

BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

EXPANSION OF LIQUID OXYGEN (LOX) AND DIESEL STORAGE AT THE AIR PRODUCTS FACILITY LOCATED WITHIN THE COEGA SPECIAL ECONOMIC ZONE, NELSON MANDELA METROPOLITAN MUNICIPALITY, EASTERN CAPE PROVINCE

(ECm1/C/LN1/M/03-2020)

**SUMMARY NOTES RECEIVED FROM THE ENVIRONMENTAL LIAISON
COMMITTEE MEETING**

HELD ON THURSDAY, 13 FEBRUARY 2020

**VENUE: OFFICES OF EASTERN CAPE DEDEAT, CNR. ATHOL FUGARD
TERRACE & CASTLE HILL, PORT ELIZABETH**

**Abstract of meeting notes as received from Coega Special Economic Zone
received per e-mail from ELC Chairperson**

Sent to Savannah Environmental via e-mail on 26 February 2020

Venue: Offices of Eastern Cape DEDEAT, Cnr. Athol Fugard Terrace & Castle Hill, Port Elizabeth, Port Elizabeth
Date: Thursday, 13 February 2020
Time: 09h45

LIST OF ABBREVIATIONS / ACRONYMS

APSA	Air Products South Africa (Pty) Ltd	CDC	Coega Development Corporation
EAP	Environmental Assessment Practitioner	LOX	Liquid Oxygen
MHI	Major Hazardous Installation	NMBM	Nelson Mandela Bay Metro

MEETING ATTENDEES

Signed attendance register, as prepared by Coega Development Zone (CDZ) attached as **Appendix A**.



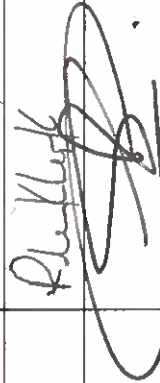


Item No.	Discussions
4.2.	Air Products: BA for Storage of Dangerous Goods (Presentation by Savannah)
4.2.1.	Andrea Shirley (ASh) (CDC): Air Products must engage with all neighbouring investors, especially Afrox, Dynamic Commodities and Coega Dairy. EAP to drive the engagement process.
4.2.2.	Andries Struwig (ASt) (DEDEAT): Queried the inclusion of Listed Activity 14, as opposed to the inclusion of Listed Activity 51 (expansion activity). Recommended that listed Activity 51 be included, and Listed Activity 14 be removed, in a revised Application Form and notification to IAPs. Arlene Singh (AS) (EAP): Confirmed that a revised Application Form will be submitted, which includes Listed Activity 51 and excludes Listed Activity 14. I&APs will be notified accordingly.
4.2.3.	ASt (DEDEAT): What was the reason for the MHI study and how will the risk be contained within the boundary of APSA's site? AS (EAP): The Occupational Health and Safety Act defines a Major Hazard Installation as (a) where more than the prescribed quantity of a substance is kept or maybe kept. The listed substances are provided in General Machinery Regulations Schedule a); and (b) where the substance is processed, produced, used, handled or stored which has the potential to cause a major incident. This specifically refers to LOX and diesel that is stored and handled at the APSA site that could both potentially cause an offsite incident if ignited. The primary purpose of the MHI Risk Assessment is to characterise the risk. The MHI Assessment provides the specific risk statistics that have been derived to present, rank and evaluate the hazards that were evaluated. It also summarises what options have been evaluated and the criteria by which the statistics will be ranked. Within the MHI Assessment undertaken for the expansion of LOX and diesel at the Coega site, several recommendations and risk reduction measures are proposed such as emergency response plans, procurement of fire-fighting foam and notification to neighbouring tenants in order to reduce or mitigate offsite incidents. An emergency response procedure is currently in place, as LOX is currently handled and stored on site. The location of the LOX and diesel storage at the site has also been taken into consideration when assessing the offsite impacts and containment.

