FINE CHEMICALS CORPORATION PTY (LTD)

DRAFT BASIC ASSESSMENT REPORT

EXPANSION OF THE FCC FLAMMABLE DRUM STORAGE FACILITY ON ERF32560 AND ERF102119, EPPING INDUSTRIA, CAPE TOWN (REF:16/3/3/6/7/1/A8/49/3103/22)

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SIGNATURES

PREPARED BY

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REVIEWED BY

Jacqui Fincham
Director

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Western Cape Government
Environmental Affairs and Development Planning

FORM NO. BAR10/2019

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

NOVEMBER 2019

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

Fine Chemicals Corporation (Pty) Ltd (FCC), is a manufacturer of pharmaceutical products. The company produces a variety of products such as codeine phosphate, morphine sulphate, and paracetamol. These premium products are used by consumers in need of medicinal aid. Targets are the local South African market and in the mid 1980's a range of off patent generic API's were developed in-house. These were largely destined for the US market.

Sales into the local South African market constitute less than half of the company's turnover whilst exports, largely to the US but also to Canada, Germany, Australia, Japan, Korea and the UK, make up the remainder. More than 150 Drug Master Files have been filed worldwide in support of marketing approvals.

The future orientation of the company is strongly directed towards the regulated export markets where effort is focused on developing niche products that will enhance value for the company and its customers. The company is currently looking at increasing its portfolio of Highly Potent Active Pharmaceutical Ingredients (HPAPI), with significant investment planned in support of these activities. The company currently manufacturer's cytotoxic compounds, opiates and various other compounds for a wide spectrum of therapeutic categories.

The production facilities at Fine Chemicals Corporation (FCC) are divided into 10 production buildings and the total production processing area under roof inclusive of mezzanines amounts to 6965m2. The raw materials and finished goods stores comprise a further 3388m2. The total site area is 2,7ha.

Recently, FCC upgraded their flammable drum storage facility on **Erf 32560** and **Erf 102119**, Epping Industria 1, Cape Town to improve their fire safety elements of the facility. These measures included the following changes:

— Expanded the foam tank enclosure by 5m^2 (external to the Flammable Storage Area);
— Constructed a new bunded drum offloading and loading area external to the Flammable Substance Storage area (41.5m^2);
— Installation of a sprinkler system;

— Increased the height of bund wall from 150mm to 450mm, this increased the total storage capacity of the bund to contain sufficient volumes of fire water and dangerous chemicals in the event of a fire;
— Increased the height of the interior walls to roof height to improve fire containment; and
— Installation of roller doors per section to improve fire containment.

As a result of the changes implemented at the flammable store, the potential exists to increase the volume of dangerous goods stored within this facility. Currently the facility is storing 192,000 Litres (914 of 210L size drums); however, the capacity of the facility with the increased bund wall and interior walls could increase to 435,600 Litres (2071 of 210L). Therefore, Activity 34 and Activity 51 of Listing Notice 1 of the EIA Regulations (2014, as amended) are triggered because of the proposal to increase the storage volume of dangerous goods at the existing FCC flammable store.

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

4. All applicable sections of this BAR must be completed.

5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.

7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the

synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-
Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE: REGION 1 and REGION 2 **(Region 1: City of Cape Town, West Coast District)** **(Region 2: Cape Winelands District & Overberg District)**	**GEORGE OFFICE: REGION 3** **(Central Karoo District & Garden Route District)**
BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000 Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	BAR must be sent to the following details: Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530 Registry Office 4th Floor, York Park Building 93 York Street George Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow;

	• a legend; and • a linear scale. For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs

DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	**X**
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	**X**
Appendix B:	**Appendix B1:**	**Site development plan(s)**	✓
	Appendix B2	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;**	**N/A**
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		**N/A**
Appendix E: **(Note: Comments will be attached to Final BAR following public participation)**	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Final comment/ROD from HWC**	**N/A**
	Appendix E2:	**Copy of comment from Cape Nature**	**N/A**
	Appendix E3:	**Final Comment from the DWS**	**To be obtained**
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	**N/A**

	Appendix E5:	**Comment from the DFFE**	✓ *(RoD attached)* Further comment to be obtained
	Appendix E6:	**Comment from WCG: Transport and Public Works**	**To be obtained**
	Appendix E7:	**Comment from WCG: DoA**	**N/A**
	Appendix E8:	**Comment from WCG: DHS**	**N/A**
	Appendix E9:	**Comment from WCG: DoH**	**N/A**
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	**To be obtained**
	Appendix E11:	**Comment from DEA&DP: Waste Management**	**To be obtained**
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	**To be obtained**
	Appendix E13:	**Comment from DEA&DP: Air Quality** *(Correspondence with and comment from the CoCT Air Quality Officer is provided)*	✓
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	**X**
	Appendix E15:	**Comment from the local authority**	**To be obtained**
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	**To be obtained**
	Appendix E17:	**Comment from the District Municipality**	✓ *AEL & Non-Substantive Amendments Communication*
	Appendix E18:	**Copy of an exemption notice**	**N/A**
	Appendix E19	**Pre-approval for the reclamation of land**	**N/A**
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	**N/A**
	Appendix E21:	**Proof of land use rights**	**N/A** Proponent is landowner
	Appendix E22:	**Proof of public participation agreement for linear activities**	**N/A**

Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required.**	✓
Appendix G:	**Specialist Report(s)**	**X**
Appendix H:	**EMPr**	✓
Appendix I:	**Screening tool report**	✓
Appendix J:	**The impact and risk assessment for each alternative**	**N/A**
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**	**N/A (*Section E of this BAR)***
Appendix L	**Appendix L**	**CV of the EAP**
Appendix M	**MHI Implication on expansion of flammable store- External Consultant Letter**	✓
Appendix	**Any other attachments must be included as subsequent appendices**	

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	**CAPE TOWN OFFICE:**		GEORGE OFFICE:
	REGION 1 **(City of Cape Town, West Coast District**	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	Fine Chemicals Corporation (FCC)(Pty) Ltd	
Name of contact person for Applicant/Proponent (if other):	Francois Joubert	
Company/ Trading name/State Department/Organ of State:	Fine Chemicals Corporation (Pty) Ltd	
Company Registration Number:	1999/015732/07	
Postal address:	PO Box 253, Epping Industrial, Cape Town	
	Epping Industrial	
Telephone:		Postal code: 7460
E-mail:	(021) 530 810	Cell: (082) 940 7149
Company of EAP:	WSP Group Africa (Pty) Ltd	
EAP name:	Jacqui Fincham	
Postal address:	PO Box 2613	
	Cape Town	Postal code: 8000
Telephone:	(+27) 21 481 8795	Cell: 082 541 5038
E-mail:	Jacqui.Fincham@wsp.com	Fax: (+27) 21 481 8799
Qualifications:	BSc Hons Biotechnology	
EAPASA registration no:	2019/362	
Duplicate this section where there is more than one landowner Name of landowner:	Fine Chemicals Corporation (Pty) Ltd	
Name of contact person for landowner (if other):	Francois Joubert	
Postal address:	PO Box 253	
	Epping Industrial	Epping Industrial
Telephone:	(021) 530 810	(021) 530 810
E-mail:	fjoubert@aspenpharma.com	fjoubert@aspenpharma.com
Name of Person in control of the land:	Fine Chemicals Corporation (FCC)	
Name of contact person for person in control of the land:	Hilton Mentor	
Postal address:	PO Box 253, Epping Industrial, Cape Town	
		Postal code: 7460
Telephone:	(021) 530 8117	Cell:
E-mail:	HMentor@aspenpharma.com	Fax: Not Applicable

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	City of Cape Town	
Contact person:	Ian Gildenhuys	
Postal address:	246 Voortrekker Road, Vasco	
	Cape Town	
Telephone	(021) 590 5200	
E-mail:	Ian.Gildenhuys@capetown.gov.za.	

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INLCUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New		**Expansion**	✓
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				
The proposed activities are in a brownfield site. The site has been previously developed and completely transformed. No indigenous vegetation is present on site. There was no change to the footprint when the facility was upgraded, but rather a potential to increase the volume of materials stored on the site within drums**.**					
3.	**For Linear activities or developments**				
3.1.	Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:				
3.2.	Development footprint of the proposed development for all alternatives.				m²
3.3.	Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.				
3.4.	Indicate how access to the proposed routes will be obtained for all alternatives.				
3.5.	SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives				
3.6.	**Starting point co-ordinates for all alternatives**				
	Latitude (S)	°	‘	“	
	Longitude (E)	°	‘	“	
	Middle point co-ordinates for all alternatives				
	Latitude (S)	°	‘	“	
	Longitude (E)	°	‘	“	
	End point co-ordinates for all alternatives				
	Latitude (S)	°	‘	“	
	Longitude (E)	°	‘	“	
Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.					
4.	**Other developments**				
4.1.	Property size(s) of all proposed site(s):				**Erf 32560 : 13 616 m² + Erf 102119 : 13421m² = 27 037 m²**
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):				**27 037 m²**
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:				**Upgraded flammable drum store = 977 m²**
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g., buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).				

FCC are a pharmaceutical manufacturing facility focusing on the manufacturing of active pharmaceutical products. A few of these products include 6-Mercaptopurine, Codeine Phosphate, Fentanyl and Morphine Sulphate. The site is surrounded by light industrial activities, predominantly small-scale enterprises. Some of the enterprises are Andy cab, Nikki and GSK and various others to the north, east and south. The railway line is located north of the site, less than 1km away. North of the industrial area is the residential area of Pinelands.

FCC is in possession of a Record of Decision (ROD) (Ref.: AN 20/25/4 Erf 32560 Epping) dated 26 July 2001 authorising the construction of a 977m² open roof flammable storage area, the installation of 3 new bulk underground solvent storage tanks and an effluent recovery system on Erf 32560. The ROD did not specify the maximum storage capacity of the flammable storage area, only the total footprint area.

FFC's flammable drum store already utilises land and infrastructure present on the FCC property. FCC upgraded their flammable drum store to improve the fire safety elements of the facility as required by insurers. These measures, as mentioned above, included the following changes:

- Expanded the foam tank enclosure by 5m^2 (external to the Flammable Storage Area);
- Constructed a new bunded drum offloading and loading area external to the Flammable Substance Storage area (41.5m^2);
- Installation of a sprinkler system;
- Increased the height of bund wall from 150mm to 450mm, this increased the total storage capacity of the bund to contain sufficient volumes of fire water and dangerous chemicals in the event of a fire;
- Increased the height of the interior walls to roof height to improve fire containment; and
- Installation of roller doors per section to improve fire containment.

The store design allows for the storage of solvent in eight bays. Drums are stored on pallets. Each pallet houses 5 drums. Eight pallets are stacked in the first bay and nine in the following bays. The pallets are stacked on top of each other to a total height of 3 meters. Each bay has a sloped trench (secondary containment) resulting in a total of 17.5m^3 which terminates in a 84m^3 collection sump (tertiary containment). A fire wall separates each bay. The flammable store external walls provide a bund volume of 427m^3. The total bund volume is thus (17.5 + 427 + 84) m^3 = 529m^3.

The flammable store area is covered by a roof to protect the contents from weather elements. The roof is fitted with ridge mounted natural ventilators to prevent the accumulation of any vapours in the unlikely event of a leak. These will also prevent the accumulation of heat in the event of a fire incident. Refer to **Appendix B1** with regards to the total design including firefighting measures and mitigation measures.

Table 1: Details of the increased chemical storage onsite

Current Storage	Proposed Storage	Description of Drums
914 x 210 L drums Or 191 x 1000L flow bins	2071 x 210 L Drums Or 434 x 1000 L flow bins	Solvents including Methanol, Acetonitrile, Toluene. The same materials described on Page 22 of current Air Emission License will be stored in this area. (also tabulated below)

Table 2: Materials Description - A list of the materials drummed within the flammable drum store

Material Description - Drums in Flammable Store	
Acetonitrile	Tetrahydrofuran Anhydrous
Toluene	Diethyl Oxalate
Methylated Spirit-Code 05244	N-Butyl Bromide
Diisopropyl Ether	4-Methyl-2-Pentanone
Isopropanol	Sodium Methylate Solution
N-Dimethylacetamide	Aniline
Chloroform	Methyl Ethyl Ketone
Morpholine	Diesel
Class D - Waste Solvents (drummed for disposal)	Benzhydryl Chloride
Methanol (Bulk Tank)	N-Methyl Piperazine
Acetone (Bulk Tank)	1 3 Bromochloropropane
Heptane	Hydroxyethyl Piperazine
Acetic Anhydride Bulk	Spectrus NX1100
Class C - Recovered Solvents (drummed for re-use)	Absolute Alcohol (Ethanol)
Ethyl Acetate Anhydrous	1 3-Dibromopropane
Acetone	Pyridine
Dimethylformamide	Methyl Acrylate
Methanol	TrimethyLSilyl Bromide
Dichloromethane	2 2-Dimethoxypropane
Acetic Acid Glacial	Acetonitrile
Ethylene Glycol	Thiophenol
Ethylene Glycol Fiber Grade	Formic Acid
Dimethylamine	Sudamine N
Pyrrolidine	Oxonia Active
Mono Methylamine	N Methyl Piperazine
	Diethylamine

Figure 1: Materials description

The general process flow pertaining to the use of the flammable store are shown on Figure 1 and Figure 2 below. Drums are transported to the FCC site and quarantined upon arrival. Raw materials are tested by FCC's quality control team. Based on the testing, if the raw materials are approved then the status of the material will be changed. If rejected the raw material is returned to the supplier. The raw materials ready for production are stored within the flammable store drums (See Figure 1).

