ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY, ERONGO REGION-NAMIBIA

Project Information	
Project title	Gas cylinders` warehouse at Erf 3236 in Walvis Bay.
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March 2022

Executive Summary

The proposed construction and operation of Gas Cylinders' Warehouse in Walvis Bay by Industrial Gas Namibia (IGN) triggered the need for an Environmental Assessment (EIA), Environmental Management Plan (EMP) and application for an Environmental Clearance Certificate (ECC) as the project falls under listed activities, of hazardous substance treatment, handling and storage which requires a permit and authorization as per Environmental Management Act, 2007. The anticipated environmental impacts of the project include: impact on a topsoil; increased waste generation; air and water pollution; Gas spills and leakages. On social impact, the project is generally expected to improve the socio-economic environment of Walvis Bay town through a major boost in business through integrations, creation of a market for goods and services and especially construction inputs which include raw materials, construction machinery and labour, and provision of employment during construction phase and operational phase and Increasing revenue to local and national authorities. Interested and Affected Parties were notified of the project through Site notices and newspaper adverts, comments and concerns were addressed during the public and virtual meeting in terms of the proposed development.

It is concluded that most of the impacts identified during this Environmental Assessment can be addressed through the recommended mitigation and management actions for both the proposed construction and operation of Gas Cylinders' Warehouse. Should the recommendations included in this report and the EMP be implemented, the significance of the impacts can be reduced to reasonably acceptable standards and durations. All developments could proceed provided that general mitigation measures as set out are implemented as a minimum. It is therefore recommended that the proposed construction and operation of Gas Cylinders' Warehouse project receive Environmental Clearance, provided that the recommendations described above and in the EMP is implemented.

LIST OF ABBREVIATION

TERMS	DEFINITION
BID	Background Information Document
EAP	Environmental Assessment Practitioners
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
GHG	Greenhouse Gasses
GN	Government Notice
GPD	Namibia's Gross Domestic Product
IGN	Industrial Gas Namibia
I&Aps	Interested and Affected Parties
ISO	International Organization for Standardization
MET: DEA	Ministry of Environment, Forestry and Tourism's Directorate of Environmental Affairs
NDP5	National Development Plan
NSA	Namibia Statistic Agency

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1. BACKGROUND

1.1. Introduction

Industrial Gas Namibia (IGN) is a wholly owned Namibian subsidiary of NMK Holdings Limited. IGN to date remains the only accredited and authorized Air Products Industrial Gas Distributor in Namibia. The company currently supplies oxygen, acetylene, nitrogen, argon, carbon dioxide, and specialized welding mixes for engineering, production, and mining facilities. The company caters for a wide range of services including but not limited to the following industries: Agriculture, Construction, Food & Beverage, Glass & Minerals, Healthcare, Mining and Energy.

IGN is in the process of setting up a Gas cylinders` warehouse at Erf 3236 in Walvis Bay. The Warehouse will stock different types of industrial gasses for the welding, gas cutting industry such as Oxygen, Acetylene, Mag Mix 3 (light gauge mig welding), Coogar 84 (>6mm mild steel mig welding), Coogar 99 (stainless steel mig welding), Argon and Argon 5.0 (high purity), Nitrogen gas (19kg and 48kg). The warehouse will also store medical industry including medical oxygen, nitros oxide and other specialty gasses.

The proposed project activities will include site preparation for construction work and installation of the warehouse infrastructure to store and distribute industrial gas cylinders.

1.2 Project Location

The proposed site for the warehouse, Erf 3236 is situated at the corner of Rooikop road and 18th Road in the industrial area of Walvis Bay in Erongo region, approximately 2 km from the Namport habour as shown in Figure 1. The coordinates for the proposed warehouse location are 22.945658˚ S and 14.512109˚ E. The site for the proposed Warehouse construction and operation is alongside existing industrial infrastructure, for example the ones run and managed by gas and petroleum companies, Engine Namibia, Puma and Afrox. The site is easily accessible, as it is linked to the railway and roads network in Walvis Bay.

Figure 1: Locality of Erf 3236

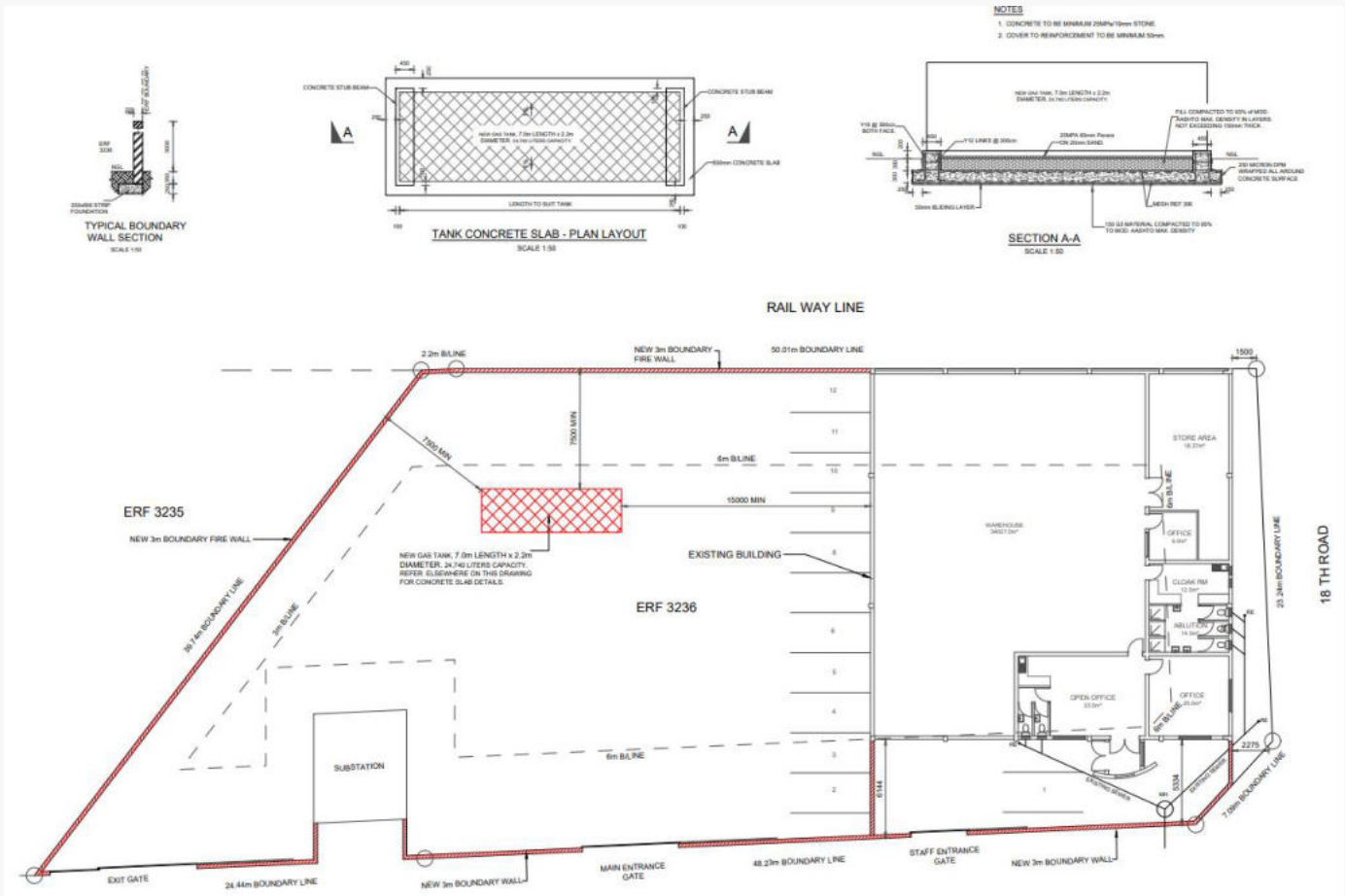

Figure 2: Floor plan for the proposed warehouse

1.3 The Need for an Environmental Assessment (EA)

Under the 2012 Environmental Impact Assessment (EIA) Regulations of the Environmental Management Act (EMA) No. 7 of 2007, the proposed development is a listed activity that may not be undertaken without an Environmental Clearance Certificate (ECC). This activity is listed under the following relevant sections:

Hazardous Substance Treatment, Handling and Storage:

> 9.1 *The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.*
>
> 9.2 *Any process or activity which requires a permit, license or other form of authorization, or the modification of or changes to existing facilities for any process or activity which requires an amendment of an existing permit, license or authorization or which requires a new permit, license or authorization in terms of a law governing the generation or release of emissions, pollution, effluent or waste.*
>
> 9.3 *The bulk transportation of dangerous goods using pipeline, funiculars or conveyors with a throughput capacity of 50 tons or 50 cubic meters or more per day.*
>
> *9.4 The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.*
>
> *9.5 Construction of filling stations or any other facility for the underground and aboveground storage of dangerous goods, including petrol, diesel, liquid, petroleum, gas or paraffin*.

In order to fulfil the requirements of the EMA and its 2012 EIA Regulations, Industrial Gas Namibia has appointed Candy Consultancy cc an independent Environmental Consultant to conduct an Environmental Assessment (EA), including the required public consultation and to submit application with all other relevant documents for the environmental clearance certificate. The findings of the EA process are incorporated into this report together with the Environmental Management Plan (EMP) which will as well be submitted as part

of the application to the Environmental Commissioner in the Department of Environmental Affairs (DEA), Ministry of Environment, Forestry and Tourism (MEFT).

1.4 Need and Desirability of the Project

The economic and social development goals of Namibia are embodied in Vision 2030, the fifth National Development Plan (NDP 5) 2017/2018 - 2021/2022 as well as in other sectoral plans and policies. In addition, the Government has developed the second Harambee Prosperity Plan (HPP), which complements the Vision 2030 and NDP 5. All of the three plans set the goals, targets, and strategy for Namibia to be on the right path to economic prosperity through a concerted strategy for the development of Namibia's economic growth. These Plans also include specific growth targets, milestones and strategies for the sustainable deployment of Namibia's resources to achieve the stated economic and social development goals. This project will contribute to the achievements of national targets as far as economic emancipation and improved health is concerned.

1.5 Objective of this Study

This Environmental Impact Assessment is being undertaken in compliance with the Environmental Management Act No.7 of 2007 and the Environmental Impacts Assessments Regulations (GN 30 in GG 4878 of 6 February 2012). It is a prerequisite by the law to have an Environmental Impact Assessment carried out before the implementation of the prescribed projects as elaborated in the Environmental Impacts Regulations). The main objectives of this study are as follows:

- To identify and provide mitigation measures of the expected impacts of the proposed gas cylinders warehouse to protect the environment;
- To raise awareness of the project proponent of the legal and policy framework govern the proposed activity in order to comply;
- To identify the possible changes in biodiversity index that could arise due to the project implementation in the area;
- To reflect on the various public concerns which will help the concerned stakeholders to make decisions;

- To come up with preventive and precautionary measures for the expected physical and biological environmental negative impacts associated with the proposed activities;
- To structure an effective environmental management plan for the project monitoring during the implementation to minimize and prevent negative impacts and maximize the positive impacts.

1.6 Terms of reference

The Environmental Impact Assessment conducted by Candy Consultancy cc provides a comprehensive evaluation of the proposed project and resulting in the production of this EIA and EMP report documenting the following:

- A critical look into project objectives and location of the site.
- A concise description of the baseline information, national environmental legislative and regulatory framework, and any other relevant information related to the project.
- Evaluation of the technology, procedures and processes to be used, in the implementation of the project.
- Evaluation of materials to be used in the construction and implementation of the project and their extended sources.
- Description, evaluation and analysis of the foreseeable potential environmental effects of the project broadly classified into physical, ecological/biological and socio-economic aspects, which can be classified as direct, indirect, cumulative, irreversible, short-term and long-term effects.
- Evaluation of the products, by-products and wastes to be generated by the project.
- To propose/recommend a specific environmentally sound and affordable liquid and solid waste management system.
- Evaluation and analysis of alternatives including the project's site, design and technologies.
- An Environmental Management Plan (EMP), proposing the measures for eliminating/minimizing or mitigating adverse impacts on the environment.
- Proposed measures to prevent occupational health and safety hazards and to ensure security in the

working environment for the employees, residents/public and for the response/management in case of emergencies. This encompasses prevention and management of the foreseeable accidents and hazards during both the construction and operational phases.

This report provides relevant information and environmental considerations on the project proponent's intention to seek approval from the Ministry of Environment, Forestry and Tourism for the construction of the storage tank and operation of the gas cylinders warehouse.

2. PROJECT DESCRIPTION

2.1 Project overview

Industrial Gas Namibia intends to establish a gas storage tank and operate a gas cylinders warehouse in Walvis Bay town, the Warehouse will stock different types of industrial gasses for the welding, gas cutting industry and medical industry. The proposed development entails the construction and operation of a gas cylinders warehouse and associated infrastructure.

The infrastructure and activities proposed includes but are not limited to inter alia:

2.2 Warehouse

The proponent plan to make use of an Industrial Erven measuring about 1854.00 m² in Walvis Bay town. Storage warehouse floor area will cover 340.27 m². The offices, ablutions facilities and control security infrastructure will cover about 120 m². It is imperative to note that of the whole erven only 75% of the total area will be built. This will leave space for parking, green development, buffer zone etc.

2.2.1 Gases

Not limited to these, the proposed full chemicals to be stored on site are as follows:

I. **Industrial oxygen:** Oxygen (O2) constitutes approximately 21% of air, has a gaseous specific gravity of 1.1, and has a boiling point of -297.3°F (-183°C). Oxygen is produced by air separation processes that use either cryogenic liquefaction and distillation or vacuum swing adsorption (VSA) separation. Oxygen can be stored and shipped as either a gas or a cryogenic liquid. The principal uses of oxygen stem from its strong oxidising and life-sustaining properties. It is used primarily in the metals industry for steelmaking and metal-cutting applications. In the chemical and petroleum industries, oxygen is used in the production of a wide variety of fuels and chemicals. In the pulp and paper industry, oxygen is used for a variety of applications, including pulp bleaching, black liquor oxidation, and lime kiln enrichment. In the glass industry, oxygen/fuel combustion is used to reduce particulate and NOx emissions in melting operations. Oxygen is also used for gasification applications for producing

synthesis gas to make chemicals, fuels, electricity, hydrogen or steam.

II. **Acetylene:** Also called **Ethyne**, the simplest and best-known member of the hydrocarbon series containing one or more pairs of carbon atoms linked by triple bonds, called the acetylenic series, or alkynes. It is a colourless, inflammable gas widely used as a fuel in oxyacetylene welding and cutting of metals and as raw material in the synthesis of many organic chemicals and plastics.

III. **Mag Mix 3 (light gauge mig welding):** MAG (Metal Active Gas) also known as MIG (Metal Inert Gas) welding, is a welding process that is now widely used for welding a variety of materials, ferrous and non-ferrous. The essential feature of the process is the small diameter electrode wire, which is fed continuously into the arc from a coil. As a result, this process can produce quick and neat welds over a wide range of joints.

IV. **Coogar gas:** It is a precise blend of welding gas made up of 93% Argon, 5% Carbon Dioxide and 2% Oxygen.

V. **Argon and Argon 5.0 (high purity):** Argon (Ar) is a monatomic, chemically inert gas, which constitutes slightly less than 1% of the air. Its gaseous specific gravity is 1.38 and its boiling point is -302.6°F (-185.9°C). Argon is colourless, odourless, tasteless, non-corrosive, non-flammable, and non-toxic. Commercial argon is the product of cryogenic air separation, whereby liquefaction and distillation processes are used to produce a low-purity 'crude' argon product which is then purified to produce the commercial product. Argon is used primarily for its properties as an inert gas in applications such as arc welding, steel-making, heat treating, and electronics manufacturing, especially in the making of specialty alloys and manufacturing titanium. It is also used as a shield gas during arc welding, seeing as it protects the metal that's being worked on from oxygen.

VI. **Nitrogen gas (19kg and 48kg):** Nitrogen (N2) is important to the chemical industry. It is used to make fertilisers, nitric acid, nylon, dyes and explosives. To make these products, nitrogen must first be reacted with hydrogen to produce ammonia. Gaseous nitrogen is used in the chemical and

petroleum industries for storage tank blanketing and vessel inerting applications. It is also used extensively by the electronics and metals industries for its inert properties. Liquid nitrogen, produced by the cryogenic air separation process, finds wide use as a refrigerant in applications such as cryogenic grinding of plastics and food freezing.

VII. **Medical Oxygen:** Typically used for medical treatments, medical oxygen is developed for use in the human body. Commonly administered in medical facilities like hospitals and clinics, medical oxygen is also used during anesthesia, first aid resuscitation, life support and oxygen therapy.

VIII. **Nitrous Oxide:** Nitrous oxide, commonly known as laughing gas or happy gas, is a colorless, non-flammable gas. This gas is used in medical and dental procedures as a sedative. It helps to relieve anxiety before the procedure and allow the patient to relax. Also used to dramatically increase the power output in motor car engines.

