



REFERENCE NUMBER: 14/2/1/1/A1/2/0108/15

ENQUIRIES: Moe'mina Hoosain

BY REGISTERED MAIL

The Director
PC Revalidation CC
PO Box 20228
BIG BAY
7441

Tel: (021) 577 4114/4109
Fax: (021) 577 4115
Email: dale@pressureconcepts.com

Attention: Mr D. Lewis

Dear Sir

APPLICATION IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) ("NEMA"): THE UNLAWFUL EXPANSION OR CHANGES TO EXISTING FACILITIES FOR ANY PROCESS OR ACTIVITY WHERE SUCH EXPANSION OR CHANGES WILL RESULT IN THE NEED FOR A PERMIT OR LICENSE OR AN AMENDMENT PERMIT OR LICENSE IN TERMS OF NATIONAL OR PROVINCIAL LEGISLATION GOVERNING THE RELEASE OF EMISSIONS OR POLLUTION ON PORTION 4 OF FARM 122, ATLANTIS INDUSTRIA

With reference to your application dated 4 December 2015 in terms of section 24G of the NEMA for the consequences of unlawful commencement of listed activities identified in terms of the NEMA, find below the decision in respect of your application.

ENVIRONMENTAL AUTHORISATION

A. DECISION

By virtue of the powers conferred by section 24G of the NEMA and the *Environmental Impact Assessment Regulations, 2014* ("EIA Regulations, 2014") (as amended), the competent authority herewith **grants environmental authorisation** to the applicant to continue with the listed activities specified in Section C below in accordance with the

Preferred (Existing) Alternative as described in the Environmental Impact Report ("EIR") dated 24 March 2017.

The granting of this Environmental Authorisation is for the continuation, conducting or undertaking of the listed activities as described in Section C below and is subject to compliance with the conditions set out in Section G. This Environmental Authorisation shall only take effect from the date on which it has been issued.

The Environmental Authorisation does not exempt the holder thereof from compliance with any other applicable legislation.

B. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

The Director
PC Revalidation CC
PO Box 20228
BIG BAY
7441

Tel: (021) 577 4114/4109
Fax: (021) 577 4115
Email: dale@pressureconcepts.com

Tel: (021) 577 4114/4109
Fax: (021) 577 4115
Email: dale@pressureconcepts.com

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "the holder".

C. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Project Description
<p><u>Government Notice No. R. 1182 of 5 September 1997</u></p> <p>Activity Number: 9</p> <p>Activity Description:</p> <p><i>Scheduled processes listed in the Second Schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No.</i></p>	<p>Between 2007 and 2013, PC Revalidation was upgraded from a 6000m² to a 10 000m² facility to create additional storage space for empty Liquefied Petroleum Gas ("LPG") cylinders.</p> <p>During this time, vegetation was removed adjacent to the facility to make way for the</p>

45 of 1965).

Government Notice No. R. 386 of 21
April 2006

Activity Number: 25

Activity Description:

The expansion of or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of emissions, pollution, effluent.

Government Notice No. R. 544 of 18
June 2010

Activity Number: 28

Activity Description:

The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a permit or license in terms of national or provincial legislation governing the release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.

Government Notice No. R. 983 of 4
December 2014

Activity Number: 34

Activity Description:

The expansion or changes to existing

expansion. The surface area was hardened with gravel and secured with a fence. The following was installed/constructed:

- windows and doors were relocated;
- additional roof structures
- a chemical storage area (which was later relocated), and
- a second spray-painting booth area was installed within the existing warehouse.

In 2014, a chemical storage area was constructed with an impervious concrete floor with a roof canopy. New shot-blasting equipment was installed in the warehouse.

During 2015, the old zinc spraying facility was decommissioned and new zinc spraying equipment was installed.

In 2016, a water filtration system ("scrubber") was installed as part of the oven, to reduce the amount of particulate matter that was being emitted from the oven stack.

facilities for any process or activity where such expansion or changes will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions or pollution, excluding-

- (i) where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or
- (ii) the expansion of or changes to existing facilities for the treatment of effluent, wastewater or sewage where the capacity will be increased by less than 15 000 cubic metres per day.