After filtration and drying of the product, solvent waste is drummed for recovery to be returned to a separate storage and disposed by an accredited service provider (See Figure 2). Some of the solvent waste stream a separate store for recovery to re-use within the production process. Furthermore, the used and empty drums are not stored in the flammable store but in a separate storage location. These are also handled by a registered waste recycler. Drums are not cleaned on site but are reconditioned off-site and returned to FCC. Therefore, with the exception of used drums (which are not stored in a separate store), the flammable store generates and stores no waste.

FCC has an approved site wide integrated waste management plan for waste generator (including hazardous waste) and complies with the Waste Norms and standards for Storage of Waste in terms of GN 926 and GN 924 of November 2013.

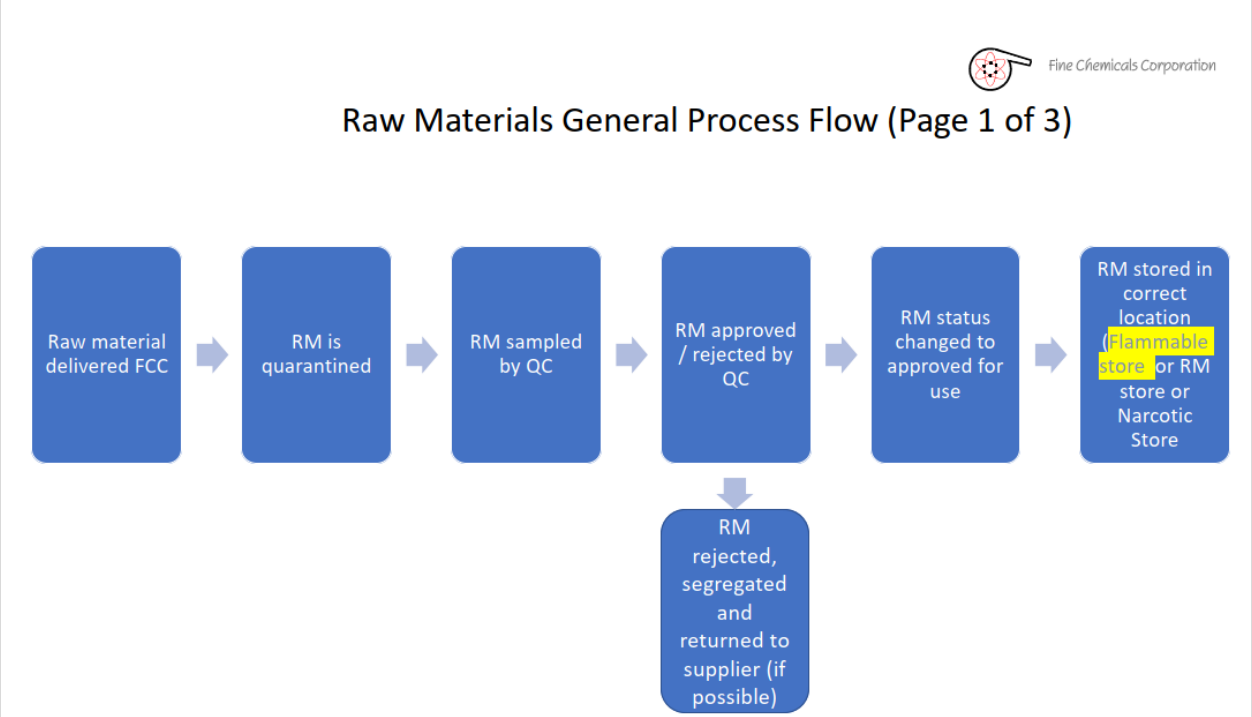


Figure 1: Production General Process Flow

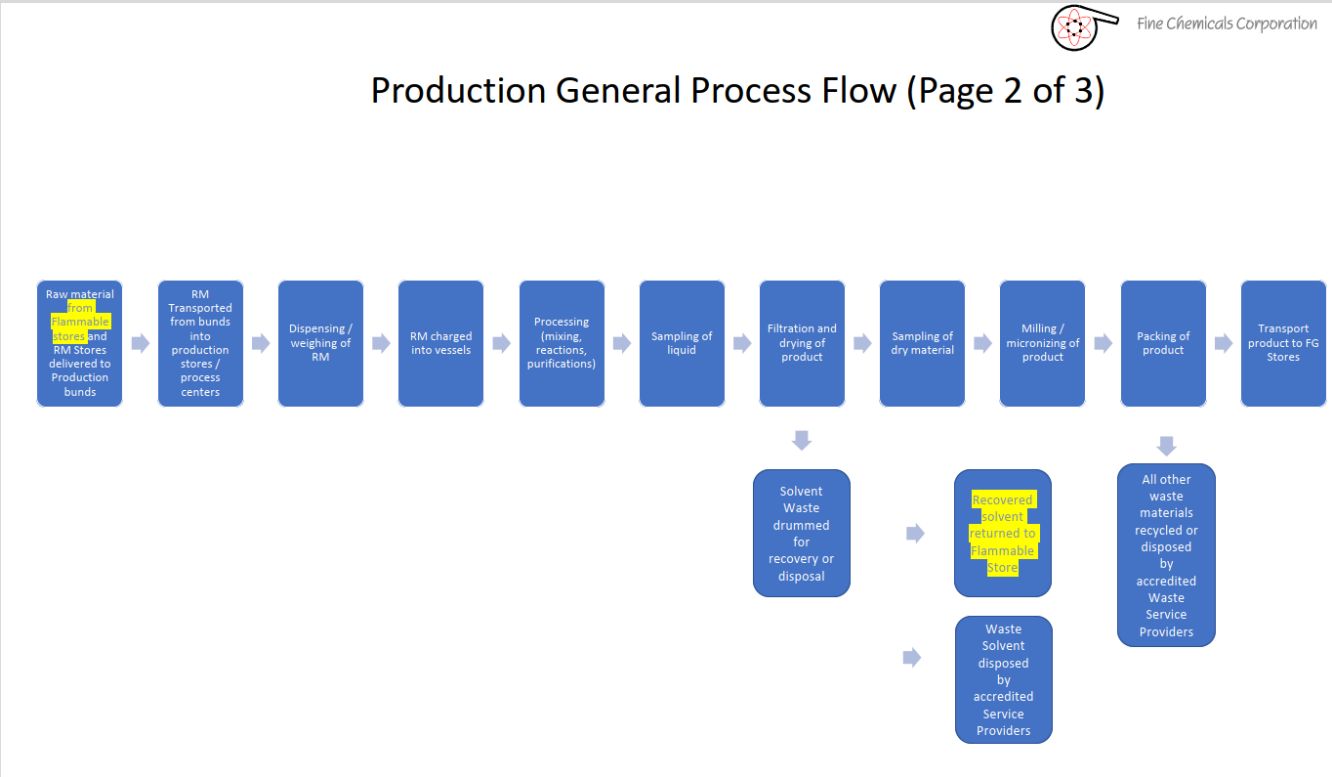


Figure 2: Production General Process Flow

As a result of the changes implemented at the flammable drum store, the potential exists to increase the volume of dangerous goods stored within this facility. Currently 192,000 Litres is stored in the flammable drum store; however, the capacity of the facility with the increased bund wall and interior walls could be increased to 435,600 Litres (See Table 1 above). The process of handling drums will follow the same process as described above and is summarised as delivery, storage, removal from store and delivered on site to various users for production. There are also no changes in the production output or process at the facility as a result of the increase in flammable storage capacity.

FCC has an approved site wide integrated waste management plan for waste generator (including hazardous waste) and complies with the Waste Norms and Standards for Storage of Waste in terms of GN 926 and GN 924 of November 2013.

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.																				
No alternatives have been identified for the proposed activities. However, the site is currently directly accessible from Hawkins Avenue. No modifications in terms of access are proposed.																					
4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	**C**	**0**	**1**	**6**	**0**	**0**	**7**	**0**	**0**	**0**	**3**	**2**	**5**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	**33 ◦**	**56 ‘**	**5.12“S**
	Longitude (E)	**18 ◦**	**31‘**	**51.40 “E**

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	YES	**NO**

2. Is the following legislation applicable to the proposed activity or development?

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (“ICMA”). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	YES	**NO**

The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	**NO**
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	YES	**NO**
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	**YES**	NO
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	**NO**
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	**NO**
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	**NO**
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	YES	**NO**

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.

Occupational Health and Safety Act Nr. 85 of 1993, revised June 2001: Major Hazard Installation Regulations and Draft MHI Regulation 1483:2019

Part of these regulations require existing facilities and all new facilities, who have hazardous materials on their sites, to conduct a risk assessment to indicate their potential for causing major hazardous events (i.e., hazardous events of catastrophic proportions that can affect employees and the public outside the perimeter of the facility). FCC's current MHI Risk Assessment (FCC Epping MHI RA 2018 – Interim Update 2020) was carried out in accordance with SANS 1461:2018 – Major hazard installations – Risk Assessments and ISHECON Work Procedures WP301 – MHI RA Assignment Administration and WP302 – MHI RA Methodology. This assessment classified FCC as a Major Hazard Installation.

MHI Regulations are being updated. Under the new or proposed DRAFT MHI Regulations the FCC site will likely be a Low Hazardous Establishment. This rating takes into consideration the proposed expansion of the flammable store. This new classification requires FCC have an MHI QRA completed by an AIA to SANS 1461:2018 and an Emergency Response Plan according to SANS 1514.

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

The following is applicable:

Policy Documents	**Relevance**
Western Cape Provincial Spatial Development Framework, 2014	From a spatial perspective, the FCC Flammable drums store is in line with the PSDF as it does not operate in an area earmarked for future urban or residential development. It utilises space within a broader industrial area and its operations are in line with surrounding land uses.
City of Cape Town Integrated Development Plan, 2017	The storage of additional Drums in the flammable drum store is not aligned with the IDP. It should be noted that it does not contradict the IDP either. Economic growth, basic services, safety, housing, transportation, public space, environment and amenities are the main items identified within the IDP 2022-2027. None of these will be positively or negatively affected.
Cape Town Municipal Spatial Development Framework, 2017 – 2022	The storage of additional Drums in the flammable drum store is in line with the objectives of Spatial Strategy 3 of the framework.

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

The following guidelines were taken into account during the assessment process and preparation of this report.

Guidelines	**Area of Influence**
City of Cape Town By-laws: - Air Quality Management By-law; - Environmental Health; - Integrated Waste Management; - Effluent Management; - Stormwater Management; - Prevention of noise nuisances; and	The applicant's proposed activities will be in-line with the relevant/ applicable by-laws of the City of Cape Town.

- Traffic.	
Western Cape Noise Regulations (June 2013)	The applicant's proposed activities will be in-line with the relevant/ applicable by-laws of the Western Cape Provincial Government.
DEA&DP Guideline and Information Document Series (March 2013): - Guideline on Public Participation; - Guideline on Alternatives; - Guideline on Need and Desirability. DEA (now DFFE): - Public Participation Guidelines in terms of NEMA, 1998 EIA Regulations (2017) - Guideline on need and desirability (2017)	These guidelines provide information and guidance for applicants, authorities and I&AP's on requirements for the consideration of alternatives, public participation requirements and procedures to assess the need and desirability of a proposed activity.
Occupational Health and Safety Act: Regulations: Major Hazard Installations	These regulations apply to employers, self-employed persons and users, who have on their premises either permanently or temporarily, a hazard installation or a quantity of a substance which may pose a risk that could affect the health and safety of employees and the public.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form
N/A

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
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 National Environmental Management: Waste Act, 2008 applies;* *(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 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.*	**The operation at the FCC flammable storage facility will be expanded by increasing the storage volume of dangerous goods by more than 80m³. The proposed increased storage volume of dangerous goods will require a non-substantive amendment to the current AEL.** **This activity is therefore applicable.**
51	*The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic meters.*	**The operation at the FCC flammable storage facility will be expanded by increasing the storage volume of dangerous goods by more than 80m³. This activity is therefore applicable.**
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
N/A		

Note:

- The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.
- Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**	Describe the portion of the proposed development to which the applicable listed activity relates.
N/A		

List the applicable listed activities in terms of the NEM: AQA

Activity No(s):	Provide the relevant **Listed Activity(ies)**	Describe the portion of the proposed development to which the applicable listed activity relates.
FCC is in possession of a valid AEL (WCCT 031) issued on 30 April 2020 (Appendix E17). The City of Cape Town confirmed in a letter dated 14 April 2021 that the increase in the chemical storage volumes on the site must be documented in the existing AEL because the volume is still below the 1000m^3 threshold as listed in Category 6 of Section 21 of the NEM: AQA. Therefore, a non-substantive administrative amendment to the AEL is required. FCC has submitted all the required documentation for the amendment is currently waiting for the decision.		