IX. **Hydrogen (H)**: Is the lightest of all the elements on the periodic table. Hydrogen is valued for its reactive and protective properties. Many industries such as electronics, food, glass, chemicals, refining, and more can benefit from its unique properties to improve quality, optimize performance, and reduce costs. One such application has benefits in the refining industry. Hydrogen is extremely flammable and can be used as a fuel and for making fertilizers, glass, cosmetics, and soaps.

X. **Carbon Dioxide (CO2):** Solid carbon dioxide is commonly known as Dry Ice. Is the gas used in fizzy drinks and as a propellant in fire extinguishers.

XI. **Helium (He):** Helium gas is lighter than air and that is why it is being used in balloons to float upwards. It is formed underground and is non-flammable.

2.3 Gas tank construction

The project will also involve the establishment of installation of above ground storage tank. The storage tank will have a dispenser, cement pad with the capacity of 24 240 liters.

In the construction work includes;

- The foundation of the cement pad determined to be 1 m.
- The architectural design, to be done in a way that it leaves enough space for trucks parking and filling up to reduce the number of parking challenges in the street.
- During filling of trucks, procedures will be put in place to avoid spillages.
- The base foundation will be at least 500m above ground level.
- All soil vent pipe, waste drain pipes passing under the project's project will be encased in 150mm concrete surround.
- All reinforced concrete works are to be to the exact structural Engineer's details and specifications.
- All mechanical works will be done by a qualified Mechanical Engineer.
- All gas tanks will be checked and tested by a Chemical Engineer.
- All plumbing works and water rectification to be checked by a qualified plumber.
- All inspection chambers will be accessible from outside and will be left clean at all times.

The Specific details of the exact design and layout of the above ground storage tanks is as follows:

- The tank will be in above grounds making provision for the storage of gasses. It will be one tank with the storage capacity of 24 240 liters anticipated sales volumes for the products. Trucks will be refilled from this specific tank.
- The storage tanks will be sealed with an impervious layer. A boundary wall will cover the facility and operation area.

3. PROJECT ALTERNATIVES CONSIDERED

3.1 Site location alternatives

An integrated site selection study was done in order to identify a suitable site for the proposed warehouse.

The proposed site is considered highly desirable due to the following considerations:

1. Proximity: The site is within reach to most large mining companies in Erongo Region.
2. Site extent: the area consists of sufficient space to enable the proposed activities.
3. Warehouse suitability:
    - Sites that allow for easy construction conditions (relatively flat land with few rock outcrops or water-bodies) were favoured during site selection.
    - The site is located within an already industrial area.
    - Avoidance of obvious environmentally sensitive areas.

It is thus, the consideration of the above criteria resulted in the selection of the preferred site. No further site location alternatives were considered in the EIA process.

3.2 Site layout alternatives

The warehouse and project component design underwent a number of iterations based on technical aspects and the environmental and social considerations assessed during the EIA process. From a layout perspective, the position of the proposed site infrastructure was determined by the consideration of the local topographical conditions.

3.4 No-go alternative

The current low environmental impact associated with current land use will be maintained and no change in land use or zoning would be required. The status quo needs to be measured against the proposed facility to determine whether the environmental and socio-economic benefits warrant the approval thereof or

whether the status quo should be maintained.

This development alternative entails that the proposed warehouse developments not be constructed on the project site, thus resulting in the site being left as it is. With Namibia's new focus on propelling the extractive industry, value addition and the targets set the NO-GO option will result in a zero contribution to these targets and no alleviation about the current demand pressures on electricity. The non-development of the proposed warehouse plant will furthermore impede economic development and socio-economic progress for Walvis Bay Town. Due to the numerous socio-economic benefits, the environmental advancement and the fact that the identified environmental impacts can be suitably mitigated, it has been determined that the NO-GO option can be eliminated. Should the Competent Authorities (CA) reject the authorization of the proposed gas cylinders warehouse, the 'NO-GO' option will be "implemented" and the status quo of the site will remain intact, leaving the site in its present state.

3.5 Conclusion

It is crucial to permit the project to go ahead and to ensure maximum environmental and safety precaution measures/systems are in place.

4. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

4.1 Introduction

An important part of the EIA is identifying and reviewing the administrative, policy and legislative framework concerning the proposed activity, to inform the proponent about the requirements to be fulfilled in undertaking the construction including land servicing and operations activities. This section looks at the legislative framework within which the proposed project will operate under. The focus is on the compliance with the legislation during the planning, construction and operational phases. All relevant legislations, policies and international statutes applying to the project are highlighted in table 1 below, as required in terms of Environmental Management Act, 2007 (Act No.7 of 2007) and associated Regulations.

A sound legislative framework guides the pursuit of sustainability; in this section, relevant legal instruments as well as their relevant provisions are considered. The implication to the project for each piece of legislation is provided regarding how these provisions apply to this project.

Table 1: Legal Compliance Framework

LEGISLATION/POLICY/GUIDING DOCUMENT	PROVISION	PROJECT IMPLICATION
The Constitution of the Republic of Namibia (1990)	The articles 91(c) and 95(i) commits the state to actively promote and sustain environmental welfare of the nation by formulating and institutionalizing policies to accomplish the sustainable objectives which include: -Guarding against overutilization of biological natural resources, -Limiting over-exploitation of non-renewable resources, - Ensuring ecosystem functionality, - Maintain biological diversity.	- Through implementation of the environmental management plan, the proposed development will be in compliance with the constitution in terms of environmental management and sustainability, through bringing development in an environmentally sensitive manner.

Vision 2030 and National Development Plans	Namibia's overall development ambitions are articulated in the Nations Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high	-The proposed project is an important element in the propelling and contribution to extractive industry in the country where job creation will be realized.

	and sustained economic growth; increased income equality; and employment creation.	
Environmental Assessment Policy of Namibia 1994	- The Environmental Assessment Policy of Namibia requires that all projects, policies, Programmes, and plans that have detrimental effects on the environment must be accompanied by an EIA. The policy provides a definition to the term "Environment" broadly interpreted to include biophysical, social, economic, cultural, historical and political components and provides reference to the inclusion of alternatives in all projects, policies, programmes and plans.	The construction of the storage tank and operation of the gas cylinder warehouse will only commence after being awarded an environmental clearance certificate, thus, abiding to the requirements of the Environmental Assessment Policy of Namibia. The EIA and EMP will cater for the sustainable management of biophysical environment.

Environmental Management Act No. 07 of 2007	The Act aims at: - Promoting the sustainable management of the environment and the use of natural resources by establishing principles for decision-making on matters affecting the environment; - To provide for a process of assessment and control of projects which may have significant effects on the environment; - The Act gives legislative effect to the Environmental Impact Assessment Policy. Moreover, the act also provides procedure for adequate public participation during the environmental assessment process.	-This document is compiled in a nature that project implementation is in line with the objectives of the EMA. EIA guiding procedures developed by MEFT were also used in the course of this EIA process.

Hazardous Substances Ordinance 14 of 1974 **Regulations Made in Terms of Hazardous Substances Ordinance 14 of 1974 sections 3 and 27**	- To provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances; to provide for the division of such substances into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances; and to provide for matters connected therewith.	- Gas Industrial Namibia will have to conform to this Act and its regulations through applying and obtaining all required licensing from relevant bodies highlighted thereto.
"Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to	- Provides international standards and guidelines for limiting the adverse effects of non-ionising radiation on human health and well-being, and,	-Justifies the need for assessing the impact of ionising and non-ionising radiation from the stored gasses and substances.

300GHz)" (April 1998 developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP))	- where appropriate, provides scientifically based advice on non-ionising radiation protection including the provision of guidelines on limiting exposure.	
Public and Environmental Health Act no. 1 of 2015	This Act makes provision with respect to matters of public health in Namibia. By promoting public health and wellbeing; prevent injuries, diseases, and disabilities; protect individuals and communities from public health risks; encourage community participation in order to create a healthy environment; and provide for early detection of diseases and public health risks.	-The project proponent will ensure that all legal requirements of the project in relation to protection of the health of employees and surrounding residents are adhered to. -Personal protective equipment shall be provided for employees in construction. -The development shall follow requirements and specification in relation to water supply and sewerage handling so as not to threaten public health on this piece of land. The Proponent should ensure compliance with the conditions set in the Act and its regulations, including COVID-19 regulations.

Labour Act No 11 of 2007	Aimed to establish a comprehensive labour law for all employers and employees; to entrench fundamental labour rights and protections; to regulate basic terms and conditions of employment; to ensure the health, safety and welfare of employees; to protect employees from unfair labour to regulate the registration of trade unions and employers' organisations; to regulate collective labour relations; to provide for the systematic prevention and resolution of labour disputes;	
Soil Conservation Act 76 of 1969	The objectives of this Act are to: - Make provisions for the combating and prevention of soil erosion, - Promote the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic.	-The project will have a rather localized impact on soils through clearance for the storage tank. Soil protection measures will be employed.
Nature Conservation Ordinance 1996	To consolidate and amend the laws relating to the conservation of nature; the establishment of game parks and nature reserves; the control of problem animals; and to provide for matters incidental there too.	The proposed project implementation is not located in any known or demarcated conservation area, national park or unique environments. The project site was selected with

		this ordinance in mind to ensure that Namibian nature is conserved.
Road Traffic and Transportation act no. 22 of 1999	To provide for the establishment of the Transportation Commission of Namibia; for the control of traffic on public roads, the licensing of drivers, the registration and licensing of vehicles, the control and regulation of road transport across Namibia' s border	Gas Industrial Namibia will conform to this Act and its regulations through applying and obtaining relevant licences during construction and operation.

Protected Areas and Wildlife Management Bill	This bill, when it comes into force, will replace the Nature Conservation Ordinance 4 of 1975. The bill recognizes that biological diversity must be maintained, and where necessary, rehabilitated and that essential ecological processes and life support systems be maintained. It protects all indigenous species and control the exploitation of all plants and wildlife.	Environmental recommendations and considerations on this project have ensured that the proposed activities will not fall within the boundaries of any protected area and that the project will not affect heavily endangered vegetation and animals on its site.
National Rangeland Policy and Strategy, 2012	The policy aims at enabling resource users (farmers and managers) to manage their rangeland resources in a sustainable manner and sustainable in that they are economically viable, socially acceptable, environmentally friendly and politically conducive.	-This proposed project will ensure that the local community benefits both economically and socially from the project, this in line with the recently declared Harambee Prosperity Plan and NDP5 aspirations.

National Policy on Climate Change for Namibia, 2010	In harmony with the findings of the IPCC over time and the Earth Summits held annually, the policy seeks to outline a coherent, transparent and inclusive framework on climate risk management. In accordance with Namibia's national development agenda, legal framework, and in recognition of environmental constraints and vulnerability. Furthermore, the policy pursues the strengthening of national capacities to reduce climate change risk and build resilience for any climate change shocks.	-Gas storage, transportation and usage have considerable negative impacts as a result of release of GHGs. -There is need to ensure appropriate handling and storage is done on all GHGs.

Wetland Policy, 2004	The policy provides a platform for the conservation and wise use of wetlands, thus promoting inter-generational equity regarding wetland resource utilization. Furthermore, it facilitates the Nation's efforts to meet its commitments as a signatory to the International Convention on Wetlands (Ramsar) and other Multinational Environmental Agreements (MEA's).	-In compliance to this Policy, the development will ensure a standard environmental planning such that it does not affect any wetlands within its locale through recognition of wetlands to promote the conservation and wise utilization of wetlands resources. -There are no existing wetlands/peatlands within 2km radius of the proposed project site.
Water Resources Management Act, 2013 (Act No. 11 of 2013)	This Act provides for the management, protection, development, use and conservation of water resources. This also forms the regulation and monitoring of water resources.	-Water supply will be provided by Walvis Bay Town Council, which already has a steady and sustainable supply of water.
National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979	The act make provision for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. "No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia''	-The proposed site of development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites of archeological importance are identified, it will be the responsibility of the developer to take the required route and notify the relevant commission.

Pollution Control and Waste Management Bill	-This bill has not come into force. Amongst others, the bill aims to "prevent and regulate the discharge of pollutants to the air, water and land" Of particular reference to the Project is: Section 21 "(1) Subject to sub-section (4) and section 22, no person shall cause or permit the discharge of pollutants or waste into any water or watercourse." Section 55 "(1) No person may produce, collect, transport, sort, recover, treat, store, dispose of or otherwise manage waste in a manner that results in or creates a significant risk of harm to human health or the environment."	-To control air, water and land pollution as agitated by the Act the project proponent will ensure that erven will have approved drainage on site as well as standard conservancy tanks that do not threaten public health, adding on an integrated pollution management strategy following the EMP provided herein.
Urban and Regional Planning Act, 2018 (Act No.5 of 2018)	Section 51 of this Act empower local authorities not approve building plans for the construction of or alteration to buildings which are in conflict with the zoning scheme.	The proponent will ensure that all activities conducted at the project site are in line with Urban and regional Planning Act, town zoning scheme and relevant consent or approval is acquired from authorities.
Walvis Bay Zoning scheme	The zoning scheme aimed to determine the type of land use in Walvis bay. It regulates whether the land will be used for residential, business, industrial or specific purposes.	

5. PROJECT OVERVIEW AND BASELINE INFORMATION

5.1 Data information gathering procedure

The study information was gathered through discussions with the proponent, site visits, meeting with neighboring companies and environmental status of the immediate neighborhood. The physical observation taken into consideration was the geological status, drainage system, water supply; waste disposal in the area, settlement patterns as well the typical socio-economic activities around the project area.

The datasheet was adopted from the International Environmental Protocol, tailored to address issues listed in the Regulations on EIA/audits under the Namibian act no 7 of 2007.

5.2 Geographic coordinates

The proposed site for the warehouse is situated at the corner of Rooikop road and 18th Road at the industrial area erf No. 3236. The coordinates for the proposed warehouse area are 22.945658˚ S and 14.512109˚ E.

5.3 Traffic and Roads accessibility

The project site is situated alongside the 18th road which is interconnected to the 3rd Street East Road. This road is connected to one of the busiest roads in town namely; Hanah Mupetami Avenue which connects Kuisebmund Township with municipal town, the Avenue is very vital since it facilitates movement of and traffic around town and Kuisebmund. It is through this road (18th road) that the traffic (both human and vehicles) will access the project site. The project will come along with an increased volume of traffic along the adjacent road networks. According to Walvis Bay Municipality (2021), the current traffic data have shown that on average about 100 traffic volumes

are being recorded per hour at an intersection of Hanah Mupetami Avenue and 3rd Street East Road especially during peak hours; 07:00 am- 09:00 am, 13:00 pm -15:00 pm and 17:00 pm to 18:00 pm respectively, as depicted in figure 3 below:

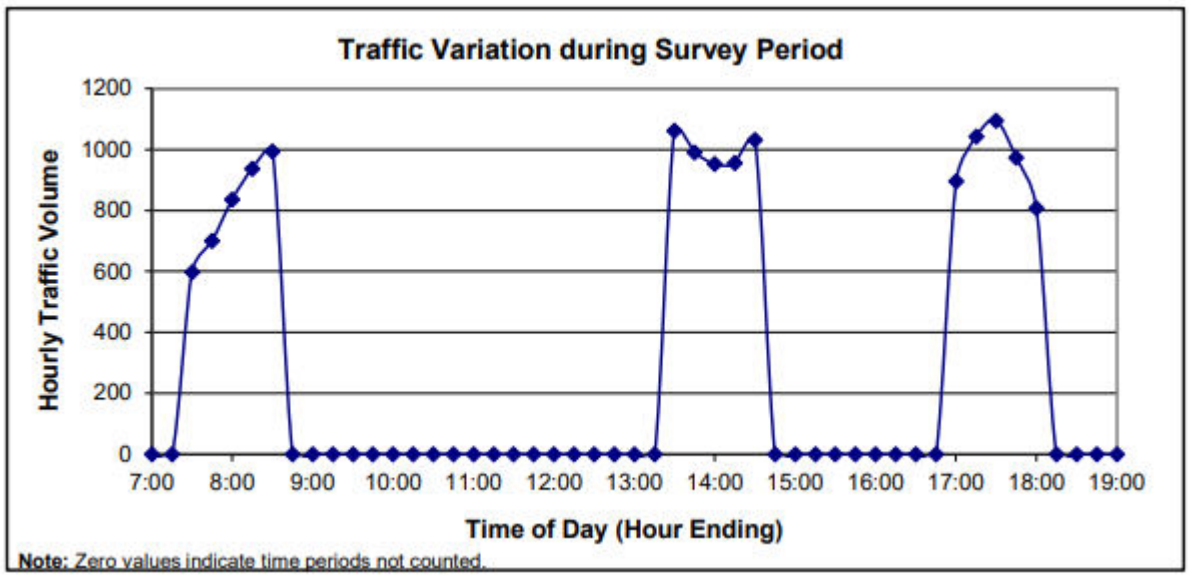

Figure 3: Traffic count at intersection of Hanah Mupetami Avenue and 3rd Street East Road during peak hours, 24 September 2021

5.4 Climate and rainfall

During the months of January, February and March it is most likely to experience good weather with pleasant average temperatures that fall between 20 degrees Celsius and 25 degrees Celsius. Walvis Bay has dry periods in January, February, March, April, May, June, July, August, September, October, November and December. On average, the warmest month is February while the coolest month is August. June is the wettest month while May is the driest month (Weather - the Climate in Namibia, 2022).