As similarly listed in terms of Government Notice No. R. 327 of 7 April 2017

Activity Number: 34

The expansion of existing facilities or infrastructure for any process or activity where such expansion will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions, effluent or pollution, excluding—

- (i) where the facility, infrastructure, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the

<p><i>National Environmental Management: Waste Act, 2008 applies;</i></p> <p><i>(ii) the expansion of existing facilities or infrastructure for the treatment of effluent, wastewater, polluted water or sewage where the capacity will be increased by less than 15 000 cubic metres per day; or</i></p> <p><i>(iii) the expansion is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will be increased by 50 cubic meters or less per day.</i></p>	
---	--

The abovementioned list is hereinafter referred to as "the listed activities".

D. PROPERTY DESCRIPTION AND LOCATION

The listed activities commenced on Portion 4 of Farm No. 122, Atlantis.

The SG digit code is C0160000000000400122

The co-ordinates for the property boundary of are:

Point	Latitude (S)	Longitude (E)
1	33° 34' 48.12" South	18° 28' 38.68" East
2	33° 34' 49.15" South	18° 28' 43.40" East
3	33° 34' 51.68" South	18° 28' 42.63" East
4	33° 34' 56.61" South	18° 28' 37.79" East

The co-ordinates for the site boundary are:

Point	Latitude (S)	Longitude (E)
1	33° 34' 48.12" South	18° 28' 38.68" East
2	33° 34' 49.15" South	18° 28' 43.40" East
3	33° 34' 51.68" South	18° 28' 42.63" East
4	33° 34' 56.61" South	18° 28' 37.79" East

Refer to Annexure 1: Site Map and Annexure 2: Site Layout.

Herein-after referred to as "the site".

E. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Sharples Environmental Services
P.O Box 443
MILNERTON
7435

Tel: (021) 554 5195
Fax: (086) 575 2869
Email: lauren@sesc.net

F. DETAILS OF THE ACTIVITIES UNDERTAKEN

Between 2007 and 2013, PC Revalidation was upgraded from a 6000m² to a 10 000m² facility to create additional storage space for empty Liquefied Petroleum Gas ("LPG") cylinders.

During this time, vegetation was removed adjacent to the facility to make way for the expansion. The surface area was hardened with gravel and secured with a fence. The following was installed/constructed:

- windows and doors were relocated;
- additional roof structures;
- a chemical storage area (which was later relocated), and
- a second spray-painting booth area was installed within the existing warehouse.

In 2014, a chemical storage area was constructed with an impervious concrete floor and a roof canopy. New shot-blasting equipment was installed in the warehouse. During 2015, the old zinc spraying facility was decommissioned and new zinc spraying equipment was installed. In 2016, a water filtration system ("scrubber") was installed as part of the oven, to reduce the amount of particulate matter that was being emitted from the oven stack.

G. CONDITIONS OF AUTHORISATION

The following are conditions of authorisation that are set and must be implemented for this Environmental Authorisation.

PART I

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section C above as described in the EIR dated 8 May 2017 on the site as described in Section D above.
2. The Environmental Authorisation is valid for a period of **five years** from the date of the decision.
3. The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
4. Any changes to, or deviations from the scope of the alternative described in Section F above must be accepted or approved, in writing, by the competent authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the competent authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

PART II

Written notice to the competent authority

5. Seven (7) calendar days' notice, in writing, must be given to the competent authority before continuation of commencement of construction activities.
 - 5.1 The notice must make clear reference to the site details and 24G Reference number given above.
 - 5.2 The notice must also include proof of compliance with conditions of 6, 7, 8, 9 and 10.

PART III

Notification and administration of an appeal

6. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision–

6.1 notify all registered Interested and Affected Parties ("I&APs") of –

- 6.1.1 the outcome of the application;
- 6.1.2 the reasons for the decision as included in Annexure 3;
- 6.1.3 the date of the decision; and
- 6.1.4 the date when the decision was issued.

6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the *National Appeals Regulations, 2014* detailed in Section I below.

6.3 draw the attention of all registered I&APs to the manner in which they may access the decision.

6.4 provide the registered I&APs with:

- 6.4.1 the name of the holder (entity) of this Environmental Authorisation;
- 6.4.2 name of the responsible person for this Environmental Authorisation;
- 6.4.3 postal address of the holder;
- 6.4.4 telephonic and fax details of the holder;
- 6.4.5 e-mail address, if any, of the holder; and
- 6.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the *National Appeal Regulations, 2014*.

7. The listed activity including site preparation, may not commence within 34 (thirty-four) calendar days from the date of issue of this Environmental Authorisation. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided.

PART IV

Management of the activity/development

8. The draft Environmental Management Programme ("EMPr") compiled by Sharples Environmental Services CC dated 25 July 2016 and submitted as part of the application for environmental authorisation is hereby approved and must be implemented.