4.2.4.	<p>ASt (DEDEAT): Does the facility qualify as an MHI and if so, why?</p> <p>David Nyathi (DN) (APSA): Because oxygen is classified as a dangerous good, the installation qualifies as an MHI.</p>
4.2.5.	<p>ASt (DEDEAT): Has the MHI application been submitted yet?</p> <p>DN (APSA): Unable to confirm this; however, will follow up</p>
4.2.6.	<p>Milicent Solomons (MS)(DEA): What are the MHI Requirements?</p> <p>AS (EAP): Four (4) locations were proposed in the MHI study. Three (3) of these were ruled out for various reasons. APSA selected the only location left and did the MHI study on that site. Reasons: neighbouring tenants concerns and costs of having to reconfigure certain aspects of the layout of the site.</p>
4.2.7.	<p>Viwe Biyane (VB) (CDC): APSA must contact the NMBM's Fire Department for approval of the installation and drawings. EAP to inform APSA of this.</p>
4.2.8.	<p>Dayalan Govender (DG) (DEDEAT): What is the reason for identifying soil contamination as an impact if the entire site is paved?</p> <p>AS (EAP): Soil contamination may occur during the construction phase of the project.</p>
5.	DISCUSSION OF PRESENTATION
5.2.	Air Products: BA for Storage of Dangerous Goods
5.2.1.	An amended application is required as a result of the change in the listed activities being applied for.

Appendix A

**ATTENDANCE REGISTER FOR: ENVIRONMENTAL LIAISON COMMITTEE
MEETING TO BE HELD AT DEDEAT OFFICES (PORT ELIZABETH)
THURSDAY 13 FEBRUARY 2020 COMMENCING AT 09H00**

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ELC PRESENTATION

Expansion of Liquid Oxygen (LOX) and Diesel storage facilities at the Air Products Facility located within the Coega SEZ, Eastern Cape Province

ELC Committee Meeting
13 February 2020



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AGENDA

1. Welcome and introduction
2. Purpose of the meeting
3. Project Overview
4. Activities Triggered
5. EIA Process & Public Involvement
6. Project Description
7. Results of the Major Hazard Installation Assessment & Alternatives
8. Environmental Impacts Identified
9. Public Participation
10. Conclusion
11. Way forward
12. Discussion session



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PURPOSE OF THE MEETING

- Provide an overview of the proposed Project and previous application (withdrawn November 2019)
- Provide a summary of the findings of this Basic Assessment (BA)
- Provide an opportunity for I&APs to:
 - discuss the findings,
 - obtain clarity on possible issues, and
 - raise any comments
- Record comments for inclusion into the final BA report



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PROJECT OVERVIEW

- **Applicant** – Air Products South Africa (Pty) Ltd
- **Project proposal** – To add 1x 23m³ above ground composite diesel storage tank; and to increase LOX storage to 200m³ within the existing Air Products site:
 - a) the addition of 1x 127,3m³ double jacketed vertical LOX storage tank; or
 - b) replacement of the existing 72,7m³ LOX tank with 1x 200m³ replacement LOX tank
- **Need and desirability** – Accommodate the expansion of the Air Products plant in the Eastern Cape and increase reliability of supply to its customers.



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PROJECT OVERVIEW

- **Previous Application** – An Application for Authorisation (DEDEAT Ref: ECm1/C/LN1/M/40-2019) was previously lodged with DEDEAT on 22 November 2019 for the expansion of LOX and diesel storage at the Air Products site.
- Air Products withdrew this application on the 06 November 2019 due to the reconsideration of the layout of storage infrastructure at the site;
- Air Products subsequently initiated this new Basic Assessment and public participation process to address the new layout options.