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.
No alternatives have been identified or can be recommended as the upgrade of the proposed storage has already been completed. The only alternative would be a No-go option. This would mean that the additional drum storage realised will remain at its current storage capacity and off-site storage site at Freight Pak's J1 facility continues.	
2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.
The property is zoned as General Industrial 2 (City of Cape Tom Map Viewer). According to Section 8.2 (Industry Zone: General Industry) of the Provincial zoning scheme model by-law, "*The objective of this zone is to accommodate all forms of industry, except noxious trade and risk activity, in order to promote the manufacturing sector of the economy. Some allowance is made for nonindustrial activities, but these should not compromise the general use of the area zoned for industry. It is accepted that the intensive nature of the industrial activity or the scale of the operation could generate some negative impact on adjacent properties.*" The FCC's flammable drum store is already operational and is of an industrial nature. Given that the nature of the activity is not changing as a result of the storage volume increase, this aligns with the zoned land use.	
3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.
N/A	
4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.
The Western Cape Provincial Spatial Development Framework, 2014 (PSDF) is underpinned by three interrelated themes, namely: - Sustainable use of the Western Cape's spatial assets (resources); - Opening up opportunities in the Provincial space-economy (space economy); and - Developing integrated and sustainable settlements (settlement). The PSDF furthermore seeks to improve the effectiveness of public investment in the Province by: - Incorporating credible spatial planning principles to support all capital investment programmes; - Spatially targeting and aligning the different investment programmes; and - Creating and facilitating opportunities for community and business development in targeted areas. The PSDF also includes the following spatial agenda: - Grow the Province's economy in partnership with the private sector, non-government and community-based organisations; - Use infrastructure investment as the primary lever to ensure urban and rural spatial transitions; and - Improve the sustainable use of the Province's spatial assets and resources. From a spatial perspective, the FCC facility is in line with the PSDF as it does not operate in an area earmarked for future urban or residential development. It utilises space within a broader industrial area and its operations are in line with surrounding land uses. The PSDF recognises the sustainable use of provincial assets as a priority. Within the overarching spatial framework, waste recovery and recycling are key challenges faced by the PSDF. FCC seek to aid on this campaign, by being granted permission to use their maximum storage capacity. This will allow FCC to store all drums containing waste to be disposed or recycled within their store.	
4.2	The Integrated Development Plan of the local municipality.
<u>City of Cape Town Integrated Development Plan, 2017 (IDP 2017-2022)</u> The City of Cape Town Integrated Development Plan (IDP, 2017 - 2022) contains the following three-fold vision for the City: - To be an opportunity city that creates an enabling environment for economic growth and job creation, and to provide help to those who need it most;	

- To deliver quality services to all residents;
- To serve the citizens of Cape Town as a well-governed and corruption-free administration.

To achieve the set vision, the City's mission is as follows:

- To contribute actively to the development of its environmental, human and social capital;
- To offer high-quality services to all who live in, do business in, or visit Cape Town as tourists; and
- To be known for its efficient, effective and caring government.

The IDP is built on five key pillars: the opportunity city; the safe city; the caring city; the inclusive city; and the well-run city. These key pillars are discussed below.

- The opportunity city: "Ensure that Cape Town continues to grow as an opportunity city." An economically enabling environment needs to be created for investment employment generation.
- The safe city: "Make Cape Town an increasingly safe city." Residents must feel safe in their city.
- The caring city: "Make Cape Town even more of a caring city." The city must be welcoming to all and make residents feel at home.
- The inclusive city: "Ensure that Cape Town is an inclusive city." All residents should have a stake in the future and enjoy a sense of belonging.
- The well-run city: "Make sure Cape Town continues to be a well-run city." Residents must know that their government works for them, is accountable to them and answers to them.

The FCC's flammable drum store is not directly aligned with the IDP and therefore no local job creation, upskilling, service delivery improvement is envisaged. However, FCC's responsibility towards the environment through the pursuit of environmental authorisations contributes actively to the City's environmental capital.

4.3.	The Spatial Development Framework of the local municipality.

The Cape Town Municipal Spatial Development Framework, 2017 – 2022 (MSDF) incorporates three overarching spatial strategies, namely:

1. Build an inclusive, integrated, vibrant city.
2. Manage urban growth and create a balance between urban development and environmental protection.
3. Plan for employment and improve access to economic opportunities.

The expansion of the FCC facility is in line with the objectives of Spatial Strategy 2 of the MSDF, as it will effectively use existing infrastructure, this will help manage urban growth by not increasing development footprint. Furthermore, the FCC facility does not operate in an area earmarked for future urban or residential development. It utilises space within a broader industrial area and its operations are in line with surrounding land uses.

4.4.	The Environmental Management Framework applicable to the area.

Not applicable. The DFFE Screening Tool Report (Appendix I) generated for the expansion of the flammable drum store indicates that the site does not intersect with any EMF areas.

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

Not applicable. The site is currently completely transformed and developed. No natural vegetation is present on site. No impacts to biodiversity are therefore anticipated.

6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The Western Cape Biodiversity Spatial Plan had no influence on the expansion of the flammable drum store. The site is not located within a CBA, ESA, or Other Natural Area. The site has entirely been transformed.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

Not applicable. The site is not located within the coastal public property. It's situated 12.79km away from the Atlantic Ocean.

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

There has been no change to the Screening Tool Report. The screening tool report was generated on 31 May 2022 and is attached as Appendix I. The same screening tool report, as attached, was submitted with the NOI.

9.	Explain how the proposed development will optimise vacant land available within an urban area.

Not applicable. The proposed additional storage space is located within an existing flammable drum storage facility and no construction, or increase in building footprint, is proposed.

10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.

The expansion of the flammable drum store allows for the optimisation of the facility's storage capacity. The measures to upgrade the facility's safety elements allow for internal storage of drums that are currently stored offsite. The efficient use of existing space will reduce costs to FCC and reduce fuel emissions by reducing the transportation of drums.

11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

No additional municipal infrastructure will be required in terms of electrical or water supply, or sanitation. Confirmation of all services will be provided in Appendix E16.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

The DEA&DP Guideline (2013) states that the essential aim of need and desirability is to determine the suitability (i.e. is the activity proposed in the right location for the suggested land-use/activity) and timing (i.e. is it the right time to develop a given activity) of the development.

Therefore, need and desirability addresses whether the development is being proposed at the right time and in the right place. Similarly, the 'Best Practicable Environmental Option' (BPEO) as defined in NEMA is "the option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term."

The storage of additional drums within FCC's flammable drum storage facility is in line with the Western Cape PSDF and the Cape Town MSDF. The facility is already operational and is of an industrial nature. The use of the additional capacity is not directly aligned with the IDP.

FCC constructed their flammable drum store during the initial site establishment in 2001. The flammable drum store is within the existing and operational FCC facility. No resources are used in the process as the facility is a storage unit with no other operational function.

Currently, off-site storage in Freightpak is being used for the excess material drums requiring storage and 67% of the total amount of drums are stored. The objective of the flammable store renovation was to minimize the outbreak, spread and intensity of a fire. The design is such that a fire will not pose a risk to adjacent premises. The revised storage method will, in terms of the Major Hazard Installation Regulations, extensively reduce the potential to cause a major incident.

The primary need and desirability is also driven by the impact of cost and efficiencies of stores retrievals. The other intention is to reduce and minimise the risk of double or frequent handling of flammable products, i.e., packaged for shipping offsite, loading and offloading at FCC as well as at Freightpak. The use of the proposed flammable drum storage will also reduce the increased risk for dangerous goods road transportation and thereby increasing road user safety.

Obtaining environmental authorisation for the expansion of the flammable drum store within FCC's existing building footprint will not affect the land use right. No additional construction will be required. With the surrounding industrial land use in mind, the site has low environmental sensitivities.

Furthermore, the identified negative impacts associated with the activity will be mitigated to acceptable levels in accordance with the EMPr (Appendix H). Refer to Section I for the Environmental Impact Assessment and recommended mitigation measures.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

Not applicable. The development is not a linear activity.

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

Refer to the Stakeholder Engagement Report attached as Appendix F.

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

STATE DEPARTMENTS/ORGANS OF STATE	CONTACT PERSON	CONTACT DETAILS
DEA&DP Directorate Planning Development Management Region 1	**Zaahir Toefy**	**zaahir.toefy@westerncape.gov.za**
DEA&DP Waste Management	**Eddie Hanekom**	**Eddie.Hanekom@westerncape.gov.za**
DEA&DP Air Quality	**Dr Joy Leaner**	**joy.leaner@westerncape.gov.za**
DEA&DP Pollution and Chemicals Management	**Wilna Kloppers**	**Wilna.Kloppers@westerncape.gov.za**
DEA&DP Pollution and Chemicals Management	**Nabeelah Achmat**	**Nabeelah.Achmat@westerncape.gov.za**
City of Cape Town: Environmental and Heritage Management Branch	**Maurietta Stewart**	**Maurietta.Stewart@capetown.gov.za**
City of Cape Town: Air Quality	**Ian Gildenhuys**	**Ian.Gildenhuys@capetown.gov.za**
City of Cape Town: Air Quality	**Lynelle Matthys**	**Lynelle.Matthys@capetown.gov.za**
City of Cape Town	**Mr Lungelo Mbandazayo**	**city.manager@capetown.gov.za**

City of Cape Town: Fire and Rescue service	**Laetitia Paulsen**	**laetitia.paulsen@capetown.gov.za**
Department of Water and Sanitation	**Warren Dreyer**	**DreyerW@dws.gov.za**
Heritage Western Cape	**Ms Colette Scheermeyer**	**colette.scheermeyer@westerncape.gov.za**
City of Cape Town Solid Waste Management Department	**Rustim Keraan**	**rustim.keraan@capetown.gov.za**
City of Cape Town: Service Connection Planning	**Michael Schmidt**	**michael.schmidt@capetown.gov.za**
City of Cape Town: Service Connection Planning	**Shiraaz Swartland**	**shiraaz.swartland@capetown.gov.za**

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

All State Departments and Organs of State listed above were consulted and have been invited to participate in the Public Participation Process. Refer to the Stakeholder Engagement Report attached as **Appendix F**.

5. if any of the State Departments and Organs of State did not respond, indicate which.

This report is the Draft BAR, which has been released for public participation. **Comments and responses will be collated and included in the Final BAR for submission to DEA&DP.**

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

This report is the Draft BAR, which has been released for public participation. **Comments and responses will be collated and included in the Final BAR for submission to DEA&DP.** Refer to the Stakeholder Engagement Report (**Appendix F**) for details regarding public participation undertaken to date.

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that *"Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."*

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile Report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. Groundwater

1.1.	Was a specialist study conducted?	YES	**NO✓**
1.2.	Provide the name and or company who conducted the specialist study.		
Not applicable.			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
The site is underlain by an intergranular aquifer with a median yield of 0.1 – 0.5 l/s according to Cape Farm Mapper ver 2.6.10. The site is upon a Major aquifer, it is a high-yielding system of good water quality (DWS, 2012 Groundwater Quality of South Africa). The vulnerability of the underlying aquifer (the tendency or likelihood for contamination to reach a specified position in the groundwater system after introduction at some location above the uppermost aquifer) is considered "most vulnerable" and susceptibility of the aquifer (qualitative measure of the relative ease with which a groundwater body can be potentially contaminated by anthropogenic activities) is considered "high". The most vulnerable aquifer region is vulnerable to many pollutants except those strongly absorbed or readily transformed in many pollution scenarios. Groundwater recharge in the study area is 55.43 mm/annum. Electrical conductivity of the groundwater in the area ranges from 70 to 150 millisiemens/meter (mS/m) (DWS, 2012 Groundwater Quality of South Africa). The storage of additional drum within the facility will have no impact on groundwater. The entire site is completely transformed and covered with hard surface. There is little to no chance of contaminants seeping into the ground and affecting groundwater. The entire Flammable drum store is enclosed within bunding and covered with roofing. FCC have a stormwater monitoring program in place. Samples are collected from 3 points on site during the rainy season (April-October). The samples are analysed, and results recorded. The results are compared with the limit values adapted from Table 2.1 of the Government Notice: Revision of the General Authorisation. Abnormal results are investigated, and correction actions applied where possible. The upgraded flammable drum store will continue using municipal water. The store itself will use little to no water. Water will mainly be used for sprinklers in the event of a fire and for sanitation/hygiene purposes (with no increase from the current consumption). FCC does not rely on groundwater for any operational aspects. Underneath the store is a sump with the maximum capacity able to capture liquid during a major spill incident.			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
The depth to groundwater is 6.47 m below ground level(mbgl) according to Cape farm Mapper ver 2.6.10. The upgrades to the facility have no impact on groundwater. The entire site has been entirely transformed and hardsurfaced, there is little to no chance of contaminants seeping into the ground and affecting groundwater. The entire Flammable drum store is enclosed within bunding and covered with roofing. FCC have a stormwater monitoring program in place.			

2. Surface water

2.1.	Was a specialist study conducted?	YES	**NO✓**
2.2.	Provide the name and/or company who conducted the specialist study.		
Not applicable.			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		

The site is situated 12.79 km away from the Atlantic Ocean. The Elsieskraal River is 1.6km to the west, the Vygekraal river (2.18km) (203.15°) and the Black River (2.16km) (211.12°) are southwest of the site. West of the site is a natural valley floor floodplain wetland (1.56km) (269.48°). At the centre of the natural valley floor floodplain lies the Elsiesriver (1.61km), classed as an unknown type. Towards the southwest of the site, the natural valley floor connects to an estuary (2.51km) (232.15°). To the east of the estuary is a patch of artificial valley floor wetlands (2.49km) (221.01°) which is associated with the Athlone Wastewater Treatment Plant. To the southwest there are depression wetlands (0.59km) (249.16°), (1.32km) (234.08°) and cluster of 7 depression wetlands (2.01km) (207.00°). Southeast of the site lies three depression wetlands (1.57km) (170.04°), (2.20km) (158.49°) and (1.02km) (121.61°). Northeast of the site lies two depression wetlands (0.40km) (25.57°) and (0.51km) (74.94°). (Figure 2).

The closest water features relate to the depression wetlands within 0.4 to 0.59km from the site are separate from the site by urban development in the form of buildings and roads.

