSP to conduct the external audits on all Environmental Authorisations and accompanying Environmental Management Programs.

Attached, please find the compliance audit report for the Conversion of LPG Sphere to Propylene with reference E/04/02 dated May 2023.

Sasolburg and Ekandustria Operations

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The Audit report noted sufficient mitigation of environmental impacts and level of compliance to the Environmental Authorisation and Environmental Management Program (EMPr) therefore no recommendations for improvement were made.

Further, in alignment with Chapter 5 Part 4 of the regulation, regulation 36 allows amendment to the impact management action of an EMPr to be affected immediately by the holder of the environmental authorisation and reflect it in the next environmental audit report. Annexure B contains the mitigations measures identified during the environmental impact assessment, for the operational phase of the project, defining the impact management outcome and impact management actions to enable compliance to this regulation.

No impact management outcome or impact management action requires amendment for the Conversion of LPG Sphere to Propylene.

Yours faithfully

Signed by: Johann Van Wyk
Signed at: 2024-11-29 12:40:28 +02:00
Reason: I approve

Johann Van Wyk

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Sasol South Africa Ltd

**CONVERSION OF LPG SPHERE TO PROPYLENE
ENVIRONMENTAL AUTHORISATION (REF. NO:
E/04/02) AND ENVIRONMENTAL MANAGEMENT
PROGRAMME AUDIT**

Compliance Audit Report: November 2019 - April
2023





Sasol South Africa Ltd

CONVERSION OF LPG SPHERE TO PROPYLENE ENVIRONMENTAL AUTHORISATION (REF. NO: E/04/02) AND ENVIRONMENTAL MANAGEMENT PROGRAMME AUDIT

Compliance Audit Report: November 2019 - April 2023

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Sasol South Africa Ltd

CONVERSION OF LPG SPHERE TO PROPYLENE ENVIRONMENTAL AUTHORISATION (REF. NO: E/04/02) AND ENVIRONMENTAL MANAGEMENT PROGRAMME AUDIT

Compliance Audit Report: November 2019 - April 2023

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QUALITY CONTROL

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SIGNATURES

PREPARED BY

Matilda Mbazo
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REVIEWED BY

Ian Malloy
Senior Environmental Consultant

This Environmental Authorisation Audit report (Report) has been prepared by WSP Group Africa (Pty) Ltd (WSP) on behalf and at the request of Sasol South Africa (Client), to comply with the environmental audit requirements provided for in Regulation 34 of the EIA Regulations, 2014.

Unless otherwise agreed by us in writing, we do not accept responsibility or legal liability to any person other than the Client for the contents of, or any omissions from, this Report.

To prepare this Report, we have reviewed only the documents and information provided to us by the Client or any third parties directed to provide information and documents to us by the Client. We have not reviewed any other documents in relation to this Report, except where otherwise indicated in the Report.



PRODUCTION TEAM

SASOL SASOLBURG

SHE: Environment Specialist	Suyen Van Zyl
Process Technician	Mandla Hlongwane
Plant Manager	Ludolph Human

WSP

Auditor	Matilda Mbazo
Lead Auditor	Ian Malloy
Project Director/ Quality Assurance	Anri Scheepers

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1 INTRODUCTION

1.1 TERMS OF REFERENCE

WSP Group Africa (Pty) Ltd (WSP) as an independent environmental consultant was appointed by Sasol Chemicals, a division of Sasol South Africa Limited, to undertake an external environmental compliance audit of the commitments contained in the Environmental Authorisation (EA) (reference number E/04/02) of the conversion of LPG Sphere to Propylene and the environmental management programme (EMPr), and to compile an audit report according to the requirements of the National Environmental Management Act (No. 107 of 1998), as amended (NEMA).

The details of the EA (initially Record of Decision (RoD)), the amendment of the EA and the EMPr audited for compliance of the storage of propylene in the sphere that previously stored LPG at the Sasol One Site are provided below:

- EA for the conversion of the LPG sphere to propylene unit located at the Sascon site (on the Sasol One site) in Sasolburg (reference number: E/04/02), dated 25 February 2004 and issued to Monomers, a division of Sasol Polymers by the Department of Tourism, Environmental and Economic Affairs now the Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA);
- The amendment of the EA for the conversion of LPG Sphere to Propylene for the sphere located at the Sascon site (on the Sasol One site) in Sasolburg (reference number: E/04/02), dated 18 September 2019 and issued to Monomers, a division of Sasol Polymers by the DESTEA. The amendments include:
 - Change of the brief description of the activity;
 - Change of location;
 - Change the applicant details on the EA;
 - Owner of the EA
 - Contact details and address
 - Change of the holder of the EA.
 - Management of EA and address
- EMPr included in the Scoping Report .

1.2 SASOL SASOLBURG – LPG

1.3 PROJECT TEAM

Ian Malloy and Matilda Mbazo completed a site inspection of the Propylene sphere against the EA conditions (reference: E/04/02) at the Sasol One on **28 March 2023**.

The draft external audit report was compiled in April 2023 and finalised in May 2023. This report will be submitted to the DETSEA by Sasol in 2023.

Quality assurance is a critically important part of WSP's consulting services which aim to ensure both delivery of high-quality work and provide legal and commercial protection to the company. Quality assurance of this audit report was undertaken by Anri Scheepers.

The project team is summarised in **Table 1-1** and Curricula Vitae are included as **Appendix A**.

Table 1-1 - Details of the Audit Team

Audit Team	Role	Experience
Ian Malloy	Auditor	BEng Chemical BEng (Hons) Environmental MEng Water Engineering (in progress)
		Nine Years' Experience
		Ian is a Senior Environmental Consultant at WSP with over 9 years' experience in the environmental management industry. Ian graduated from the University of Stellenbosch with a BEng in Chemical Engineering in 2016 and a BEng Hons in Environmental Engineering in 2019. He is currently completing a MEng in Water Engineering. Ian has specialised in waste planning, environmental management and auditing, and environmental engineering. Ian has been involved in numerous waste and water management, and construction related projects in South Africa. The projects completed include EIAs, Water Use Licence (WUL) and Waste Management Licence (WML) Applications, amendment processes, developing IWMPs for District and Local Municipalities, developing EMPs, conducting environmental compliance audits of EAs, EMPs, WULs, and WMLs, conducting GRAP 17 and 19 assessments of landfill sites, and sampling and monitoring of groundwater and marine water.
Matilda Mbazo	Auditor	BSc (Hons) Geography
		Matilda graduated from the University of Wits with a BSc honours in Geography in 2023 and is currently completing her Master's in Environmental Science. She has 1 year experience in environmental management and currently provides technical and strategic input on a diverse range project in environmental management and environmental compliance audits.
Anri Scheepers	Review	BA (Hons) Geography
		15 Years' Experience
		Anri graduated from the University of Johannesburg with a BA honours in Geography in 2007 and has 15 years' work experience. Anri is qualified as a Lead Auditor and has undertaken legal compliance auditing, including environmental authorisations, waste management licences, water use licences and EMPs. In addition, she has undertaken general site assessments to determine compliance against local, provincial and national environmental legislation

2 AUDIT SCOPE

WSP was appointed by Sasol to conduct the environmental compliance audit for the conversion of the LPG Sphere to Propylene at the Monomers, Section 5200 facility at the Sasol One site, Sasolburg. This report provides an overview of the level of compliance with the conditions contained in the EA and EMPr as indicated in **Section 1.1**. The site audit was undertaken on 28 March 2023 at the Sasol One Site, Sasolburg Plant.

The objective of the audit was to:

- Assess the level of compliance with the commitments of the EA for the propylene sphere;
- Assess the level of compliance with the commitments of the EMPr that was submitted as part of the Scoping Report for the licencing of the conversion of the LPG to propylene sphere, as agreed and approved by DESTEA;
- Assess the extent to which the avoidance, management and mitigation measures provided for in the EMPr for the operation of the propylene sphere was implemented;
- Identify and assess any new impacts and risks that result from undertaking the activity;
- Critically evaluate the effectiveness of the EA;
- Identify shortcomings in the EA and EMPr; and
- Identify the need for any changes to the avoidance, management and mitigation measures provided for in the EA and EMPr conditions.

The EIA Regulations are considered applicable to the Propylene sphere unit operations. Regulation 34, of the EIA Regulations, provides for the auditing of an environmental authorisation, EMPr and closure plan. Furthermore, **Appendix 7** of Government Notice Regulation (GNR) 982 outlines the required audit report content. The 2014 Regulations, as amended, refer to a minimum audit frequency of five years. This audit is designed to meet the requirements of Regulation 34 of the EIA Regulations, 2014. **Table 2-1** indicates where the requirements of Section 34 and **Appendix 7** are met within this audit report.

Table 2-1 - Regulation 34 and Appendix 7 of the EIA Regulations (2014)

Sub-Section	Requirement	Report Section Reference
34 (2)a	The environmental audit report must be prepared by an independent person with the relevant environmental auditing expertise.	Sub-section 1.3 and CV's provided in Appendix A
34(2)b	The environmental audit report must provide verifiable findings, in a structured and systematic manner, on: (i) the level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and (ii) the ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the	Audit checklist tables provided in Section 4

Sub-Section	Requirement	Report Section Reference
	avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;	
3(a)	The environmental audit report must determine (a) the ability of the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an ongoing basis and to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and	Section 4
3(b)	The environmental audit report must determine the level of compliance with the provisions of environmental authorisation, EMPr and where applicable, the closure plan.	Section 4
4(a)	Where the findings of the environmental audit report indicate: (a) insufficient mitigation of environmental impacts associated with the undertaking of the activity (b) insufficient levels of compliance with the environmental authorisation or EMPr the holder must, when submitting the environmental audit report to the competent authority submit recommendations to amend the EMPr or closure plan in order to rectify the shortcomings identified in the environmental audit report	Section 4
a	Details of- (i) the independent person who prepared the environmental audit report; and (ii) the expertise of independent person that compiled the environmental audit report.	Sub-section 1.3 CVs provided in Appendix A
b	A declaration that the independent auditor is independent in a form as may be specified by the competent authority.	Sub-section 9
c	An indication of the scope of, and the purpose for which, the environmental audit report was prepared.	Sub-section 1.1 and Section 2
d	A description of the methodology adopted in preparing the environmental audit report.	Section 3
e	An indication of the ability of the EMPr, and where applicable, the closure plan to- (i) sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity on an on-going basis;	Section 4

Sub-Section	Requirement	Report Section Reference
	(ii) sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the closure of the facility; and (iii) ensure compliance with the provisions of environmental authorisation, EMPr, and where applicable, the closure plan.	
f	A description of any assumptions made, and any uncertainties or gaps in knowledge.	Sub-sections 0 and 2.2
g	A description of any consultation process that was undertaken during the course of carrying out the environmental audit report.	Sub-section 3.2
j	A summary and copies of any comments that were received during any consultation process.	Comments received during the consultation process were included as comments in the audit checklist tables in Section 4.
k	Any other information requested by the competent authority.	None requested

2.1 DISCLAIMER

This Report has been prepared by WSP on behalf and at the request of Sasol in terms of Regulation 34 of the EIA Regulations.