5.6 Social economic conditions

Walvis Bay is part of the Erongo region. The Erongo Region is one of the most well-off regions in the country, with the second highest per capita income of N$ 16 819 per annum. Only 0.4% of households in the Erongo Region spend more than 80% of their income on food while 5.3% of households spend 60 – 79% of their income on food. In comparison to this, 0.6% of households in the Khomas Region spend more than 80% of their income on food while 3% of households spend between 60 and 79% of their income on food; the regional population growth annual rate stands at 3.7% compared to the national growth rate of 2.6% National Statistics Agency (NSA), 2011). The fertility rate is lower than the national average; the high rate of population growth in the region is attributed to in-migration to the main coastal towns. The mining development in the Region is one of the main attractions resulting in an increased in-migration to the coastal towns.

Majority of people in Walvis Bay depend on fishing industries for employment (Urban Dynamics Africa, 2012). More than 70% of the industries in Walvis Bay are either directly or indirectly linked to the fishing industry. Walvis Bay has about 15 operating fish processing industries. The total employment of the fishing sector alone is estimated at 2% of the total Namibian workforce. Most people are employed by the fishing industry; Namport; the processing of sea salt, mining sector; cargo, tourism (hospitality) and aquaculture. With the recent inauguration of the new container terminal for Namport, cargo handling is expected to increase which will most likely result in increased employment levels in the town.

According to desktop studies, the economy of Walvis Bay depends mainly on the fishing enterprise which accounts for a major part. Thus, the facilitation of the development of above ground storage

tanks is an acknowledged objective of both the Walvis Bay and the growing towns of Swakopmund and for the Erongo region and country at large.

5.7 Population

According to the Namibia Statistics Agency, 2011 population census, Walvis Bay has an urban population size of 62,096 (Namibia Statistics Agency, 2011). However, a more recent estimate is in the vicinity of 100,000. Walvis Bay is the most populated town in the Erongo Region, mainly as a result of the harbor and other related industries depending on it.

6. PUBLIC PARTICIPATION

6.1 Objective

The public participation process aims to inform a wide range of Interested & Affected Parties (I&APs) about the proposed construction and operation of Gas Warehouse' Cylinders and the environmental process to be followed. It is a way to allow the public to exchange information and to express their views and concerns on the proposed warehouse for which the EIA is being conducted. This is done in accordance with both the Namibian Environmental Management Act of 2007, its Regulations (2012).

The public participation process assists in identifying potential issues and concerns that need to be addressed in the assessment process and the formulation of an environmental management plan.

6.2 Process followed Communication with I&APs

As a general practice and in line with environmental impacts assessment regulation Candy Consultancy cc identified relevant and applicable key authorities, and other interested members of the public.

The pre-identified I&APs were contacted directly and some were registered as I&APs upon their request (those that were registered after the EA notification via emails). Newspaper adverts of the proposed gas cylinders warehouse were placed in two national newspapers, The Confidente and New Era newspapers. The project advertisement / announcement ran for two consecutive weeks in four selected days inviting members of the public to register as I&APs and to submit their comments. All of this was done in compliance with the following definition of an interested and affected party: *"(a) any person, group of persons or organization interested in or affected by an activity; and (b) any organ of state that may have jurisdiction over any aspect of the activity'*

(MET, 2010)." (Environmental Management Act, 2007). The summary of pre-identified and registered I&APs is listed in Table 5 below:

Table 5: Summary of Identified IAPs

	Description
List of IAPs	Nampower
	Municipality of Walvis Bay
	Total energies
	Namport
	Residents

6.2.1 Communication with I&APs

Regulation 21 of the EIA Regulations details steps to be taken during a public consultation process and these have been used in guiding this process.

Communication with I&APs about the proposed development was facilitated through the following means and in this order:

I. Project Environmental Assessment notices, notifying the public of the EIA and inviting I&APs to participate in the EIA process by registering their comments with Candy Consulting cc (email and telephone contacts provided), was placed in the New Era and Confidente newspapers dated 22nd and 29th October 2021, (**Refer to Appendix D**).

II. Public notices were placed on site (**Refer to Appendix E**) to inform members of the public of the EIA process and to invite them to be registered as I&APs as well as for them to submit any comments or inputs.

III. A hybrid (virtual and physical attendance) public meeting was scheduled and held on 30th October 2021 at Sunnyside Guesthouse at 15th Road, Walvis Bay. The Hybrid meeting was organized as results of COVID 19 restrictions on number of people gathering. At this meeting background information document was made available to I&APs that attended the meeting (**Refer to Appendix**). A register for I&APs was produced also including I&APs that requested through email registered and provided with the background information document. (**Refer to Appendix F**).

IV. In addition, a special virtual consultative meeting was held with the Municipality of Walvis Bay on the 10th November 2021.

Finally, the issues that were raised have been recorded; responses provided and are fully presented in the meeting minutes and incorporated in the environmental report and EMP. The attendance registers and meeting minutes were compiled and are attached as per shown **in appendix F**.

6.3 Public review of scoping report (comments received and concerns raised)

This scoping report was made available to the public review from 01 March 2022 to 09 March 2022, and was sent by email to all registered I&APs. Please refer to **Appendix I** for a copy of the notification advert informing I&APs of the availability of the scoping report for them to submit their comments, inputs, concerns or issues before a final EIA report is finalized.

Apart from issues raised during the public meetings, there was one comment form received via email and is incorporated in this report (Appendix J)

7. IMPACT IDENTIFICATION, ASSESSMENT AND MITIGATION MEASURES

This part includes impacts during implementation/construction, and operation phase. Most of these key issues were identified during the scoping exercise and are clearly elaborated as follow:

(a) Noise and Vibration

Noise is an unwanted/undesirable sound that can affect job performance, safety, and health. Psychological effects of noise include annoyance and disruption of concentration. Relatively high noise levels are expected in the area during the tank construction phase. Noise control measures should be implemented in the construction area if the noise levels exceed **90dB (A)** for a continuous 8 hours exposure as per the requirements of the Noise Prevention Control and Prevention Rules, 2005 a subsidiary legislation to the Occupational Safety & Health Act, 2007.

Potential Mitigation Measures

- Workers should be provided with relevant personal protective equipment (PPE)/ materials such as earmuffs and earplugs; when operating noisy machinery and when in a noisy environment. These provide a physical barrier that reduces inner ear noise levels and prevents hearing loss from occurring

- Provision of billboards at the construction site notifying of the construction activity and timings.

- Construction work should be carried out during the specified time i.e. from 07:30 hrs. to 1700hrs; noise generated during the day is not quite disturbing as compared to it being generated at night hours.

- Sensitize construction vehicle drivers and machinery operators to switch off engines of vehicles when not in use.

- Suppressors or silencers on equipment or noise shields; for instance, corrugated iron sheet structures.

- Machineries should be maintained regularly to reduce noise resulting from friction.

- Manual labour is recommended in the construction phase, to reduce the noise emitted by construction machinery.

(b) Fire hazards

There are some operations that may pose a risk to fire occurrences at the construction site and even during the operational period. These occurrences may arise during the construction phase but more in the operation phase since there will be extensive use of electricity in the intended gas warehouse. High risk of fire is also expected due to the flammability of the gases handled on site. It should therefore be ensured that all operations during construction and operation phases are in line with the Fire Risk Reduction.

Potential Mitigation Measures:

- Install an automatic fire alarm system for the entire project, mostly during the operation phase.
- Install firefighting equipment, heat and smoke detectors, and static water storage tanks for firefighting.
- All fire control and fighting facilities to be installed as per the requirements stipulated in the approved plans.
- The occupier to ensure that the requirements of the Fire Risk Reduction Rules, 2007 are met.
- Adapt an emergency response plan for the entire project during construction and operational phase.
- Ensure that all firefighting equipment is strategically positioned, regularly maintained and serviced.
- Provide fire hazard signs such as '**No Smoking**' signs, Direction to exit in case of any fire incident and emergency contact numbers should be provided.
- Provisions of marked fire exits and ensure that all fire exits are unobstructed at all times.
- The proponent should set up a trained firefighting team in accordance with sec. 20& 21 of the Fire Risk Reduction Rules, 2007.

(c) Traffic density

The project will come along with increased (vehicle) traffic along the adjacent road networks and mostly during the operational phase since truck drivers will be off-loading the products from the storage site at Swakop Uranium.

Potential Mitigation Measures:

- The traffic along connecting routes should be controlled especially during the operational phase and mostly when large trucks are turning into the site, to off-load the gas products.

- Notify the motorists about the development once implementation is started. It is important that warning/informative signs (billboards) be erected at the site. These should indicate the operation hours and when works are likely to be started and completed. The signs should be positioned in a way to be easily viewed by the public and mostly motorists.

(d) Ecological impacts

The site has no vegetation of conservation value; hence the project will have no impact on ecology.

Potential Mitigation Measures

- Landscaping: Plant vegetation in all practical open areas on project completion.

- Manage the introduced vegetation on completion of the development to restore or improve the site.

(e) Occupational Health and Safety (OHS)

During construction there will be increased dust, noise, obstruction objects and other occupational hazards due to working at height, moving objects, slips and falls, vibration, material and manual handling; and collapsing trenches. These are considered as negative impacts as they significantly affect the employees and may lead to fatal injuries.

Potential Mitigation Measures:

- Capacity building and training of staff/workers with respect to Occupational Health, Safety and Environment. Provide safety measures for personnel, Personal Protective equipment (PPE) - safety gear as per Health and Safety and Welfare – Special Provisions and Rules Regulations; conduct medical examination of workers as required by the Medical Examinations Rules of 2005 under the Occupational Safety and Health Act, 2007, for occupations covered under Schedule II of the act. Construction works fall under this schedule II and therefore all workers should undergo the medical examinations.

- A first aid kit should be provided within the site and should be fully equipped (as per Rule 2 of the First Aid Rules, 1977) at all times and managed by qualified and trained first aider(s).

- The contractor/proponent should initiate and develop effective Emergency Response Plans-ERPs to cater for various eventualities such as fire outbreaks, oil spills and other incidents that are likely to occur.

- Proper documented possible action plans (ERPs) need to be put in place in case of any incidents occurring.
- Where the workforce exceeds 20, the contractor should facilitate formation of a Safety and Health Committee, in accordance with the Health and Safety Committees Rules, 2004. The safety and health committee should be adequately trained on Occupational Safety and Health in line with Rule 12 of the Health and Safety Committee Rules, 2004 and be appraised on their functions as stipulated under Sec. 6 of the Health and Safety Committee Rules, 2004.
- The contractor should obtain a certificate of registration of Building or Construction.

(f) Public disturbance

Construction disturbances are likely to cause stress and other similar effects mostly during project implementation processes due to continued vibrations and noise generated by heavy machinery.

Potential Mitigation Measures:

- Tank construction activities should be done only during the day.
- Erect billboards at the start of the project to psychologically prepare the people in the surrounding.

- The signs should indicate and inform the public when work starts and when it will be completed. Such information should be made clear for the interest of the motorists along the connecting roads.

(g) Air Quality

The construction activities on the site will result in increased dust and gas emissions. Construction machinery and trucks generate hazardous exhaust fumes such as Carbon Oxide, Sulfur Oxide, and Nitrogen Oxide. Dust particles caused by vibrations of machines and vehicle movement suspends in the air mostly during dry spells.

Potential Mitigation Measures

- Provide appropriate Personal Protective Equipment (PPEs) such as nose masks to the affected workers on site during the construction phase.
- Regular and prompt maintenance of construction machinery and equipment. This will minimize generation of noxious gases and other suspended particulate matter.
- Control of areas generating dust particles, such areas should be regularly cleaned or sprinkled with water to reduce dust. The areas can be enclosed to mitigate effects of wind.
- Workers should be trained to understand the hazards that may be generated in such work environments.
- Workers should be encouraged to go for regular health check-ups to ascertain their health standards.

(h) Gas Leaks and Spills

Gas spills are noted to be prevalent in the gas warehouse sites dealing with gassed products. Such products contain detrimental elements to the environment since they contain traces of heavy metals such as; Mercury, Lead and Sulfur among others. Though this may not be common at the site during construction, it is wise to control and observe the little that could occur especially during maintenance of the involved machinery**.**

Among the most significant environmental issues from retail gas product sites is the accidental release of stored or handled gases due to leaks from storage tanks, piping systems, and fittings under gas dispensers.

Releases may also result from surface spills and overfills during delivery and filing. Tank and piping system failures may result from ageing (e.g., corrosion of steel components) or from structural stress due to improper installation. The impacts from such releases depend on numerous factors including the number of materials released, local geologic conditions, and proximity to environmental receptors such as subsurface utilities or building structures (in which organic vapour may accumulate) or water resources (e.g., groundwater).

Potential Mitigation Measures:

- All construction machinery should be keenly observed not to leak any gaseous substances on the ground. This can be done through regular maintenance of the machinery.

- Any maintenance work should be carried out in designated areas (protected service bays) and where gas spills are completely restrained from reaching the ground. Such areas should be cemented and enclosed to avoid storm water from carrying away oil into the soil.

- Develop a spill prevention and control plan to counter and manage emergencies that may occur/arise in the event of accidental spills.

- Leak detection systems should be able to detect the presence of liquid or gas vapour within the interstitial space.

- The tank should be equipped with devices that prevent spills and overfills, such as overfill alarms, automatic shut-off devices and catch basins around fill pipes. Fill pipes on the above ground Storage Tanks (ASTs) should be located within the tank's secondary containment structures.

- Prioritizing the upgrade of equipment and installation for existing facilities of a network according to local regulatory standards (which may require the upgrade or replacement of tanks and other infrastructure after they reach a certain age) or according to the potential likelihood of a release and the potential severity of the consequences in the event of a release. Examples of risk-based criteria applicable to USTs include:

    - Evidence of system leaks such as loss of product from inventory or reports of gas vapours in underground utilities or nearby buildings.

- Age and type of construction of a tank and infrastructure.
- The tank should be grounded. Some are manufactured with a specific location for attaching the grounding wire. Explosion-proof pumps offer additional protection, but be aware that seal-titer is not explosion proof.
- Location in, or in close proximity.
- Proximity to environmental receptors such as underground infrastructure (e.g. underground public utilities such as sewers, tunnels / vaults for electric or telephone utilities, or building basements), private or public water supply wells, surface water reservoirs, aquatic habitats for critically endangered or endangered species, or other potential points of human or ecological exposure to gasoline / fuel related contaminants.
- All storage tanks should undergo periodic inspection for corrosion and structural integrity and be subject to regular maintenance and replacement of equipment (e.g., pipes, seals, connectors, and valves).
- Bulk deliveries/off-loadings should be conducted by properly trained personnel according to pre- established formal procedures to prevent accidental releases and fire / explosion hazards. Procedures should include all aspects of the delivery or loading operation from arrival to departure, including wheel blocking to avoid vehicle movement, connection of grounding

systems, verification of proper hose connection and disconnection, adherence to no- smoking and no-naked light policies for visiting drivers, among other considerations.

- Facilities should develop a formal spill prevention and control plan that addresses significant scenarios and magnitude of releases. The plan should be supported by the necessary resources and training. Spill response equipment should be conveniently available to address all types of spills, including small spills.
- Facilities should also have a formal procedure developed by network operators and managers to respond to the discovery of leaks in ASTs, including means for confirming the presence of the release; investigating potential impacts to environmental media; and, based on the result of the assessment or on confirmation of the significance of the release, implementing corrective actions to repair or replace damaged or leaking equipment and address risks of the resulting impacts to soil and water resources. The Industrial Gas Namibia staff should be trained in these procedures.
- Groundwater monitoring should be included as part of a spill / leak detection strategy. This should typically consist of at least three monitoring points to also establish the direction of groundwater flow.

(I) Solid waste

Huge quantities of solid wastes are normally generated from construction activities. Such wastes include; broken glasses, containers, rods of metal, pieces of iron sheets, cardboards etc. There is need for proper management (proper disposal) of the solid wastes expected from the site during the tank construction phase. However, during operation by-products and waste generated shall mainly be general waste and gas wastes that will be produced from the operations of the warehouse. The proponent will be expected to design and institute appropriate measures for the collection and disposal of the various wastes produced by their operations.

Potential Mitigation Measures:

- The contractor or proponent should work hand in hand with private refuse handlers, the Walvis Bay municipality to facilitate waste handling and disposal from site.
- All solid wastes should be taken for disposal to the approved dump sites and by licensed waste handlers.
- The wastes should be properly segregated and separated to encourage recycling of some useful waste materials i.e., some demolished and excavated materials will be used as backfills.
- Proper and clearly labelled dustbins should be provided for waste separation at source.

8. CONCLUSION AND RECOMMENDATIONS

8.1 Conclusion

Development of new projects are now preceded by critical analysis and assessment of the activities and operations as required by EMA through conducting of Environmental Impact Assessment (EIA); to provide indications of the likely environmental consequences of the activity. EIA identifies both negative and positive impacts of the project, how it affects people, their property and the general environment. An EIA was therefore conducted for the operation for a gas warehouse on behalf of Industrial Gas Namibia.