The EMPr must be included in all contract documentation for all phases of implementation.

PART V

Monitoring

10. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") to ensure compliance with the EMPr and the conditions contained herein.
11. A copy of the Environmental Authorisation, EMPr, audit reports and compliance monitoring reports must be kept at the site of the authorised, and must be made available to anyone on request, including a publicly accessible website (if applicable).
12. Access to the site referred to in Section D must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the competent authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.

PART VI

Auditing

13. In terms of regulation 34 of the *EIA Regulations, 2014* the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and must submit Environmental Audit Reports to the competent authority upon receiving such request in writing from the competent authority. The Audit Report must be prepared by an independent person and must consider all the information required in Appendix 7 of the *EIA Regulations, 2014*.

The holder must, within 7 (seven) days of the submission of the report to the competent authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request and on a publicly accessible website (if applicable).

PART VII

Activity/Development Specific Conditions

14. The recommendations of the Environmental Assessment Practitioner in Section H of the EIR, must be adhered to.

H. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. Non-compliance with a condition or term of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.
3. If the holder does not continue, conduct or undertake listed activities within the period referred to in Condition 2 of Section G, this Environmental Authorisation shall lapse for that activity or activities, and a new application for Environmental Authorisation must be submitted to the competent authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment must be made on condition that the environmental authorisation is valid on the date of receipt of such amendment application.

Note that:

(1) In terms of regulation 28(1A) of the *EIA Regulations, 2014* the competent authority shall not accept or process an application for amendment of an environmental authorisation if such environmental authorisation is not valid on the day of receipt of such amendment application, but may consider an application for environmental authorisation for the same development.

(2) In terms of regulation 28(1B) of the *EIA Regulations, 2014* an environmental authorisation which is the subject of an amendment application remains valid pending the finalisation of the amendment application.

(3) It is an offence in terms of section 49A(1)(a) of the NEMA for a person to commence with a listed activity if the competent authority has not granted an environmental authorisation for the undertaking of the activity.

The holder must submit an application for amendment of the Environmental Authorisation to the competent authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for Amendment in terms of Part 1 of the *EIA Regulations, 2014* must be submitted.

Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the competent authority must only be notified of such changes.

5. The manner and frequency for updating the EMPr is as follows:

Amendments to the EMPr, other than those mentioned above, must be done in accordance with regulations 35 to 37 of the *EIA Regulations, 2014* or any relevant legislation that may be applicable at the time:

I. APPEALS

Appeals must comply with the provisions contained in the *National Appeal Regulations, 2014*.

1. An appellant (if the holder) must –

1.1 submit an appeal in accordance with regulation 4 *National Appeal Regulations, 2014* to the Appeal Administrator and a copy of the appeal to any registered I&APs, any Organ of State with interest in the matter and the decision maker within 20 (twenty) calendar days from the date the holder was notified by the competent authority of this decision.

2. An appellant (if NOT the holder) must –

2.1 submit an appeal in accordance with regulation 4 *National Appeal Regulations, 2014* to the Appeal Administrator, and a copy of the appeal to the holder, any registered I&APs, any Organ of State with interest in the matter and the decision maker within 20 (twenty) calendar days from the date the holder notified the registered I&APs of this decision.

3. The holder (if not the appellant), the decision-maker, I&APs and Organ of State must submit their responding statements, if any, to the Appeal Authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. This appeal and responding statement must be submitted to the address listed below:

By post: Attention: Jaap de Villiers
Western Cape Ministry of Local Government, Environmental Affairs &
Development Planning
Private Bag X9186, Cape Town, 8000; or

By facsimile: (021) 483 4174; or

By hand: Attention: Mr Jaap de Villiers (Tel: 021-483 3721)
Room 809, 8th floor Utilitas Building
1 Dorp Street, Cape Town, 8000; or

By e-mail: Jaap.DeVilliers@westerncape.gov.za

Note: You are also requested to submit an electronic copy (Microsoft Word format) of the appeal and any supporting documents to the Appeal Administrator to the address listed above and/ or via e-mail to Jaap.DeVilliers@westerncape.gov.za.

5. A prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at: Tel. (021) 483 3721, E-mail Jaap.DeVilliers@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

J. CONSEQUENCES OF NON-COMPLIANCE WITH CONDITIONS

Non-compliance with a condition or term of this Environmental Authorisation or EMPr may result in suspension or withdrawal of this Environmental Authorisation and may render the holder liable for criminal prosecution.