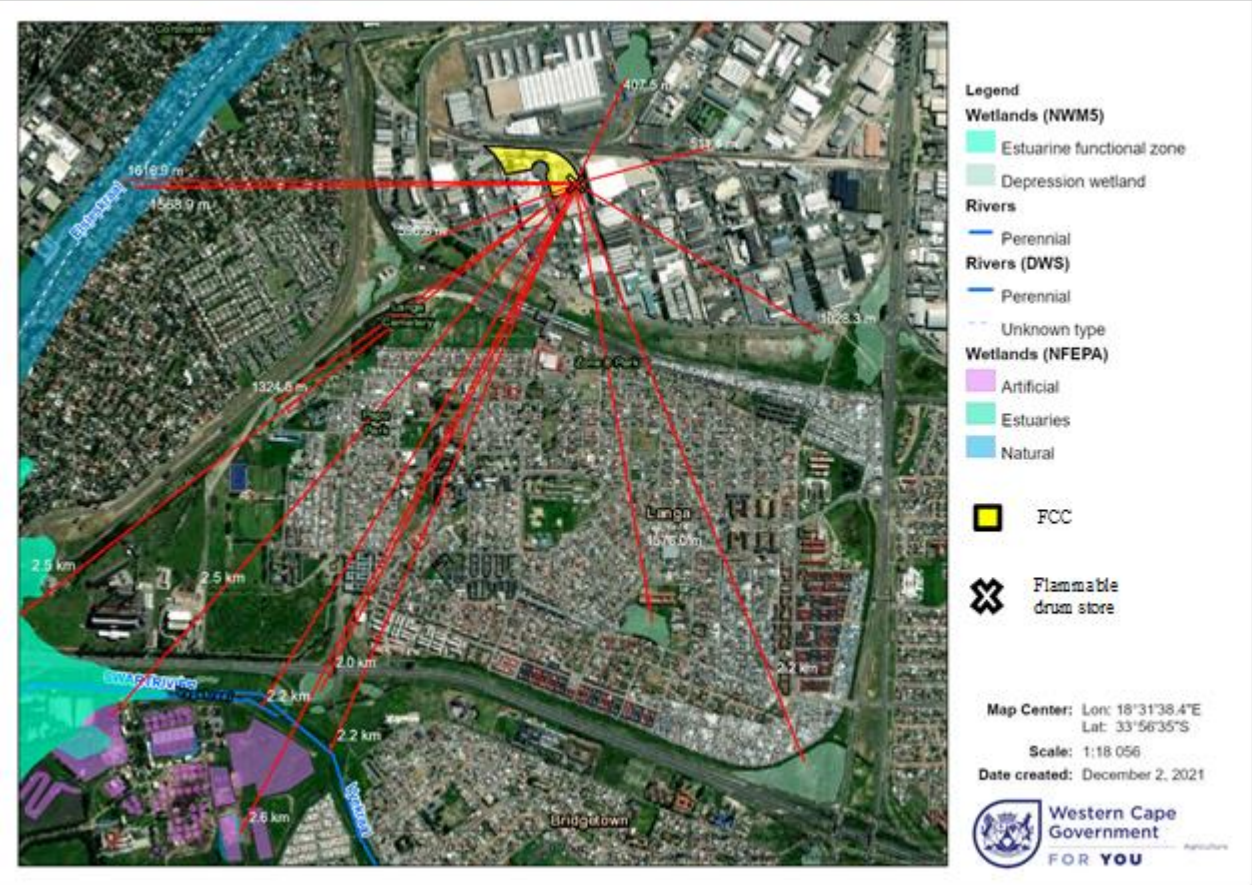


Figure 3: Watercourse and wetlands near the site

FCC has a stormwater management and monitoring in place where samples are collected during the rainy season. The following sampling results from previous years at the 192, 000L storage capacity have not shown any noticeable issues (see Tables below of three consecutive years). Since there are no legislated standards, results were checked for any trends and against limits on Table 2.1 pf Government Notice 665.

Table 3: Adapted from Table 2.1 pf Government notice 665: Revision of the General Authorisations

Substance/Parameter	General limit
COD (mg/l)	75
pH	5,5-9,5
Ammonia (as nitrogen) (mg/l)	6
Nitrate/Nitrite as nitrogen (mg/l)	15
Chlorine (mg/l)	0,25
Suspended solids (mg/l)	25
Electrical Conductivity (mS/m)	70 mS/m up to 150mS/m
Phosphate as phosphorous (mg/l)	10
Flouride (mg/l)	1
Soap, oil and grease (mg/l)	2,5
Dissolved arsenic (mg/l)	0,02
Dissolved cadmium (mg/l)	0,005
Dissolved chromium (mg/l)	0,05
Dissolved copper (mg/l)	0,01
Dissolved iron (mg/l)	0,3
Dissolved lead (mg/l)	0,01
Dissolved manganese (mg/l)	0,1
Mercury and compounds (mg/l)	0,005
Dissolved selenium (mg/l)	0,02
Dissolved zinc (mg/l)	0,1
Boron (mg/l)	1

Table 4: Stormwater sample collected from the drain in the middles of the raw material offloading bay (near the flammable store)

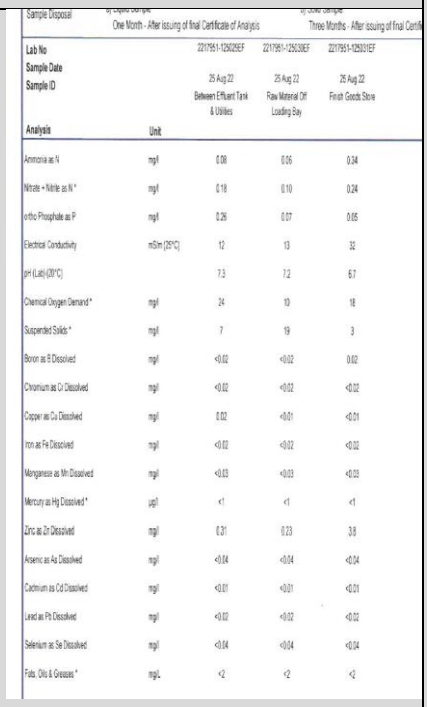
2020

Lab No Sample Date Sample ID		2015734-106016FW FG Stores: Storm Water
Analysis	**Unit**	
Ammonia as N	mg/l	<0.05
Nitrate + Nitrite as N *	mg/l	<0.05
ortho Phosphate as P	mg/l	0.23
Electrical Conductivity	mS/m (25°C)	11
pH (Lab) (20°C)		7.1
Chemical Oxygen Demand *	mg/l	171
Suspended Solids *	mg/l	20
Boron as B Dissolved	mg/l	<0.02
Chromium as Cr Dissolved	mg/l	<0.02
Copper as Cu Dissolved	mg/l	0.01
Iron as Fe Dissolved	mg/l	<0.02
Manganese as Mn Dissolved	mg/l	<0.03
Mercury as Hg Dissolved (DMA) *	µg/l	1
Zinc as Zn Dissolved	mg/l	<0.01
Arsenic as As Dissolved	mg/l	<0.04
Cadmium as Cd Dissolved	mg/l	<0.01
Lead as Pb Dissolved	mg/l	<0.02
Selenium as Se Dissolved	mg/l	<0.04
Fats, Oils & Greases *	mg/L	2

2021

Lab No Sample Date Sample ID		2116552-113800FW 28-Jun-2021 Finish Goods Store
Analysis	**Unit**	
Ammonia as N	mg/l	0.32
Nitrate + Nitrite as N *	mg/l	0.12
ortho Phosphate as P	mg/l	<0.05
Electrical Conductivity	mS/m (25°C)	2
pH (Lab) (20°C)		6.4
Chemical Oxygen Demand *	mg/l	<5
Suspended Solids *	mg/l	<2
Boron as B Dissolved	mg/l	0.03
Chromium as Cr Dissolved	mg/l	<0.02
Copper as Cu Dissolved	mg/l	<0.01
Iron as Fe Dissolved	mg/l	0.02
Manganese as Mn Dissolved	mg/l	<0.03
Mercury as Hg Dissolved (DMA) *	µg/l	<1
Zinc as Zn Dissolved	mg/l	0.12
Arsenic as As Dissolved	mg/l	<0.04
Cadmium as Cd Dissolved	mg/l	<0.01
Lead as Pb Dissolved	mg/l	<0.02
Selenium as Se Dissolved	mg/l	<0.04
Fats, Oils & Greases *	mg/L	<3

2022



Drains are also colour coded and signage in place to facilitate pollution prevention of surface water. Therefore, given that the proposed expansion will occur within an existing established flammable drum storage facility with stormwater management measure in place, impacts to these features are anticipated to be low.

Further to the stormwater management, the flammable storage design is such that it is covered by a roof to protect the contents from weather elements. The roof is fitted with ridge mounted natural ventilators to prevent the accumulation of any vapours in the unlikely event of a leak. These will also prevent the accumulation of heat in the event of a fire incident.

3. Coastal Environment

3.1.	Was a specialist study conducted?	YES	**NO✓**

3.2.	Provide the name and/or company who conducted the specialist study.
Not applicable.	
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.
Not applicable. The proposed development is within an industrial area in Epping, which is more than 12.79 km from the coast.	
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.
Not applicable. There are no estuary management plans applicable to the site.	
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.
Not applicable. The proposed development does not fall within a coastal environment.	

4. Biodiversity

4.1.	Were specialist studies conducted?	YES	**NO✓**
4.2.	Provide the name and/or company who conducted the specialist studies.		
Not applicable. The site is located within an urban area, specifically Epping Industria 1. The site has been entirely transformed. No indigenous vegetation remains on the site. The expansion is located within an existing flammable drum store and no external construction, or increase in building footprint, is proposed.			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		
The upgrade activities will all be located within an existing flammable drum store and no additional footprint disturbance is proposed. The site does not support any watercourses, wetlands, or indigenous vegetation and, as such, no terrestrial biodiversity, aquatic biodiversity, plant species or animal species are expected to be impacted as part of the proposed expansion.			
4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.		
Not applicable. The site has been completely transformed and developed. No natural vegetation is present on site. No impacts to biodiversity are therefore anticipated.			
4.5.	Explain what impact the proposed development will have on the site specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.		
Not applicable. The site has been completely transformed and developed. No natural vegetation is present on site. No impacts to biodiversity are therefore anticipated.			
4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.		
Not applicable. The proposed development does not fall within a protected area.			
4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.		
Not applicable. There are no natural faunal habitats within the study area or surrounds. The site falls within an established industrial area.			

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
The site is located within the Sandveld Group. The geology of which is mainly Quaternary quartz sand of the Springfontein Formation. The upgrade activities were all be located within an existing flammable drum store and no additional footprint disturbance, is proposed. Geology has not influenced the proposed development. Furthermore, the site is located within an established industrial area with no significant geographical aspects.

6. Heritage Resources

6.1.	Was a specialist study conducted?	YES	**NO ✓**
6.2.	Provide the name and/or company who conducted the specialist study.		
Not applicable.			
6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.		
The proposed development does not constitute the undertaking of any of the categories of development set out in Section 38(1) of the National Heritage Resources Act. The upgrade activities were all be located within an existing flammable drum store and no footprint disturbance is envisaged. No impacts to archaeological or cultural heritage are therefore expected. The Screening Tool Report identifies the site as having "low" palaeontological sensitivity, however no new footprint will be disturbed as part of the expansion of storage utilisation and the project falls within an existing facility. As such no impacts to palaeontological resources are expected.			

7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.
Section 2 of NHRA defines ''cultural significance'' as "aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance". The upgrade activities were all be located within an existing flammable drum store and no additional footprint, is proposed.

8. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

The City of Cape Town is home to about 3.7 million people, making it the second metro by population size in South Africa.

69.6% of the population is of a working age (15-64) and 48% of the City of Cape Town population are between the ages of 20 and 49. The median age (29 years) of the City is slightly higher than that of the Western Cape (28 years). In 2019, in the City of Cape Town, females accounted for 50.4% while men accounted for 49.6%.

The fine chemical corporation facility (FCC) is located in Epping Industria 1. The closest surrounding communities to the site include Thornton, Pinelands and Langa. The following table provides an overview of each suburb as per the suburb profiles generated from the 2011 census data.

Thornton		**Pinelands**		**Langa**	
Population	5 862	Population	14 198	Population	52 401
Households	1 845	Households	4 917	Households	17 402
Average Household Size	3.18	Average Household Size	2.89	Average Household Size	3.01
Key results for 2011 Census Suburb Thornton:		Key results for 2011 Census Suburb Pinelands:		Key results for 2011 Census Suburb Langa:	
- The population is predominantly Coloured (49%) and Black African (26%). - 76% of those aged 20 years and older have completed Grade 12 or higher. - 94% of the labour force (aged 15 to 64) is employed. - 16% of households have a monthly income of R3 200 or less. - 99.6% of households live in formal dwellings. - 99.9% of households have access to piped water in their dwelling or inside their yard. - 99% of households have access to a flush toilet connected to the public sewer system - 97% of households have their refuse removed at least once a week. - 99.7% of households use electricity for lighting in their dwelling.		- The population is predominantly White (62%). - 88% of those aged 20 years and older have completed Grade 12 or higher. - 96% of the labour force (aged 15 to 64) is employed. - 10% of households have a monthly income of R3 200 or less. - 99.5% of households live in formal dwellings. - 99.8% of households have access to piped water in their dwelling or inside their yard. - 99.9% of households have access to a flush toilet connected to the public sewer system. - 99.7% of households have their refuse removed at least once a week. - 99.6% of households use electricity for lighting in their dwelling.		- The population is predominantly Black African (99.1%). - 33.1% of those aged 20 years and older have completed Grade 12 or higher. - 60% of the labour force (aged 15 to 64) is employed. - 72% of households have a monthly income of R3 200 or less. - 58% of households live in formal dwellings. - 67% of households have access to piped water in their dwelling or inside their yard. - 72% of households have access to a flush toilet connected to the public sewer system. - 94% of households have their refuse removed at least once a week. - 98% of households use electricity for lighting in their dwelling.	