Unless otherwise agreed by us in writing, we do not accept responsibility or legal liability to any person other than the Client for the contents of, or any omissions from, this Report.

To prepare this Report, we have reviewed only the documents and information provided to us by the Client or any third parties directed to provide information and documents to us by the Client. We have not reviewed any other documents in relation to this Report and except where otherwise indicated in the Report.

The findings, recommendations and conclusions given in this report are based on the author's best scientific and professional knowledge, as well as available information. This report is based on survey and assessment techniques which are limited by time and budgetary constraints relevant to the type and level of investigation undertaken; WSP and its staff reserve the right to modify aspects of the report including the recommendations if and when new information may become available from on-going research or further work in this field or pertaining to this investigation.

Although WSP exercises due care and diligence in rendering services and preparing documents, WSP accepts no liability, and Sasol, by receiving this document, indemnifies WSP and its directors, managers, agents and employees against all actions, claims, demands, losses, liabilities, costs, damages and expenses arising from or in connection with the services rendered, directly or indirectly by the use of the information contained in this document.

This report must not be altered or added to without the prior written consent of the author. This also refers to electronic copies of this report which are supplied for the purposes of inclusion as part of

other reports. Similarly, any recommendations, statements or conclusions drawn from or based on this report must make reference to this report. If this report is used as part of a main report, the report in its entirety must be included as an appendix or separate section to the main report.

2.2 ASSUMPTIONS AND LIMITATIONS

WSP noted the following assumptions and limitations during the audit:

- The information provided by Sasol is up to date and accurately represents the Sasol Sasolburg operations;
- WSP viewed as much of the operational area as possible given the timeframe and access limitations;
- Findings made within the previous audit reports are correct; and
- Site photographs were not provided in the audit report due to the onsite Sasol Sasolburg policy that disallows any photographs being taken on site. Where conditions were deemed compliant, and the evidence provided was onsite observation and verbal confirmation to support the findings.; this was observed by the Auditors.

This report has been prepared by WSP at the request of Sasol and the Terms of Reference as detailed in **Section 1.1**.

3 AUDIT METHODOLOGY

The International Organisation of Standardisation (ISO) 14010, ISO 14011 and ISO 14012 guideline documents were utilised as a template during the compliance audit process. This methodology ensures that the compliance audit was conducted in a systematic and independent manner that was documented and objectively evaluated to determine compliance to the EA commitments.

The audit process comprised the following:

- Confirmation of the audit checklist;
- Site inspection (28 March 2023);
- Review of documentation relevant to the commitments of the EA and EMPr (e.g. records, permits, certificates, maintenance logs, monitoring results, previous audit reports, specialist reports (where available and applicable), etc.); and
- Compilation of an audit report.

3.1 AUDIT CHECKLIST

WSP compiled a checklist of the EA and EMPr commitments, which was used as an auditing compliance tool. Refer to **Table 4.1** and **Table 4.2** for the audit checklist.

3.2 SITE INSPECTION AND INTERVIEWS

An onsite inspection was conducted on **28 March 2023** where findings and observations were recorded and are summarised in **Section 4**. Key personnel interviewed during the audit included:

- Suyen Van Zyl
- Ludolph Human
- Mandla Hlongwane

3.3 INFORMATION CONSIDERED

Information related to the following categorises was reviewed, where required, and used to evaluate compliance:

- Notification: To install Safety Signs at Monomers Plan (Ref: 30645718) dated 29 March 2023
- Application for Amendment of an Environmental Authorisation (Ref no: E/04/02) dated 18 August 2019
- Air Emissions Licence (AEL) (reference number: FDDM-MET-2013-24-R1);
- Sasolburg and Ekandustria Operations Annual Emission Report (August 2022) to ensure compliance with the AEL conditions;
- Water Use Licence (WUL) (reference number: 14/C22K/FG/4958);
- Groundwater Quality Monitoring Report: WUL Compliance, Sasolburg Operations: February 2022 (WSP, May 2022)
- Integrated Water and Waste Management Plan (IWWMP) Rev 1 – report number: SO-env-929 (Sasolburg Operations, December 2021) that includes the:
 - Stormwater Management Plan (SWMP, 2021);
 - Rehabilitation Strategy and Implementation Plan (RSIP);
 - Water Conservation and Demand Management (WC/DM);

- Malfunctions register;
 - Water management;
 - Groundwater management;
 - Waste management;
 - Contaminated Water and Wastewater Management;
 - Effluent Management; and
 - Land management.
- Storm Water management Plan Sasolburg Operations (File no: 27/2/2C222/6/4) (Sasolburg Operations, December 2021);
 - Sasolburg and Ekandustria Operations ISO 45001:2018, ISO 9001:2015 and ISO 14001:2015 Recertification Audit Report (DQS Management Systems Solutions, November 2021);
 - Procedure for the management of waste on the Sasolburg Operations' Sites (document number: SSP-S-014) (Sasolburg Operations, January 2020)
 - The reporting, investigation and recording of environmental incidents (document number: SSP-S-013) (Sasolburg Operations, July 2019);
 - Noise survey and impact assessment for hearing conservation purposes, Sasolburg Operations Wax, Solvents and Chemicals, Cresol, S4300 (Sasol Approved Inspection Authority for Occupational Hygiene, March 2021);
 - Waste Management and Disposal Registers;
 - Environmental Standards;
 - Health and Safety Standards and Audits;
 - Other related approvals documents.

3.4 ASSESSMENT EVALUATION METHODOLOGY

The consolidated report contains all commitments, which were formulated as part of the original and amended EA and EMPr. Each commitment contained in the audit checklist was assessed by reviewing site documentation, interviewing employees, and undertaking a site inspection. The application of the EMPr was assessed and the level of compliance rated (compliance categories contained in **Table 3-1**). The compliance of the operations listed in **Section 1.2** was assessed.

Table 3-1 Levels of Compliance

Compliance Level	Definition
Compliant (C)	<p>When an activity or commitment has been implemented, completed, is on-schedule or is maintained on an ongoing basis.</p> <p>Condition/mitigation measure/commitment has been achieved with evidence provided in the form of a document or site verification.</p>
Non-compliant (NC)	<p>When an activity or commitment has not been complied with in its entirety/certain aspects thereof have not been addressed.</p> <p>When a commitment has not been undertaken, not been completed according to plan, or where any unlawful actions have been identified. Non-compliant conditions are given target completion dates as follows:</p> <p>— Short term: 0 – 6 months.</p>

	<ul style="list-style-type: none"> — Medium term: 6 – 12 months. — Long term: 12 - 18 months
Not applicable (N/A)	<p>The condition, commitment and/or mitigation measure is not applicable or is to be revised in accordance with current practice.</p> <p>A “Not Applicable” finding is also noted in event where such condition, commitment and/or mitigation measure is not yet relevant but is still relevant for future activities.</p>

4 AUDIT FINDINGS

4.1 ENVIRONMENTAL AUTHORISATION

Table 4-1 below provides the compliance of Sasol with the conditions within the EA and amendments to the EA.

Table 4-1 - Environmental Authorisation (reference: E/04/02 dated 24 February 2004) and Amendment (reference: E/04/02 dated 18 September 2019) Audit Findings

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
Decision				
	In terms of Section 22 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) the MEC: Tourism, Environmental and Economic Affairs hereby grants authorisation for the execution of the activity described above, subject to the conditions of approval contained in this Record of Decision.	N/A	This condition is noted by Sasol and the auditor. The ROD was granted on 09 March 2004 and a few conditions were amended on 18 September 2019.	None.
1. Specific Conditions				
1.	This authorisation has been granted solely for the purposes of undertaking the specified activity referred to above.	N/A	This condition is noted by Sasol and the auditor. The auditor audited the authorisation that was granted for the specified activity.	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
2.	An integrated waste management approach must be used that is based on best practices and should incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste should be disposed of at a landfill, licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989)	C	<p>Waste is generated during maintenance and managed adequately and according to the Sasol Sasolburg waste management plan. General waste generated by staff that monitor and manage the LPG sphere is disposed at general waste landfill sites and hazardous waste generated during maintenance is disposed at hazardous waste landfill sites or treated. General and hazardous waste were adequately contained in designated waste receptacles or skips, collected by service providers and disposed of or treated accordingly. Waste registers and manifests for waste disposed of or treated were available on file and managed by Sasol waste management staff.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Verbal Confirmation Onsite observation Procedure for the management of waste on the Sasolburg Operations Sites (document number SSP-S-014, 29 November 2020) General and hazardous waste manifests Waste disposal register 	None.
3.	Clean up procedures in case of spillages must be put in place prior to the commencement of the operation of the plant.	C	The auditor was notified that in case of a spillage, leak or rupture of the sphere, there is a dilute suppression system that uses water to atomise the propylene, as the propylene evaporates when it spills. This water is contained within the bund of the	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<p>sphere and released to the Sasol Bioworks. Contaminated wastewater or effluent developed is managed in accordance with the IWWMP and SWMP.</p> <p>Any hydrocarbon spills that could occur during operation and maintenance within or near the LPG sphere was managed according to the Sasol Sasolburg waste management and incident procedure. Onsite procedures were in place should spills occur at the LPG sphere. Hazardous waste is collected by a service provider and treated and/or disposed of at a hazardous waste landfill site.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Verbal Confirmation Onsite observation Procedure for the management of waste on the Sasolburg Operations Sites (document number SSP-S-014, 29 November 2020) IWWMP (report number: SO-env-929, December 2021) Incident register General and hazardous waste manifests Waste disposal register 	
4.	There should be proper warning signage to caution unauthorised people near the unit.	C	The auditor identified a notice board at the LPG sphere informing people of the risks and hazards at the LPG sphere, and warning signage around the LPG sphere. The notice board signage appeared to	<p><i>OFI:</i></p> <p>Fading signages should be replaced prior to unreadability of the writing and pictures.</p>