DISCLAIMER

The Western Cape Government, the Municipality, committees or any other public authority or organisation appointed in terms of the conditions of this Environmental Authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Yours faithfully



Handwritten signature of Charmaine Maré, written in black ink, with the name 'Maré' clearly legible at the end of the signature.

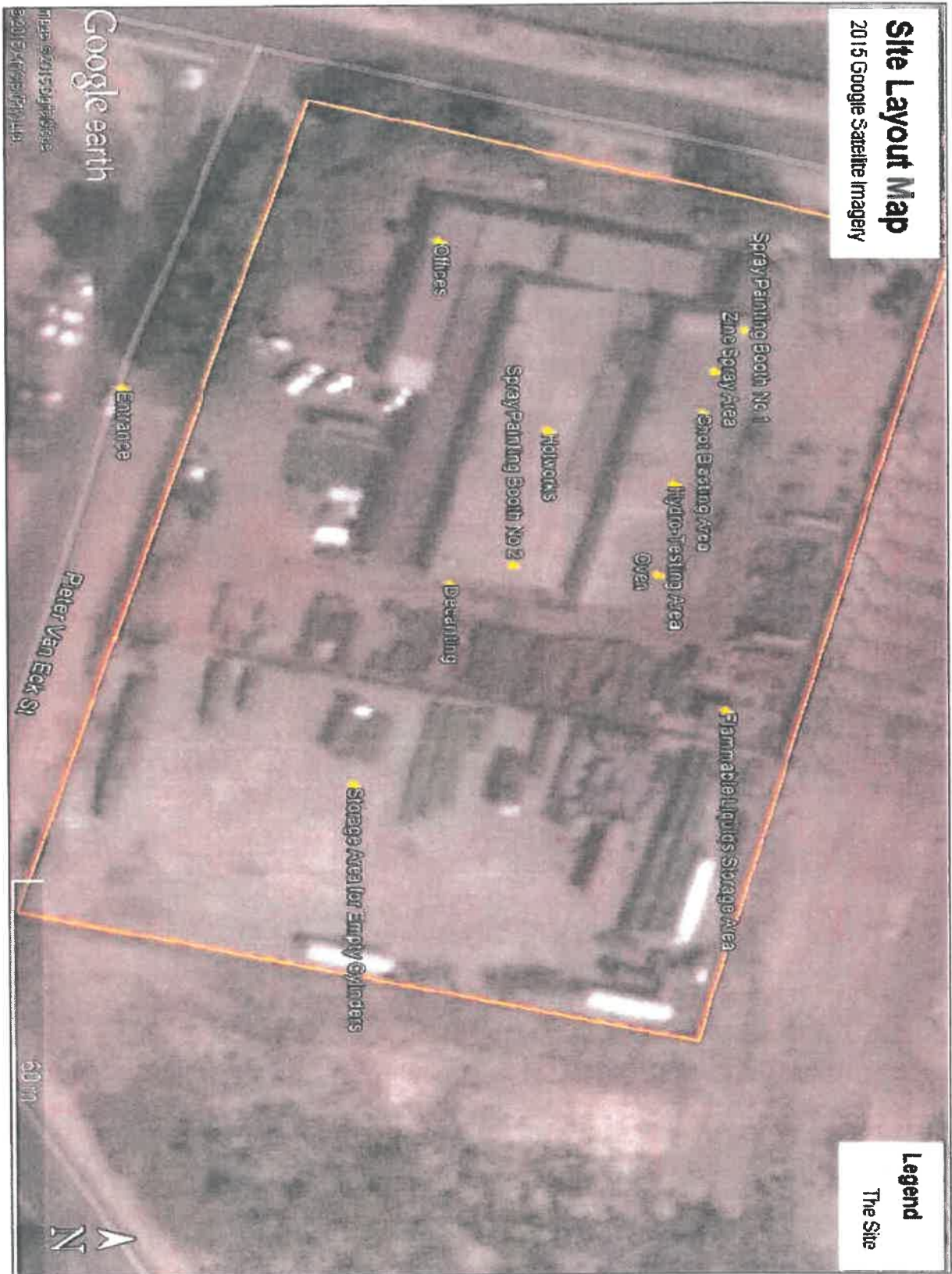
