# **APPENDIX B**

Codes of Practice and
Specifications used for the
Construction and Operation of the
Bulk Liquid Storage and Handling
Facility at Coega Zone 8

#### **FINAL SCOPING REPORT**

## LIST OF LOCAL AND INTERNATIONAL CODES OF PRACTICE AND SPECIFICATIONS THAT WILL BE UTILISED (AS APPLICABLE) FOR THE DESIGN AND OPERATION OF THE BULK LIQUID STORAGE AND HANDLING FACILITY

#### 1. Codes of Practice

| ANSI B 1.20.1          | Pipe Threads, General Purpose   |
|------------------------|---|
| ANSI B16.5             | Steel Pipe Flanges, Flanged Valves and Fittings                         |
| ANSI B16.9             | Factory-made wrought steel butt-welding fittings                        |
| ANSI B16.11            | Forged fittings, socket welding and threaded                            |
| ANSI B16.36            | Steel Orifice Flanges   |
| ANSI B31.3             | Chemical Plant and Petroleum Refinery Piping                            |
| ANSI B31.4             | Pipeline Transportation Systems for Liquid Hydrocarbons and Other       |
|                        | Liquids   |
| ANSI B36.10            | Welded and seamless wrought steel pipe                                  |
| ANSI B36.10            | Welded and Seamless Wrought Steel Pipe                                  |
| API 650                | Construction of atmospheric steel tanks                                 |
| API Std 5L             | Specification for Line pipe   |
| API RP 550             | Installation for refinery instruments and control systems               |
| API 598                | Valve Inspection and testing  |
| API 600                | Steel Gate Valves – Flanged and Butt welding ends                       |
| API 602                | Compact carbon steel gate valves  |
| API 607                | Specification for fire test of valves                                   |
| API 1104               | Welding of Pipelines & related facilities                               |
| ASME BPVC Section VIII | Boiler and pressure vessel code – Section VIII: Rules for construction  |
| Division 1,            | of pressure vessels – Division 1: Pressure vessels                      |
| ASTM                   | American Society for Testing and Materials                              |
| ASME Sec V             | Non-Destructive Examination   |
| ASME Sec IX            | Welding and Brazing Qualifications                                      |
| AWWA C203              | Specification for Coal-tar enamel coating                               |
| BS 729                 | Galvanizing   |
| BS 1868                | Steel check valves flanged, butt welding ends for Petrochemical and     |
|                        | allied Industries   |
| BS6349 Part 2          | Maritime structures, design of quay walls, jetties and dolphins         |
| BS6349 Part 4          | Maritime structures, Code of Practise for design of fenders and         |
|                        | moorings  |
| BS 5146                | Inspection and test of steel valves for the Petroleum, Petrochemical    |
| D0 =0=1                | and allied Industries   |
| BS 5351                | Steel ball valve for the Petroleum, Petrochemical and Allied Industries |
| BS 5352                | Steel gate, globe and check valves 50 mm and Smaller for Petroleum,     |
| NEDA 40                | Petrochemical & Allied Industries                                       |
| NFPA 10                | Standard for the Portable Fire Extinguishers                            |
| NFPA 11                | Standard for Low-, Medium-, and High-Expansion Foam                     |
| NFPA 13                | Standard for the Installation of Sprinkler systems                      |
| NFPA 15                | Standard for Water spray fixed system for Fire Protection               |
| NFPA 16                | Standard for the Installation of Foam-Water Sprinkler and Foam-         |
| NEDA 40                | Water Spray Systems   |
| NFPA 16                | Dry Chemical Extinguishing System                                       |
| NFPA 24                | Private Service Mains and Their Appurtenances                           |
| NFPA 30                | Flammable & Combustible Liquid Code                                     |

### **FINAL SCOPING REPORT**

| NEDA 22                 | Caray Application Hoing Flormable and Combustible Materials           |
|-------------------------|---|
| NFPA 33                 | Spray Application Using Flammable and Combustible Materials           |
| NFPA 58                 | Liquefied Petroleum Gas Code  |
| NFPA 780                | Lightning Protection systems  |
| SS 055900               | Pictoral surface preparation standard for painting steel surfaces     |
| SSPC SP 5               | White metal blast   |
| ISO 9000                | Quality systems – Model for quality assurance in Design/              |
|                         | development, Production, Installation and Servicing                   |
| ISA A 18.1/ANSI         | Specification and guide for the use of general-purpose annunciators.  |
| IEC 801 Part 2          | Electromagnetic compatibility for industrial process                  |
| IEC 801 Part 3          | measurements and control equipment                                    |
| IEC 801 Part 4          |   |
| SANS/IEC 60079          | Code of practice for selection, installation and maintenance of       |
|                         | electrical apparatus for use in potentially explosive atmospheres.    |
| IEC 73                  | Coding of indicating devices and actuators by colours and             |
|                         | supplementary means.  |
| ISA S5.1                | Instrument symbols and identification                                 |
| ISO 3511                | Process measurement and control function and Instrumentation –        |
|                         | symbolic representation   |
| IEC 751                 | Industrial Platinum resistance thermometer sensors                    |
| SANS/EN 60529 (IEC 529) | Specification for degrees of Protection provides by enclosures.       |
| ISO 5167                | Measurement of flow   |
| ISO 5168                | Measurement of fluid flow estimation uncertainty of flow Rate         |
|                         | measurement   |
| ISO 261                 | General purpose metric threads  |
| SANS 347                | Categorization and conformity assessment criteria for all pressure    |
|                         | equipment   |
| SANS 1535               | Glass-reinforced polyester-coated steel tanks for the underground     |
|                         | storage of hydrocarbons and oxygenated solvents and intended for      |
|                         | burial horizontally.  |
| SANS 10044              | Welding   |
| SANS 10064              | The preparation of steel surfaces for coating                         |
| SANS 10087              | The handling, storage, distribution and maintenance of liquefied      |
| <i>Grand</i> 10007      | petroleum gas in domestic, commercial, and industrial installations – |
|                         | Parts 1 to 10   |
| SANS 10089              | The Petroleum Industry – Parts 1, 2 & 3                               |
| SANS 10129              | Plastic tape wrapping of steel pipelines                              |
| SANS 10142              | The Wiring of Premises  |
| SANS 10400              | The application of the National Building Regulations                  |
| SANS 1200               | Standardised Specifications for Civil Engineering Construction        |
| SANS 10086-1            | Installation, inspection and maintenance of equipment used in         |
|                         | explosive atmospheres   |
| SANS 10108              | The Classification of Hazardous Locations and the selected of         |
|                         | Electrical Apparatus for the use in such locations.                   |
| SANS 10313              | The protection of structures against lightning.                       |
| 5, 11, 10010            | p. c. c. c. c. data de agamet ngi ming.                               |

#### 2. Oiltanking Specifications

| Oiltanking | Building Specifications – Parts 1 to 20 |
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