The analysis of the EIA has evidenced that the implementation and operation phases of the project will generate positive impacts to the proponent and the country at large.

The impacts will include: creation of jobs; increased industrial operation space for the proponent; increase in Government revenue; and general development of the site.

Although the upcoming project development will stimulate growth of the company (proponent), there are environmental concerns that are associated with its implementation. These negative impacts are ranging from; increased pressure on existing infrastructure; pollution/contamination; increased waste generation; traffic congestion; occupational health and safety hazards; and gas spills and leakages.

Hence, there is a need to identify negative environmental impacts of the project, during the early stages of planning and design. The strategy will ensure sustainable execution of project activities and protection of the environment; and guaranteeing a respectful and fair treatment of all people working on the project and general public including motorists.

8.2 Recommendations

In order to alleviate the negative impacts that may emanate from the implementation of the project, the project mitigation measures should be incorporated during construction and operation phases. This will ensure that Environmental Management Strategies (EMS) are applied at every stage of the project and thus the perpetual co-existence with the environment to its lifecycle. Keeping this in mind that the success of an EMS is based on commitment from top level management, down through all levels of work and requires for a continuous improvement approach that involves constant monitoring, review and updates.

Candy Consultancy cc therefore recommends that the project be approved subject to the outlined mitigation measures will be adhered to and compliance conditions to accompany the approval. The key goal should be geared towards minimizing the occurrence of impacts that may or have the potential to degrade the general environment. This will be effectively overcome through close monitoring and adoption of the recommended Environmental Management Plan (EMPs). The project proponent shall work closely with the environmental Expert including, the general public and the local authority to enhance the management of the issues of concern.

9. REFERENCES

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10. APPENDICES

APPENDIX A: COPY OF ENVIRONMENTAL CLEARANCE CERTIFICATE APPLICATION (FORM 1)

REPUBLIC OF NAMIBIA

ENVIRONMENTAL MANAGEMENT ACT, 2007

(Section 32)

APPLICATION FOR ENVIRONMENTAL CLEARANCE CERTIFICATE

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM
20 OCT 2021
RECEIVED
Signature

NAMIBIA REVENUE N$100
NAMIBIA REVENUE N$100
NAMIBIA REVENUE N$100

PART A: DETAILS OF APPLICANT

1. Name: (person or business) CANDY CONSULTANCY CC
2. Business Registration / Identity No. (if applicable) CC/ 20160 8702
3. Correspondence Address: 55226, ROCKY CREST, WINDHOEK
4. Name of Contact Person: GABRIEL JOSEPH
5. Position of Contact Person: LEAD CONSULTANT
6. Telephone No.: 0813796358
7. Fax No.: 0826 33 684
8. E-mail Address: (if any) candyconsultancy@gmail.com

☐ Tick (☐) the appropriate box

PART B: SCOPE OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE

1. The environmental clearance certificate is for:

☐ ENVIRONMENTAL ASSESSMENT (EA) FOR PROPOSED GAS CYLINDERS' WAREHOUSE
☐
☐

2. Details of the activity(s) covered by the environmental clearance certificate:

[Note: Please attach plans to show the location and scope of the designated activity(s), and use additional sheets if necessary]

Title of Activity: GAS CYLINDERS' WAREHOUSE
Nature of Activity: HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE
Location of Activity: ERF 3236, WALVIS BAY
Scale and Scope of Activity: MEDIUM, ACTIVITIES INCLUDES: WILL STOCK DIFFERENT TYPES OF INDUSTRIAL ... [illegible]

PART C: DECLARATION BY APPLICANT

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong or incomplete.

Signature of Applicant	LILIAN ONDIGO (Full Name in Block Letters)	CONSULTANT (Position)

on behalf of INDUSTRIAL GAS NAMIBIA & CANDY CONSULTANCY CC

Date: 20/10/2021

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM
20 OCT 2021
RECEIVED
Signature

APPENDIX B: CONSULTANT CV's

Name of Consultant: **Gabriel Joseph**

Profession: **Environmental Health Practitioner/ Field Epidemiologist**

Date of Birth: **01/11/1988**

Nationality: **Namibian**

Membership in Professional bodies: **Allied Health Professional Councils of Namibia**

Key Qualifications:

Master of Philosophy in Environmental Management, key experiences include the following:

- Develop management system in Environmental Management and occupational Health and Safety
- Conduct Environmental Impact Assessments (EIAs) and Environmental plans
- Advices Institutions on occupational Health and Safety matters
- Emergency Preparedness and Response

Education		
Name of the Institution	Date attended	Degree Obtained/Certification
Polytechnic of Namibia	2008-2011	B.Sc. Environmental Health Sciences
Stellenbosch University, SA	2014	PGD. Environmental Management
Emory University, USA	2015	Applied Epidemiology Certificate
Stellenbosch University	2016-2017	Mphil. Environmental Management
University of Namibia	2018-2019	MSc. Applied Field Epidemiology and Laboratory Management
University of Delaware	2021	Leadership certificate in Civic Engagement (Mandela Washington Fellowship for young African Leaders)

Employment Record:

World Health Organization| NAPHS Consultant, August 2021-to Date

Duties:

- Conduct a desk review of all relevant National Action Plan for Health Security (NAPHS) documents and related aspects
- Facilitate the integration of the NAPHS plan into the national health sector plan.
- Prepare and organize consultation visits to key stakeholders to collect data on national context for implementing the NAPHS
- Facilitate stakeholders mapping and engagement for resource mobilization required for implementing the NAPHS
- Participate in the monitoring & evaluation of IHR core capacities and periodical reporting on the NAPHS implementation in Namibia
- Provide technical guidance to the ministry of Health on activities related Emergency preparedness and response

Candy Consultancy cc| Lead Environmental Consultant, 2015 till to date

Duties:

- Develop management system in Environmental Management and occupational Health and Safety
- Conduct Environmental Impact Assessments (EIAs), Environmental plans and Public Health related research
- Advices Institutions on occupational Health and Safety matters
- Tender Documentation and Contract Administration for Services

Ministry of Health| Field Epidemiologist, 2017- August 2021

Duties:

- Oversee the implementation of an International Health Regulations in Namibia
- Emergency preparedness and response planning
- Conducting research and disease surveillance
- Technical advice and support on Emergency Preparedness and response during disease outbreak
- Managing and facilitate the operations of the Public Emergency Operation Centre
- Coordinate inter-sectoral collaboration with all relevant stakeholders on Emergency preparedness and response

Ministry of Health| Chief Environmental Health Practitioner, 2014-2017
Duties:

- Policies revision and development
- Standards setting
- Implementation co-ordination of International Health Regulations in Namibia
- Emergency preparedness and response planning
- Conducting research and disease surveillance
- Export and Import control to prevent public health hazards internationally
- Technical advice and support on Emergency Preparedness and response during disease outbreak
- Facilitate and coordinate port health trainings
- Inter-sectoral collaboration with all relevant stakeholders on Emergency preparedness and response

National Health Training Centre| Physics Lecturer, 2016-2017

Duties:

- Lecturing Health Physics for Environmental Health First Year Students
- Prepare lessons and continual assessments (test and assignment and examination) for students

Lüderitz Town Council |Environmental Officer 2012-2014

Duties:

- Managing waste collection team and oversee the collection of household waste throughout Lüderitz town
- Oversees and provide guidance in the effective control of all types of solid waste and removal of all types of domestic refuse.
- Supervises and administers the refuse collection by contractors.
- Monitors on a daily basis the sanitation situation in informal settlements and consult with the community on environmental issues and good sanitation practices.
- Organise clean-up campaigns with schools and general public in town
- Develop and manage waste management tools/system e.g Lüderitz Waste Management Plan
- Conduct health education programmes at school and pre-primary schools.
- Identifies and assesses risks from health hazards of the workplace and control safety structures and programmes of industries.
- Conduct port health inspection in foreign vessels to prevent the spread of diseases into Lüderitz town.
- Scrutinising building plans for approval

- Conduct Environmental auditing and review Environmental Impact Assessment projects within Lüderitz Constituency

Nnenesi Kgabi Consultancy |Assistant Researcher, January 2012 - March 2012

Duties:

- Conduct interviews on Generation of waste, Classification, Storage, Transportation, Disposal, Treatment, Legislation, and Awareness of electronic and hazardous waste throughout the Country (Namibia).

- Interpret and analyse collected date through Statistical Package for Social Sciences (SPSS)

Languages:

English: Excellent proficiency in all aspects
Oshiwambo: Excellent proficiency in all aspects
Afrikaans: Basic user in all aspects

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describe me, my qualifications, and experience.

Gabriel Joseph
31/01/2022

Name of Consultant: **Lilian Kerosi Ondigo**

Profession: **Environmental Biologist**

Date of Birth: 02 October 1994

Nationality: Kenyan

Membership in Professional bodies: Namibian Youth Biodiversity Network

Key Qualification:

Bachelor Degree (Honours) Environmental Biology and Geology. Key experiences include the following:

- Conducting research on-site by taking measurements and monitoring
- Data collection, analysing, and presentation.
- Aid in developing wildlife management strategies, engendering plans for environmental conservation and preservation.
- Preparing and writing project proposals for organizations.
- Environmental education awareness

Education		
Name of the Institution	Date attended	Degree Obtained/Certification
University of Namibia	2012-2016	Bachelor Degree (Honours) Environmental Biology and Geology
University of Namibia	2017-2021	Master of Science in Biology

Employment Record:
Environmental Assessment Practitioner at Candy Consultancy cc (2018- date)
Duties:

- Undertaking field assessments depending on whether the assessment focuses on the social or ecological context
- Undertaking interviews with communities and heritage assessments to inform social I/APs
- Ecologically focused EIAPs using scientific research methods to collect species data
- Fauna and Flora identification
- Reporting findings and recommending whether development or activity goes ahead or not
- Conducting administrative work
- Carrying field survey and preparing EIA reports

Volunteer at the National Museum of Namibia (Natural science) (April 2020-Nov 2020)
Duties:

- Assisted with administrative activities
- Collected and organized and interpreted field data
- Developed and organized new collections to expand and improve educational and research facilities
- Maintained Museum database

Volunteer at the National Botanic Research Institute (2018-2019)
Duties:

- Assisted with administrative activities
- Demonstrated initiative and leadership by managing the base for periods of time when the supervisor was out of the office
- Developed vegetation mapping using a specialized software (QGIS)
- Database management, ensuring data entry and maintenance was carried out accurately and in compliance with the organizational code of practice.
- Conducted biodiversity assessment and monitoring of endangered species
- Specimen collection and mounting
- Giving herbarium presentations
- Scientific curation techniques
- Issuing plant permits, seed cleaning and sowing (exchange at Namib trees)
- Scientific report writing and presentation
- Assisting researchers with different research projects

FPM Consulting Services, January 2017 - October 2018
Duties:

- Assisted with administrative activities
- Planning and execution of environmental field studies and impact assessment
- Conduct fieldwork and survey to document the number and spread of various species according to tested ecological sampling techniques.
- Collect, analyse and interpret data from sites of potential development

Languages:

English: Excellent proficient in all aspects

Afrikaans: Basic user in all aspects

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describe me, my qualifications, and my experience.

Lilian Kerosi Ondigo, 01/02/2022

APPENDIX C: BACKGROUND INFORMATION DOCUMENT (BID)

BACKGROUND INFORMATION DOCUMENT

Environmental Assessment (EA) for proposed gas cylinders` warehouse at Erf 3236 in Walvis Bay.

Project Information	
Project title	Gas cylinders` warehouse at Erf 3236 in Walvis Bay.
Proponent	Industrial Gas Namibia
Contact Person	Mr. Elmo Kaiyamo +264 811299962
Consultant:	Candy Consultancy cc
Consultant contact person	Gabriel Joseph +264813796358
Postal Address	P.O.Box 55226 Rocky Crest **Windhoek**
Email	liliankondigo@gmail.com or candyconsultancy@gmail.com

26 October 2021

1. Project description and background

Industrial Gas Namibia (IGN) is a wholly owned Namibian subsidiary of NMK Holdings Limited. IGN to date remains the only accredited and authorized Air Products Industrial Gas Distributor in Namibia. The company currently supplies oxygen, acetylene, nitrogen, argon, carbon dioxide, and specialized welding mixes for engineering, production, and mining facilities. The company caters for a wide range of services including but not limited to the following industries: Agriculture, Construction, Food & Beverage, Glass & Minerals, Healthcare, Mining and Energy.

IGN is in the process of setting up a Gas cylinders` warehouse at Erf 3236 in Walvis Bay. The Warehouse will stock different types of industrial gasses for the welding, gas cutting industry as well as for medical industry, such as Oxygen, Acetylene, Mag Mix 3 (light gauge mig welding), Coogar 84 (>6mm mild steel mig welding), Coogar 99 (stainless steel mig welding), Argon and Argon 5.0 (high purity), Nitrogen gas (19kg and 48kg). For the medical industry these include Medical Oxygen, Nitros Oxide and other specialty gasses.

The proposed project activities will include site preparation for construction work and installation of the warehouse to store and distribute industrial gas cylinders.

The proposed site for the warehouse is situated at the corner of Rooikop road and 18th Road at the industrial area erf No. 3236 as shown in Figure 1.

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Figure 1: Locality of Erf 3236

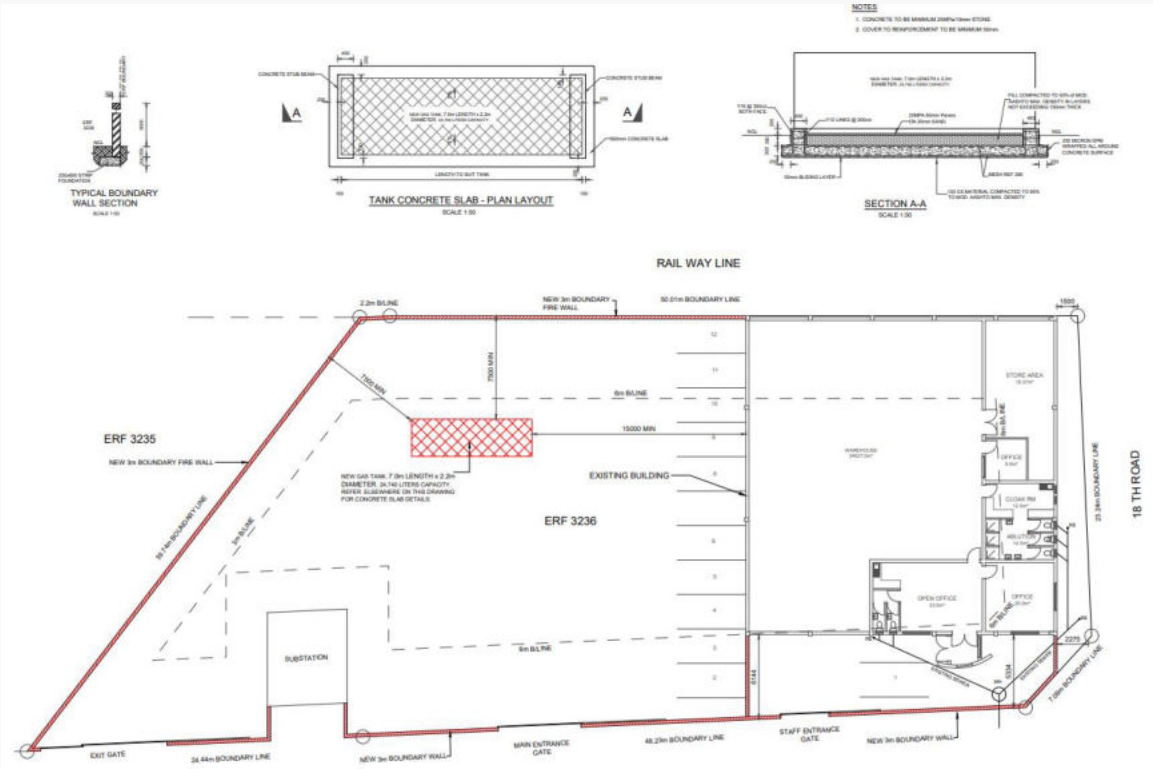

Figure 2: Floor plan for a proposed warehouse

2. Legal requirements

Candy Consultancy cc has been appointed by Industrial Gas Namibia (The Proponent) as an independent Environmental Assessment Practitioner based in Windhoek Namibia to undertake the EIA process. The EIA process for this assessment will be conducted in accordance with the Government Gazette No. 3966 in terms of the Environmental Management Act (Act 7 of 2007) Environmental Impact Assessment regulations.

The Proponent plans to construct a Gas cylinders` warehouse in Walvis Bay, Erongo Region. The Warehouse will stock different types of industrial gasses for the welding, gas cutting industry and medical industry.