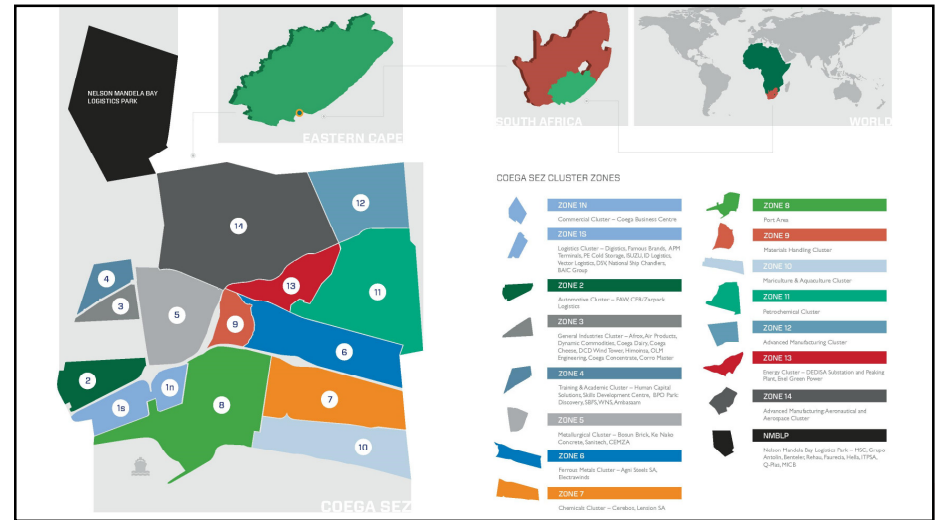
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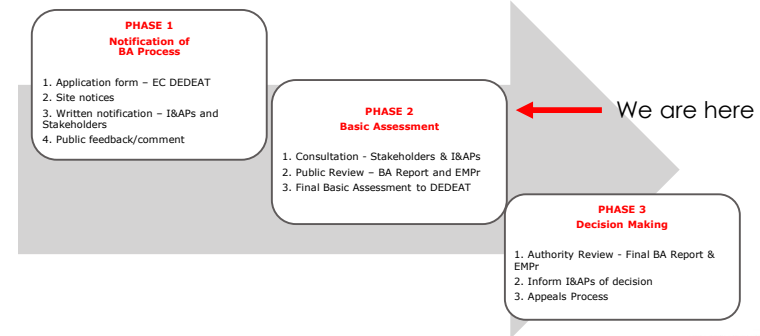


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LEGAL BACKGROUND

- National Environmental Management Act (No 107 of 1998)
 - Overarching environmental legislation in South Africa
 - Specifies the requirements for the EIA process
- Application for Authorisation – BAR triggered
- Competent Authority – Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (EC DEDEAT)

EIA PROCESS & PUBLIC INVOLVEMENT



LISTED ACTIVITIES TRIGGERED

- GN R.327, Listing Notice 1, Activity 14: The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.

The proposed LOX storage capacity of 127,3 m³ and diesel storage of 23 m³ will exceed the threshold of 80 m³ but will be less than 500 m³. As per the definition of dangerous goods, two Hazard Statement Codes as per Section 4.2.3 of the SANS 10234:2008 are listed (H226 & H351) for diesel.

GN R.327, Listing Notice 1, Activity 67: Phased activities for all activities— (j) listed in this Notice, which commenced on or after the effective date of this Notice [where any phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold;]

The storage capacity of diesel and LOX exceed the 80 m³ threshold for activity GNR.327 Listing Notice 14 and will trigger GNR 327 Listing Notice 1, Activity 67 and can be considered a phased activity as the storage of LOX is a continuation of the existing operations at the site.

PROJECT DESCRIPTION

- APSA currently handles and stores LOX and LIN for the air separation process
- Site footprint: 1,3 ha
- Proposed expansion includes:
 - 1x 127,3m³ LOX double walled vacuum jacketed vertical storage tank; or replacement of the existing 72,3m³ LOX tank with a 200m³ LOX tank.
 - 1x 23m³ composite above ground diesel storage tank;
 - 1x standard pump, 2 hoses and shut off valves;
 - Spill slab;
 - 9,6m x 6,4m bund wall (57,15m³) with drainage system in compliance with SANS 10131:2004 or SANS 10089 – 1:2008;
 - Separator pit (oil separator) with 6000 litre capacity in line with SANS 10400 P (Sewer and Drainage) Edition 3.

PROJECT DESCRIPTION

- One site for the expansion i.e. the existing APSA Coega site
- LOX tank - two alternatives:
 - Preferred Alternative (A1): Addition of 127,3 m³ LOX tank adjacent to existing LOX tank; and diesel tank storage located at Location 1 as per MHI report
 - Alternative A2: Replacement of existing 72,7 m³ LOX tank with 200 m³ LOX tank; and diesel tank storage located at Location 1 as per MHI report.
- Preferred alternative for the diesel tank - based on findings of the MHI risk assessment (Location 1- must be at least 15,2 m away from the Main Air Compressor)
- No new site access will be created.
- Major Hazard Installation Risk Assessment undertaken by APSA.