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<p>fade due to sun exposure. Due to this an internal notification was logged by Sasol Occupational Health and Safety (OHS) department to erect a new notice board and signage at the immediate entrance of the unit.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Verbal Confirmation Onsite observation Notification: To install Safety Signs at Monomers Plant (Ref: 30645718), 29 March 2023 	
5.	All contractors working on the site must undergo safety training and/or induction prior to commencement of any work.	C	<p>Sasol has mandatory safety training and induction before commencement of any work by staff, contractors, service providers or visitors. The WSP contracted auditors were also required to undertake an induction training prior the site audit.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Online Induction Training Staff training material and registers Onsite observation 	None.
6.	Contracting companies must have a safety representative to ensure compliance with all relevant safety rules and emergency procedures at all times.	C	<p>Sasol has mandatory safety training and induction before commencement of any work by staff, contractors, service providers or visitors. Prior to entrance to the site, induction was received and a Sasol staff representative was available to ensure compliance with all safety rules and emergency</p>	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<p>procedures. Staff, contractors, service providers were required to adhere to all on site safety rules and emergency procedures to access the Sasol One Site.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite Observation Verbal Confirmation Online Induction Training Material Staff training material and registers 	
7.	Within six (6) months of the facility ceasing to be functional for the purpose for which it is now authorised, the facility must be removed at the expense of the applicant, and the site including all infrastructure must be rehabilitated to the satisfaction of the Department	N/A	Noted. The facility is still operational and Sasol has no current intention to cease the operations of the facility.	None.
2. Standard Conditions				
1.	The applicant must advertise this record of decision.	N/A	Noted. The advertisement of the RoD was considered for the pre-construction and construction phase; this condition is outside the audit period and therefore was not audited.	None.
2.	This authorisation is granted only in terms of Section 28A of the Environment Conservation Act (Act No. 73 of 1989). It therefore does not exempt any person from the requirements of any other controlling authority or from any provision of any	N/A	Noted. This audit scope did not cover a legal review of compliance of the LPG sphere and SSO with all statutory requirements and whether they were in possession of all the necessary permits, authorisations or any other official documents.	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
	either law and does not purport to interfere with the right of any person who may have an interest in the property.			
3.	Changes in the proposal resulting in significant environmental impacts are only permissible if approved in, writing by the Department.	N/A	Noted. There were no noted changes made in the proposal or the specified activity.	None.
4.	The Department reserves the right to amend and review the conditions of this authorisation every 5 years.	N/A	Noted. There were no recent amendments made to the stipulated conditions in the authorisation by the Department. An amendment application was submitted by Sasol to the Department that was authorised on 18 September 2019.	None.
5.	The Department must be notified, within 30 days, of change of ownership/project developer. Conditions established in the authorisation must be made known to the new owner/developer and are binding on the new owner/developer.	N/A	Noted. No change of ownership/project developer has been noted in the audit period.	None.
6.	The Department must be notified of any change of address of the owner/developer.	C	The Department was notified about the change of the applicant and representative details; this was not a new owner. Changes in the details are provided below. Mr. Rightwell Laxa SVP Sasolburg Operations Sasol South Africa (Pty) Ltd acting through its Sasolburg Operations P.O. Box 1 Sasolburg 1947	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<p>Tel: +27 16 960 8001</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Application for Amendment of an Environmental Authorisation (Ref no: E/04/02) dated 18 August 2019 	
7.	Proof of compliance with the conditions described in the authorisation must be forwarded to the Department one month prior to the commencement of operation of the development (as appropriate).	N/A	Noted. This condition is outside the audit period and refers to a requirement prior to commencement and was therefore not audited.	None.
8.	One month's notice must be given to the Department before the commencement of operation.	N/A	Noted. This condition is outside the audit period and refers to a requirement pre-commencement and therefore was not audited.	None.
9.	The owner/developer must notify the authority within 24 hours if any condition of the exemption is not adhered to.	N/A	<p>Noted. The conditions of the exemption (EA) were adhered to and protocols to address onsite non compliances and implement corrective actions were in place. These are recorded on Sasol's internal electronic SHE management system. No significant environmental incidents occurred during the audit period.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite Observation Verbal communication 	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<ul style="list-style-type: none"> Documented records stored electronically on Sasol's internal document management system Complaints register Incidents register 	
10.	Records relating to the compliance/non-compliance with the conditions of the exemption must be kept, in good order. Such records must be made available to the Department within 7 days of written request by the Department for such records.	C	<p>Noted. The Auditor noted that the records were kept in good condition onsite, therefore, should be readily available should the Department require them. No request was made by the Department during the audit period for records or documents.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite Observation Verbal communication 	None.
11.	Non-compliance with, or any deviation from, the conditions set out in the authorisation documentation constitutes a failure in compliance. Under such conditions, the authorisation from the regulations as laid out in the documentation will be revoked.	N/A	Noted. This audit confirmed that there has not been any deviation from the conditions set out in the authorisation documentation.	None.
	Provincial Government, Local Authority, or committees appointed in terms of the conditions of the application or any other public authority or organisation shall not be held responsible for any damages or losses suffered by the developer or his successor in title in any instance where construction or operation subsequent to	N/A	Noted.	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
	construction be temporarily or permanently stopped for reasons of non-compliance by the developer with the conditions of approval as set out in this document or any other subsequent document emanating from these conditions of approval.			
H. Key Factors for the Decision				
1.	The site is located in the Sasol Chemical Industry and is already disturbed.	C	<p>The Auditor confirmed during the site audit that the site was located in the Sasol Chemical Industry and is already disturbed.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> ■ Onsite observation ■ Verbal confirmation ■ Google Earth 	None.
2.	The plant will enhance the production of supply of propylene to Sasol customers and meet the demand in the national market.	C	<p>The LPG sphere is a storage facility for propylene for Sasol based in Secunda. Whenever Sasol Secunda falls short of supply or have a high demand from customers, the LPG sphere in Sasolburg was able to supply propylene. In addition, propylene used at the SSO or provided to customers near Sasolburg was sourced from the LPG sphere.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> ■ Verbal confirmation 	None.

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<ul style="list-style-type: none"> Onsite observation. 	
3.	The proposed activity would not have any by-products (solid waste) that need to be disposed.	C	<p>The LPG sphere was converted to a storage facility for propylene and this activity does not produce any by-products, effluent or solid waste that would need to be disposed of.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation Waste manifests Incident registers 	None.
4.	No historical, archaeological features or cultural sites were identified on or near the site.	C	<p>No historical, archaeological features or cultural sites were identified on or near the site during the audit. The SSO site was established and cleared prior to the construction of the LPG sphere and its conversion to a propylene sphere.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation 	None
5.	There are no red data or other protected plant and animal species.	C	<p>No red data or other protected plant and animal species were identified during the audit.</p> <p><i>Evidence:</i></p>	None

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<ul style="list-style-type: none"> Onsite observation Environmental Impact Assessment of the Conversion of LPG Sphere to Propylene (Scoping Report) (February 2004) 	
6.	There were no concerns raised during the public participation meeting.	N/A	Noted. The public participation meeting was held prior to the construction phase. This condition was therefore outside the audit period and refers to a requirement pre-commencement and was therefore not audited.	None.
7.	There is existing infrastructure at the site.	C	<p>The auditor identified during the site visit that there was existing infrastructure surrounding the LPG facility and sphere. The SSO plant existed before the establishment of the LPG sphere.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation 	None
8	There will be no effect on surface and groundwater since the area is already bunded.	C	The LPG sphere is located within a concrete bund with a clean and contaminated stormwater management system and an emergency response control plan in place at the SSO site. The SSO has an onsite water management system to control clean stormwater, and a water treatment management system to control and manage contaminated stormwater or effluent. Sasol One site is an industrial area and protocols were in place to	None

Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
			<p>ensure no effect and impact on the surface and groundwater.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Verbal Confirmation Onsite observation Procedure for the management of waste on the Sasolburg Operations Sites (document number SSP-S-014, 29 November 2020) IWWMP (report number: SO-env-929, December 2021) 	
J. Appeal				
	Section 35 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), makes provision for appeal by any person who feels aggravated by a decision made by the Department in terms of these regulations. "Any person", therefore includes the applicant, interested party or member of the public.	N/A	Noted. This condition is outside the audit period and refers to a requirement pre-commencement of the activity and therefore was not audited.	None.
	An appeal to the MEC (Tourism, Environmental & Economic Affairs) under section 35(3) of the Environment Conservation Act, 1989 (Act No. 73 of 1989), must be done in writing within 30 days from the date on which the Record of Decision was issued to the applicant in terms of regulation 10(1) of the Environmental Impact Assessment Regulations, (Government Notice No. R 1182 and	N/A	Noted. This condition is outside the audit period and refers to a requirement pre-commencement of the activity and therefore was not audited.	None.



Ref.	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person
	1183 of 5 September 1997) and should be directed to.			



4.2 ENVIRONMENTAL MANAGEMENT PROGRAMME

Table 4-2 below provides the compliance of Sasol with the conditions within the EMP that were included in the Scoping Report for the Conversion of LPG Sphere to Propylene Project at the Sasol Polymers on the Sasol One site in Sasolburg, dated 13 February 2004.

Table 4-2 - Environmental Management Programme Audit Findings

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMP Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
7.2.1 Land and Soil								
	The development will take place on the Sasol One site, on an industrial area. Since the sphere is existing very limited excavation will take place during construction. Excavated soil will be re-used for backfilling as far as possible.	N/A	Noted. This condition is outside the audit period and therefore was not audited	None.	None.	Condition is not practical as the sphere exists and no further excavations will be required to maintain the sphere.	N/A	N/A
	The impact on land and soil is therefore insignificant.	C	The LPG sphere was located within a concrete bund with a clean and contaminated stormwater management system	None.	N/A	Condition was practical to the LPG plant and bund reliability.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<p>and an emergency response control plan in place at the SSO site and in an industrial area. Excavations were not required to develop or maintain the sphere. There is therefore little to no impact on land and soil.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> ■ Onsite observation ■ Verbal confirmation ■ Procedure for the management of waste on the Sasolburg Operations Sites (document number SSP-S-014, 29 November 2020) ■ IWWMP (report number: SO-env-929, December 2021) 					

7.2.2 Surface and groundwater

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
	During commissioning the new equipment will be pressure tested with water. This does not pose any threat to the environment, since the new equipment is not exposed to any contaminants at this stage. Since no contamination can occur, this water will go to the existing storm water sewers.	N/A	<p>Noted. The auditor identified that the equipment is already in operation. This condition is outside the audit period and therefore was not audited.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation 	None.	N/A	Condition was not practical as equipment was commissioned and in operation.	N/A	N/A
	The area around the sphere is bunded to prevent any spillages that may cause contamination. The project will therefore have no negative effect on the surface and groundwater quality.	C	The area around the sphere was bunded and has a spill detector that notifies the Digital Control System (DCS) in the case of a spill of propylene. In case of a spillage, leak or rupture of the sphere, there is a dilute suppression system that uses water to atomise the propylene, as the propylene evaporates when it spills. This water is contained within the	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<p>bund of the sphere and released to the Sasol Bioworks. Contaminated wastewater or effluent developed is managed in accordance with the IWWMP and SWMP. An emergency response control plan was in place should a spill occur at the sphere. No spills were recorded at the sphere.</p> <p>Any hydrocarbon spills that could occur during operation and maintenance within or near the LPG sphere was managed according to the Sasol Sasolburg waste management procedure. Onsite procedures were in place should spills occur at the LPG sphere. Hazardous waste is collected by a service provider and treated and/or disposed of at a</p>					

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<p>hazardous waste landfill site.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> ■ Verbal Confirmation ■ Onsite observation ■ Procedure for the management of waste on the Sasolburg Operations Sites (document number SSP-S-014, 29 November 2020) ■ IWWMP (report number: SO-env-929, December 2021) ■ Incident register ■ General and hazardous waste manifests ■ Waste disposal register 					
7.2.3 Air quality								