The construction of gas cylinder infrastructure/warehouse for gas cylinders and subsequent processing and handling of hazardous substances fall under listed activities that may not be undertaken without an Environmental Clearance Certificate (ECC). Therefore, the proposed construction of Gas cylinders 'warehouse at Erf 3236 in Walvis Bay is subjected to a Clearance Certificate to be issued by the Ministry of Environment, Forestry and Tourism (MET) upon submission of an Environmental Assessment Report (EAR) and Environmental Management Plan (EMP).

Under the Environmental Management Act (EMA) (2007) and its 2012 EIA Regulations, the proposed activities are listed activities that require an Environmental Clearance Certificate (ECC) from the Department of Environmental Affairs (DEA) of the Ministry of Environment, Forestry and Tourism (MEFT). The relevant listed activities as per EIA regulations 9 (9.4):

ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES

1. The construction of facilities for -

1. (a) the generation of electricity;

2. (b) the transmission and supply of electricity;
3. (c) refining of gas, oil and petroleum products; and
4. (d) nuclear reaction, including production, enrichments, processing, reprocessing,

"*The storage and handling of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location."*

3. Purpose of this document

The purpose of this Background Information Document (BID) is to provide a brief description of the proposed project and EIA process that will be followed and to obtain comments and contributions from Interested and Affected Parties (I&APs) on the issues relating to the proposed construction and operations of the gas Cylinder warehouse at erf 3236 in Walvis Bay.

This document further indicates how you as an important I&AP can become involved in the project, receive information, or raise issues that may concern and/or interest you regarding the construction and operations of the gas cylinder warehouse. The sharing of information forms the basis of the Public Participation Process and offers you the opportunity to become actively involved in the project from the outset. The BID also provides an opportunity for I &APs to register for the EIA process and to submit any initial comments, concerns, or issues regarding the proposed project.

4. Location of the proposed Gas cylinders 'warehouse

Erf 3236 is located in the industrial area, Walvis Bay in Erongo region, approximately 2 km from the Namport habour. The coordinates for the proposed warehouse area are 22.945658˚ S and 14.512109˚ E. The warehouse will be situated alongside existing industrial infrastructure such the ones run and managed by gas and petroleum companies such as Engine Namibia, Puma and Afrox. The proposed site for the warehouse construction is access linked to the railway and roads network in the town of Walvis Bay.

5. The EIA Process

5.1 Public Participation

The public participation process aims to inform a wide range of I&APs/stakeholders about the proposed project and the environmental process to be followed. It is a way to allow the public to exchange information and to express their views and concerns on the proposed construction of a gas warehouse for which the EIA is being conducted. The public participation process assists in identifying potential issues and concerns that need to be addressed in the assessment process and the formulation of environmental management plan.

The public and relevant Authorities will be notified of the proposed Gas cylinders 'warehouse through newspaper adverts, site notice, and direct consultation especially the Walvis bay residents, businesses adjacent to the proposed site and other relevant stakeholders. In light of the current situation of the COVID-19 pandemic, online communications and public engagements will be complementary used to allow reaching out as many I&APs as possible and to prevent overcrowding as well to provide an opportunity for inclusive public participation. Candy Consultancy cc has made some consideration to conduct the EIA public meeting following the restriction measure put in place by the government i.e. not more than 200 people physically gathering. As such, to ensure the inclusion of all I&APs, the public consultation will be made available in various means such as online platforms and electronic engagement for everyone.

5.2 Identification of Impacts

Environmental issues, concerns, and issues related to hazardous substances handling will be identified using expert and professional judgment, project information, the experience of similar projects, site investigation, and consultation with authorities and stakeholders/ I&APs.

5.3 Impact Evaluation

The significance of environmental issues will be evaluated in terms of their expected extent, intensity, duration, and probability of occurrence.

5.4 Mitigation, Management Measures and monitoring

Mitigation measures will be developed to prevent, manage, and minimize negative impacts to acceptable levels. Measures will be proposed to maximize the positive impacts of the development. A monitoring plan will be developed to ensure the monitoring of mitigation measures implemented during the construction and operation phase of the project.

5.5 Environmental Reporting

The draft scoping report will be made available online and at identified community sites (Walvis Bay municipality and Walvis Bay community library) to all registered stakeholders/I&APs and relevant authorities for review and comments. After receiving the inputs and comments from I&APs, a final environmental assessment report will be compiled in which the comments received will be incorporated and addressed.

5.6 Environmental Commissioner Decision

The final environmental assessment report together with the completed application form for environmental clearance certificate will be submitted to the office of the Environmental Commissioner who will then make a decision whether the construction and operation of the Gas cylinders` warehouse should go ahead or not based on the assessment presented and associated mitigation measures.

6. Anticipated preliminary impacts identified

The proposed project will have positive and negative impacts for all dimensions of sustainable development i.e. economic, social and environment. These will be investigated and addressed during the environmental impact assessment to lessen negative impacts and

enhance the positive ones. Identified impacts will be managed through a developed Environmental Management Plan which will be made available for public review together with the EIA report. The preliminary impacts identified are as follows:

6.1 Positive impacts

- Creation of jobs to the locals (primary, secondary and even tertiary employment).
- Help boost local economic growth.
- Contribution to regional economic development.
- Open up other investment opportunities.
- Promotion of community development through corporate social responsibility.
- Construction of infrastructure for development.

6.2 Negative impacts

- Destruction of soil structure.
- Socio-economic problems.
- Environmental pollution.
- Change landscape and effect on traffics.
- Potential health and safety risks associated with mishandling of gassed cylinders and other hazardous material.
- Increased noise and vibration levels.

The potential impacts listed above were pre-identified. More potential impacts will be identified as the EA process progresses i.e. upon site visit and consultations with the public. All impacts and public concerns/comments will be incorporated and addressed in the Environmental Assessment Report.

7. Your role as an interested and affected party

As an I&AP you are expected to do the following:

Register as an I&AP and provide your comments, concerns, or issues if there are any. Comments, concerns, or issues can be submitted in writing by completing the comments form or can be raised in person during the public consultation meeting.

Attend a public meeting regarding this proposed project and obtain and contribute information about the anticipated activities. Announcements for the date and venue of the public meeting will be advertised in the local newspaper and site posters, which will be displayed on the site and other public spaces.

Proposed date: 30 October 2021 and Venue will be at Sunnyside guest house in 15th Road, Walvis Bay.

Review and provide comments if there are any on the draft scoping report.

Please complete the enclosed registration or comment form or contact Candy Consultancy cc to register as an I&AP.

CANDY CONSULTING CC

PO Box P.O. Box 55226 Rocky Crest

Windhoek; cell +264813796358; email: candyconsultancy@gmail.com

8. Comment Form

COMMENT REGISTRATION FORM **Proposed Gas cylinders` warehouse Erf 3236 in Walvis Bay**							
NAME							
ORGANISATION							
POSTAL ADDRESS							
POSTAL CODE		FAX NUMBER					
TELEPHONE NUMBER		CELL NUMBER					
EMAIL							
DATE		SIGNATURE					
I WOULD LIKE TO ATTEND PUBLIC MEETING			YES		NO		
PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT:							
PLEASE WRITE YOUR COMMENTS, CONCERNS/SUGGESTIONS HERE:							

CANDY CONSULTING CC

PO Box P.O. Box 55226 Rocky Crest

Windhoek; cell +264813796358; email: candyconsultancy@gmail.com

Kindly return this completed document (with all requested details) to: **Candy Consultancy cc** **Attention Mr. Gabriel Joseph** **Physical address:** **2295, Hannover street Windhoek** **Telephone:**+264 81 379 6358 or +264 818268996 **Email:** candyconsultancy@gmail.com or liliankondigo@gmail.com

***

CANDY CONSULTING CC

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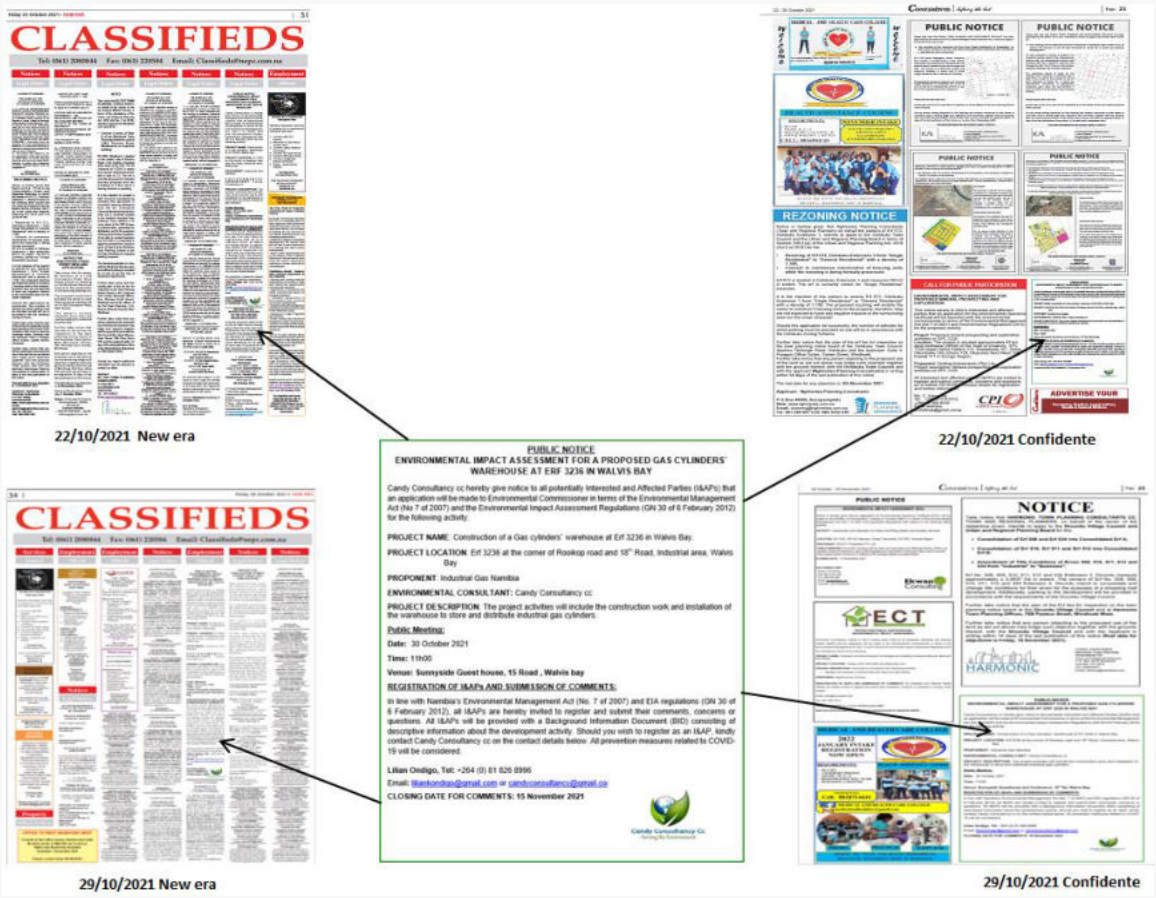
APPENDIX D: NEWSPAPER ADVERTS (NEW ERA AND CONFIDENTE)



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APPENDIX E: SITE NOTICE

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APPENDIX F: PUBLIC MEETING MINUTES

ENVIRONMENTAL IMPACT ASSESSMENT FOR A PROPOSED GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY

UNDERTAKING OF PUBLIC MEETING –

PROJECT: GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY

VENUE: SUNNYSIDE GUESTHOUSE AND CONFERENCE, 15TH RD, WALVIS BAY

DATE: 30 October 2021

TIME: 11:30-12:30

Facilitator:
Mr. Trevor Majiedt - Industrial Gas Namibia Representative

EAP:
Mr. Gabriel Joseph and Ms. Lilian K. Ondigo - Candy Consulting CC

Attendees:
Please refer to attendance register in this document

Proceedings:

ITEM	DESCRIPTION	PERSON
1	**Welcome, Introductions & Project Background**	
	-All present were welcomed on behalf of the proponent and the Environmental Consultant and the agenda confirmed. -The proposed project was explained to all members present in terms of scope and scale. -The proponent highlighted the stage of the project and why the EIA was needed as part of the development	Mr. Gabriel Joseph
2	**Purpose of Meeting**	

	-The Environmental Impact Assessment process in Namibia was explained to the members in attendance. -Possible environmental impacts both negative and positive were alluded to by the public in attendance as per environmental scoping conducted for the site. -Reasons for assessment were given -Legislations and regulations followed as part of the process were alluded to. -The EAP explained the important role played by public and community members and how it has helped other developments in Namibia.	Mr. Gabriel Joseph
4	**Q & A Session**	
	-All members on the panel were introduced	

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COMMENTATOR /I & A P:	COMMENT, QUESTION, CONCERN RAISED:	Answers prepared
Mr. Jesaya Andreas	● On social economic aspects, approximately how many people do you intend to employ for this project?	● Mr. Majiedt answered that once they get a go ahead there will be job opportunities for the locals from Walvisbay.
Mr. Jesaya Andreas	● Due to high traffic flow in the area, how is the design for product collection?	● Mr. Majiedt answered that we have two gates in place, and we intend to buy our interlink from South Africa and put it in the Swakop Uranium storage site; approximately two tracks will be used to get the products from the storage site to offload.
Mr. Jesaya Andreas	● Since your operations involve explosive gas, will there be some emergency response plan in case of any accidents considering the Trans namib railway is near the vicinity?	● Mr. Majiedt answered that there is a contingency plan for this project. We also have training certification/ route analysis in place with ISO 9001 Air products South Africa.
Mr. Frans Iipinge	● It was suggested that more meetings should be conducted to engage the locals	● Mr. Gabriel Joseph responded that we have followed all the procedures necessary to conduct the public meeting such as placing on site notices, advertising in newspapers, and sending emails. Moreover, to ensure everybody is involved in this process we will produce a scoping report that will be available at Walvis Bay community library and Municipality.

Conclusions and Recommendations

- When the EIA scoping is ready it will be available to the proponent, Industrial Gas Namibia and any members who are interested in receiving the document should send an email to the consultant.
- The EAP gave concluding remarks.
- The meeting was closed at: 12:30PM

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Attendance register

Candy Consultancy Cc
- Serving the Environment -

P.O.Box 55226
Rocky Crest, Windhoek
Gabriel Joseph
Cell: +264813796358
Email:
liliankondigo@gmail.com or
candyconsultancy@gmail.com

PUBLIC CONSULTATION REGISTER: ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED GAS CYLINDERS`WAREHOUSE AT 3236, WALVIS BAY

VENUE: SUNNYSIDE GUEST HOUSE TIME: 11:00 DATE: 30 OCTOBER 2021

	Name	Organization/Location	Cell n#	Email	Signature
1	Lilian Ondigo	Candy Consultancy	0818268996	liliankondigo@gmail.com	Lily
2	Ferdinand Mwapopi	Candy consulting	0811472912	mwferddy@gmail.com	[signature]
3	Frans Iipinge	Namcol	0812783511	fifransi@gmail.com	[signature]
4	Josaya Andreas	Municipality of Walvisbay	0814971836	jandreas@walvisbay.cc.na	[signature]
5	Trevor Majiedt	I.G.N Walvisbay	0814767460	tmajiedt@ign.com.na	[signature]
6	Kamutelunga Junias	Namport walvisbay	0813855229	k.junias@[illegible].com	[signature]
7	Bhanuls Cabibe	WHC	0813041877	johnn cashbe@gmail.com	
8	ROMAIN M.O	CATFORD INVESTMENT	0856291878	MENZOONDMORomain@GMAIL.COM	[signature]
9	Veronika Doeses	Sunny Side Guest	0813747330	veronikadoeses6@gmail.com	Doeses