8.2.	Explain the socio-economic value/contribution of the proposed development.
There are no socio-economic benefits. No job creation or upskilling will result from the use of the additional storage capacity.	
8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

The FCC's current social responsibility is to provide stable employment for local communities, including development and upskilling of employees, upholding the principles of gender equality and BBBEE. See the below table of all community engagements over the last two years.

2021	
Full Name of Beneficiary and its physical location	• Hannah's place of safety, Mitchells Plain, Cape Town • Astra school for the physically disabled, Montana Cape Town
Details about the beneficiary, e.g. school for disadvantaged children who are physically handicapped	• Hannah's place is a haven to babies born from drug addicted parents that require a safe place. • Astra school is a school that caters for the physically and mentally disabled learners from disadvantaged backgrounds
Specific beneficiary information including its establishment date, the number patients / students, split per gender, age groups etc.	• Astra serves approximately 350 physically disabled children and 100 children with learning disabilities. • Hannah's place serves approximately 15 babies a year. Each baby is with the organisation for 6 months until they are ready for foster placement.
Number of individuals who will directly benefit from Aspen's Mandela Day activities	• Astra-450 learners • 23 individuals with15 babies +8 staff members
Does the beneficiary receive a government subsidy?	— Hannah's place of safety does not receive funding. — Astra school receives government funding.
Provide specific detailed information of activities / services planned for the beneficiary. This information must be used when the Task Team Co-ordinator prepares the article for submission.	— FCC will be assisting both organisations with various items that they require to sustain the organisations. We will provide food ingredients for the learners attending each day. As well as food for the babies and their care givers. Toiletries and various cleaning detergents will be sponsored as well.

2022	
Full Name of Beneficiary and its physical location	**New Life Centre**- 3 Krige St, Boston, Cape Town, 7530 **Matroosfontein Cottages**- 30 Lotus Way, Matroosfontein, Elsies River **Holy Cross Orphanage**- 301 De La Rey Street, Uitsig, Parow Valley, Cape Town, 7500 **Valhalla United FC**- Corner Angela Road and Valhalla Drive, Valhalla Park Cape Town South Africa
Details about the beneficiary, e.g. school for disadvantaged children who are physically handicapped	**New Life Centre**- New Life Centre offers a home to pregnant women and girls in crisis. They assist 10 girls per year. **Matroosfontein Cottages**- There are 32 self-catering rental units (14 single and 26 double) at Matroosfontein Cottages. Residents need to pay their rent and buy their own food monthly. **Holy Cross Orphanage**- They are a registered child and youth care centre equipped to care for 110 children aged 2-16, all of whom have been placed at the facility through a statutory court process. **Valhalla United FC**- Valhalla United FC is a registered non-profit organization.
Specific beneficiary information including its establishment date, the number patients / students, split per gender, age groups etc.	**New Life Centre**- New Life Centre offers a home to pregnant women and girls in crisis. In the event of an unplanned pregnancy, the woman and her family go through extreme upheaval and confusion. They are often unable to see beyond their immediate circumstances and without correct counsel and support can be forced into making decisions, which have far-reaching implications for all concerned, particularly mother and child. The New Life Centre is far more than a place of safety, it is a place of refuge where healing takes place. **Matroosfontein Cottages**- Matroosfontein Cottages is a rental complex that provides safe, comfortable housing for persons over the age of 60. Occupants pay rent according to the individual's income. There are 32 self-catering rental units (14 single and 26 double) at Matroosfontein Cottages **Holy Cross Orphanage**- The Holy Cross Child and Youth Care Centre was established in 1918. They have been caring for neglected, vulnerable children and those abandoned and orphaned for over 100 years. They are a registered child and youth care centre equipped to care for 110 children aged 2-16, all of whom have been placed at our facility through a statutory court process. Even though the service model has changed somewhat through the years, its core mission is to provide care for children in need of protection. **Valhalla United FC**- Valhalla United FC is a registered non-profit organization. This means that those members involved such as the

	executives, coaches, workers committee, etc. in the club do so freely and most of the time their money and resources to provide for the kids. When times are tough within the club, we draw on our success stories as a motivating factor to proceed with the hard work to keep the club running. Many of these children come from broken homes where the necessities such as a meal to eat are not always available and as a result club registration fees or football kit fee, etc. is the least of their concerns. That is where Valhalla United steps in, as a club we do our best to offer the juniors something to eat on game day, do fundraisers to buy playing gear and training equipment, but most of all equip them with necessary people skills to make them better persons and stronger young people.
Number of individuals who will directly benefit from Aspen's Mandela Day activities	**New Life Centre**- 10 females every 9 months **Matroosfontein Cottages**- TBC **Holy Cross Orphanage**- 35 children **Valhalla United FC**- 200 children
Does the beneficiary receive a government subsidy?	**New Life Centre**- No funding received **Matroosfontein Cottages**- No funding received **Holy Cross Orphanage**- Partial funding received **Valhalla United FC**- No funding received
Provide specific detailed information of activities / services planned for the beneficiary. This information must be used when the Task Team Co-ordinator prepares the article for submission.	FCC will be assisting all the organisations with various items that they require to sustain the organisations. We will provide food ingredients for all the residents at each organisation. Toiletries and various cleaning detergents will be sponsored as well.

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

Major Hazard Installations

In 2020 FCC has updated its MHI Risk Assessment Report for the entire site but also for the purpose of accommodating the upgraded and proposed flammable storage. As mentioned earlier, the storage currently stores 192 000Litres and the realised storage has capacity for 435,600 Litres. This DBAR is concerned with the MHI impacts associated directly with the proposed additional storage capacity as opposed to the entire site. The MHI RA has found that it is possible, under abnormal accident situations, for the hazardous chemical facilities on site to have an impact on persons outside the site. Worst-case events related to the storage of chlorine could lead to fatalities up to 680m from the installation, ammonia up to 150m and flammables up to 40m.

Additional drums with flammable substances will amplify the impact zones of explosions and fire events. The MHI RA report (2020 Interim update) models show the extent of the potential impact effects on the receiving environment. Figure 4 shows the mapped overpressure circles from ignition of the vapours accumulated within the flammable store. According to Figure 4, a major incident could cause death (30m radius) and minor injuries on those within a 100m radius. Radiation circles from a pool fire, should the store be on fire in Figure 5 shows a 1% lethality within 20m radius and a maximum extent of minor injuries within 60m. These modelled results include the proposed increased capacity of the flammable store.

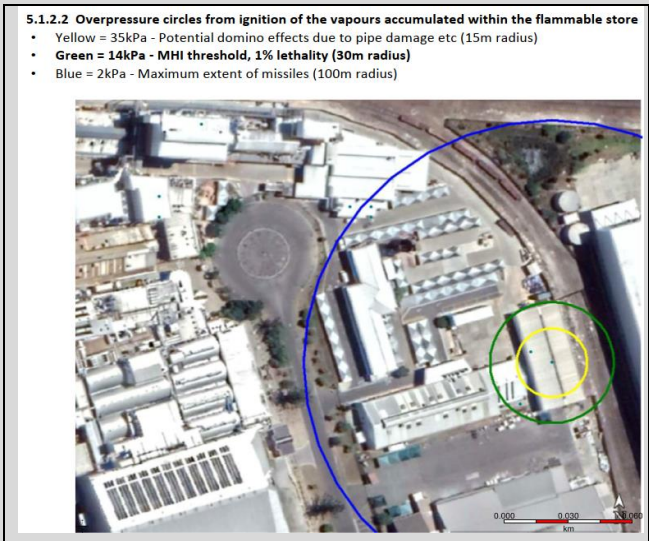


Figure 4: 2020 -Overpressure circles from ignition of the vapours accumulated within the flammable store

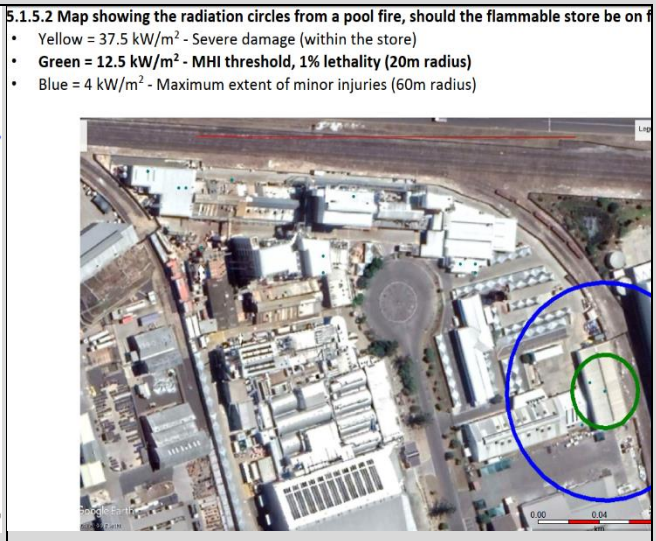


Figure 5: 2020 - Radiation circles from a pool fire, should the store be on fire

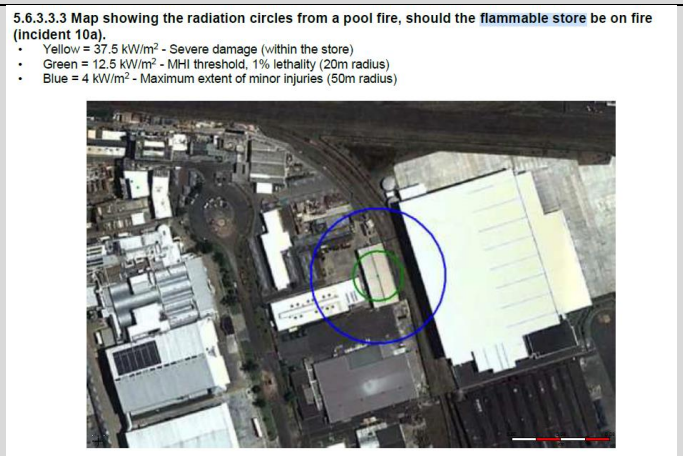


Figure 6: 2014 - Radiation circles from a pool fire, should the store be on fire

Previous MHI RA assessment reports for FCC have had similar results. The 2014 result of the radiation circles from a pool fire is shown in Figure 6 and the results are the same as in 2020. In the 2006 report, it was also concluded that due to the design of the flammable store, the likelihood of a pool fire engulfing the whole store is highly unlikely and therefore not reasonably conceivable and was therefore not included in the assessment. The 2006 and 2014 MHI RA reports did not include the proposed expansion. However, in terms of societal risks, the expansion of the flammable store as included in the 2020 MHI report has increased the risks within the store but has not significantly increased the offsite risks or the overall MHI risk profile.

Further to this, the FCC's MHI RA considered and concluded on the following provided all reasonably practicable risk reduction measures have been implemented where applicable:

- The unmitigated individual risks posed to employees within the site can be considered tolerably low

- The risks to all neighbouring industries, e.g., GSK, AFROX, Any Cabs etc. can be considered tolerably low
- The individual risks posed to persons in the nearby residential area of Thornton are tolerable provided ALARP while in Langa and Pinelands the risks are negligible.
- Societal risks (including employees) are in the ALARP range for 1 – 6 fatalities, mostly employees. Beyond this range for the larger catastrophic type events, where the outside public might be involved, the risks are acceptably low.

Hazards that have the potential to harm members of the public beyond the site boundaries are classified as major hazards and the facilities from where they originate as a Major Hazard Installations. Therefore, the FCC Epping site remains classified as a Major Hazard Installation. However, according to the proposed Draft MHI Regulations (2019), the classification for FCC will likely change to a Low Hazard Establishment. This status can only be achieved and maintained if none of the materials stored are classified as extremely flammable. A high-level analysis on MHI implications of flammable store expansion under the Draft MHI Regulations indicated that the expansion of the flammable store will likely remain a Low Hazardous Establishment.

Even though there could be fatal effects, the chance of the major accidents occurring is generally low. However, as mentioned earlier, for full compliance and to be accredited a Low Hazardous Establishment, FCC will require that an MHI QRA be completed by an AIA to SANS 1461 (last done 2018) and an Emergency Response Plan according to SANS 1514.

Noise

Elevated noise levels are likely to be generated by the operations activities, predominantly the vehicles (forklifts).

Due to the limited noise profile of the project activities, coupled with the fact that all production operations will take place within the enclosed building structure, and that the facility is located within an industrial area, the impact is regarded as low. Ambient noise emissions and associated noise impacts are also limited.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative.	
No alternative property or site has been identified.	
Provide a description of any other property and site alternatives investigated.	
Not applicable.	
Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.	
Not applicable.	
Provide a full description of the process followed to reach the preferred alternative within the site.	
Not applicable.	
Provide a detailed motivation if no property and site alternatives were considered.	
The site covers two plots Erf 102119 and Erf 32560. Both sites are brownfields located within an industrial area (i.e. Epping Industria 1). The flammable drum store is located on Erf 32560. No alternative site has been identified as upgrade of the flammable drum store are completed and now it has additional capacity. The alternative option would be the continued use of the current off site storage facility – this is a No-Go option. If the proposed activities are not approved, the drums will remain off site.	
List the positive and negative impacts that the property and site alternatives will have on the environment.	
The increase of the storage capacity at the FCC Plant has the potential of having a positive impact upon the environment as there will be less dangerous good in transit and as such vehicle emissions will reduce. MHI impacts are a possibility given the storage of dangerous chemicals (See section G 8.4). There are no site alternatives, so this has not been described further.	
1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred activity alternative.	
FCC is a pharmaceutical manufacturing facility focusing on the manufacturing of active pharmaceutical products. A few of these products include 6-Mercaptopurine, Codeine Phosphate, Fentanyl and Morphine Sulphate. Currently, transport is done by Hazchem truck only as required based on FCC production requirements. This is further impacted by customer orders or demand. Therefore, the number of trips and frequency of handling the flammables is not readily predictable to infer that the number of trips will be reduced to a certain percentage. The activity in question is additional storage of flammable materials at the flammable drum store rather than off-site storage as is currently the case. No further alternatives were considered for this project and as such this is the preferred alternative.	
Provide a description of any other activity alternatives investigated.	
Not applicable. See above	
Provide a motivation for the preferred activity alternative.	
Not applicable. See above	
Provide a detailed motivation if no activity alternatives exist.	