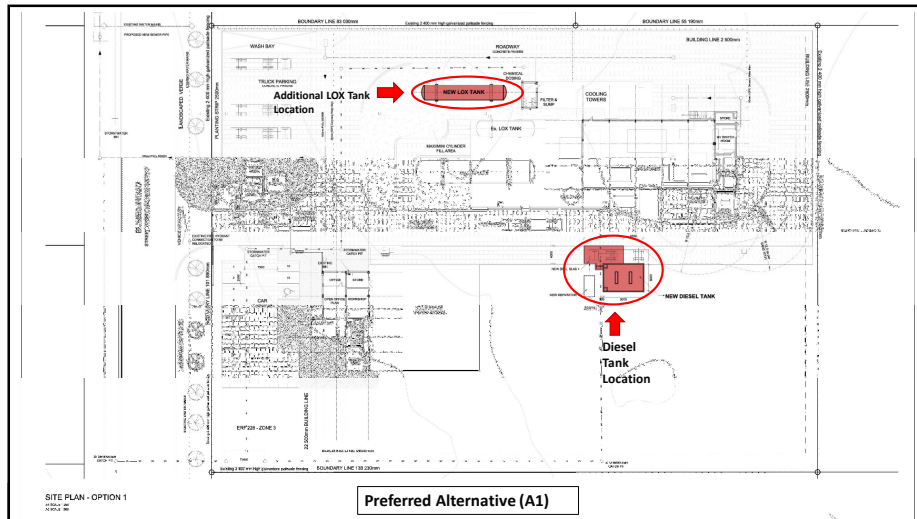
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RESULTS OF MAJOR HAZARD INSTALLATION (MHI) RISK ASSESSMENT

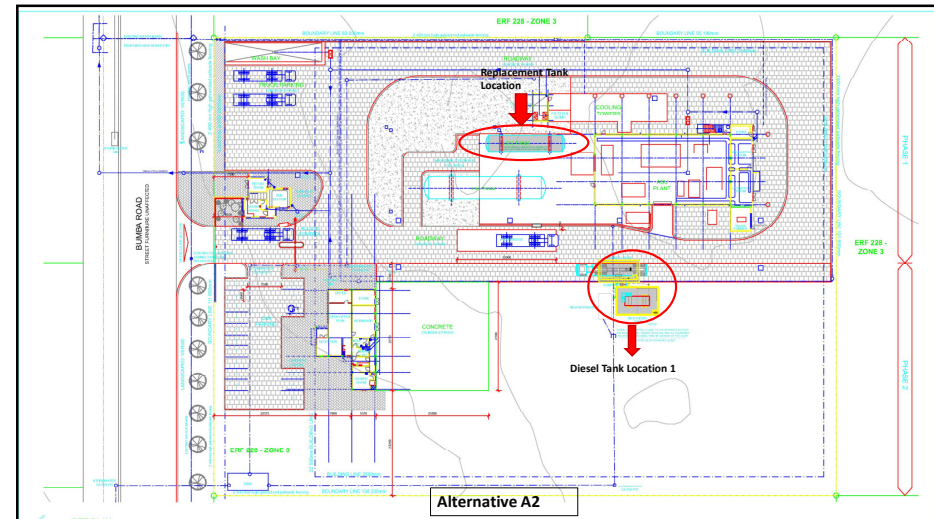
- Site visit conducted on 26 June 2019 and report updated with diesel tank options on the 27 November 2019.
- Venting of the diesel storage tank may introduce hydrocarbon vapour into the air which can migrate to the main air compressor and affect the ambient quality of air being fed into the system.
- One feasible alternative for the location of the diesel tank considered by APSA - based on the proximity of the tank to ignition sources, personnel, buildings, neighbouring facilities and consideration of wind direction and the concerns of neighbouring tenants
- Location alternative evaluated by the MHI and referred to as Location 1 within the Basic Assessment report.