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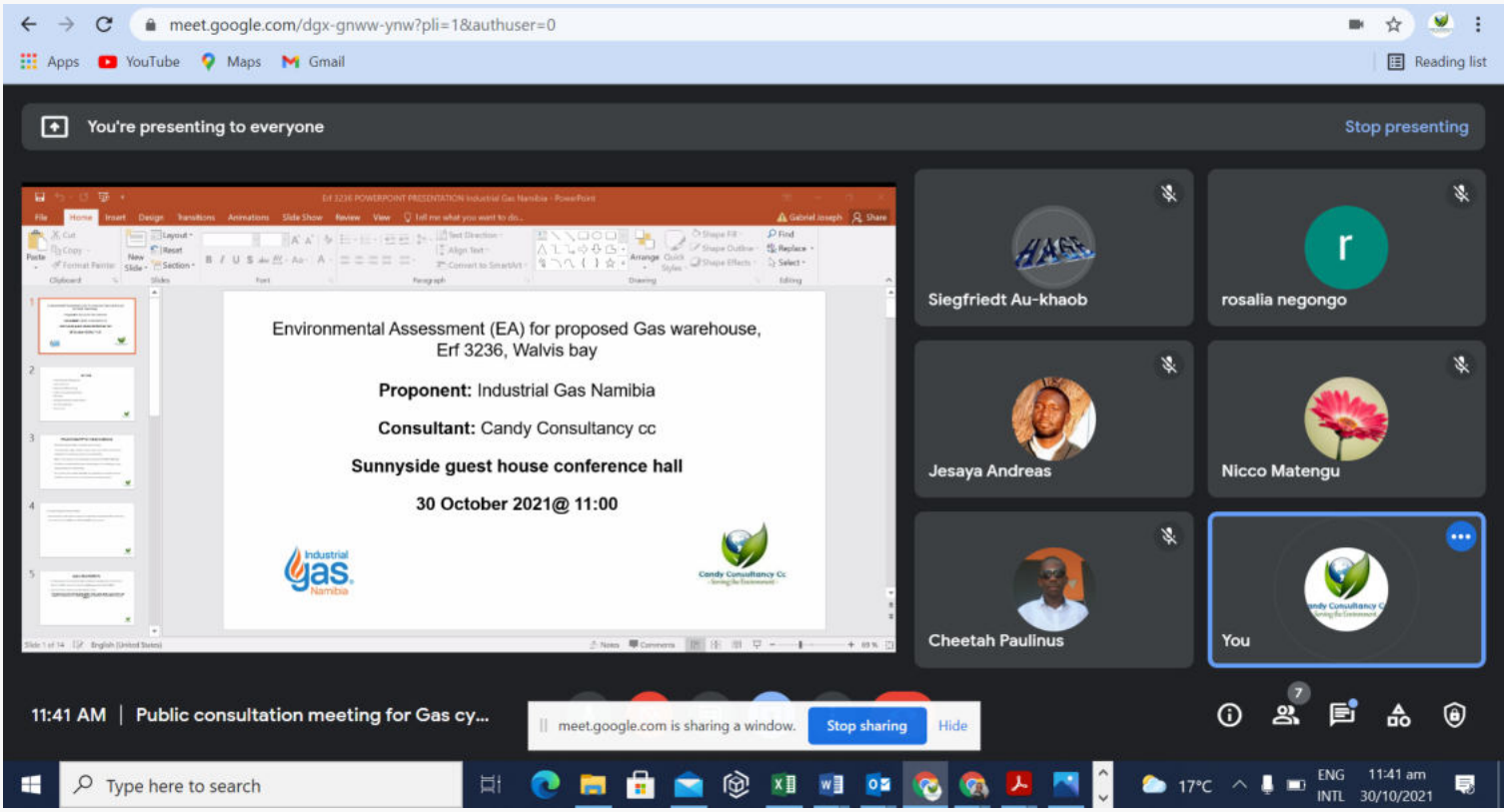

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ENVIRONMENTAL IMPACT ASSESSMENT FOR A PROPOSED GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY

UNDERTAKING OF PUBLIC MEETING – MINUTES

PROJECT: GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY

VENUE: VIRTUAL VIA ZOOM

DATE: 10 November 2021

TIME: 11:00-12:10

EAP:

Mr. Gabriel Joseph and Ms. Lilian K. Ondigo - Candy Consultancy cc

Attendees:

- Municipality of Walvis Bay team:
  Ms. Nangula Amutenya (Environmental management department)
  Ms. Lovisa Hailaula (Environmental Management department)
  Mr. Efraim Nambahu (Town planning department)
  Ms. Elizabeth Nawa (Health department)
  Mr. Jesaya N. Andreas (Health department)
  Mr. Tutaleni Kathindi (Fire Brigade department)
- Industrial Gas Namibia (IGN) representative:
  Mr. Trevor Majiedt

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Proceedings:

ITEM	DESCRIPTION	PERSON
1	**Welcome, Introductions & Project Background**	
	-All present were welcomed on behalf of the proponent and the Environmental Consultant and the agenda confirmed. -The proposed project was explained to all members present in terms of scope and scale. -The proponent highlighted the stage of the project and why the EIA was needed as part of the development	Mr. Gabriel Joseph
2	**Purpose of Meeting**	
	-The Environmental Impact Assessment process in Namibia was explained to the members in attendance. -Possible environmental impacts both negative and positive were alluded to by the public in attendance as per environmental scoping conducted for the site. -Reasons for assessment were given -Legislations and regulations followed as part of the process were alluded to. -The EAP explained the important role played by public and community members and how it has helped other developments in Namibia.	Mr. Gabriel Joseph
4	**Q & A Session**	
	-All members on the panel were introduced	

COMMENTATOR /I & A P:	COMMENT, QUESTION, CONCERN RAISED:	Answers prepared
Mr. Kathindi fire brigade, Municipality of Walvis Bay	● May you please give us clarity where you mentioned that the premise is yet to be constructed? ● Also, you later mentioned that the floor layout plans have been approved by the relevant authorities, have they?	● Mr. Majiedt stated that this is a fixed structure, in overall Industrial Gas Namibia (IGN) just wanted to make the place safe by putting in the will bard, re-doing the floor, repainting the walls inside and outside. Thus, it's not something that needs to be built again. ● Mr Majiedt further answered that the fire brigade was on site and a fire certificate was issued after the inspections however the plan is yet to be approved.
Walvis Bay municipality team	● They followed up by stating that the presentation was more based on the construction of the warehouse which is misleading since there is already a standing structure	● Mr. Gabriel pointed out that the confusion might have risen because the client also intends on planning to expand in future. It was acknowledged that corrections will be made accordingly.
Mr. Nambahu, town planning	● I think there are a lot of issues that are not very clear, according to the municipal building code or from a planning point of view. Any change of usage for standing buildings and which trigger renovations or different usage you are subjected to submit in a building plan. Now in that instance, when we come to listed activities such as the proposed, normally an Environmental Clearance Certificate (ECC) is required before any approval of the building plan. Hence, this really bothers me that there were	● It was noted, all possible corrections will be made in the scoping report. ● Mr. Majiedt clarified that they are not going to fill on site; rather, the products that will be imported from South Africa from our main suppliers will be taken straight to the storage site at Swakop Uranium. In connection with the storage facility, we are waiting for the 3-years contract proposal we sent to Swakop Uranium to be approved. This means once approved the stock coming from South Africa using B2 road will be taken to the storage site to offload all the gasses there, and using smaller tracks we will get a

	renovations done to a building that has not been approved. In regard to this, the presentation was sort of misleading and it needs to be clarified because it appears like it's a new building to be constructed. ● In addition, when it comes to distribution and storage there will be cargo, tracks coming to and from site, there will be issues of railways and all this comes in for site preparations which is also not clear in the given presentation. In regard to high traffic in this vicinity, the current locality is problematic in the sense that this building needs to be re-analyzed in relation to what is current on site, the oncoming traffic and outgoing, the parking, the loading and offloading and turning points of the tracks.	few gasses from the storage site and distribute it between our clients.
Walvis Bay Municipality team	● The fire certificate that was issued, which one comes first is it the fitness or the certificate? to make it worse the building is not yet approved. How did you get the fire certificate without the business being registered or the building plans not yet approved for the activity you are proposing for? these are some of the things that are not clear	● Mr. Majiedt pointed out that Industrial Gas Namibia (IGN) has a certificate of doing business and it has been operating since 2010-2011. The reason why they had to relocate to the new site is because the previous building was not sufficient in terms of size and this was identified as a hazard since we are dealing with various gasses. On the contrary, the current space occupied is more efficient, bigger and is in the industrial area. Office space is approximately 700 squares, and the yard together with the building is 1900 squares. Regarding the distribution, we have two gates where the truck can come to offload when

		we get our products from the storage site (Swakop Uranium). Also, because of the pre-existing fitness certificate of the previous building we thought it was transferable which you pointed out it's not the case, regarding the issuance of the fire certificate we were not aware at what stage it was supposed to be approved until after we went to the municipality that's when we were informed that an Environmental Impact Assessment (EIA) is required first and the rest after and that's how Candy Consultancy cc is involved in this process.
Mr Nambahu, Municipality of Walvis Bay	● I see where you are coming from, there were certain processes you were not aware of such as a certificate for a certain building on a certain locality is not transferable to another locality especially when you are handling this type of substances. Besides, the current site by its natural order its suited for the proposed activity, yet again through the building code town planning has a stance to say any changes in usage of any type of building, all changes that were made to the plan or to the building normally we require a Schematic Design (SD) plan because all the new alterations need to be certified to determine whether those changes are really equipped to handle the proposed activity.	● Regarding the Schematic Design (SD) plan, no new structures were added, but we just painted the building inside and outside, and put up new assembly signs. ● This was noted ● This was noted ● This was noted

	● All that is required is to re-draw the plan to indicate any physical changes of the building, hence you won't be submitting a new building plan rather a Schematic Design (SD) plan as it is with the renovations made. The idea is just re-submitting the plan and getting the approval for the warehouse intended activity since the structure is the same. ● On the same layout plan and the side layout we need the indication of where the parking will be, loading and offloading exist and entrance points. ● It is crucial that all these things pointed out need to be in the report and that's where you come with mitigation measures.	
Mr. Majiedt, IGN representative	● In the future around next year we might put up a tank, should we go through this process (EIA) again or does this EIA caters for everything.	● The Walvis Bay municipality team answered that it depends on the size, however if it is a short-term plan that is likely to happen within 2 years' time you can make it part of this project because once you get an EIA it will be valid for 3 years. So, you can add it to this assessment and get an approval for both instead to come amend it later with the EIA and EMP.
Mr. Gabriel, Candy Consultancy cc	● Thank you so much for the guidance and comments and indicating that we can include the tank in this current application. For clarity's sake all the things regarding redrawing the floor layout plan should be	● The Walvis Bay municipality team answered that they can run simultaneously. In simple terms IGN can start already with the plan, but it will only be approved after the issuance of an EIA. Also, this is the time to get different

	done after the EIA is completed or IGN can go ahead the same time Candy Consultancy cc is conducting an EIA?	inputs e.g., try to get information from traffic by going there and sharing the proposed site plan.
Walvis Bay municipality team	● There was limited information, thus it's advisable a traffic study to be done. All this needs to come out clear in the assessment and ensure that all the issues addressed will be part of the scoping report.	● This was noted.
Mr. Majiedt, IGN representative	● Suggested going to the traffic and ask them to do an assessment on offload and loading of the products since there is a lot of traffic near the vicinity	● Mr. Gabriel and the Walvis Bay Municipality noted this.
Mr. Gabriel, Candy Consultancy cc	● For the sake of follow up, will the municipality team need another presentation at a later stage or just a scoping report	● The Walvis Bay Municipality team stated that only a scoping report will be needed.

CANDY CONSULTING CC

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Conclusions and Recommendations

- The EAP gave concluding remarks and assured the Walvis Bay Municipality team that the EIA scoping report will be shared with them for review once it is ready.
- The minutes of the meeting will be sent in the week.
- The meeting was adjourned at: 12:10PM

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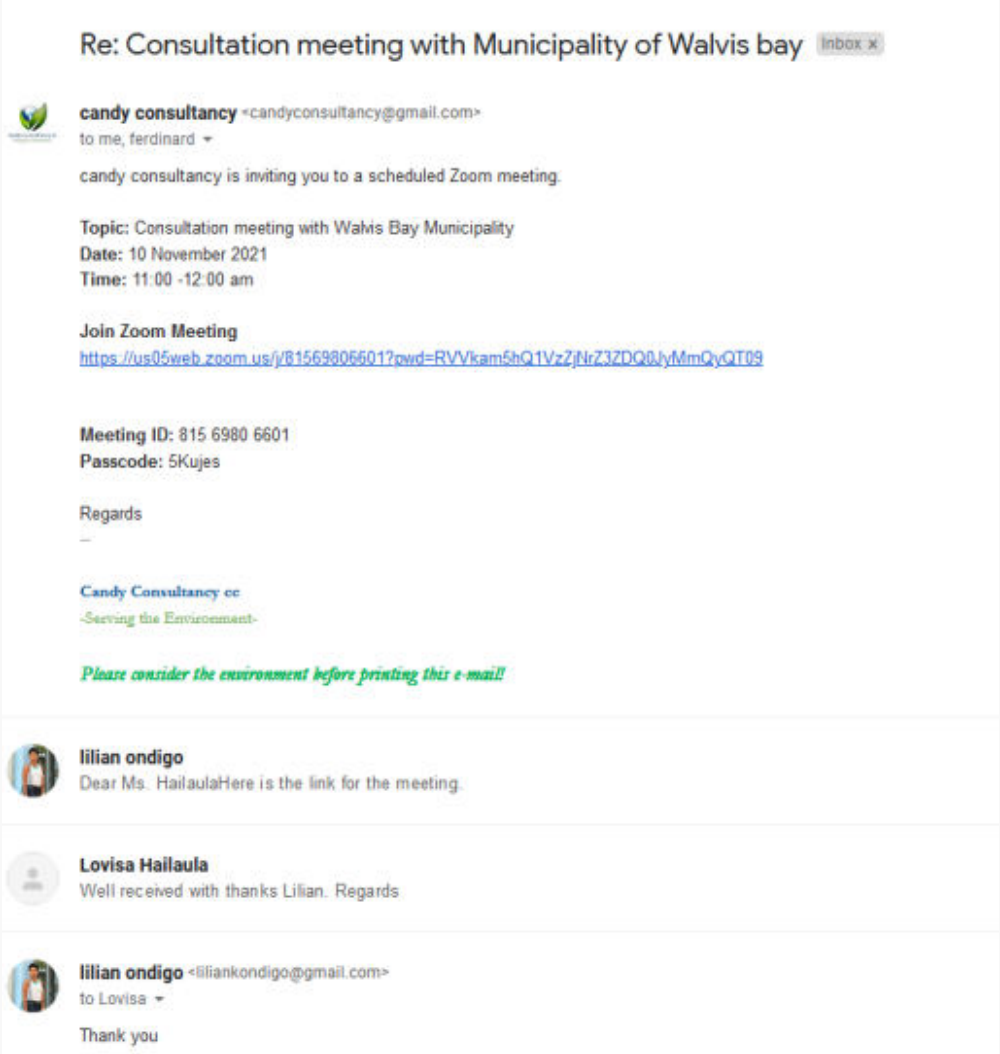
APPENDIX G: EMAIL CORRESPONSE



Re: Consultation meeting with Municipality of Walvis bay Inbox ×

candy consultancy <candyconsultancy@gmail.com>
to me, ferdinard

candy consultancy is inviting you to a scheduled Zoom meeting.

Topic: Consultation meeting with Walvis Bay Municipality
Date: 10 November 2021
Time: 11:00 -12:00 am

Join Zoom Meeting
https://us05web.zoom.us/j/81569806601?pwd=RVVkam5hQ1VzZjNrZ3ZDQ0JyMmQyQT09

Meeting ID: 815 6980 6601
Passcode: 5Kujes

Regards
–

Candy Consultancy cc
-Serving the Environment-

Please consider the environment before printing this e-mail!

lilian ondigo
Dear Ms. HailaulaHere is the link for the meeting.

Lovisa Hailaula
Well received with thanks Lilian. Regards

lilian ondigo <liliankondigo@gmail.com>
to Lovisa

Thank you

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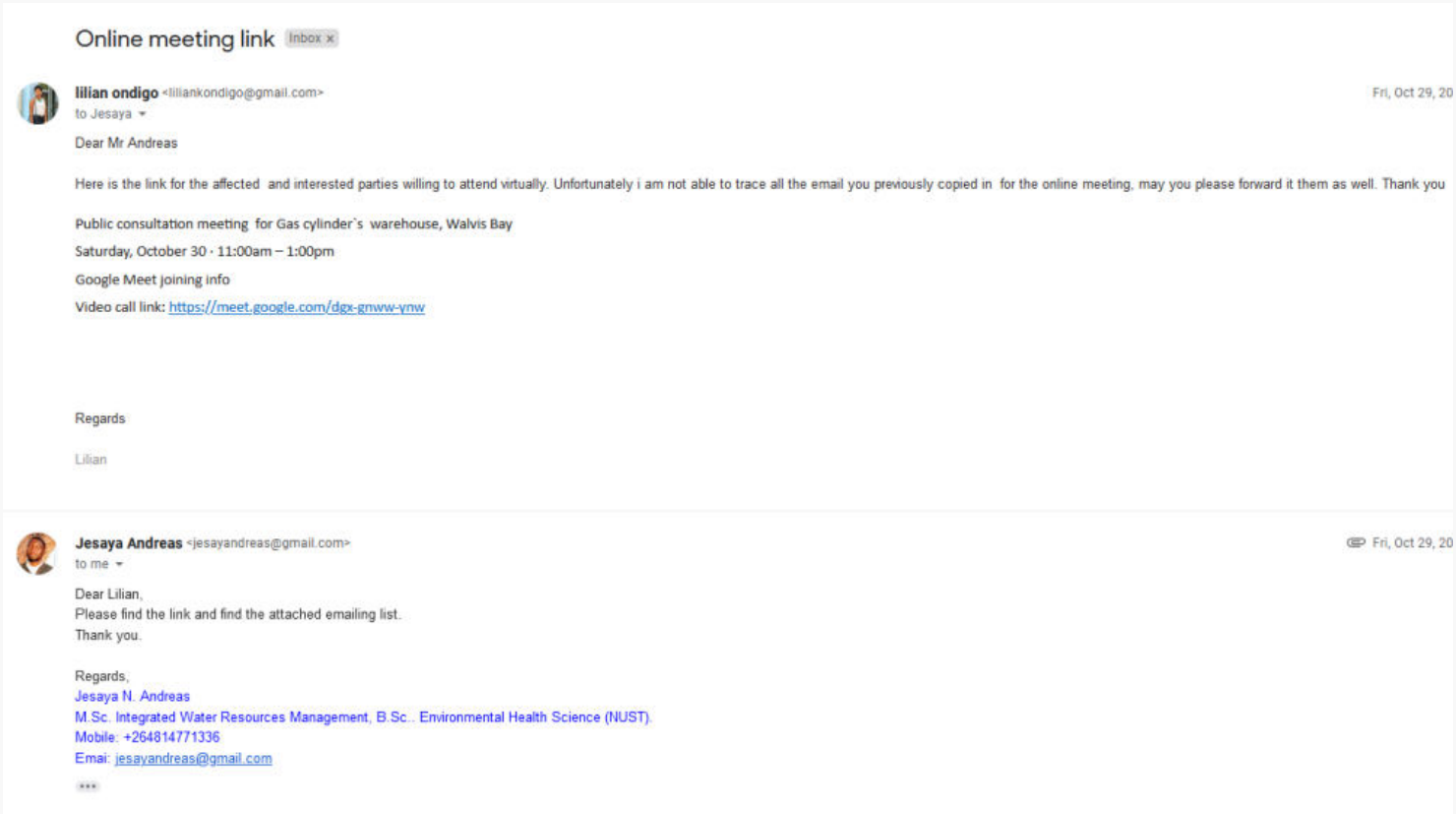

Online meeting link Inbox ×

lilian ondigo <liliankondigo@gmail.com> Fri, Oct 29, 20
to Jesaya

Dear Mr Andreas

Here is the link for the affected and interested parties willing to attend virtually. Unfortunately i am not able to trace all the email you previously copied in for the online meeting, may you please forward it them as well. Thank you

Public consultation meeting for Gas cylinder`s warehouse, Walvis Bay
Saturday, October 30 · 11:00am – 1:00pm
Google Meet joining info
Video call link: https://meet.google.com/dgx-gnww-ynw

Regards

Lilian

Jesaya Andreas <jesayandreas@gmail.com> Fri, Oct 29, 20
to me

Dear Lilian,
Please find the link and find the attached emailing list.
Thank you.