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
	The sphere is equipped with valves to release pressure while filling the vessels. Any propylene vapour will be routed to the existing flare. These vapours are however minimal and the existing air permit will not require alteration.	C	<p>The LPG sphere contains propylene which is stored as liquid and boils at low temperatures. There is constant pressure of 1300 bar in the sphere. When the pressure within the sphere is above this, the safety valve is activated and gas is released to flare. The propylene vapour is primarily routed to a ground flare that is 3m in height, and when required, to an elevated flare that is 20m in height. An AEL was in place for all emissions released from the Sasol One site and audits were conducted to ensure compliance with the AEL and were on record.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation 	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<ul style="list-style-type: none"> Verbal confirmation Air Emissions Licence (AEL) (reference nr.: FDDM-MET-2013-24-R1); Sasolburg and Ekandustria Operations Annual Emission Report (August 2022). 					
7.2.4 Effluents								
7.2.4.1 Liquid effluent								
	Since this project entails a storage and distribution facility no effluent will be generated. During shut downs the remaining product will be routed to clients and no disposal of any effluent will therefore be required.	C	<p>The Auditor was notified that there was no propylene or other liquid effluent generated at the LPG sphere. During shutdown and maintenance, no propylene liquid effluent was generated.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation 	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<ul style="list-style-type: none"> Verbal confirmation 					
7.2.4.2 Solid effluent								
	Waste generated from the construction process will be disposed of at recognised sites. All packaging material, domestic and other non-hazardous waste will be disposed of at the Metsimaholo municipal disposal site.	N/A	Noted. This condition is specific to the construction phase and is outside the audit period and therefore was not audited.	None	N/A	N/A	N/A	N/A
	No effluents are therefore generated as result of this project and the impact is thus insignificant.	C	<p>The LPG sphere was a propylene storage facility that does not generate any propylene solid effluent.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation General and hazardous waste manifests 	None.	N/A	The condition was practical to the LPG sphere as no solid effluent was generated.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<ul style="list-style-type: none"> Waste disposal register 					
7.2.5 Fauna and Flora								
	There will be no significant effect on the biological environment as the proposed project is within an existing industrial site	C	<p>The LPG sphere was located in the SSO site which was an industrial area with no biological environment. The entire site was cleared prior to the development of the LPG sphere and there was no significant and immediate effect on fauna and flora on site. The LPG sphere was in a closed system and there was minimal exposure to fauna and flora.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation 	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A
7.2.6 Visual								

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
	The facility is existing and there will not be any visual impact as result of this project.	C	<p>The LPG sphere was located in the SSO site which was an industrial area with no visual impact to the immediate surrounds.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation 	None.	N/A	The condition was not practical to the LPG plant.	N/A	N/A
7.2.7 Noise								
	Construction activities are usually, for certain periods, characterised with limited noise pollution. This will however be limited to the construction sites.	N/A	Noted. This condition was specific to the construction phase and was outside the audit period and therefore was not audited.	None.	N/A	The condition was not practical to the LPG plant.	N/A	N/A
7.2.8 Socio-economy								
	During the construction phase approximately 15 additional labourers will be required.	N/A	Noted. This condition was specific to the construction phase and was outside the audit period and therefore was not audited.	None.	N/A	The condition was not practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
7.2.9 Health, Safety and Risk Assessment								
	An internal SASOL's risk study, namely FMEA (Failure Mode Effect Analysis) will be conducted on the proposed project. This is a study where the whole project and all the equipment involved is reviewed in detail by the engineering design and operation team, and potential failures or departures in the normal mode of operation are assessed. Safety procedures are developed to cancel or ameliorate the effects of such equipment malfunctions / operator error(s).	C	Sasol did not provide proof of the FMEA report or records for the LPG sphere to propylene, but indicated that the FMEA was developed prior to the construction and operation of any unit at Sasol. The plant manager and SSO SHE representative advised that the required safety procedures that were developed to cancel or ameliorate the effects of any failures or onsite malfunctions identified in the FMEA were in place and that no failures or malfunctions had occurred at this unit since operation commenced. A safety and maintenance management plan was	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<p>in place for the propylene sphere.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation Verbal confirmation Safe Operating procedures Safety plan 					
	During the construction phase, strict safety rules will apply for welding / grinding. All contractors working on the site will undergo safety training as per SASOL existing procedure. Each contracting company would have a safety representative who will undertake regular inspections of the workplace, to enforce the wearing of protective clothing and to ensure compliance with all relevant safety rules. All contractors and employees would furthermore be made aware of the existing emergency procedures and	N/A	Noted. This condition was specific to the construction phase and was outside the audit period and therefore was not audited.	None.	N/A	The condition was not practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
	responsibilities where applicable							
	All workers will be trained and will undergo safety training prior to commencing work at the facility.	C	<p>There was no human intervention required with the LPG sphere as it was a storage facility for propylene from Secunda and any operational work or control measures were managed via the DCS.</p> <p>During maintenance of the LPG sphere, Sasol staff, contractors and service providers receive the required onsite training to conduct their respective work tasks. All staff, contractors and service providers were required to comply with SSO onsite safety, health and environmental procedures.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite observation 	None.	N/A	The condition was practical to the LPG plant.	N/A	N/A

Ref	Condition	Compliance Status	Findings	Recommendation, Timeframe and Responsible Person	Measures Implemented to Address Non-Compliance	Practicality of the EMPR Commitments	Is the Non-Compliance Administrative or will it have an impact	Historical/New Non-Compliance (Administrative measures)
			<ul style="list-style-type: none"> Verbal confirmation Safe Operating procedures Safety plan Staff training material and registers. 					

5 PROGRESS AGAINST PREVIOUS AUDIT FINDINGS

The previous compliance audit report against the consolidated EA and EMPr was compiled by the Northwest University CEM in 2019. A comparison in the change of compliance rating from the 2019 and 2023 audits are provided in **Figure 5-1** and **Table 5-1** below, and provides a summary of the audit findings for the previous and current audits (2019 and 2023). The 2023 audit identified zero non-compliant conditions.

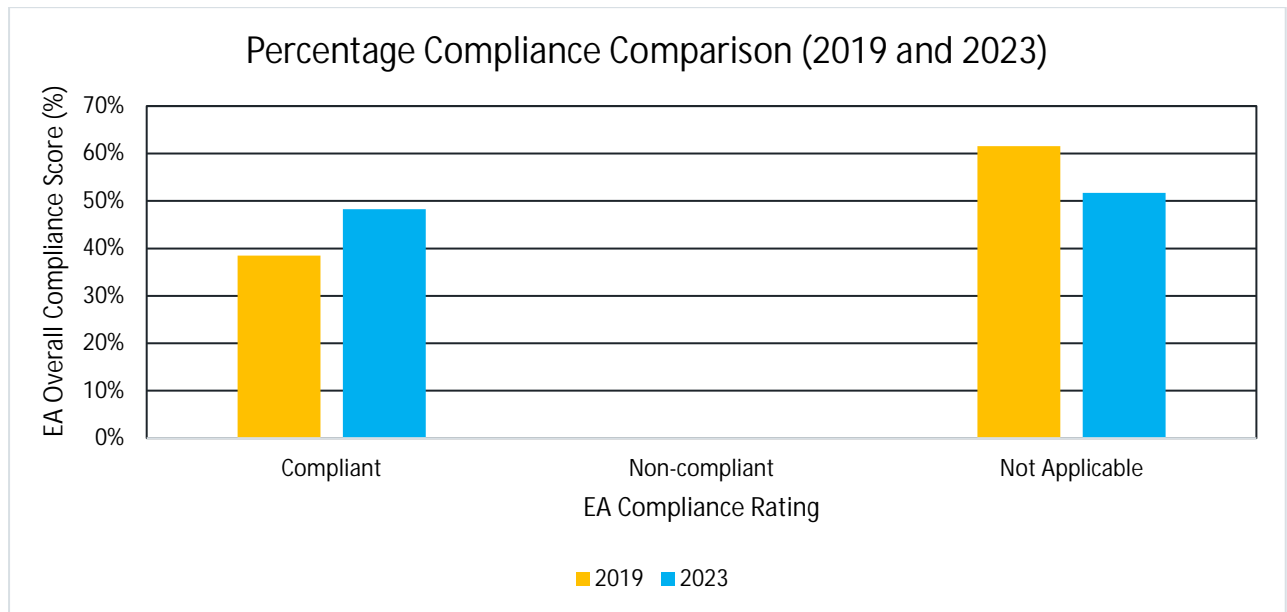


Figure 5-1 – Percentage comparison of Environmental Authorisation compliance levels from 2019 to 2022

Table 5-1 – Progress against previous findings

Ref	Commitment	2019 Status	2019 Finding	2023 Status	2022 Finding
EA Conditions					
1. Specific Conditions					
6.	Contracting companies must have a safety representative to ensure compliance with all relevant safety rules and emergency procedures at all times.	N/A	Not relevant to the scope of this audit, health and safety requirement.	C	Sasol has mandatory safety training and induction before commencement of any work by staff, contractors, service providers or visitors. Prior to entrance to the site, induction was received and a Sasol staff representative was

Ref	Commitment	2019 Status	2019 Finding	2023 Status	2022 Finding
					<p>available to ensure compliance with all safety rules and emergency procedures. Staff, contractors, service providers were required to adhere to all on site safety rules and emergency procedures to access the Sasol One Site.</p> <p><i>Evidence:</i></p> <ul style="list-style-type: none"> Onsite Observation Verbal Confirmation Online Induction Training Material <p>Staff training material and registers</p>
2. Standard Conditions					
5.	The Department must be notified, within 30 days, of change of ownership/project developer. Conditions established in the authorisation must be made known to the new owner/developer and are binding on the new owner/developer.	C	Historic non-compliance subsequently corrected	N/A	Noted. No change of ownership/project developer has been noted in the audit period.
	The Department must be notified of any change of address of the owner/developer.	N/A		C	<p>The Department was notified about the change of the applicant and representative details; this was not a new owner. Changes in the details are provided below.</p> <p>Mr. Rightwell Laxa SVP Sasolburg Operations Sasol South Africa (Pty) Ltd acting through its Sasolburg Operations P.O. Box 1 Sasolburg 1947 Tel: +27 16 960 8001</p> <p><i>Evidence:</i></p>

Ref	Commitment	2019 Status	2019 Finding	2023 Status	2022 Finding
					Application for Amendment of an Environmental Authorisation (Ref no: E/04/02) dated 18 August 2019
	The owner/developer must notify the authority within 24 hours if any condition of the exemption is not adhered to.	C	Historic non-compliance, correction attempt made, i.e. evidence observed: 16-07-18 Historical declaration could not retrieve old documents (LPG to propylene) dated 06/07/2016	N/A	Noted. The conditions of the exemption (EA) were adhered to and protocols to address onsite non-compliances and implement corrective actions were in place. These are recorded on Sasol's internal electronic SHE management system. No significant environmental incidents occurred during the audit period. <i>Evidence:</i> <ul style="list-style-type: none"> Onsite Observation Verbal communication Documented records Complaints register Incidents register
EMPr Conditions					
7.2.5 Flora and Fauna					
	There will be no significant effect on the biological environment as the proposed project is within an existing industrial site	N/A	Relevant, statement noted, but not auditable requirement	C	The LPG sphere was located in the SSO site which was an industrial area with no biological environment. The entire site was cleared prior to the development of the LPG sphere and there was no significant and immediate effect on fauna and flora on site. The LPG sphere was in a closed system and there was minimal exposure to fauna and flora.