Storage of the flammable materials is required in order to continue manufacturing. There is therefore no activity alternative.	
List the positive and negative impacts that the activity alternatives will have on the environment.	
No activity alternative has been identified. Refer to Section I: Findings, Impact Management and Mitigation Measures for list of potential impacts	
1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts
Provide a description of the preferred design or layout alternative.	
The flammable drum store has already undergone modification to accommodate the fire safety requirements. These modifications to the facility have provided capacity for the storage of additional flammable materials on site and FCC therefore wishes to make use of this opportunity. Refer to Layout (Appendix B) for the layout of the facility. Given that this has already been developed, there is no alternative that can be accommodated without further modifications to the facility.	
Provide a description of any other design or layout alternatives investigated.	
Not applicable.	
Provide a motivation for the preferred design or layout alternative.	
Not applicable – see above	
Provide a detailed motivation if no design or layout alternatives exist.	
Not applicable – see above	
List the positive and negative impacts that the design alternatives will have on the environment.	
Refer to Section I: Findings, Impact Management and Mitigation Measures for the list of potential impacts	
1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred technology alternative:	
No technological alternatives have been identified as the modifications to the facility have already been made and this provides an opportunity to utilise the additional capacity.	
Provide a description of any other technology alternatives investigated.	
Not applicable – see above	
Provide a motivation for the preferred technology alternative.	
Not applicable – see above	
Provide a detailed motivation if no alternatives exist.	
No technological alternatives have been identified as the modifications to the facility have already been made and provides an opportunity to utilise the additional storage capacity.	
List the positive and negative impacts that the technology alternatives will have on the environment.	
Refer to Section I: Findings, Impact Management and Mitigation Measures for list of potential impacts	
1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred operational alternative.	
As indicated above, FCC is a pharmaceutical manufacturing facility focusing on the manufacturing of active pharmaceutical products. A few of these products include 6-Mercaptopurine, Codeine Phosphate, Fentanyl and Morphine Sulphate. No operational alternatives have been identified. Flammable chemicals need to be stored in the flammable stores area in order to facilitate production in the plant. The volumes proposed will allow FCC to continue with its operation as per the status quo; the only difference being that no off-site storage (Freightpak's J1 facility) will be required. No impact to current production continuity as FCC usually store materials which will not be used in the short term. To avoid negative impacts and mitigate unavoidable negative FCC will implement identified mitigation measures as specified within the EMPr.	
Provide a description of any other operational alternatives investigated.	
Not applicable – see above	
Provide a motivation for the preferred operational alternative.	
Not applicable – see above	
Provide a detailed motivation if no alternatives exist.	
No alternatives have been identified as modifications have already been made to the flammable drum store and now it has additional capacity. The alternative option would be the continued use of the current off site storage facility. If not approved the drums will remain off site.	
List the positive and negative impacts that the operational alternatives will have on the environment.	
Refer to Section I: Findings, Impact Management and Mitigation Measures for list of potential impacts	
1.6.	The option of not implementing the activity (the 'No-Go' Option).
Provide an explanation as to why the 'No-Go' Option is not preferred.	

The No-Go option would be the continued use of the current off site storage facility. This No-go option is not preferred as this would mean continued storage expenses, delivery trucks emissions, continued high traffic/truck movement and the additional storage capacity not maximized. No alternative sites have been considered.	
1.7.	Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.
No reasonable or feasible alternatives with the exception of the no-go option exist.	
1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.
The project is located on Erf 32560, as presented in Section B. Modifications have already been made to the facility for fire safety reasons and now as a result, additional storage capacity exists. FCC would like to realise this potential and avoid off-site storage of materials thus facilitating reduced transportation costs and efficiencies of store retrievals, double/frequency of handling flammable materials. Other alternatives have not been considered or explored.	

2. "No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).
The upgrade activities were undertaken within an existing facility; no new construction / development is required (i.e. no additional buildings are to be built). Therefore no "no-go" areas have been identified for the expansion.

3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

Impact Assessment Criteria and Scoring System

The assessment of impacts and mitigation evaluates the likely extent and significance of the potential impacts on identified receptors and resources against defined assessment criteria, to develop and describe measures that will be taken to avoid, minimise or compensate for any adverse environmental impacts, to enhance positive impacts, and to report the significance of residual impacts that occur following mitigation.

The key objectives of the risk assessment methodology are to identify any additional potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues / aspects will be reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. The assessment considers direct[1], indirect[2], secondary[3] as well as cumulative[4] impacts.

A standard risk assessment methodology is used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e. residual impact). The significance of environmental aspects is determined and ranked by considering the criteria[5] presented in **Table 5**.

Table 5: Impact Assessment Criteria and Scoring System

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes
Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action

[1] Impacts that arise directly from activities that form an integral part of the Project.
[2] Impacts that arise indirectly from activities not explicitly forming part of the Project.
[3] Secondary or induced impacts caused by a change in the Project environment.
[4] Impacts are those impacts arising from the combination of multiple impacts from existing projects, the Project and/or future projects.
[5] The definitions given are for guidance only, and not all the definitions will apply to all the environmental receptors and resources being assessed. Impact significance was assessed with and without mitigation measures in place.

Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long term: Project life	Permanent: Indefinite
Probability of Occurrence (P) The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ $Significance = (Extent + Duration + Reversibility + Magnitude) \times Probability.$				

IMPACT SIGNIFICANCE RATING			
Total Score	0 – 30	31 to 60	61 – 100
Significance Rating (Negative (-)	**Low (-)**	**Moderate (-)**	**High (-)**
Significance Rating (Positive (+)	**Low (+)**	**Moderate (+)**	**High (+)**

Impact Mitigation

The impact significance without mitigation measures will be assessed with the design controls in place. Impacts without mitigation measures in place are not representative of the proposed development's actual extent of impact and are included to facilitate understanding of how and why mitigation measures were identified. The residual impact is what remains following the application of mitigation and management measures and is thus the final level of impact associated with the development. Residual impacts also serve as the focus of management and monitoring activities during Project implementation to verify that actual impacts are the same as those predicted in this report.

The mitigation measures chosen are based on the mitigation sequence/hierarchy which allows for consideration of five (5) different levels, which include avoid/prevent, minimise, rehabilitate/restore, offset and no-go in that order. The mitigation sequence/hierarchy is shown in Figure 5 below.

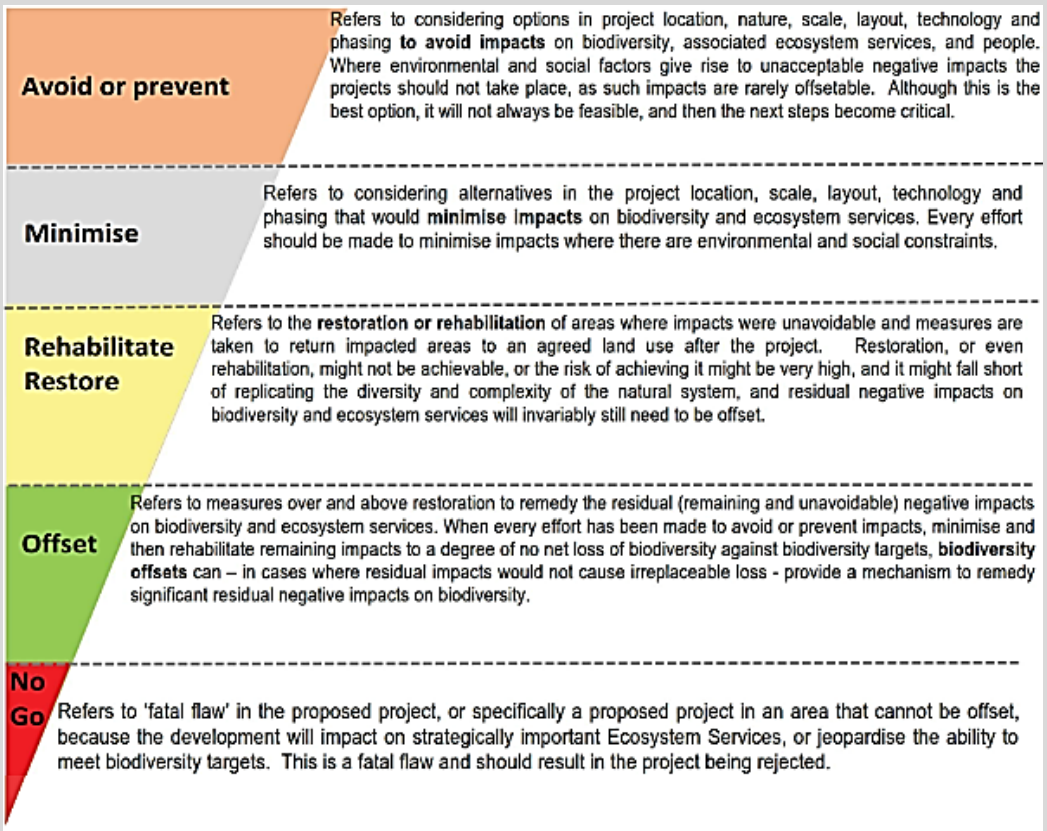


Figure 5: Mitigation Sequence/Hierarchy

The idea is that when project impacts are considered, the first option should be to avoid or prevent the impacts from occurring in the first place if possible, however, this is not always feasible. If this is not attainable, the impacts can be allowed, however they must be minimised as far as possible by considering reducing the footprint of the development for example so that little damage is encountered. If impacts are unavoidable, the next goal is to rehabilitate or restore the areas impacted back to their original form after project completion. Offsets are then considered if all the other measures described above fail to

remedy high/significant residual negative impacts. If no offsets can be achieved on a potential impact, which results in full destruction of any ecosystem for example, the no-go option is considered so that another activity or location is considered in place of the original plan.

4. Assessment of each impact and risk identified for each alternative

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

OPERATIONAL PHASE

Impact assessment in this section is for the activities applied for which only concern the operational and decommissioning phases. As indicated earlier, construction has been completed.

Potential impact and risk:	**Air Quality – Human Health Risk from Priority Pollutants (Fine Particulates and Gases)**						
Description:	Additional transport activities resulting in fugitive particulate matter emissions and vehicle tailpipe emissions is minimal. It is unlikely that the impacts would extend to the sensitive receptors, making the potential for health impacts unlikely.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	1	2	1	1	2	**12**	**Low (-)**
Proposed mitigation:	FCC will need to regularly inspect and maintain the roads and vehicles to prevent any emissions emanating from the transport operations. Additional management measures are not deemed necessary. Grievances will be monitored and logged. If additional measures are needed, they will be established.						
Significance rating of impact after mitigation	1	1	1	1	1	**4**	**Low (-)**

Potential impact and risk:	**Air Quality – Dust Fallout Nuisance from Coarse Particulates**						
Description:	Additional transport activities resulting in fugitive particulate matter emissions is minimal. It is unlikely that the impacts would extend to the sensitive receptors, making the potential for health impacts unlikely.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	1	1	1	1	2	**4**	**Low (-)**
Proposed mitigation:	FCC will need to regularly inspect and maintain the roads to prevent any emissions emanating from the transport operations. Additional management measures are not deemed necessary. Grievances will be monitored and logged. If additional measures are needed, they will be established.						
Significance rating of impact after mitigation	1	1	1	1	1	**4**	**Low (-)**

Potential impact and risk:	**Air Quality – Odour Nuisance**
Description:	During the operation phase, all drums are tightly sealed to prevent any emissions emanating from the drums and are located indoors and as such no odour emissions are anticipated.