ADV. CHARMAINE MARÉ
DIRECTOR: ENVIRONMENTAL GOVERNANCE

DATE OF DECISION: 8 August 2018

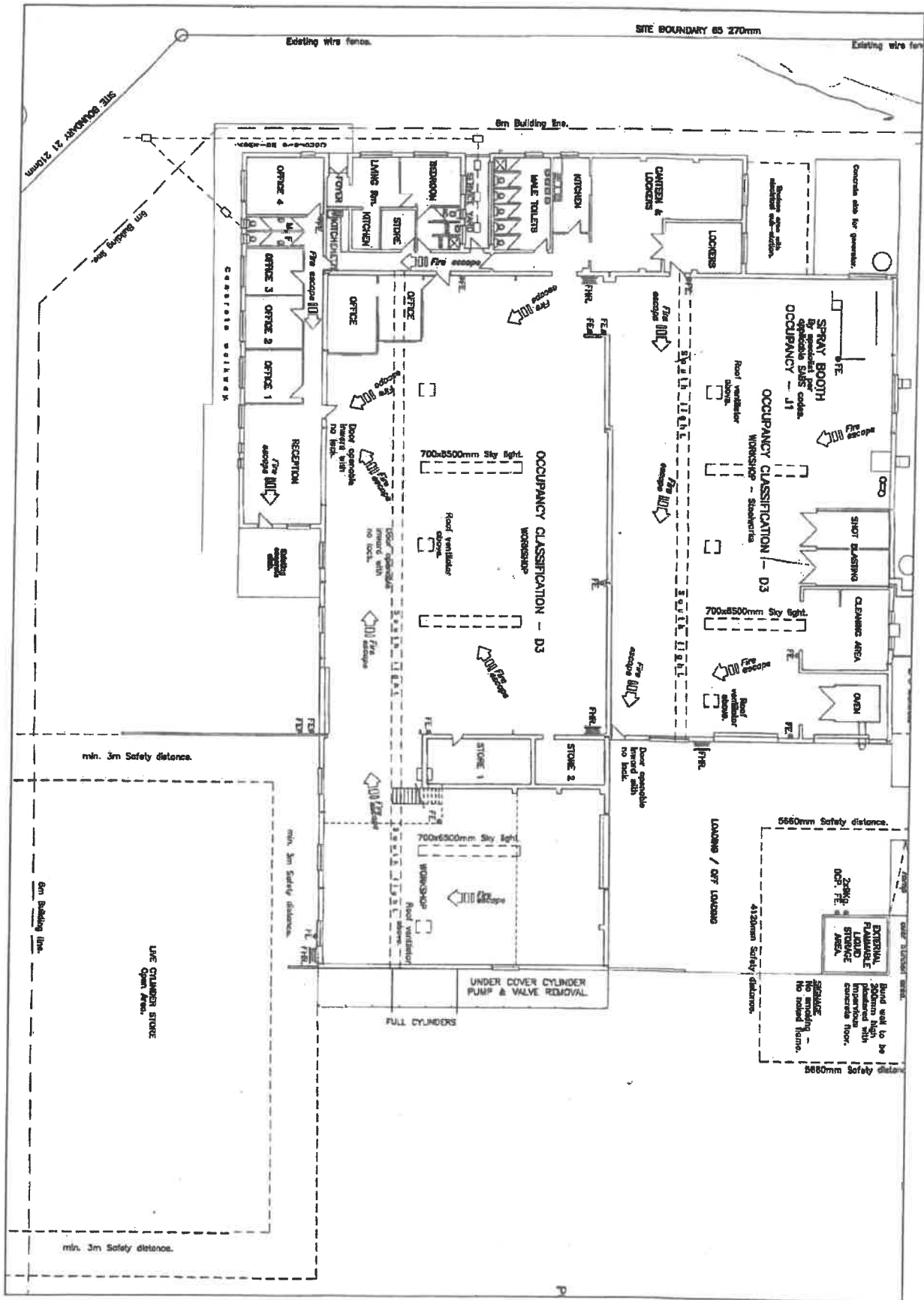
CC: (1) Ms L. Elston (Sharples Environmental Services CC) Fax: (086) 575 2869 Email: lauren@sescs.net

(2) Mr I. Gildenhuys (City of Cape Town: Air Quality) Fax: (021) 590 5215 Email: Ian.Gildenhuys@capetown.gov.za

ANNEXURE 1: SITE MAP



NNEXURE 2: SITE LAYOUT



FOR OFFICIAL USE ONLY:

S24G REFERENCE:

14/2/1/1/A1/2/0108/15

ENFORCEMENT REFERENCE :

14/1/1/E1/5/2/3/0347/16

ANNEXURE 3: REASONS FOR THE DECISION

This Environmental Authorisation is in respect of the consequences of commencement of the afore-mentioned illegal activities. An Environmental Assessment Practitioner ("EAP") was appointed to submit a section 24G Environmental Impact Assessment ("EIA") to the Department to obtain this Environmental Authorisation. The EIA was considered adequate for informed decision-making. In addition, the holder paid an administrative fine of R50 000 (Fifty thousand Rand) to meet the requirements of section 24G of the *National Environmental Management Act, 1998* ("NEMA").

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the application form dated 4 December 2015; the Environmental Impact Report ("EIR") dated 31 August 2016 and the EMPr submitted together with the EIR.
- b) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation and Alternatives.
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA.
- d) The comments received from interested and affected parties and the responses provided thereto.
- e) The sense of balance of the negative and positive impacts and proposed mitigation measures.
- f) The site visit conducted on -
Date: 9 February 2017
Attended by: Ms Moe'mina Hoosain and Ms Jamie-Lee van Zyl
- g) The appeal decision dated 23 May 2018.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues

which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Public Participation Process

In terms of section 24G(1)(vii)(dd) of the NEMA, "...a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how the issues raised have been addressed ...", is required.

The public participation process conducted by the EAP comprised of the following:

- Letters were sent to interested and affected parties ("I&APs") and the municipal ward councillor on 24 and 25 May 2016;
- A site notice was erected on site on 25 May 2016;
- An advertisement was placed in the **Impact News** and **Die Burger** newspaper on 25 May 2016; and
- I&APs were afforded the opportunity to provide comments on the draft and final EIRs on 25 May 2016 and 21 July 2016, respectively.

Consultation with organs of state in terms of section 24O of the NEMA

The following organs of state provided comment on the application:

- CapeNature
- City of Cape Town: Air Quality Management
- This Department's Directorate: Air Quality Management
- This Department's Directorate: Waste Management Licensing

CapeNature stated that they would not have objected to the development proposal had it been applied for prior to commencement, as the habitat removed was not of significant biodiversity value. CapeNature stated no additional rectification measures are considered necessary to reverse or minimize botanical impacts on site.

The City of Cape Town: Air Quality Management ("CoCT") provided Section 22A application process-related comments and stated that in-stack monitoring must be done at the oven. The EAP responded that the Department allowed PC Revalidation to re-commence the use of their oven to allow for in-stack monitoring. Visible discolouration to the stack and roof at the spray paint area were also noted. The CoCT stated that mitigation measures to address spray paint overspray have not

been addressed in the Air Quality Impact Report and must be addressed. The EIA highlighted that the venting of Mercaptans from decanted cylinders results in odours, which must be mitigated and addressed in the EIR. The applicant responded that a minimal amount of Mercaptan is released into the atmosphere when valves are removed from Liquefied Petroleum Gas ("LPG") gas cylinders. Furthermore, South African National Standards ("SANS") 1774 requires that 15uL/L of mercaptan be added to the LPG, which poses minimal risk to humans upon exposure.

This Department's Directorate: Air Quality Management stated that the facility is to perform further stack emission surveys to ascertain the degree of impact mitigated by the upgrade. The EAP responded that this was undertaken after the installation of the water filtration system ("scrubber"). Concerns were also raised about the carbon monoxide (CO) values, although it does not form part of the listed activity measurable pollutants. This Department's Directorate: Air Quality Management supported recommendations by the specialist to perform emission testing once the facility is fully operational. The EAP responded that measured concentrations of both particulates and CO were both lower after the upgrade.

This Department's Directorate: Waste Management Licensing provided comment regarding waste, dust, odour and noise control on site. The EAP stated that these concerns are addressed in the EMPr.

2. Alternatives

2.1 Site Alternatives

No site alternatives were investigated. The facility was expanded by 4000m² on the same farm as additional storage was required for cylinders and because of the availability of land for expansion.

2.2 Activity Alternatives

PC Revalidation considered obtaining environmental authorization for activities, in addition to the re-certification of the LPG cylinders, namely, the installation of underground and aboveground LPG storage tanks to store approximately 200 tons of LPG was considered. However, a Basic Assessment application is envisaged to be submitted for the aforementioned.