Ref	Commitment	2019 Status	2019 Finding	2023 Status	2022 Finding
					<i>Evidence:</i> <ul style="list-style-type: none"> Onsite observation Verbal confirmation
7.2.6 Visual					
	The facility is existing and there will not be any visual impact as result of this project.	N/A	Relevant, statement noted, but not auditable requirement	C	The LPG sphere was located in the SSO site which was an industrial area with no visual impact to the immediate surrounds. <i>Evidence:</i> <ul style="list-style-type: none"> Onsite observation
7.2.9 Health, Safety and Risk					
	An internal SASOL's risk study, namely FMEA (Failure Mode Effect Analysis) will be conducted on the proposed project. This is a study where the whole project and all the equipment involved is reviewed in detail by the engineering design and operation team, and potential failures or departures in the normal mode of operation are assessed. Safety procedures are developed to cancel or ameliorate the effects of such equipment malfunctions / operator error(s).	N/A	Not relevant to the scope of this audit, health and safety requirement	C	Sasol did not provide proof of the FMEA report or records for the LPG sphere to propylene, but indicated that the FMEA was developed prior to the construction and operation of any unit at Sasol. The plant manager and SSO SHE representative advised that the required safety procedures that were developed to cancel or ameliorate the effects of any failures or onsite malfunctions identified in the FMEA were in place and that no failures or malfunctions had occurred at this unit since operation. A safety and maintenance management plan was in place for the propylene sphere. <i>Evidence:</i> <ul style="list-style-type: none"> Onsite observation Verbal confirmation

Ref	Commitment	2019 Status	2019 Finding	2023 Status	2022 Finding
	All workers will be trained and will undergo safety training prior to commencing work at the facility.	N/A	Not relevant to the scope of this audit, health and safety requirement	C	<p>There was no human intervention required with the LPG sphere as it was a storage facility for propylene from Secunda and any operational work or control measures were managed via the DCS.</p> <p>During maintenance of the LPG sphere, Sasol staff, contractors and service providers receive the required onsite training to conduct their respective work tasks. All staff, contractors and service providers were required to comply with SSO onsite safety, health and environmental procedures.</p>

6 SUMMARY OF THE AUDIT FINDINGS

6.1 SASOL SASOLBURG LPG SPHERE TO PROPYLENE EA COMPLIANCE

The audit findings have been summarised into the following categories: compliance, non-compliance and not applicable. The overall audit findings concerning compliance to the EA conditions are listed in **Table 6.1** below.

Table 6-1 - Summary of EA Compliance Audit Findings

Section of the EA	No. Commitments	C	NC	N/A
Decision	1	0	0	1
Specific Conditions	7	5	0	2
Standard Conditions	11	2	0	9
Key Factors in Decision	8	7	0	1
Appeal	2	0	0	2
Total	29	14	0	15
Total Percentage		48%	0%	52%
Percentage Compliance with Applicable Conditions	100%			

Figure 6-1 illustrates the number/count contribution of the findings of the EA conditions per section while **Figure 6-2** presents the total proportion of compliance for the EA.

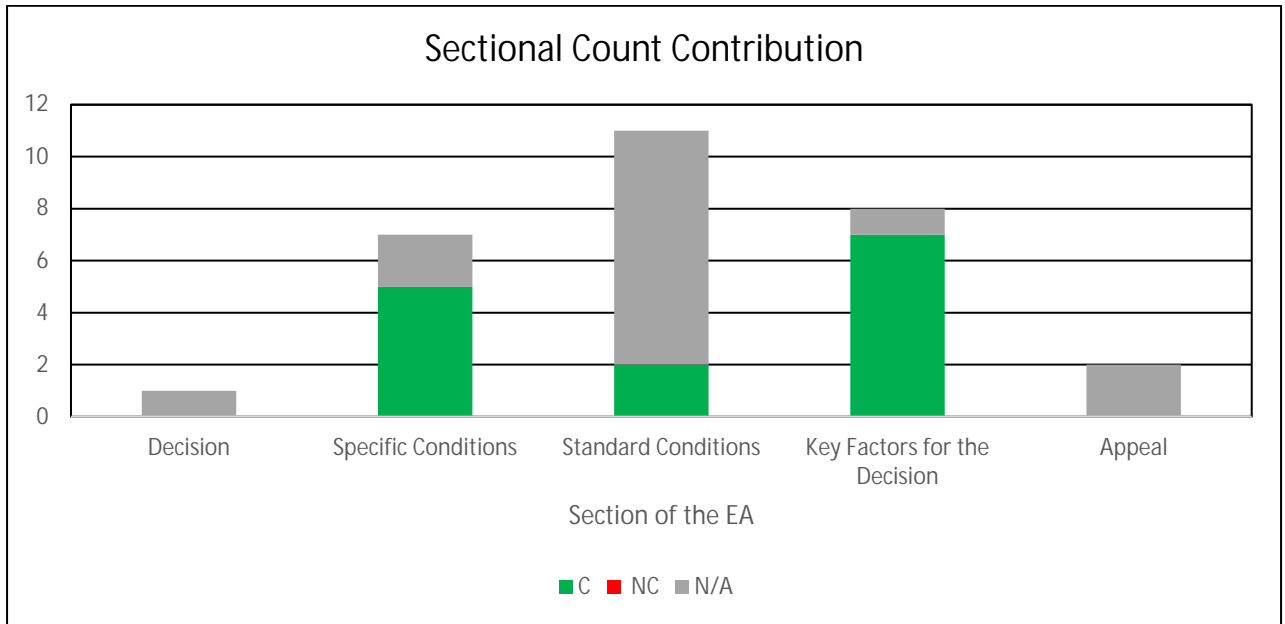


Figure 6-1 - Number/Count contribution of findings made to the EA conditions per section

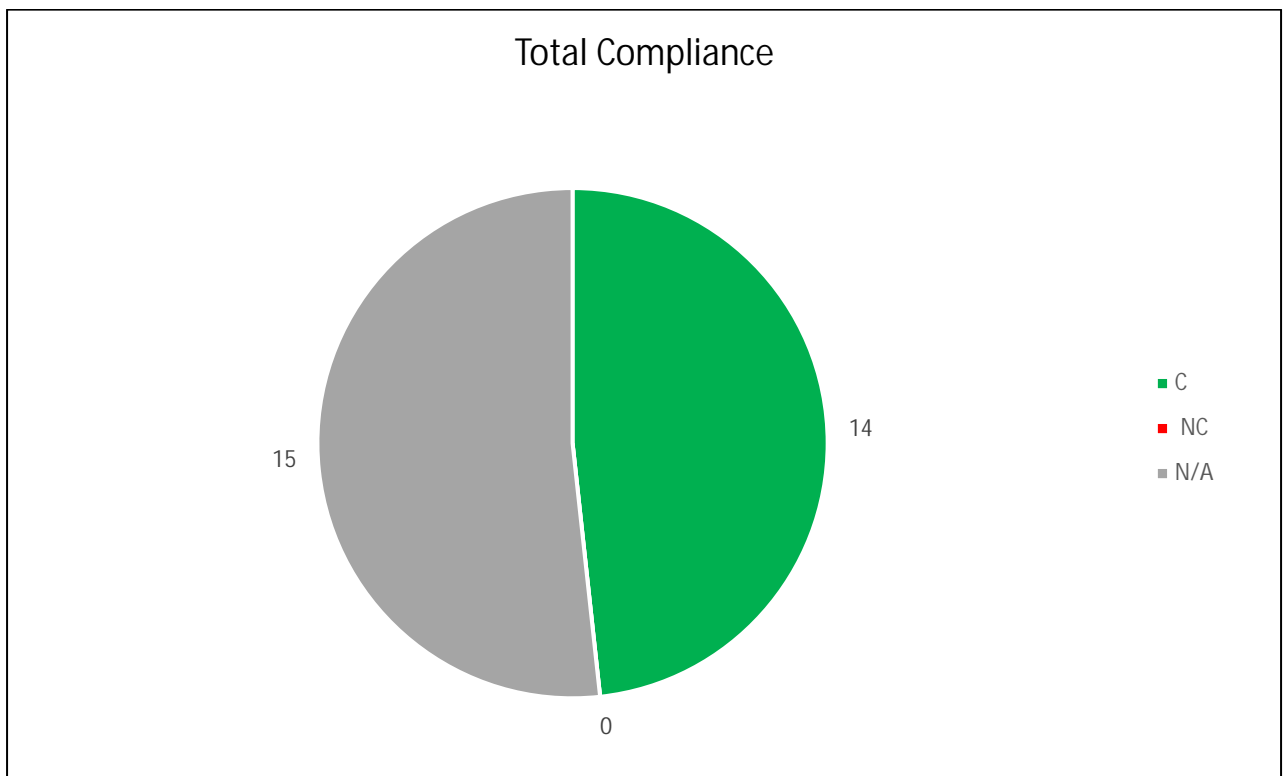


Figure 6-2 - Overall count findings on compliance to the EA commitments

Figure 6-3 illustrates the percentage contribution of the findings of the EA commitments and **Figure 6-4** presents the total percentage compliance for the facility.

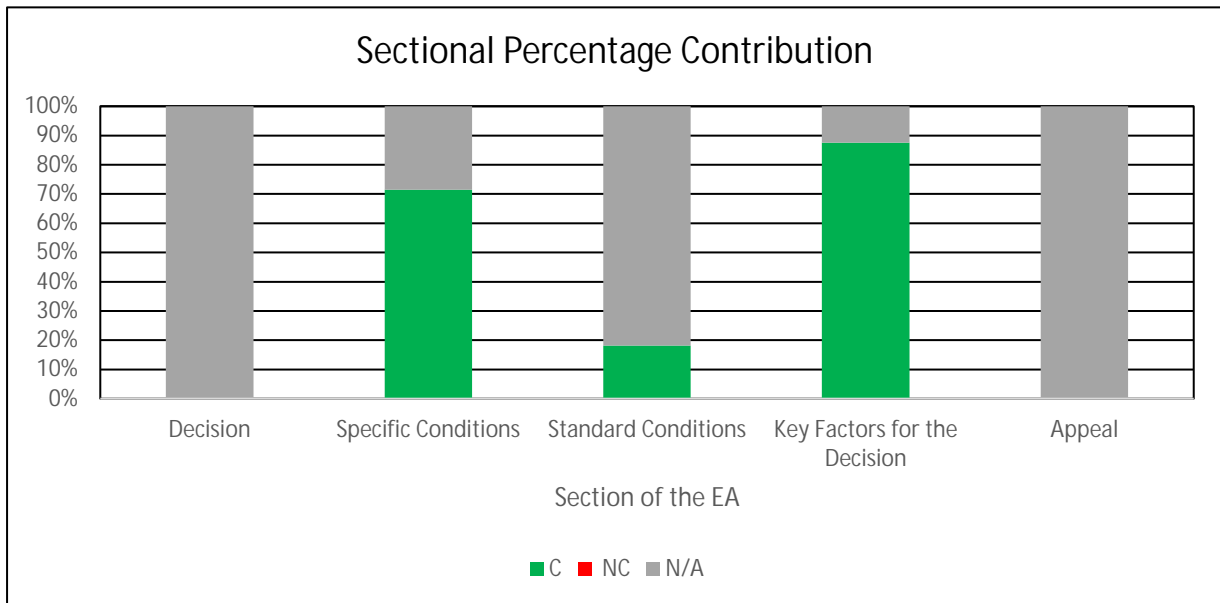


Figure 6-3 - Percentage contribution of findings made to the EA Commitments per Section