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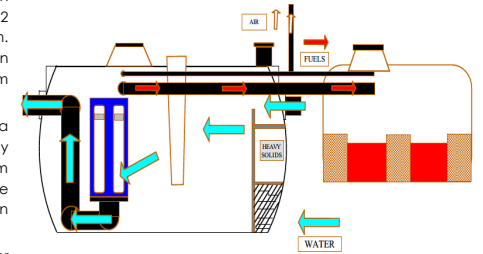


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ENVIRONMENTAL IMPACT EVALUATION

- Brownfields site - located within the operational Air Products site zoned for light general industrial use
- Diesel tank location will be in line with the recommendations of the MHI Risk Assessment and concern from tenants within the previous application.
- Neighbouring sites include Afrox which undertake the same air separation activities
- No AEL required - facility falls below the threshold listed under Subcategory 2.4 in terms of section 21 of the Air Quality Act, 2004 (Act No.39 of 2004)
- LOX is classified as a dangerous good according to SANS 10234 supplement 2008. Liquid Nitrogen (LIN) is not listed under the SANS supplement, and no listed activities were triggered for the storage of LIN

- Best practice alternative - installation of a separator system. Alternative of operating without a separator system found environmental risk to be unacceptably high
- Separator pit for aboveground diesel storage tank and associated infrastructure will be installed. Contaminated stormwater will be captured and channeled through an oil/water separator which meets the SANS 50858: 1 & 2 standards before discharge into the stormwater system. The standard has eclipsed stormwater water quality in general municipal and national regulations - maximum pollutant levels 400ppm (national target of 250ppm)
- The surface around the tank filler points will be sloped to a catch pit to feed to the separator system to contain any spillage. This system separates any floating product from any stormwater runoff, which is then sent into a side holding tank. The water passing through the system then feeds to the stormwater system.
- The bund area will be equipped with a concrete floor falling in a corner sump with all necessary isolation valves as per the SANS code 10131:2004 discharging into the separation tank before discharging into the stormwater system.



ENVIRONMENTAL IMPACTS

- **Noise Impacts - Low Impact**
 - Generated from increased vehicular traffic from construction vehicles and transporting of tanks to the site (construction phase)- short term (duration of construction phase (3 months).
 - No impacts will be generated as a result of the LOX and storage tanks at the site during the operational phase.
- **Dust Emissions – Low Impact**
 - Increased dust emissions due to construction activities on site.
 - No impacts during operational phase are anticipated as the site is paved.
- **Contamination of Soil – Low Impact**
 - There the risk of diesel spills when filling up trucks at the filling point as well as leaks from the storage tanks.

ENVIRONMENTAL IMPACTS

- **Socio- Economic Impacts- Low Positive Impact**
 - The project will result in direct investment into the economy, consisting of capital expenditure, engineering, procurement and construction.
 - Local contractors will be appointed for the construction phase of the activity.
 - Increased job opportunities, at least 2-4 new opportunities during the operation phase.
- **Waste Management Impacts – Low Impact**
 - The accumulation of solid general and domestic waste at the site and inappropriate disposal during the construction phase
 - Hazardous waste of the site is only generated during the annual shut down maintenance these are collected by EnviroServ and disposed at the EnviroServ waste disposal Site.

ENVIRONMENTAL IMPACTS

- **Traffic Impacts- Low Impact**
 - Increased traffic using CDC road networks during the construction phase due to transportation of material and equipment to site (construction phase).
- **Safety Impacts (Risk of accidents in relation to the storage of dangerous goods)- Low Impact**
 - Risk of accidents in relation to the storage of dangerous goods during the operation phase.

PUBLIC PARTICIPATION

- A2 site notice (English) placed at the site and E- site notice at the CDC Business Centre.
- Focus meeting held with the CDC Environmental and Planning Departments to discuss the requirements for the project.
- Distribution of a Background Information Document to registered stakeholders and I&APs on the 27 January 2020.
- Advert placed in The Herald (Eastern Cape) on the 31 January 2020 – availability of basic assessment report.
- Comments received and addressed during the previous application have also been included within the basic assessment report

CONCLUSION

- Project is acceptable from an environmental perspective – no fatal flaws
- Impacts of **low significance** identified for the project and preferred alternative for the LOX tank and diesel tank at Location 1, to the south of the site away from the boundaries of the site and site personnel.
- Although other locations are determined to be "OK" by the MHI assessment for the diesel tank storage, these options were not deemed feasible for APSA.
- Impacts can be mitigated or enhanced through implementation of EMPr.

WAY FORWARD

- Basic Assessment Report available for review and comment: 05 February 2020 – 06 March 2020
- Final Basic Assessment Report to be submitted to EC DEDEAT – end March 2020 (incl. all comments and issues raised during the review period and the ELC meeting)
- Registered parties to be notified of the EC DEDEAT decision
- Appeals process

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DISCUSSION