Potential impact and risk:	Air Quality – Odour Nuisance						
	It is unlikely that the impacts would extend to the sensitive receptors, making the potential for health impacts unlikely.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	1	2	1	1	2	**12**	**Low (-)**
Proposed mitigation:	FCC will need to regularly check that drums are tightly sealed to prevent any emissions emanating from the drums. Additional odour management measures are not deemed necessary. Grievances will be monitored and logged. If additional procedures are needed, they will be established.						
Significance rating of impact after mitigation	1	1	1	1	1	**4**	**Low (-)**

Potential impact and risk:	Health and Safety – employees exposed to health and safety hazards - odour						
Description:	Due to the industrial nature of the facility, employees will be exposed to a moderate - high level of health and safety hazards during the operational phase. Flammable material has potential for health and safety incidents range from near-misses to severe incidents which have the potential to result in significant harm, as well as possible fatality (worst case scenario). Machinery (forklift) used to haul the drums to and from the store could injure a staff member in the event of a collision or negligent driving. Hazardous substances could harm persons who get in direct contact with them such as corrosives. Staff members may be accidentally trapped within the store during a fire event once the shutter doors activate.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	5	3	5	5	2	**42**	**Moderate (-)**
Proposed mitigation:	- Existing occupational health and safety procedures and plans are upgraded to include the additional risk posed by the storage of additional dangerous goods on site - Ensure employees are properly trained to use specific equipment or machinery (forklift). - Provide suitable PPE (glove, goggles etc). - Conduct safety training upon induction to raise awareness of the risks associated with the facility. - Develop safe work instruction method statements that should be used by employees in completing their tasks. - Train all relevant personnel on handling, and storage of hazardous substances within the drums. - Provide MSDSs for all hazardous substances kept within the facility. - Sufficient PPE and hazardous signage to be put on walls outside and within the facility - An existing Emergency Response Plan with measures on how to respond to the predicted health and safety issues must be upgraded to include the additional risk posed by the additional dangerous goods on site.						
Significance rating of impact prior to mitigation	4	2	1	2	2	**18**	**Low (-)**

Potential impact and risk:	MHI on human and infrastructure
Description:	The use and storage of flammable chemicals presents one of the highest hazards drum stores can encounter due to the risk of fire

Potential impact and risk:	MHI on human and infrastructure						
	either by direct ignition or the fuelling of a fire originating from other unintended sources. Other impacts as identified in the FCC's MHI RA are increased risk of pool fires and confined explosions. The proposed additional flammable substances to be stored on-site will mean a larger radius for pool fire should the flammable store be on fire and overpressure circles from ignition of the vapours accumulated within the flammable store. This simply means more materials will be available for cataclysm. This impact is applicable to FFC's personnel or anyone on-site, the general public and infrastructure.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	2	2	5	2	2	**22**	**Low (-)**
Proposed mitigation:	FCC will need to regularly check that drums are tightly sealed to prevent any emissions emanating from the drums. FCC has updated its MHI RA to accommodate the risks and impacts posed by possible expansion of the flammable storage facility. The report provides recommendations and mitigation measures that include emergency plans and further MHI administration. FCC should implement the measures outlined in the MHI RA report. These are also included in the EMPRr. Ensure that the Emergency Plan complies with SANS 1514. The MHI regulations are currently under review FCC should remain up to date with the changes. Implement a process safety management system in order to comply with new Draft MHI regulations.						
Significance rating of impact after mitigation	1	2	4	2	2	**18**	**Low (-)**

Potential impact and risk: Traffic	MHI - Transportation of dangerous goods on the roads						
Description:	Continuation of offsite storage has impacts on increased transportation costs and efficiencies in store retrievals. However, the to and from of transportation of flammables as well as loading and offloading of trucks also translate to double or frequent handling of flammable products. As delivery demand is totally driven by production requirement, no change in the number of delivery trucks and would still be approximately 2 to 3 per week maximum. The risk/impact to road users due to dangerous and flammable goods in transit remains the same.						
Nature of impact:	**Positive (+)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	2	3	3	4	5	**60**	**Moderate (-)**
Proposed mitigation:	- FCC must continue to follow chemical and dangerous goods transport procedures and requirements when transporting the flammable chemicals. - Ensure that trucks and other vehicles do not block access to surrounding properties or prevent free flow of traffic along Hawkins Avenue. - A complaints register must be maintained on site and made accessible to neighbours and surrounding land users.						
Significance rating of impact after mitigation	2	3	2	3	5	**50**	**Moderate (-)**

Potential impact and risk:	Stormwater – Potential contamination of surface water runoff						
Description:	The additional storage facility presents an indirect environmental impact to storm water through liquid spills entering the stormwater especially in a fire scenario where copious quantities of fire water run-off are possible. However, liquid runoff from spillages or fire water will be captured within the bunding. Movement of contaminated water from the sump offsite could result in the contamination of freshwater resources offsite. Stormwater monitoring results in the past three years (2022, 2021 and 2020) at the 192,000L storage capacity showed that there were no noticeable issues observed. A stormwater management Plan is in place to manage spills, liquid runoff, and bunding. During the operation phase there is little to no potential to affect the stormwater runoff quality.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	3	3	3	3	2	**20**	**Low (-)**
Proposed mitigation:	- Oils, greases, fuels, and other chemicals will be stored in the prescribed manner and within bunded areas to prevent stormwater contamination. - Any contaminants that are not cleaned from the hardstanding will be captured within the bund and stored within the underground sump. - Contaminated liquids will be captured within the bunding and stored within an 84m3 sump. - All hazardous waste must be stored in designated area before being disposed of at a registered hazardous waste disposal facility. - All mobile equipment and vehicles should be inspected regularly for faults and possible leaks; these should be serviced off-site. - Conduct annual sample testing on water quality - Spill kits must be available onsite to ensure that any fuel, oil or chemical spills are cleaned-up and disposed of correctly.						
Significance rating of impact after mitigation	1	1	3	1	1	**6**	**Low (-)**

Potential impact and risk:	Waste management: Storage of General & Hazardous waste						
Description:	Raw materials and solvent waste created as a by-product of the filtration and drying processes are drummed and returned to a separate store. The solvent waste is drummed for recycling or disposal. The drums containing waste are transported to an offsite licensed hazardous waste handling facility. Empty drums are stored at the off-site Freightpak facility. Cleaned drums are returned to FCC. FCC is a registered hazardous waste facility and complies with the waste norms and standards.						
Nature of impact:	**Negative (-)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	1	1	1	1	1	**4**	**Low (-)**

Potential impact and risk:	Waste management: Storage of General & Hazardous waste						
Proposed mitigation:	- Implementation of mitigation measures outlined within the Waste Management Plan, Storm Water Management Plan and Emergency Response Plan. - All hazardous / contaminated wastes will exclusively be within the tightly sealed drums. Drums to be delivered to a registered waste handler for disposal. - Safe disposal certificates must be obtained and maintained on site file.						
Significance rating of impact after mitigation	1	1	1	1	1	**4**	**Low (-)**

Potential impact and risk:	Noise – Elevated Noise Levels (Nuisance)						
Description:	Elevated noise levels are likely to be generated by the operations activities, predominantly the vehicles (forklifts). Due to the limited noise profile of the Project activities, coupled with the fact that all production operations will take place within the enclosed building structure, and that the facility is located within an industrial area, the impact is regarded as low. Ambient noise emissions and associated noise impacts are also limited.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	1	2	1	1	3	**24**	**Low (-)**
Proposed mitigation:	- Equipment must be in maintained in good working order, within service dates, and subject to regular inspections. - Flammable Drums collection to occur between working hours of 07h00 to 18h00. - Delivery / collection trucks to switch off engines if in idle during delivery / collection. - Grievances will be monitored and logged. If additional responses procedures are needed, they will be established and implemented.						
Significance rating of impact after mitigation	1	1	1	1	2	**8**	**Low (-)**

DECOMMISSIONING AND CLOSURE PHASE

The Flammable Drums Store is part of the Fine chemicals corporation's facility. The existing FCC EMP for upgraded facility should already include decommissioning activities of the details. The entire site is expected to be operational for an extended period (i.e., project life in excess of 25+ years) and so is the flammable storage. The decommissioning activities listed below only cover the impacts solely associated with the additional storage realised after upgrading the facility. The decommissioning potential impacts and risks are: Increased potential for contaminated water runoff, waste generation and disposal; and health and safety.

Potential impact and risk:	Stormwater – Surface water runoff and Spill prevention
Description:	Prior to decommissioning the flammable store, all drums will be removed. The waste and raw materials within the drums will be retrieved by FCC for reuse or disposed of by an accredited waste service company. Removal of all drums and content within will stop any stormwater contamination during decommissioning. The site has an underground containment tank (84m^3) and a deep sump underneath to capture potential spills. The Flammable store is a facility with no exposed surfaces. The entire site is bunded. The entire stores footprint is covered by roofing. The offloading area is curbed so as to allow for containment of small spills and the drainage routed to an underground containment sump. Uncurbed areas drain to storm water.
Nature of impact:	**Positive (+)**

Potential impact and risk:	Stormwater – Surface water runoff and Spill prevention						
	Magnitude	Extent	Reversibility	Duration	Probability	Significance	
Significance rating of impact prior to mitigation	3	2	3	1	1	9	Low (+)
Proposed mitigation:	- The handling of the drum will be done with procedurally to avoid spills. - All hazardous waste must be disposed of at a registered hazardous waste disposal facility. - All pipes and channels must be checked after any major rainfall events to ensure that there are no blockages and that the water flow will not be restricted in any way. - Obstructions to flow should be removed in order to avoid flooding. - All machinery and equipment should be inspected regularly for faults and possible leaks; these should be serviced off-site. - During decommissioning, contractors used for the Project must have spill kits available to ensure that any fuel or oil spills are cleaned-up and disposed of correctly. - Action plans are to developed and available on site in the case of spills and leaks, and training for contactors and employees to be undertaken. - Any resultant rubble should be stored in a designated waste storage and removed from site on a regular basis.						
Significance rating of impact after mitigation	1	1	1	1	1	4	Low (+)

Potential impact and risk:	Waste Management – Potential contamination of natural environment through inadequate waste management measures						
Description:	The entire flammable store will be cleared of all drums prior to decommissioning. The contents within the drums will either be recovered by FCC or disposed of by an accredited hazardous waste service provider. Waste management at the facility will need to be undertaken in line with the EMPr to consider the correct disposal of general and hazardous waste generated during decommissioning activities.						
Nature of impact:	Negative (-ve)						
	Magnitude	Extent	Reversibility	Duration	Probability	Significance	
Significance rating of impact prior to mitigation	3	2	2	1	2	16	Low (-)
Proposed mitigation:	- Wastes to be stored in the designated waste storage area with appropriate signage. - Design of waste storage area to be in accordance with GN 926 (2013) National Norms and Standards for the Storage of Waste, and include such measures as: ▪ Demarcation and appropriate signage and access control ▪ Bunding of waste storage areas ▪ Tip proof and closed receptacles - All hazardous / contaminated wastes (e.g., oily rags) to be stored in designated covered hazardous waste bin to be delivered to appropriate hazardous waste facility for disposal. - Safe disposal certificates must be obtained and maintained in site file.						
Significance rating of impact after mitigation	2	1	1	1	2	10	Low (-)

Potential impact and risk:	Health and Safety – employees exposed to health and safety hazards- odour
Description:	The proposed decommissioning activities relating to the removal of the additional drums within the store will require the use of machinery.

Potential impact and risk:	**Health and Safety – employees exposed to health and safety hazards- odour**						
	A forklift will be used to haul the drums from the store to the collection truck. In the event of an accidental collision or negligent driving, a worker could be injured.						
Nature of impact:	**Negative (-ve)**						
	Magnitude	**Extent**	**Reversibility**	**Duration**	**Probability**	**Significance**	
Significance rating of impact prior to mitigation	**4**	**2**	**3**	**4**	**2**	**26**	**Low (-)**
Proposed mitigation:	- A health, safety and environment (HSE) officer must be appointed to monitor safety conditions during decommissioning activities; - Ensure employees are properly trained to use specific equipment or machinery; - Provide suitable personal protective equipment (PPE); - Conduct site and safety induction to raise awareness of the risks associated with the site; - Conduct regular toolbox talks as refreshers to improve health and safety; - Develop safe work instruction method statements that should be used by employees in completing their tasks; - Train all relevant personnel on handling, use and storage of hazardous substances; - Provide Material Safety Data Sheets (MSDS) for all hazardous substances kept onsite; and - All visitors should undergo site induction and be made aware of the risks associated with the decommissioning activities.						
Significance rating of impact after mitigation	**2**	**1**	**1**	**4**	**2**	**16**	**Low (-)**

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

No external specialist studies were deemed necessary as highlighted within the screening tool report **(Appendix I).** As a result the only impact mitigations measures are those from the EAP as shown in Table 1 below.

Operational Phase
Air Quality
Fine chemicals corporation will need to regularly check that drums are tightly sealed to prevent any emissions emanating from the drums. An odour/emission response procedure is not deemed necessary. Grievances will be monitored and logged. If additional response procedures are needed, they will be developed and implemented.
Health and Safety
Existing occupational health and safety procedures and plans are upgraded to include the additional risk posed by the storage of additional dangerous goods on site
Ensure employees are properly trained to use specific equipment or machinery (forklift).
Provide suitable PPE (glove, goggles etc).
Conduct safety training upon induction to raise awareness of the risks associated with the facility.
MHI on human and infrastructure
FCC will need to regularly check that drums are tightly sealed to prevent any emissions emanating from the drums.
FCC will need a strictly defined storage system for the flammable storage including an appropriate chemical inventory management system, readily availability of safety data sheets as well as visual inspections of damage to drums and labelling.
FCC has updated its MHI RA to accommodate the risks and impacts posed by possible expansion of the flammable storage facility. The report provides recommendations and mitigation measures that include emergency plans and further MHI administration. FCC should implement the measures outlined in the MHI RA report. These are also included in the EMPRr.
FCC will require Emergency Response Plans specifically tailored for fire incidences involving the volumes of flammables stored including firefighting equipment suitable related flammables fire scenarios
Ensure that the Emergency Plan complies with SANS 1514.
Implement a process safety management system in order to comply with new Draft MHI regulations.
MHI – Transportation of dangerous goods on the road
FCC must continue to follow chemical and dangerous goods transport procedures and requirements when transporting the flammable chemicals.
Ensure that trucks and other vehicles do not block access to surrounding properties or prevent free flow of traffic along Hawkins Avenue.
A complaints register must be maintained on site and made accessible to neighbours and surrounding land users.
Stormwater
Oils, greases, fuels, and other chemicals will be stored in the prescribed manner and within bunded areas to prevent stormwater contamination.
All hazardous waste must be stored in designated area before being disposed of at a registered hazardous waste disposal facility.
All mobile equipment and vehicles should be inspected regularly for faults and possible leaks; these should be serviced off-site.
Spill kits must be available onsite to ensure that any fuel or oil spills are cleaned-up and disposed of correctly.
Waste management:
Implementation of mitigation measures outlined within the Waste Management Plan, Storm water management plan and Emergency response Plan.
Appropriate bins to be provided and clearly labelled to allow for waste separation at source.
Dispose of general waste via the municipal waste system.
All hazardous / contaminated wastes will exclusively be within the tightly sealed drums. Drums to be delivered to a registered waste handler for disposal.
Safe disposal certificates must be obtained and maintained in site file.
Noise
Equipment must be in maintained in good working order, within service dates, and subject to regular inspections.
Flammable Drums collection to occur between working hours of 07h00 to 18h00.
Delivery / collection trucks to switch off engines if in idle during delivery / collection.
Grievances will be monitored and logged. If additional responses procedures are needed, they will be developed and implemented.
Decommissioning phase
Stormwater
The handling of the drum will be done with create care. So as to not cause any spills.
All hazardous waste must be disposed of at a registered hazardous waste disposal facility.
All pipes and channels must be checked after any major rainfall events to ensure that there are no blockages and that the water flow will not be restricted in any way.