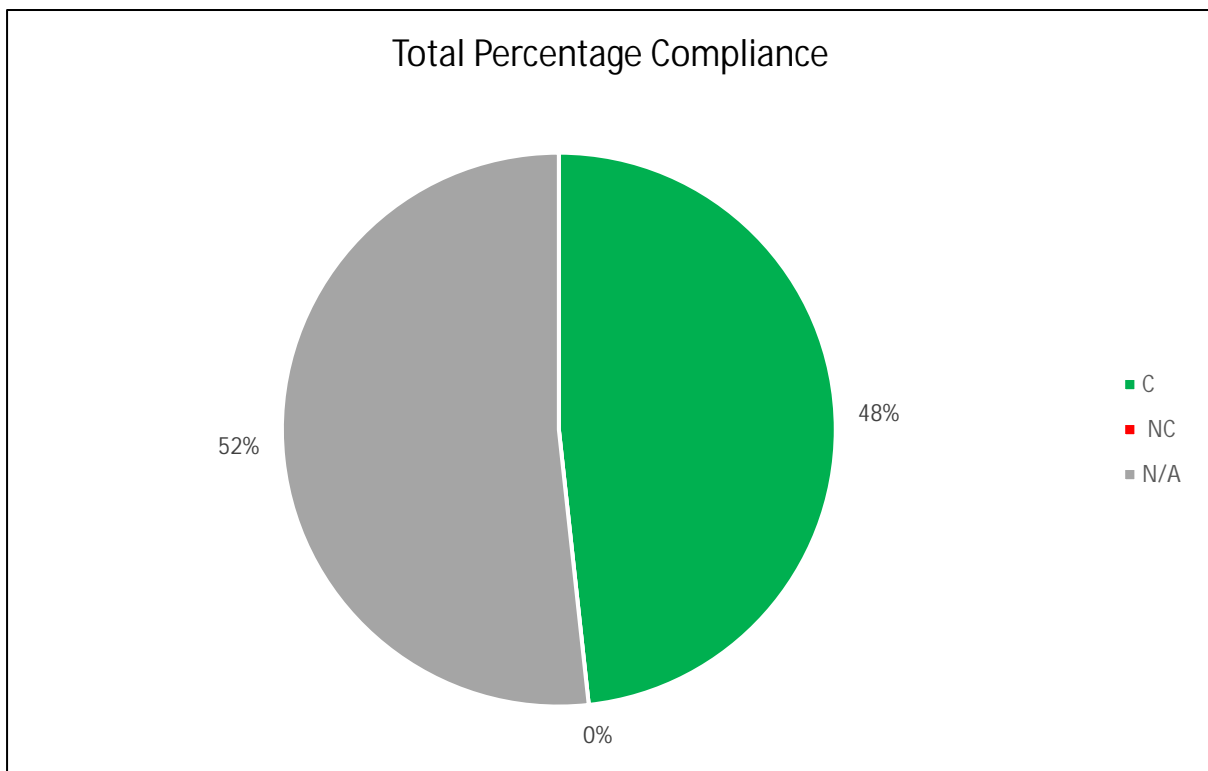


Figure 6-3 - Overall percentage findings on compliance to the EA Commitments

6.2 SASOL SASOLBURG LPG SPHERE TO PROPYLENE EMPR COMPLIANCE

The audit findings have been summarised into the following categories: compliance, non-compliance and not applicable. The overall audit findings concerning compliance to the EMPr conditions are listed in **Table 6-2** below.

Table 6-2 - Summary of EMPr Compliance Audit Findings

Section of the EMPr	No. Commitments	C	NC	N/A
Land and Soil	2	1	0	1
Surface Water and Ground Water	2	1	0	1
Air Quality	1	1	0	0
Effluents	3	2	0	1
Flora and Fauna	1	1	0	0
Visual	1	1	0	0
Noise	1	0	0	1
Socio-economy	1	0	0	1
Health, Safety and Risk Assessment	3	1	0	2
Total	15	8	0	7
Total Percentage		53%	0%	47%
Percentage Compliance with Applicable Conditions	100%			

Figure 6-4 presents the total proportion of compliance for the facility and **Figure 6-5** illustrates the number/count contribution of the findings of the EMPr per section.

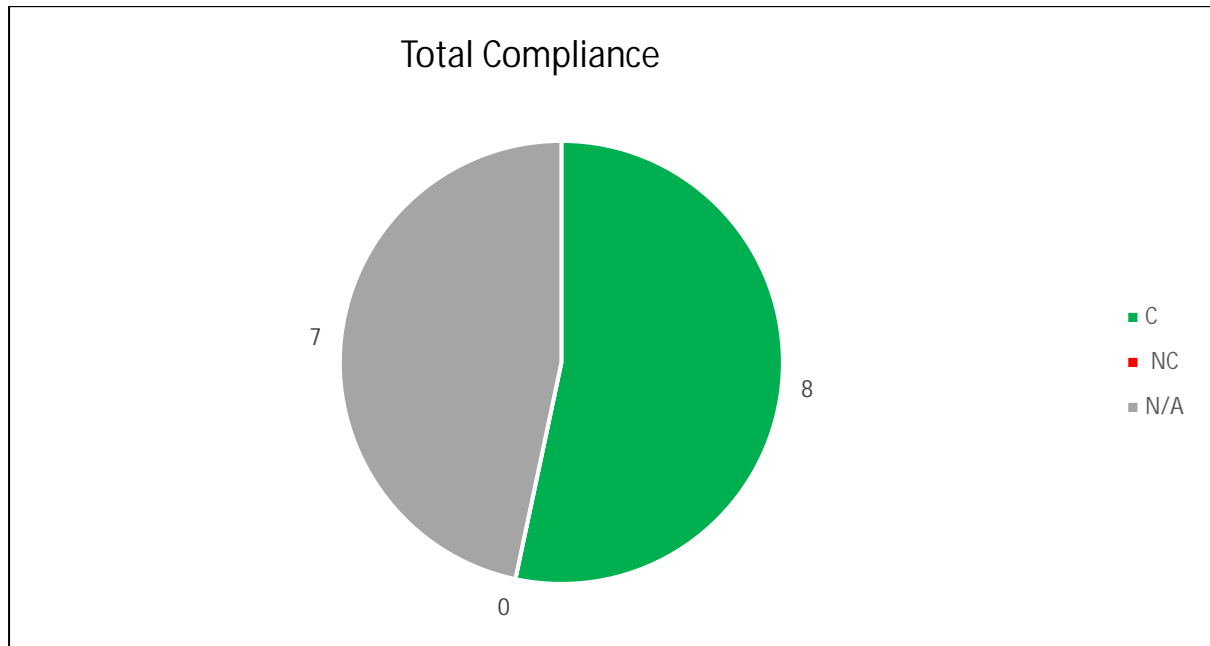


Figure 6-4 - Overall count findings on compliance to the EMPr Commitments

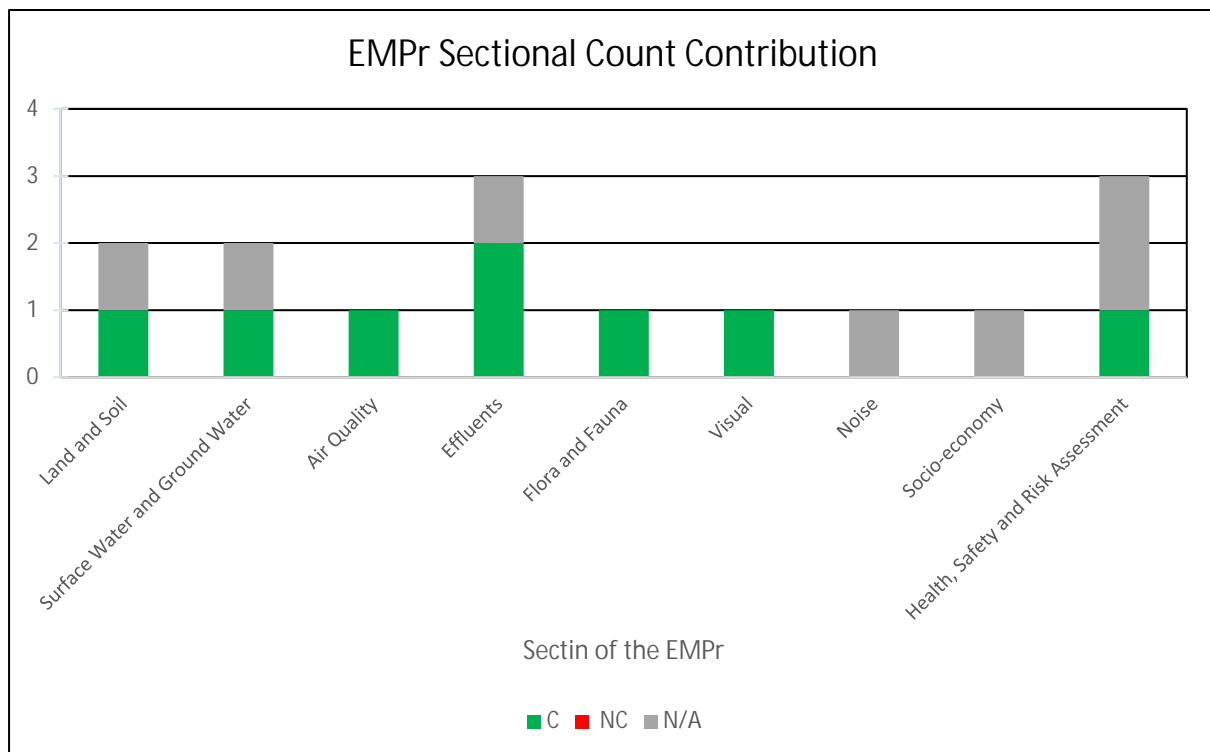


Figure 6-5 - Number/Count contribution of findings made to the EMPr Commitments per Section

Figure 6-6 presents the total percentage compliance for the facility and **Figure 6-7** illustrates the percentage contribution of the findings of the EMPr commitments.