Regards,
Jesaya N. Andreas
M.Sc. Integrated Water Resources Management, B.Sc.. Environmental Health Science (NUST).
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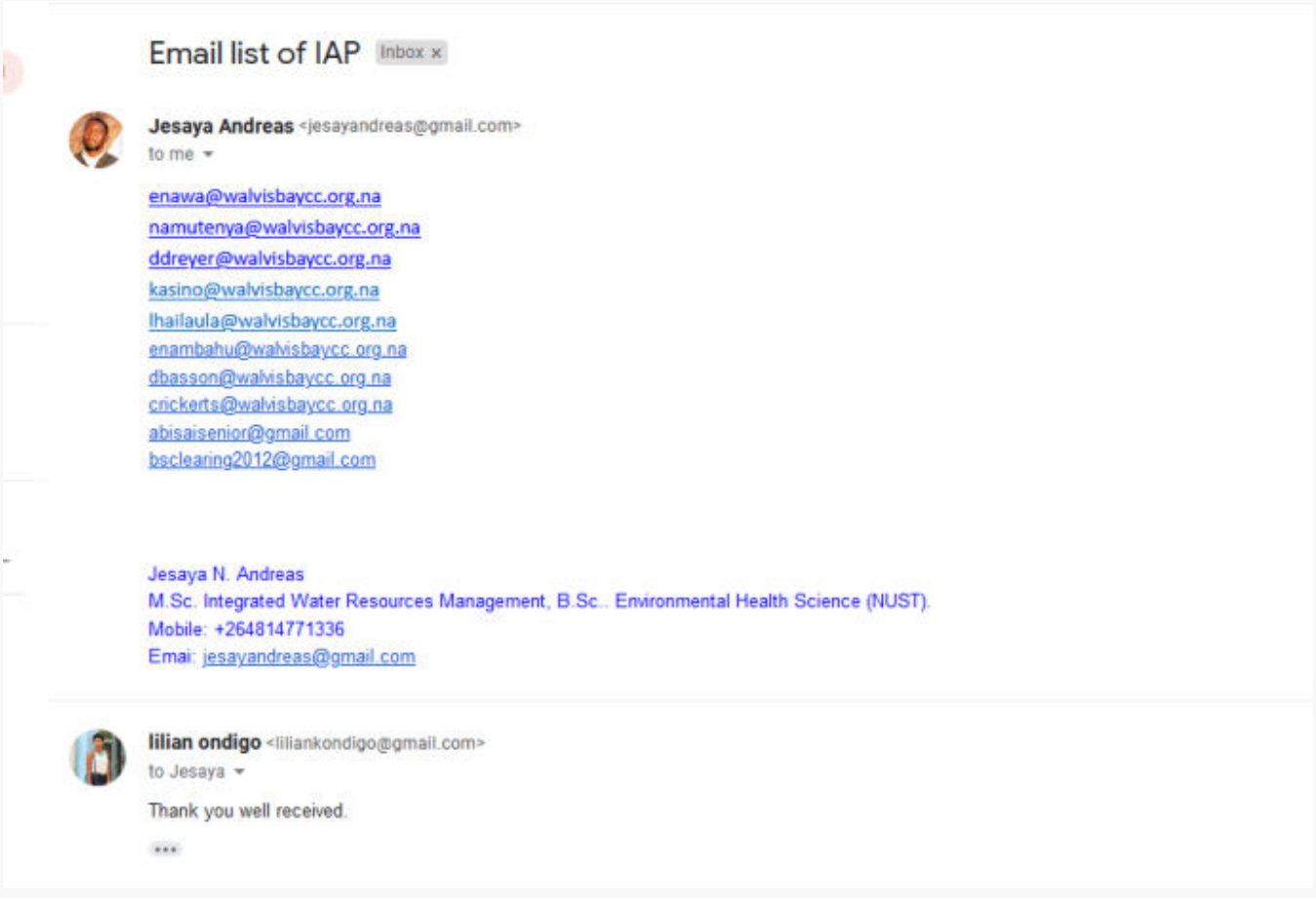

Email list of IAP Inbox ×

Jesaya Andreas <jesayandreas@gmail.com>
to me

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lilian ondigo <liliankondigo@gmail.com>
to Jesaya

Thank you well received.

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ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION AND OPERATION OF GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY, ERONGO REGION- NAMIBIA

ENVIRONMENTAL MANAGEMENT PLAN

MARCH 2022

Table of Contents

1. CHAPTER 1: BACKGROUND

1.1. INTRODUCTION

Industrial Gas Namibia (IGN) is a wholly owned Namibian subsidiary of NMK Holdings Limited. IGN to date remains the only accredited and authorized Air Products Industrial Gas Distributor in Namibia. The company currently supplies oxygen, acetylene, nitrogen, argon, carbon dioxide, and specialized welding mixes for engineering, production, and mining facilities. The company caters for a wide range services including but not limited to the following industries: Agriculture, Construction, Food & Beverage, Glass & Minerals, Healthcare, Mining and Energy.

In terms of the Namibian environmental legislation (Environmental Management Act (No. 7 of 2007)) and the Environmental Assessment Regulations of 2012; an EIA is required to obtain an Environmental Clearance Certificate from the Ministry of Environment and Tourism (MET) before the project can proceed.

Furthermore, as per the requirements of the Environmental Management Act No. 7 of 2007, Industrial Gas Namibia has appointed Candy Consultancy cc to conduct an Environmental Assessment (EA) and develop an Environmental Management Plan (EMP) for the construction of the storage tank and operation of the gas cylinder's warehouse. This has been followed by an application for Environmental Clearance Certificate (ECC) to the Ministry of Environment, Forestry and Tourism (MET): Directorate of Environmental Affairs (DEA).

In this respect, this document forms part of the application to be made to the DEA's office for an Environmental Clearance certificate for the proposed gas cylinder's warehouse, in accordance with the guidelines and statutes of the Environmental Management Act No.7 of 2007 and the environmental impacts regulations (GN 30 in GG 4878 of 6 February 2012).

1.2. PROJECT LOCATION

The proposed site for the warehouse is situated at the corner of Rooikop road and 18th Road at the industrial area erf No. 3236. Erf 3236 is located in the industrial area, Walvis Bay in Erongo region, approximately 2 km from the Namport habour as shown in Figure 1 below.

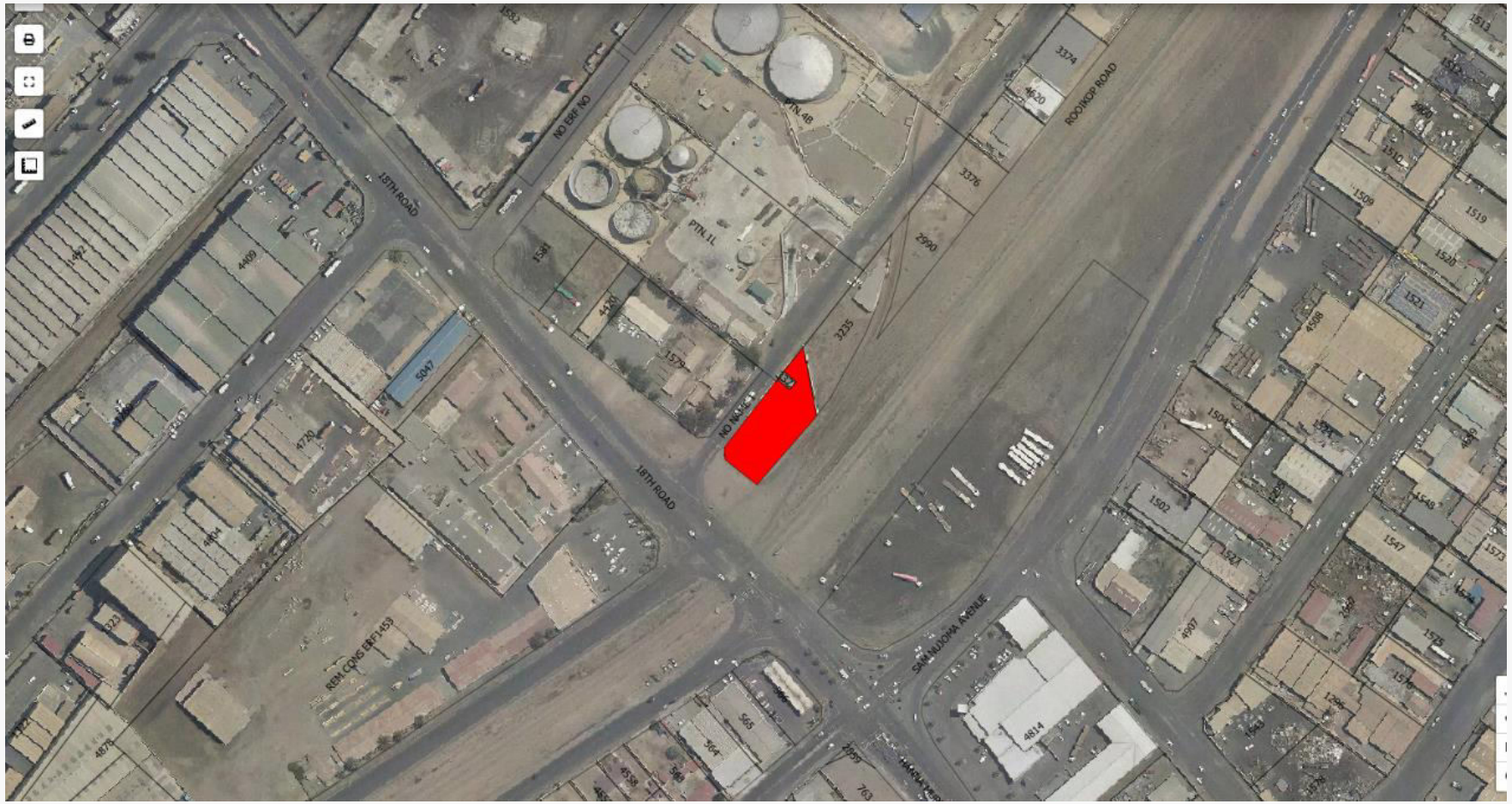

Figure 1: Proposed Project Site

1.3. PURPOSE OF THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

This EMP has been developed for the proposed construction and operation of gas cylinders` warehouse at erf 3236 in Walvis Bay, Erongo Region- Namibia proposed by Industrial Gas Namibia. It forms the operational framework within which the proposed project is to operate within. All anticipated environmental and social impacts identified in the environmental scoping report are addressed, with a mitigation action, monitoring requirements, key indicator and responsibilities.

This EMP is incessant, and it requires compliance monitoring, updating and or amendment if the scope of operations change. All personnel working on the project will be legally required to comply with the standards set out in this EMP.

This section describes the Environmental Management Plan (EMP) for impacts associated with the proposed development. The EMP stipulates the management of environmental programs in a systematic, planned and documented manner. The EMP below includes the organizational structure, planning and monitoring for environmental protection at the proposed site of development and other areas of its influence. The aim is to ensure that the proponent maintains adequate control over the project operations to:

- Prevent negative impacts where possible;
- Reduce or minimise the extent of impact during project life cycle;
- Prevent long-term environmental degradation.
- Ensure public safety and health is protected

1.4. LEGAL AND OTHER REQUIREMENTS COMPLIANCE

This report presents the EMP and has been undertaken in accordance with the requirements of the Environmental Management Act (EMA), No. 7 of 2007 and the Environmental Assessment regulations of 2012. As such, key requirements in accordance to this Act, classifies the proposed project as listed and invokes the need for an environmental management plan to sustainably implement this project in a manner that promote is environmental protection, economic viability and social equitable. However, legal compliance is not only limited to the EMA, but also applies to all relevant legal requirements identified in the ESR. When licenses are required example fire brigade certificate and special consent, the proponent should ensure that all licenses and permits are obtained and fulfilled as per conditions.

1.5. THE EMP ADMINISTRATION

There is a strong need to clearly outline the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. There is also a need for the proponent to appoint an overall responsible person (Site Manager) to ensure the successful implementation of the EMP.

It solely remains the responsibility of Gas Industrial Namibia to ensure;

- That all members of the project team, including contractors, comply with the procedures set out in this EMP;
- That all personnel are provided with sufficient training, supervision, and instruction to fulfil this requirement; and
- Ensuring that any persons allocated specific environmental responsibilities are notified of their appointment and confirm that their responsibilities are clearly understood.

Table 1: Roles and Responsibilities in EMP Implementation

ROLE	ENVIRONMENTAL RESPONSIBILITIES
Site/Warehouse Manager	Responsible to enforce EMP implementation to employees and contractors
Environmental Control Officer (ECO)	Implement, review and update the EMP. • Ensure all reporting and monitoring required under EMP is undertaken, documented and distributed as required • Conduct environmental site trainings (tool box talks) and inductions • Conducts environmental audit at work site with the support of environmental and safety consultants. • Ensure implementation of preventive and corrective actions and close out all non-conformances. • Ensure materials being used on site are environmentally friendly and safe.
The Department of Environmental Affairs	Approve the EMP and any amendments to the EMP. • Receive and assess reportable environmental reports and non-conformances and provide conditions to be met by the proponent for safe and improved environmental and safety performance. • Review and approve environmental reports submitted as part of EMP implementation to allow for renewal of the environmental clearance certificate in future.
Site Engineers	Control and monitor actions required by the EMP. • Report all environmental issues to Environmental Control Officer • Ensure documented procedures are followed and records kept on site. • Participate in daily/weekly site inspection walk to identify and address environmental and safety deviations and non-conformances. • Ensure any complaints are passed onto the management within 24 hours of receiving the complaint.

Employees	Follow requirements as directed by site engineers and supervisors. • Report any potential environmental issues to site engineer/Site Manager/supervisors, example oil spill/leaks, gas leaks, poor handling of waste, excessive dust generation, uncontrolled waste water run-off on site, other non- conformances and occupational safety hazards.