2.3 Technology Alternatives

Technology Alternative 1

This alternative entailed the installation of an afterburner. The afterburner would incinerate some of the particulate matter before it is emitted to atmosphere, thereby reducing the quantity of particulate matter being emitted from the stack.

Technology Alternative 2 (Preferred Alternative)

Installation of a water filtration system ("scrubber"). The scrubber will use a unique soap that attracts non-stick particles, which is an integral part of the filter. Petra Wet Filters uses the condensed volatiles to attract the incoming volatiles. The particles and volatiles will reach the sump, rather than be emitted to air, where the sludge can be drained and discarded at a landfill.

The second alternative was preferred as it was considered to be more effective than the afterburner in reducing the quantity of particulate matter being emitted. This will ultimately result in compliance with *The South African National Ambient Air Quality Standards, 2009*.

2.4 The option of not implementing or continuing with the activity ("No-Go" Alternative)

This alternative was considered but is not preferred due to the financial implications that will result in the event of the activity being ceased. This option would result in the loss of employment and resultant socio-economic impacts. In addition, the service that PC Revalidation provides to the broader public pertaining to the re-certification of LPG cylinders, as an alternate energy source, will be discontinued. PC Revalidation installed technologically advanced equipment to reduce air quality impacts and avoid possible soil/groundwater contamination. The facility is now considered to be more sustainable than before.

3. Environmental Impact Assessment (EIA) and Mitigation Measures

In reaching its decision, the competent authority, considered the following in respect of the EIA and mitigation measures:

3.1. Activity Need and Desirability

According to the EIR, the facility provides an integral service to various stakeholders in the LPG industry. PC Revalidation provides major LPG gas and

refrigerant companies repair, pressure testing and re-certification of all welded steel and compressed LPG gas cylinders, who in turn offer the broader public with an alternate energy source, in light of the current energy crisis. PC Revalidation also provides employment to residents of Atlantis, a town located on the outskirts of Cape Town with a very high unemployment rate.

3.2. Regional/ Planning Context

The site is located in the industrial area of Atlantis, which is seen as a significant industrial node in the greater Cape Town region. The activity is in line with the Blouberg District Spatial Development Plan of the City of Cape Town, and is zoned for General Industrial use.

3.3. Geographical and Physical Impacts

According to the Phase 1 Contaminated Land Assessment dated February 2016, the applicant excavated the contaminated soil from the area at the back of the facility, directly surrounding the previous zinc vent and shot-blasting stack. An area of approximately 18m X 25m and 300mm deep was cleaned and the contaminated soil (containing steel and zinc particles) that was stockpiled on site.

The Contaminated Land Assessment recommended further remediation by excavating a further 200 – 300mm soil layer on the contaminated area (over and above the soil already removed and stockpiled) for off-site disposal (together with the contaminated soil stockpile). The Phase 1 Contamination Assessment confirmed that the stockpiled waste is classified as a Type 2 waste (not hazardous) and it can be disposed of at a landfill facility. According to the EIR, PC Revalidation sold two drums of Zinc particles, approximately 500kg, to a mine in Johannesburg for manufacturing purposes.

3.4. Biodiversity Impacts

Approximately 4000m² of vegetation was removed from the vacant area adjacent to the original PC Revalidation boundary in 2013. The original extent of the site was Cape Flats Dune Strandveld which was classified as "Endangered". Alien vegetation species that occurred on site includes blue gums, long-leaved wattle and kikuyu grasses. According to the EAP, a few indigenous pioneer species would have re-established in between the alien vegetation. Specialist

input was not obtained for the clearance. CapeNature stated that no additional rectification measures are considered necessary to reverse or minimize impacts on site. The habitat removed was not considered to be of significant biodiversity value.

3.5. Visual / Sense of Place

The facility is situated in the industrial area of Atlantis and is therefore in keeping with the surrounding environment.

3.6. Noise Impacts

A limited amount of noise would have occurred during the construction phase. Noise impacts are expected during normal working hours for the operational phase.

3.10 Pollution Impacts

PC Revalidation installed a new automated shot-blast machine in July 2014, which reduced the number of cylinders that need to be placed in the furnace by between 60% and 80%, thereby reducing air quality impacts. The old shot-blast machine originally had a water filter system that emitted steel grit, resulting in contamination in the immediate vicinity of the oven stack.

A new zinc spraying operation was installed in November 2015. Both the zinc spraying facility and shot-blast machine is connected to a reverse pulse extraction system whereby dust and particulates are disposed of into a closed bag system and not emitted via an air vent. The previous air vent, which emitted/deposited steel and zinc particulates to air and soil, was sealed subsequent to the upgrade.