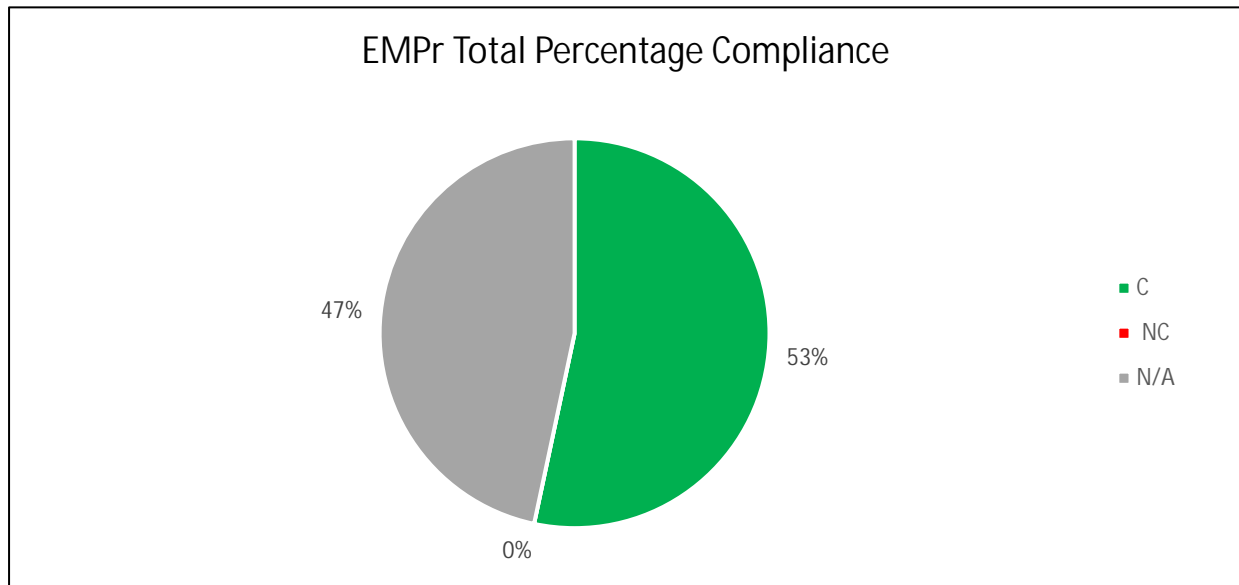


Figure 6-6 - Overall percentage findings on compliance to the EMPr Commitments

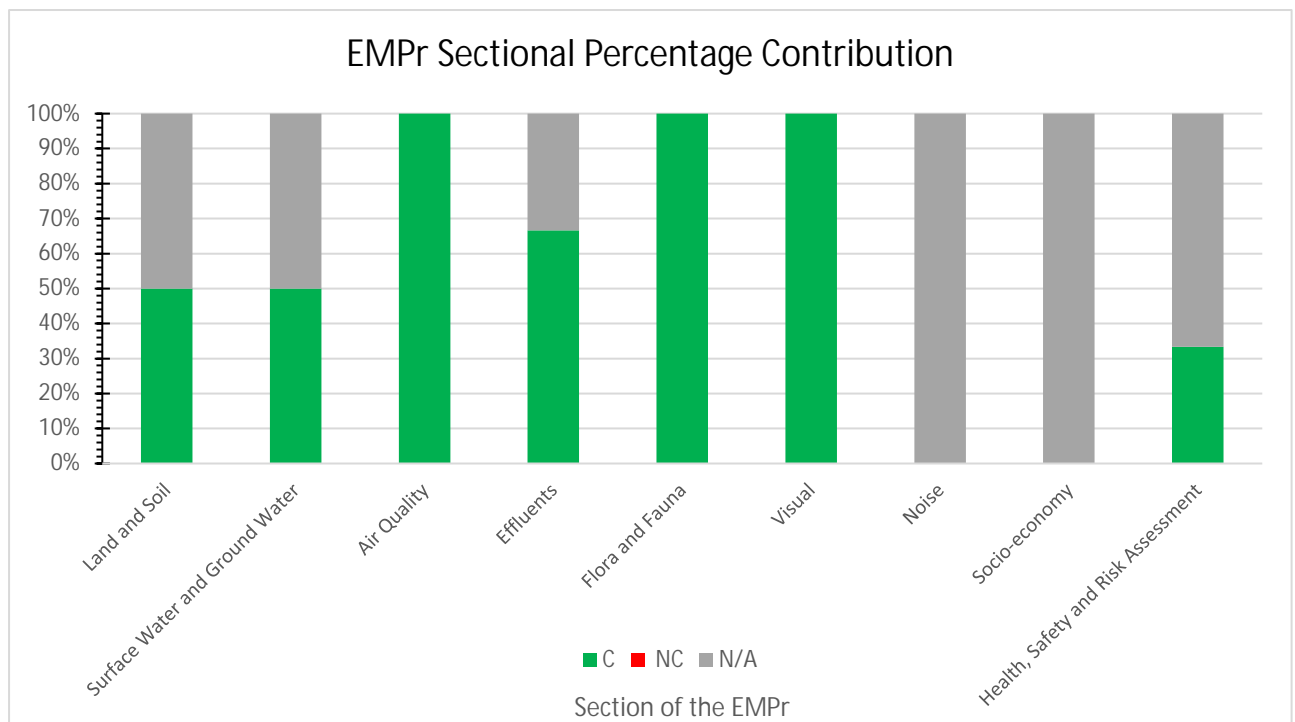


Figure 6-7 - Percentage contribution of findings made to the EMPr Commitments per Section

7 RECOMMENDATIONS

Zero non-compliances of the EA and EMP conditions was noted during the audit. Sasol is commended for achieving 100% compliance for the EA and EMP audit and is urged to continue to implement the environmental mitigation measures within the EA and EMP. In addition, Sasol should continue to implement their EMS for their onsite operations and to identify new environmental risks due to changes in operations, and address these when identified on site.

Sasol is advised to continue with their comprehensive EMS and strategy for detecting environmental risks and resolving incidents and non-compliances identified on site, and to utilize the audit report as an indicator of all areas that need attention.

8 CONCLUSION

Regulation 34 and Appendix 7 of the EIA Regulations 2014 (as amended) requires an assessment of the adequacy and effectiveness of the EA as part of the audit scope, as follows:

- Assess the level of compliance with the conditions of the EA.

The EA compliance audit has identified that the EA commitments remain applicable, and the EA is considered effective. As such, WSP does not recommend any amendment of the EA as it is sufficient in managing environmental impacts.

WSP do acknowledge that Sasol has systems in place which are considered to be more robust for monitoring compliance and implementing changes than through the EA audit; this includes the annual audit of each business unit to meeting the ISO 14001 standards. New impacts and risks are continually identified and assessed by Sasol's Environmental Department, which assesses environmental risks and drives improvement implementation. This Department facilitates Environmental Risk Assessments per business unit to ensure that gaps are addressed through implementation of mitigation measures via an Integrated Management System.

In conclusion, WSP recommends that Sasol continues to operate each business unit under an Environmental Management System and meet the licence compliance conditions (EA, EMP, WUL, AEL, etc). This is effective for mitigation against any gaps in the EMP and to regularly identify new environmental impacts and risks that should be addressed on site.

9 DECLARATIONS

INDEPENDENT AUDITOR DECLARATION

Appendix 7 of GNR 982 refers to the need for the independent auditor to declare his/her independence of the holder of the EA.

NAME OF INDEPENDENT AUDITOR: Ian Malloy

UNDERTAKING

I, Ian Malloy, the undersigned and duly authorized thereto, by WSP, have studied Sasol LPG Facility and compared the operations to the approved EMPr and compiled this report to the best of my knowledge. This section should be read with **Section 2**.

Signed at Cape Town on this the 06 June 2023

SIGNATURE OF INDEPENDENT AUDITOR

SIGNED IN LINE WITH THE REQUIREMENTS OF NEMA, GNR 982, APPENDIX 7, AS PUBLISHED UNDER THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998), AS AMENDED.

Appendix A

AUDITOR CVS





Building 1, Maxwell Office Park
Magwa Crescent West, Waterfall City
Midrand, 1685
South Africa

wsp.com

CONFIDENTIAL

Matilda Mbazo

Earth and Environment, Environmental Planning & Advisory, Intern

CAREER SUMMARY

Matilda Mbazo graduated from Monash South Africa with a BSc in Social Sciences (cum laude) in 2021 and completed her BSc Hons in Geography at University of Witwatersrand in 2022. Matilda is currently pursuing her MSc in Environmental Sciences at University of Witwatersrand. Matilda is an Intern in the Environmental Planning and Advisory Division of WSP Group Africa based in the Waterfall office. Matilda has less than a year experience in the environmental field and currently provides technical and strategic input on a diverse range project in the environmental management field, including environmental audits.



1 < years with WSP

Language

Afrikaans, English, Tswana, Ndebele, and Zulu

EDUCATION

Monash South Africa – Bachelor's degree in Social Sciences	3 years
University of Witwatersrand - Bachelor of Science Honours (Geography)	1 year
University of Witwatersrand – Master of Science (Environmental Sciences)	current

PROFESSIONAL HISTORY

WSP – Intern	present
WSP - Vacation Student	2021 - 2022
IIE MSA – Administration Assistant	2020 - 2021
Cotton On Group – Sales Associate	2020 - 2021

PROFESSIONAL EXPERIENCE

FFS Chloorkop Fired Heater

July 2022 to June 2023

ECO: EA and EMPR Compliance Audit

Sasol South Africa Limited, Sasol Sasolburg EA Audits, South Africa

October 2022 to June 2023

Environmental Auditor



At the Sasol One Complex in Sasolburg, six unit operations were subject to an external compliance audit against their EA and EMPr criteria.

Dissertations and Research Projects

Department of Geography, Archaeology and Environmental Studies, University of Witwatersrand, Master of Science Dissertation.

2023

To quantify the interactive effects of extreme drought, fire frequency, and mega-herbivory on tree density in a Marula-Knobthorn savanna using Geographic Information Systems and Remote Sensing.

Department of Geography, Archaeology and Environmental Studies, University of Witwatersrand, Bachelor of Science (Geography), Research Project

2022

Assessment of flood impact at the Hennops river, streaming from Tembisa to Centurion, using Remote Sensing and Geographic Information System.

Ian Malloy

Earth and Environment, Environmental Planning & Advisory, Senior Consultant

CAREER SUMMARY

Ian has ten years of working experience as an Environmental Consultant focussing on environmental management and auditing, waste planning, and environmental engineering. His key career and academic development are in the field of environmental management and engineering with a focus on waste, wastewater and water. The projects completed include Water Use Licence (WUL) and Waste Management Licence (WML) Applications, Environmental Impact Assessments (EIAs), Basic Assessments (BAs) and developing Environmental Management Programmes (EMPrs), developing IWMPs for District and Local Municipalities, WMPs for industry, conducting environmental compliance audits and GRAP 17 and 19 assessments of landfill sites.