Obstructions to flow should be removed in order to avoid flooding.
All machinery and equipment should be inspected regularly for faults and possible leaks; these should be serviced off-site.
During decommissioning, contractors used for the Project must have spill kits available to ensure that any fuel or oil spills are cleaned-up and disposed of correctly.
Action plans are to developed and available on site in the case of spills and leaks, and training for contactors and employees to be undertaken.
Building rubble should be stored in a designated waste storage and removed from site on a regular basis.
Waste Management
Wastes to be stored in the designated waste storage area with appropriate signage.
Design of waste storage area to be in accordance with GN 926 (2013) National Norms and Standards for the Storage of Waste, and include such measures as: ▪ Demarcation and appropriate signage and access control ▪ Bunding of waste storage areas ▪ Tip proof and closed receptacles
All hazardous / contaminated wastes (e.g. oily rags) to be stored in designated covered hazardous waste bin to be delivered to appropriate hazardous waste facility for disposal.
Safe disposal certificates must be obtained and maintained in site file.
Health and Safety
A health, safety and environment (HSE) officer must be appointed to monitor safety conditions during decommissioning activities;
Ensure employees are properly trained to use specific equipment or machinery;
Provide suitable personal protective equipment (PPE);
Conduct site and safety induction to raise awareness of the risks associated with the site;
Conduct regular toolbox talks as refreshers to improve health and safety;
Develop safe work instruction method statements that should be used by employees in completing their tasks;
Train all relevant personnel on handling, use and storage of hazardous substances;
Provide Material Safety Data Sheets (MSDS) for all hazardous substances kept onsite; and
All visitors should undergo site induction and be made aware of the risks associated with the site.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr
See above.	
3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.
Not applicable. No specialist investigations were undertaken as part of the BA process and all recommendations detailed above will be included in the EMPr.	
4.	Explain how the proposed development will impact the surrounding communities.
There are no direct and specific impacts to the surrounding Pinelands, Thornton and Langa communities except for those impacts that are applicable to the general public such as the MHI impact in the event of a fire as well as impact as a result of dangerous goods transportation on the road. However, the probability of occurrence is very low.	
5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.
The risk of climate change will have no impact upon the flammable drum storage facility.	
6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.
Not applicable	
7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.
Not applicable. No specialist investigations were undertaken as part of the BA process.	
8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

The mitigation hierarchy entails the following steps: avoid/prevent, minimize, rehabilitate/restore, offset and No-Go.

Avoidance **–** for the proposed activities imply the No-Go option. This would mean that the drums stored off-site would remain at the Freightpak facility where they are currently stored. Therefore, the maximum allowance of drums to be stored in this additional space will not change. On the other hand, the intention of FCC to reduce and minimise the risk of double or frequent handling of flammable products, i.e., packaged for shipping offsite, loading and offloading at FCC as well as at Freightpak will not be realised.

Minimising of impacts - the impact assessment above presents an overall low significance as the site is a brownfield, has no natural sensitivities such as biodiversity identified and proposed mitigation measures for operation and decommissioning are feasible i.e., no impacts without mitigation measures. The project has no alternatives to consider with regards to location, scale, layout, and technology.

Rehabilitation and Offset steps of mitigation hierarchy are not applicable to the proposed activities.

During the assessment process relevant measures have been identified and detailed within the EMPr to avoid or minimise negative impacts. Should all the identified mitigation and management measures be incorporated into the implementation and management of the proposed project, it is anticipated that the impacts associated with the project, as outlined in this

DBAR, are all manageable and there should be limited negative impact on the receiving environment or surrounding land-users.

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

At the core of any impact assessment the aim is to ensure informed decision-making, environmental accountability, and to assist in achieving environmentally sound and sustainable development. In terms of NEMA, the commitment to sustainable development is present in the provision that "development must be socially, environmentally, and economically sustainable…. And requires the consideration of all relevant factors….".

NEMA also imposes a duty of care, placing an obligation on any person who has caused, is causing; or is likely to cause damage to the environment to take reasonable steps to prevent such damage. The prevention principle within NEMA seek to anticipate and prevent potentially negative impacts on the environment and on people's environmental rights (in terms of constitution of the Republic of South Africa, Act No. 108 of 1996). Where negative impacts cannot be prevented, they must be minimised and remedied in terms of "reasonable measures".

In assessing the environmental feasibility of the upgrades to FCC's flammable drum store, the requirements of all relevant legislation have been considered. The identification and development of appropriate mitigation measures that should be implemented to minimise potential impacts associated with the project, has been informed by best practice principles, experience, and relevant legislation (where applicable).

In terms of environmental and social impacts, the upgrade activities have already been undertaken within an existing facility, no construction of new infrastructure is required (i.e. no additional buildings are to be built). Impacts that have been identified are limited and of low significance.

Upgrading of the existing building has required the implementation of certain measures in order to meet the fire safety requirements. As mentioned earlier the measures for the upgraded flammable store include:

- Bund and sump volume increased to allow for drum storage with safety factor of 110% + fire water retention; and
- Compartmentalizing of each bay of the flammable store by the installation of roller shutter doors to each bay and extending the wall height to roof level.

Construction has already been completed as no listed activities were triggered and as a result of the additional storage can be accommodated. For the purposes of the basic assessment, no "construction" impacts were applicable but "operational" related impacts were defined as those relating to the additional storage realised after the upgrade of the flammable store.

During the operational and decommissioning phases, negative impacts were identified as moderate to low both pre and post mitigation. Potential health and safety hazard was identified as "moderate" pre-mitigation. These impacts were reduced to "low" post mitigation with the incorporation of a detailed set of mitigation measures. With regards to MHI impacts as this primarily pertains to impacts that extend offsite, the MHI RA report commented that due to the location of the site that is a flat dry industrial area, with bunding and curbing and it is unlikely that even the largest of spills would have major environmental impacts. In terms of MHI societal risks, the expansion of the flammable store has increased the risks within the store but has not significantly increased the offsite risks or the overall MHI risk profile. The MHI impacts were deemed to be low before and after mitigation. MHI in relation to transportation of dangerous goods on the road was rated as "moderate" pre- and post-mitigation as the number of deliveries will stay the same. All operational Impacts will be managed through the application of the approved EMPr.

The findings of this DBAR are the result of comprehensive assessments. These assessments were based on issues identified through the BA process, existing FCC environmental management documents as well as previous experience on such facilities. The DBAR will be subject to public review, which will be undertaken according to the requirements of the NEMA Regulations. Efforts will be made to include representation of all stakeholders within the process. The DBAR will be updated and finalised taking into consideration all comments received during the public review period before being submitted to the CA for consideration.

1.2.	Provide a map that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

Not applicable. As identified earlier, the site is a brownfield that has been completely transformed and developed, comprising a series of warehouse facilities / structures. No natural vegetation is present on the site. The project entailed upgrading of FCC's flammable drum storage facility to meet the fire safety requirements. As such no environmental sensitivities are present onsite.

1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

A summary of the identified impacts and corresponding significance rating for the upgraded flammable drum store is provided below.

Summary of Operation phase impacts

Potential impacts	Significance (pre-mitigation)	Significance (post-mitigation)
Air Quality – Human Health Risk from Priority Pollutants (Fine Particulates and Gases)	**Low (-)**	**Low (-)**
Air Quality – Dust Fallout Nuisance from Coarse Particulates	**Low (-)**	**Low (-)**

Air Quality - Odour	**Low (-)**	**Low (-)**
Health and Safety – employees exposed to health and safety hazards - Odour	**Moderate (-)**	**Low (-)**
MHI on human and infrastructure	**Low (-)**	**Low (-)**
MHI - Transportation of dangerous goods on the roads	**Moderate (-)**	**Moderate (-)**
Stormwater – Potential contamination of surface water runoff	**Low (-)**	**Low (-)**
Waste management, and storage of hazardous waste	**Low (-)**	**Low (-)**
Noise – Elevated noise levels (Nuisance)	**Low (-)**	**Low (-)**

Summary of Decommissioning phase impacts

Potential impacts	**Significance (pre-mitigation)**	**Significance (post-mitigation)**
Stormwater – Potential contamination of surface water runoff	**Low (+)**	**Low (+)**
Waste management, Potential contamination of natural environment through inadequate waste management measures	**Low (-)**	**Low (-)**
Health and Safety – employees exposed to health and safety hazards - Odour	**Low (-)**	**Low (-)**

2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr
Impact management outcomes have been included within the EMPr (Appendix H)	
2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.
Implementation of the mitigation measures contained in Section H(4) of this report, the EMPr (Appendix H).	
2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.
It is the opinion of the EAP that the information brought forward within this document (read in conjunction with the EMPr) is sufficient for DEA&DP to make an informed decision for the Environmental Authorisation being applied for in respect of this Project. According to the findings of the assessment, no fatal flaws were identified for the project. Impacts directly associated with the additional volumes to be stored were assessed and mitigation measures have been developed where applicable and are also outlined within the EMPr (Appendix H). Upgrades to the FCC flammable storage have already been completed with negligible negative impacts upon the surrounding environment. Upgrading the facility by improving fire safety elements, has made it safer in the event of a fire incident. As a result, the facility has additional capacity. The DBAR has demonstrated that all identified impacts are manageable and have limited negative impacts on the surrounding environment. If all mitigation and management measures are implemented and strictly adhered to during the operational and decommissioning phases of the project, the identified environmental and social impacts remain generally low. It is thus the opinion of the EAP that the project should be granted authorisation to store the 435,600L worth of additional drums, and that all the prescribed mitigation measures and recommendations are considered by the competent authority.	
2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.
General assumption and limitations relating to the BA process are listed below: - The information provided by Fine Chemicals Corporation is assumed to be accurate. - WSP's assessment of the significance of impacts of the proposed project on the affected environment has been based on the assumption that the activities will be confined to those described in this BAR. If any substantial changes to the project description are made, impacts may need to be reassessed. - Where detailed design information is not available, the precautionary principle (i.e. a conservative approach that overstates negative impacts and understates benefits) has been adopted. - The competent authority would not require additional specialist input, as per the proposal made in this report, in order to make a decision regarding the application. - All information is assumed to be accurate and relevant at the time of writing this report.	
2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.
The validity of the EA is required from date of issue until the site is decommissioned. The FCC facility have plans to be operational until the foreseeable future (i.e. project life in excess of +25 years). The flammable drum store is integral towards the operation and management of the facility.	

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

The anticipated volume of water (L per day) required (municipal supply) at the facility will range from none to negligible. Water serves no operational functional for the flammable drum store.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.
Fine Chemical Corporation only use the flammable drum store to house raw materials for production. The flammable drum store generates no waste. The empty or used drums are not returned to the flammable store but are stored in a separate storage. The waste created during the drying and filtration process is drummed and is safely disposed by an accredited hazardous waste handler.

5. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.
The flammable drum store has adequate electrical supply for the existing and future operations at Fine Chemicals Corporation. No electricity supply infrastructure alterations would be required (Appendix F). Energy consumption is primarily a result of existing lights for the building.	

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

Note: Duplicate this section where there is more than one Applicant.

I, Francois Joubert, ID number 7805285211087, in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;

- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;

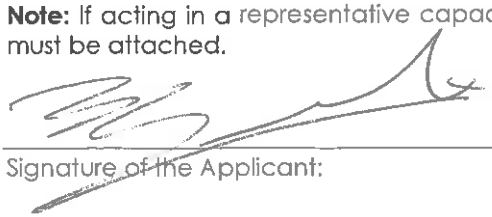
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;

- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;

- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;

- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.



24 OCT 2022

Signature of the Applicant: Date:

Fine Chemicals Corporation (Pty) Ltd

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

I ……, EAPASA Registration number …….. as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

I ……, EAPASA Registration number …….. as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

Note: Duplicate this section where there is more than one specialist.

I .....N/A....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or

  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);

- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;

- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and

- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST

I ...N/A....., as the appointed Review Specialist hereby declare/affirm that:

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

APPENDIX

A 1 LOCALITY MAP

APPENDIX

B 1(i) SITE DEVELOPMENT PLANS

APPENDIX

B 1(ii) SITE DEVELOPMENT PLAN

APPENDIX

C PHOTOGRAPHS

APPENDIX

E5 COMMENT FROM DFFE

(ORIGINAL FCC ROD)

APPENDIX

E17 (i) FCC AIR EMISSION LICENCE

APPENDIX

E17 (ii) CCT AEL CONSULTATION

APPENDIX

E17 (iii) CCT AEL NON-SUBSTANTIVE ADMINISTRATIVE AMENDMENT FEEDBACK

APPENDIX

F SER - PUBLIC PARTICIPATION INFORMATION

APPENDIX

H EMPR

APPENDIX

I SCREENING TOOL REPORT

APPENDIX

L CV OF THE EAP

APPENDIX

M MHI IMPLICATIONS ON EXPANSION OF FLAMMABLE STORAGE EXTERNAL CONSULTANT LETTER