Table 2: Construction and Operation EMP (C&O EMP)

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Noise pollution	Noise will be generated by the following: -Storage tank construction -Warehouse Operation activities -Trucks offloading and lifting of gas bottles	- The health of working personnel could be affected. - Noise generated could be nuisance to the nearby communities and businesses. - General annoyance to the public	Environmental	Permanent	Environmental Control Officer -Site Manger	- A construction interval will be established, used and adhered to. - Workers will be issued earplugs at all times to protect them from excessive noise. - Construction activities will be conducted during daytime. -Site notices will be erected on, around the site-notifying visitors, and nearby residents of different hazards on site. --Noise assessments should be conducted every quarter to ensure that operational activities are generating noise within the allowable threshold.	**Construction & Operation**

Dust Generation	In Walvis Bay, the major contributor to deteriorated air quality is wind-blown sand and dust	- Can lead to respiratory illnesses especially to those working in the area. - General air pollution. Dust not only poses health impacts to workers and but to the public as well.	Environmental	Permanent	- Environmental Control Officer -Site Manager	**Actions Prevention:** Implement dust suppression methods where applicable (e.g., wetting with water, covering loads, etc.) Measures should however be taken to limit the volume of water used for dust suppression. -All trucks entering and exiting the warehouse must be covered to contain material being transported from emitting dust. -Any loading / offloading activities must cease if dust becomes airborne. Loading / offloading can continue after mitigation measures to reduce dust have been implemented. i.e.: -All staff working in dust producing environments must at all wear dust masks and related PPE. -A complaints register should be kept for any air quality related issues and corrective and preventive steps taken to address non-conformances.	**Construction**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						-Real time wind direction and velocity monitoring which can be linked to air quality monitoring should be initiated. -Dust (air quality) monitoring must be conducted to determine the extent and source of dust pollution. -All information and reporting to be included in a bi-annual reports.	
	Dust generation from haulage trucks offloading/ loading materials into the warehouse	-Dust fallout can lead to respiratory illnesses especially to those working in the area. - General air pollution. -Nuisance to nearby residents	Environmental	Permanent	- Environmental Control Officer -Site Manager	-Ensure that protective equipment such as respirators are\ d\istributed to employees, and ensure their use. -Site notices to be erected on and around the site to inform visitors and surrounding residents. -Dust fallout measurement and collection. -Warehouse dust scrubbers should be installed to prevent the dust from escaping.	**Construction & Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Greenhouse gas emissions	Green House Gasses (GHGs) emissions will be produced from the following activities: ● Fuels combustion for trucks and equipment ● Industrial gases being handled on site could lead fugitive emissions.	-Climate change - Air pollution	Environmental	Construction phase	- Environmental Control Officer -Site Manager - Department of Environmental Affairs.	-Develop Standard Operating Procedures for all materials especially those with potential to emit GHGs -Design an operation system that cuts on emissions.	**Operation**

Waste Generation	-Construction of the warehouse is associated witha use of raw material and activities that results in waste generated and pollution. General waste as well as to some extent hazardous waste will be generated during the operation. -	-Pollution from waste	Environmental	Construction and operation phase	Environmental Control Officer -Site Manager	- Waste reduction measures should be implemented and all waste that can be re-used / recycled must be kept separate. -Ensure adequate waste storage facilities (bins, drums and / or bags) are available and that these are clearly labelled to allow for segregation of wastes into different classes at source. -Awareness on waste management for personnel is critical to enhance effective handling and disposal of waste. -Ensure barrier are constructed on site to block waste from being blown away by wind. -Ensure measure are in place to prevent scavenging by human and animal at waste storage sites. -Contaminated bilge water, wash water, etc. should be treated as potentially	**Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						hazardous waste that must be disposed of at appropriately classified facilities. -Waste in the warehouse area limits must be regularly removed and disposed of through implementation of waste removal programme. -Communication should be maintained with the municipality or private contractors regarding proper handling of different waste streams. -Waste should be disposed of regularly and at appropriately classified disposal facilities in Walvis Bay, this includes hazardous material (empty chemical containers, contaminated rugs, paper, water and soil) that are collected by authorised and licenced private waste collection and handling companies. -The Material Safety Data Sheets (MSDS) available from suppliers for disposal of contaminated products and empty containers should be shared with waste handling companies. -Waste water and sewage must be disposed of according to their relevant permit requirements.	

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Safety and Health risks	-Every activity associated with the warehouse is reliant on physical labour and therefore exposes personnel to health and safety risks. Injuries can occur due to incorrect lifting of heavy equipment and materials, material falling from heights, stacked items tipping over, getting caught in moving parts of machines, accidents involving forklifts and vehicles, and exposure to hot and cold temperatures. - Some chemicals handled and stored on site are hazardous with inherent health risks to personnel on site due to inhalation, accidental ingestion, eye or skin contact.	-Injuries to workers such as Occupational dermatitis, slips and fall of humans and objects, musculoskeletal disorders, etc.	Health and safety	Construction and operation phase	ECO	**Prevention:** -All Health and Safety standards specified in the Labour Act should be complied with. Consider the World Health Organisation: International Health Regulations (2005) with specific reference to Section 4 (no. 3): "Strengthen public health security in travel and transport". -Strict security control measures should be enforced at the entrance gate including alcohol testing and access permit checks.	**Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
	Security risks are related to unauthorized entry, theft and sabotage. These present a health risk, especially during upgrade and construction as well as during operation.					-Liaison with the Ministry of Health and Social Services, health division at Walvis bay municipality and the National Radiation Protection Authority is essential and should be maintained where necessary. - Clearly label dangerous and restricted areas as well as dangerous equipment and products. - Clearly demarcate areas where access is prohibited without special permission or areas where specific personal protective equipment (PPE) is required. - Provide all employees with required and adequate PPE where needed. - Equipment and products on site must be placed in a way that does not encourage criminal activities (e.g., theft). - Ensure that all personnel receive adequate training on operation of equipment and handling of hazardous substances.	

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						- Always follow safe stacking and storage methods. - Implementation of maintenance register for all equipment, and hazardous substance storage areas should be applied. - Lockout / tagout procedures should be followed where applicable. **Mitigation:** -All personnel should be trained on basic first aid and further selected personnel be trained on advance lifesaving first aid. Functional first aid kits must be available on site at all times and be accessible. The contact details of all emergency services must be readily available and also placed on the notice boards on site. - Implement and maintain an integrated health and safety management system, to act as a monitoring and mitigating tool, which includes: colour coding of areas, operational, safe work and medical procedures, permits to work, emergency response plans,	

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						housekeeping rules, MSDSs and signage requirements (PPE, flammable etc.). - Security procedures and proper security measures must be in place to protect workers and clients. - Strict security measure should be in place to prevent unauthorised entry into restricted areas.	
	Electrical hazards	-Fires and fatalities	Healthand safety	Construction and operation	ECO	-Employees should be trained on basic electrical safety before working on site. -Safety representative with training on electrical hazards emergency management should be station on site always during construction and operation. -Safety signs during construction and operation should be put on site, no go areas should be clearly labelled, and specifications for the different PPE on how to use should be clearly labeled and explained to personnel.	**Operation**

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
	Other related hazards	Obstruction and cross contamination	Health and Safety	Construction and Operation	Site Manager and ECO	Suppression systems to limit or prevent the formation of windblown dust should be applied. -The use of rumble grids and physical inspection of tyres should be implemented. -For bulk bags the stacking heights must be observed to prevent bag damage and product spillage. **Mitigation:** - Any fuel spillage of more than 200 litres must be reported immediately to the Ministry of Mines and Energy and remedial action taken with delays. Emergency response plans and spill contingency plans must be in place and include all fuels, chemicals or hazardous substances being handled. -Spill containment equipment such as booms and absorbents must be readily accessible. All oil containers should be housed in band walls. Training in the use of booms and absorbents are vital and should be enforced.	Construction and Operation

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
						-Use of reputable and well trained contractors are essential. -A report should be compiled bi-annually of all spills or leakages reported and any monitoring results. The report should contain the following information: date and duration of spill, product spilled, volume of spill, remedial action taken, comparison of pre-exposure baseline data (previous pollution conditions survey results if available) with post remediation data (e.g. soil/groundwater hydrocarbon concentrations) and a copy of documentation in which the spill was reported to Ministry of Mines and Energy (where required for hydrocarbon spills).	

Impact	Description	Effects	Class	Time frame	Responsibility	Action	Phase
Positive Impacts							
Employment creation	The development provides an opportunity of outsourcing work	- Improves disposable income to those employed and their immediate families.	Socio-economic	Project life time	-Site Manager	- It should be ensured to work with local leadership e.g. councilors to advise during recruitment of non-skilled labour from local communities.	**Operation**
Business linkages	-Industrial and medical gas acquiring and contracting companies provide an opportunity for businesses.	-Local suppliers will be presented with an opportunity to empower their businesses. -Construction workers can be provided with accommodation, food and services from the local community increasing business activities.	-Socio-economic	Construction phase	-Site Manager	-The proponent will outsource most of its materials and services from Walvis Bay	**Operation**

Table 3: Environmental monitoring plan

Monitoring Parameters	Monitoring Location	Measurement unit/Method	Target Level/Standard	Monitoring Frequency	Responsibility for monitoring
Pollution of surrounding environment	Storage Warehouse	Odour detection	No complaints from employees, customers and public.	Daily	Environmental representative
Waste generation and collection	Storage Warehouse	Visual inspection Waste collection programme is implemented	No complaints from employees and the general public.	Daily/weekly	Environmental representative
Fire management	Storage Warehouse	Visual inspection	All personnel trained on fire management and control measures. Minimum or sufficient number of firefighting equipment for the different fire source kept in the warehouse. Good housekeeping maintained. All materials packed and stored accordingly. All chemical and gas materials stored and transported according to their respective MSDS. Schedule for inspection and testing of firefighting equipment and gas bottles/storage documented and communicated	Daily	Environmental representative, All employees and contractors.
Safety and security	Storage warehouse public roads	Use of security cameras, Visual inspection Record of safety and security incidences/deviations	Number of incidences/deviations recorded	Daily	Environmental representative, Management, all employees and contractors
Socio-economic upliftment	Local population and businesses	Number of unskilled jobs contracted to local people.	Local people contracted. Local procurement of materials stock encouraged and done where feasible.	Ad hoc	Management
Grievances and complaints	Business operations	Receive and register all grievances and complaints from employees,	Minimal grievance and complaints received	Business operations	Environmental representative / Management

		contractors and customers.			
COVID-19 pandemic	Industrial Gas Namibia Business office, Storage warehouse and employees and customers family residences	Visual inspection to detect anyone with COVID19 related symptoms. Register kept on the business sites to record names, contacts and temperature records of anyone that visits the business site that is suspected to be having COVID-19 symptoms.	No unnecessary movement and gathering. Taking of body temperature readings of anyone that comes in contact with the construction and operations, who is suspected to be having COVID-19 related symptoms. Anyone with body temperature reading of more than 38 degree Celsius is to be isolated with immediate effect, and the situation reported to medical officers/health authority.	Daily	Environmental representative, all employees are required to report any COVID19 suspected incidents

2. CHAPTER 2: CONCLUSION AND RECOMMENDATIONS

2.1. RECOMMENDATION FROM ENVIRONMENTAL ASSESSMENT PRACTITIONER

Based on the information provided, it is the opinion of Candy Consultancy cc that no fatal flaws have been identified for the proposed development and that the information contained in this report is sufficient enough to allow DEA to make an informed decision.

Candy Consultancy cc therefore recommends that Environmental Clearance be granted for the proposed development. However, the proposed activity is anticipated to have potential impacts on the surrounding neighbours such as the Trans-namib railway lines and on site traffic, as such Candy Consultancy advice that the proponent should meet the following conditions:

- Traffic flow **MUST** be monitored and a report must be produced.
- Certificate of fitness must be issued from Walvis Bay Municipality.
- An Environmental Control Officer with an relevant qualifications should be appointed for the implementation of the EMP.

References

Government of Namibia. 2008, Government Gazzette of the Republic of Namibia. Government notice No.1: Regulations for Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)-Windhoek

Government of Namibia. 2008, Government Gazette of the Republic of Namibia. Government notice No.1: Regulations for Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)-Windhoek

MET (Ministry of Environment and Tourism). 2012. *Environmental Management Act no. 7 of 2007*. Windhoek: Directorate of Environmental Affairs, Ministry of Environment and Tourism

APPENDIX I: PUBLIC NOTICE FOR REVIEW

ENVIRONMENTAL SCOPING REPORT REVIEW
FOR

ENVIRONMENTAL IMPACT ASSESSMENT FOR A PROPOSED GAS CYLINDERS` WAREHOUSE AT ERF 3236 IN WALVIS BAY

Candy Consultancy cc hereby give notice to all potentially Interested and Affected Parties (I&APs) that, the scoping report for the above mentioned project is available for review. Hence, I & A parties are requested to register any concern or issue in order to be included in the final report of the Environmental Impact Assessment.

The Scoping report will be available at Walvis Bay Municipality Head office, and Kuisebmund community Library.

The electronic copy will be emailed on request via email to liliankondigo@gmail.com or candyconsultancy@gmail.com

For more information or questions, please contact Lilian, at +264 (0) 81 826 8996

CLOSING DATE FOR COMMENTS: 09 March 2022

CANDY CONSULTANCY CC

PO Box P.O. Box 55226 Rocky Crest

Windhoek; cell +264813796358; email:candyconsultancy@gmail.com

APPENDIX J: I & A PARTY`S COMMENTS AND A COMPLETED FORM

EIA for proposed gas cylinders warehouse at Erf 3236 Walvis Bay Inbox ×

Johann Otto Thu, Mar 10, 3:20 PM

Good afternoon, I took note of your notice at the Municipality of Walvis Bay and was hoping to register as an interested party despite the closing date being 9

3

Johann Otto Fri, Mar 11, 2:54 PM (18 hours ago)

to me, lillian

Dear Gabriel,

Many thanks for the opportunity to read the draft final scoping report and the opportunity to submit comments. I now had the time to read through the document carefully and I have a better understanding of the project activity and proposed location.

Please find attached my completed Comment Registration Form. My comments/concerns are provided in this email below:

To begin with, my initial concern was the explosion hazard linked with the storage of gas cylinders (activity) and the location within Walvis Bay (receptor). Usually the storage of hazardous/explosive goods should be located outside town in order to meet minimum buffer distances for safety purposes. For example, the storage of ammonium nitrate is located on Farm 38 which is somewhat 8km outside town. Ammonium nitrate is probably more dangerous than gas cylinders but what is the minimum buffer distance for the proposed chemicals (as listed from page 7 to 9)? Does the location of the warehouse meet the minimum buffer distances? Is there any explosion risk with gas cylinders? Is there any potential danger to human life or property?

From a town planning point of view, the Walvis Bay Zoning Scheme regulate what buildings or land uses are permitted or not. Erf 3236 Walvis Bay is zoned "Industrial" in terms of the Scheme and contains an existing warehouse with an ancillary and administrative office. Attached is zoning certificate for the property which list the permitted uses. The existing warehouse is permitted as a primary use, however, is the storage of gas cylinders considered a "Noxious Industry" (see attached definition from the Zoning Scheme). If so, then the owner needs to apply to the Municipal Council of Walvis Bay for consent for a "Noxious Industry". This consent use is not a pre-requirement for an EIA/ECC because the Council will only issue consent once an ECC has been issued.

Lastly, I've picked up inconsistences with the draft final scoping report for your further review:

- On page 7, it states the erf size is about 14 788m² and the storage warehouse will cover 7 906m². The actual erf size of Erf 3236 Walvis Bay is 1854m². I assume the warehouse would also be much smaller? Therefore, consider reviewing the area sizes?
- The coordinates on page 1 is correct. However, the coordinates on pages 30 and 66 brings me to a place in Zambia.
- Consider adding the Urban and Regional Planning Act, 2018 (Act No.5 of 2018) and the Walvis Bay Zoning Scheme to Table 1: Legal Compliance Framework (on page 18)?

Thanks again for the opportunity to submit my comments/concerns after the deadline date of 09 March 2022.

Regards,
Johann

Johann Otto
Town Planning Officer

84 Theo Ben Gurirab Avenue | First Floor CLA Building | Box 2095 Walvis Bay

candy consultancy <candyconsultancy@gmail.com> Mar 11, 2022, 4:05 PM (17 hours ago)

to Johann, lillian

Dear Johann

Thank you very much for your valuable comments and concerns. We will address them, accordingly in the final document. Kindly take note the gas storage tank will not be used for noxious industrial gases and all activities will be conducted within the confines of the legal requirements and procedures. Regarding the possible gas cylinders explosion, the project site (warehouse) is located in the industrial area and will be used as a transit for cylinders to clients such as Swakop Uranium mine , and possible occupational risks or hazards are identified in the Environmental Management Plan and will be monitored closely during the operation phase.

Thank you once again for your submission, it is highly appreciated.

Best regards

Gabriel

CANDY CONSULTANCY CC

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Windhoek; cell +264813796358; email:candyconsultancy@gmail.com

COMMENT REGISTRATION FORM **Proposed Gas cylinders' warehouse Erf 3236 in Walvis Bay**			
NAME	JOHANN OTTO		
ORGANISATION	STEWART PLANNING		
POSTAL ADDRESS	P.O. BOX 2095 WALVIS BAY		
POSTAL CODE	13013	FAX NUMBER	—
TELEPHONE NUMBER	064 280 773	CELL NUMBER	—
EMAIL	otto@sp.com.na		
DATE	11/03/2022	SIGNATURE	
I WOULD LIKE TO ATTEND PUBLIC MEETING	YES	NO	X
PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT:			
General interest and concern to explosion hazards in town.			
PLEASE WRITE YOUR COMMENTS, CONCERNS/SUGGESTIONS HERE:			

See comments in email dated 11 March 2022.

Kindly return this completed document (with all requested details) to:

Candy Consultancy cc

Attention Mr. Gabriel Joseph **Physical address:**

2295, Hannover street Windhoek

Telephone:+264 81 379 6358 or +264 818268996

Email: candyconsultancy@gmail.com or liliankondigo@gmail.com

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