<1 year with WSP

9 years of experience

Area of expertise

Waste Management and Planning
Environmental Management
Waste Management Licencing (WML)
Water Use Licencing (WUL)
Basic Assessment (BA)
Environmental Impact Assessment (EIA)
Development of Environmental Management Programmes (EMPr)
Compliance Auditing (EA, EMPr, WML, WUL)
Development of municipal Integrated Waste Management Plans (IWMPs)
Environmental Engineering (Wastewater Treatment and Waste Management)
GRAP 17 and 19 Assessments of Landfill Sites
Surface and Groundwater Monitoring

Language

English and Afrikaans

EDUCATION

Master of Water Engineering, University of Cape Town	2020 – 2023 (in progress)
Bachelor of Engineering (Honours), Environmental Engineering, University of Pretoria	2019
Bachelor of Chemical Engineering, Stellenbosch University	2016

ADDITIONAL TRAINING



Ian Malloy

Earth and Environment, Environmental Planning & Advisory, Senior Consultant

ISO 9001:2015 SAATCA registered lead auditor training course (Quality Management Systems) 2015

PROFESSIONAL MEMBERSHIPS

Registered as a Candidate Engineer: Engineering Council of South Africa (ECSA), Registration No: 2021204206 2020

Member of the Institute of Waste Management Southern Africa (IWMSA), Registration No: 30120185, Western Cape Branch Committee Member 2020

PROFESSIONAL HISTORY

WSP Group Africa (Pty) Ltd November 2022 - present

GIBB Environmental (Pty) Ltd 2019 – 2022

GIBB (Pty) Ltd 2013 – 2019

PROFESSIONAL EXPERIENCE

Waste Management and Planning

District and Municipal Integrated Waste Management Plans and Waste Minimisation Plans

Garden Route District Municipality, Garden Route District Municipality Waste Minimisation Strategy, South Africa
2020 to 2021

Environmental and Waste Consultant

Develop waste minimisation strategies for the Garden Route District Municipality and the seven local municipalities.

Midvaal Local Municipality, Midvaal Local Municipality Integrated Waste Management Plan Review, South Africa
2020 to 2021

Environmental and Waste Consultant

Revision of the Midvaal Local Municipality Integrated Waste Management Plan (IWMP).

Vuthela iLembe LED Programme, Ilembe District Municipality IWMP, South Africa
2018 to 2020

Environmental and Waste Consultant

Development of the iLembe District IWMP and the revision of the KwaDukuza and Mandeni Local Municipality IWMPs.

Scoping Assessment for a regional landfill site for the iLembe District Municipality.

Ingquza Hill Local Municipality, Ingquza Hill Local Municipality IWMP, South Africa
2020 to 2021

Environmental and Waste Consultant

Development of the Ingquza Hill Local Municipality IWMP

Elundi Local Municipality, Elundi Local Municipality IWMP, South Africa
2015 to 2016

Junior Environmental and Waste Consultant

Development of the Elundini Local Municipality IWMP

Dr Ruth S Mompoti District Municipality, Dr Ruth S Mompoti District Municipality IMWP, South Africa
2015 to 2016



Ian Malloy

Earth and Environment, Environmental Planning & Advisory, Senior Consultant

Junior Environmental and Waste Consultant

Development of the Dr Ruth S Mompoti District Municipality and the five Local Municipality IWMPs (Naledi, Mamusa, Greater Taung, Lewkwa-Teemane and Kagisano Molopo Local Municipalities)

Development Bank of South Africa, DBSA Material Recovery Facility Feasibility Assessment, South Africa

2020 to 2021

Environmental and Waste Consultant

Feasibility assessment for the development of small material recovery facilities across four Provinces (Eastern Cape, Northern Cape, Limpopo and Mpumalanga)

ECDC Hazardous Waste Facility Feasibility Study Phase 2, South Africa

2017

Environmental and Waste Consultant

Hazardous waste survey, feasibility study and cost analysis for the development of a hazardous waste facility in the Eastern Cape, south Africa

Landfill GRAP 17 and 19 Assessments

Kannaland Local Municipality, Kannaland Local Municipality GRAP 17 And 19 Assessments, South Africa

2019 to 2019

Environmental and Waste Consultant

GRAP 17 and GRAP 19 assessments of 4 landfill sites in municipality (Ladismith, Calitzdorp, Zoar and Van Wyksdorp Landfill Sites).

Nyandeni Local Municipality, Nyandeni Local Municipality GRAP 17 And 19 Assessments, South Africa

2019 to 2019

Environmental and Waste Consultant

GRAP 17 and GRAP 19 assessments of 1 landfill site and 1 transfer station in municipality.

Environmental Impact Assessment and Basic Assessment Process

Stellenbosch Local Municipality, Devon Valley Landfill Site (New Cell 4), South Africa

2021 to 2022

Environmental Consultant

Basic Assessment Process for the amendment of the Waste Management Licence for the development of a new cell at the Devon Valley Landfill Site in Stellenbosch, Western Cape, South Africa

Department of Forestry, Fisheries and Environment, Waste Management Licence Applications for Five Unlicensed Waste Disposal Facilities, North West, Mpumalanga and Eastern Cape, South Africa

2021 to 2022

Environmental Consultant

Environmental Impact Assessment and Basic Assessment Processes for the licencing of five (5) unlicensed Waste Disposal Facilities in the North West, Mpumalanga and Eastern Cape provinces, South Africa. Four (4) applications for operation Waste Management Licences (WMLs) and one (1) application for an operation to decommissioning WML.

Centurion Aerospace Village (CAV), CAV Sewer Pipeline, , South Africa

2021 to 2022

Environmental Consultant

Basic Assessment for the installation of a sewer pipeline to be connected to the existing municipality sewer services network, Centurion, City of Tshwane Metropolitan Municipality, Gauteng, South Africa.

Environmental Compliance Audits

Orion Engineered Carbons (Pty) Ltd, NUP and EMPr Audit for the storage of CBO in tanks at the Dom Pedro Facility at the Port of Port Elizabeth, South Africa



Ian Malloy

Earth and Environment, Environmental Planning & Advisory, Senior Consultant

2022 - 2023

Environmental Auditor

External compliance audit of the NUP (Noxious Use Permit) and EMPr for the storage of carbon black oil (CBO) in tanks at the Dom Pedro facility at the Port of Port Elizabeth.

Dekro Paints (Pty) Ltd, Dekro WML External Compliance Audit, Cape Town, South Africa

2023 to 2023

Environmental Auditor

External compliance audit of the waste management licence for the solvent recovery facility at the Dekro Paints facility in Kuilsriver, Cape Town.

Sasol Pipeline Operations, Sasol SNI and GNP Pipeline Audits, South Africa

2022 to 2022

Environmental Auditor

External compliance audit of the SNI and GNP pipeline against the EA, EMPr and WUL conditions

Sasol South Africa Limited, Sasol Sasolburg EA Audits, South Africa

2022 to 2022

Environmental Auditor

External compliance audit of nine unit operations against their EA and EMPr conditions at the Sasol One Complex in Sasolburg.

Langeberg Local Municipality, Langeberg Local Municipality Landfill External Audits, South Africa

2019 to 2022

Environmental Auditor

External annual audits of 3 landfill sites (Ashton, Bonnievale and Montagu) according to their waste management licence conditions

Kannaland Local Municipality, Kannaland Local Municipality Landfill External Audits, South Africa

2019 to 2019

Environmental Auditor

External audit of 4 landfill sites in the municipality according to waste management licence conditions

Environmental Management Plans and Environmental Control Officer

Orion Engineered Carbons (Pty) Ltd, Operational Environmental Management Programme (OEMPr) for the OEC Tanks Farms at Latita Tank Farm, Zone 7, Coega SEZ, Port of Ngqura, South Africa

2022 - 2023

Project Manager

Develop the OEMPr for the development of the OEC Tank Farm within the Latita Tank Farm in Zone 7, Coega SEZ, Port of Ngqura, Gqeberha, South Africa.

Eskom, Eskom Hotazel-Mothibistad 132 kV Power Line Installation with Associated Substations, South Africa

2017 to 2019

External Environmental Control Office

Monthly ECO audits for the construction of 132 kV power lines and substations in Hotazel and Kuruman in the Northern Cape.

Mott MacDonald, R61 Road Upgrade from Majola Tea to Tombo, South Africa

2015 to 2019

External Environmental Control Officer

Monthly ECO audits for the road upgrade and construction of the R61 road from Majola Tea to Tombo, Eastern Cape.

OR Tambo District Municipality and Amatole Water, King Sabata Dalinyebo Local Municipality Presidential Intervention Bulk Water Supply Infrastructure Upgrade Project title, South Africa



Ian Malloy

Earth and Environment, Environmental Planning & Advisory, Senior Consultant

2013 to 2019

External Environmental Control Officer

Coordinate all environmental management and auditing of all related bulk water supply projects. Undertake monthly ECO audits for the upgrade of the bulk water infrastructure within the King Sabata Dalinyebo Local Municipality. Projects included the construction of numerous reservoirs and installation of pipelines within the municipal area.

Eskom, Eskom Hombe and Taweni Substation with Associated 132 kV Power Lines, South Africa

2013 to 2016

External Environmental Control Officer

Monthly ECO audits for the construction of two 132 kV power lines and the Hombe and Taweni substations in the Eastern Cape.

Eskom, ESKOM GREATER MTHATHA POWER LINE, South Africa

2013 to 2014

External Environmental Control Officer

Monthly ECO audits for the construction of a 132 kV power line in Mthatha, Eastern Cape.

PD Naidoo & Associates, R61 Road Upgrade in Engcobo, South Africa

2013 to 2016

External Environmental Control Officer

Monthly ECO audits for the road upgrade and construction of the R61 road in Engcobo, Eastern Cape.

Dissertations and Research Projects

Department of Civil Engineering, University of Cape Town, Master of Engineering Dissertation.

2023

Utilisation of the Biomath protocol for calibration of a model based on biological sulfate reduction (BSR) for the treatment of coal mine drainage and Fischer-Tropsch Reaction Water. Conduct a global sensitivity analysis (GSA) and uncertainty analysis to calibrate the model, determine the most sensitive parameters in the prototype CSTR-BSR model developed by Dr. T. Harding and reduce the uncertainty of the results during the simulations (with the use of DHI West®).

Department of Chemical Engineering, Stellenbosch University, Bachelor of Engineering, Research Project

2016

Conduct laboratory experiments to investigate the factors that influence elution of gold from and adsorption of gold onto activated carbon. This was done to determine if gold can be transferred from fine to coarse activated carbon in solution during or after the carbon adsorption process to extract gold stored on fine activated carbon.

Annexure B – Conversion of LPG Sphere to Propylene, Sasol One Site– ref (E/04/02) Environmental Management Programme Operational Phase

Mitigations measures identified during the environmental impact assessment, for the operational phase of the project, defining the impact management outcome and impact management actions to enable compliance to this regulation.

Mitigation Impact objective/ Outcome	Mitigation Impacts Action
1. SURFACE & GROUNDWATER	
The project will have no negative effect on the surface and groundwater quality.	1.1 The area around the sphere is bunded to prevent any spillages that may cause contamination.
2.AIR QUALITY	
Minimisation of propylene vapours	2.1 The sphere is equipped with valves to release pressure while filling the vessels. Any propylene vapour will be routed to the existing flare.
3.LIQUID EFFLUENT	
Management of liquid effluent	3.1 Since this project entails a storage and distribution facility no effluent will be generated. During shut downs the remaining product will be routed to clients and no disposal of any effluent will therefore be required.
4.EMERGENGY PROCEDURE	
	4.1 All contractors and employees would furthermore be made aware of the existing emergency procedures and responsibilities where applicable.