The Contaminated Land Assessment dated February 2016, compiled by Golder Associates Africa Pty (Ltd) ("Golder") states that visibly contaminated soil was removed from the back of the facility, directly surrounding the previous zinc spraying vent and shot blast stack. An area of approximately 18m x 25m x 300mm was dug and samples were laboratory tested. Laboratory results revealed that Soil Screening Values 1 ("SSV1") were exceeded for total Copper (Cu), Lead (Pb) and Zinc (Zn) concentrations in the top 200mm layer of the soils. However, the concentrations of Constituents of Concern ("CoCs") in the sub-soil

layers were below SSV1 levels. This indicates that there is no movement of these CoCs in the soil profile. Concentrations of all CoCs (Cu, Pb and Zn) were below SSV2 (for industrial areas).

Solid hazardous waste (grit /steel/ zinc particles/paint) is produced at the facility at various stages. The solid waste that is generated at the hydro-testing station and the degreasing station (grease/detergent/slime) requires disposal once per year, when the stations are maintained. The liquid effluent in the wastewater traps are temporarily stored in 200L drums while the grease/slime is removed from the wastewater traps. Once the solid waste has been removed, the liquid effluent is returned into the traps. According to the EIR, the contaminated liquid effluent generated at the degreasing station and the hydro-testing station, is recycled into the two stations and no liquid effluent waste is generated that requires disposal. The solids are removed on an annual basis and disposed of at Vissershok.

The shot-blasting of the cylinders produces the most solid waste i.e. 5 x 200L drums per month. Solid hazardous waste will be produced when the water filtration system/scrubber is under maintenance. In addition, solid hazardous waste (zinc particles, steel, and grit) is produced in the reverse pulse bag extraction system. Approximately 125kg zinc overspray waste is accumulated per month. It is estimated that 2,500kg of hazardous waste (enamel, steel, grit, zinc) is disposed at Vissershok Waste Management Facility per month. Every two months approximately 8 – 10 200L drums are disposed of at Vissershok.

A stack emissions survey was undertaken in November 2015 by DDA Environmental Engineers before the water filtration system ("scrubber") was installed on the oven stack. Stack emission sampling was undertaken by the oven stack, shot-blasting stack and spray booth stack. However, the new zinc spraying equipment was not in operation during the air emissions survey. Emissions resulting from the shot-blasting activity and spray painting are not regulated by the *National Environmental Management: Air Quality Act, 2004 (Act No.39 of 2004) ("NEM: AQA")*.

Results of the emissions survey showed that particulate emissions from the oven stack exceeded the South African National Ambient Air Quality Standards, 2004 ("NAAQS"). The specialist recommended that the burner of the oven be tuned

and that appropriate emission reduction measures be installed, in order to reduce the particulate emissions. Following the recommendations, the exhaust gases from the oven stack were directed to the water filtration system. The oven burner was upgraded and tuned, in order to optimise the performance and reduce Carbon Monoxide (CO) emissions.

A second round of sampling was also undertaken by DDA Environmental Engineers in order to evaluate the effectiveness of the mitigation measures and compare the results against the original tests. The assessment revealed that measured concentrations of particulates, including CO emissions, were lower subsequent to the upgrade. It was observed, however, that the plume emanating from the oven stack was dispersing poorly and moving towards the adjacent property. To mitigate this, it was recommended that the height of the oven stack be increased by 4 (four) metres and also preferably be located at the top of the building or immediately adjacent to it, in order to improve the dispersion potential of the plume.

A water filtration system ("scrubber") was installed as part of the oven stack in order to reduce the amount of particulate matter (and other pollutants) that was being emitted out of the oven stack. The new scrubber system installed on the oven stack uses water which is recycled and "cleans" the particulates. The system uses a unique soap that attracts particulate particles. The particles are discharged into a sump where the sludge can be temporarily stored, before it is required to be disposed of. Waste emanating from the scrubber is estimated to be at approximately 500kg per month.

Rubble was generated during construction of the chemical store and decommissioning of the previous zinc spray facility and shot blasting sump. General waste is also produced at the facility (plastic, paper, domestic waste). Waste is disposed of when a full truck load has been accumulated approximately every two months.

4. NEMA Principles

The National Environmental Management Principles (set out in section 2 of the NEMA), which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the competent authority is satisfied that the listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

-----END-----