



# Certificate of Accreditation

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This is to certify that

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## **INSPECTION AND TESTS NIGERIA LIMITED**

Km 1 Eleme-Onne Road, Opposite Bristow Quarters, Port Harcourt

Has been assessed by the Nigeria National Accreditation System and meets the requirements of the International Standard

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## **ISO/IEC 17020:2012**

with demonstrated technical competence in the field of

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## **Inspection**

for the specific services listed on the approved Scope of Accreditation.

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On behalf of the Nigeria National Accreditation System:



Inspection  
No. IN 001

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Issue date: **August 02, 2021**  
Validity through: **August 01, 2023**

**Scope of Accreditation**

**Inspection Body**

**Inspection and Tests Nigeria Limited**

Km 1 Eleme-Onne Road, Opposite Bristow Quarters, Port Harcourt

Schedule NO.: IN 001

Issue No. 1: 02 08, 2021

Valid to: 01 08, 2023

S/N	INSPECTION FIELD (Sub-fields and Items)	APPLICABLE INSPECTION METHOD/ TECHNIQUES	INSPECTION CATEGORY	RANGE	STAGE OF INSPECTION	REFERENCE DOCUMENTS (IN-HOUSE PROCEDURES/RULES/REGULATIONS)
<b>1</b>	<b>ENGINEERING QUALITY (NON-DESTRUCTIVE EXAMINATION)</b>					
1.1	<b>Radiographic Examination</b> of Welds, forged, cast and composite Materials	<ul style="list-style-type: none"> <li>• Gamma Ray Radiographic Testing</li> <li>• Xray Radiographic Testing</li> </ul>	Product	1mm – 75mm Thickness of Steel	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• Fabrication</li> <li>• In-service Inspection</li> <li>• Repair</li> </ul>	<p><b>Codes/Standards</b></p> <p>a) ASME B 31.1, (2018 &amp; 2020 Editions)</p> <p>b) ASME SECT. VIII, 2019 Edition, 2019</p> <p>c) ASNT-SNT-TC-1A: (2016 &amp; 2020 Editions)</p> <p>d) ASTM E94/E94M: 2017 Edition, June 1, 2017</p> <p>e) ASTM E 747: 2018 Edition, June 1, 2018</p> <p>f) ASTM E 1032: 2019 Edition, February 1, 2019</p> <p>g) ASTM E 1815: 2018 Edition, November 1, 2018</p> <p>h) ASTM SE 1079: 2012 Edition, July 2012</p> <p>i) ASME B 31.3: Process piping, 2018 Edition, 2018</p> <p>j) ASME V: Non-Destructive Examination, 2019 Edition, 2019</p> <p><b>Internal Procedure/Work Instruction</b></p> <p>Radiographic Examination Procedure (Doc. No.: ITL/PROD/RP/002, Rev.07)</p>
1.2	<b>Magnetic Particle Examination</b> of ferromagnetic weldments, and other ferromagnetic materials	<ul style="list-style-type: none"> <li>• Magnetic Particle Testing</li> <li>• Visual Testing</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> </ul>	NA	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• Fabrication</li> <li>• In-service Inspection</li> <li>• Repair</li> </ul>	<p><b>Codes/Standards</b></p> <p>a) ASME B 31.1, (2018 &amp; 2020 Editions)</p> <p>b) ASME SECT. VIII, 2019 Edition, 2019</p> <p>c) ASNT-SNT-TC-1A: (2016 &amp; 2020 Editions)</p> <p>d) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015)</p> <p>e) ASME B 31.3: Process piping, 2018 Edition, 2018</p> <p>f) ASME V: Non-Destructive Examination, 2019 Edition, 2019</p> <p>g) American Petroleum Institute (API) API STD 1104 Welding of pipelines and related facilities (21st Edition, September 2013)</p> <p>h) ASTM E-709 2015 Edition, June 1, 2015</p>

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						<b>Internal Procedure/Work instruction</b> Magnetic Particle Examination Procedure (Doc. No.: ITL/PROD/MPI/011, Rev.05)
1.3	<b>Ultrasonic Examination of Welds, steel, metal alloys, Piping and Pipelines base materials, Flowlines, tanks and vessels</b>	<ul style="list-style-type: none"> <li>• Full Matrix Capture</li> <li>• Phased Array Ultrasonic Testing</li> <li>• C-Scan Inspection</li> <li>• Time of Flight Diffraction</li> <li>• Visual Testing</li> <li>• Manual Pulse-Echo Ultrasonic Flaw Detection</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Installation</li> </ul>	6mm-200mm Thickness of Metal	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• Fabrication</li> <li>• In-service Inspection</li> <li>• Repair</li> </ul>	<b>Codes/Standards</b> a) ASME B 31.1, (2018 & 2020 Editions) b) ASME SECT. VIII, 2019 Edition, 2019 c) ASNT-SNT-TC-1A: (2016 & 2020 Editions) d) ASME B 31.3: Process piping, 2018 Edition, 2018 e) ASME V: Non-Destructive Examination, 2013 & 2019 Editions, Article 4 f) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015) (Section 6) g) BS EN ISO 17640 2019 Edition, January 31, 2019 <b>Internal Procedures/Work Instruction</b> Ultrasonic Examination Procedure (Doc. No.: ITL/PROD/UT/012, Rev.: 04) Automatic Ultrasonic Testing (AUT) (ITL/PROD/UT/015; REV 02) Procedure for In-Service Corrosion Mapping (Carbon Steel) (Doc. No.: ITL/PROD/QP/051, Rev.: 01)
1.4	<b>Ultrasonic Thickness Measurement of Welds, steel, metal alloys, Piping and Pipelines base materials, Flowlines, tanks and vessels</b>	<ul style="list-style-type: none"> <li>• Ultrasonic Thickness Gauging</li> <li>• Visual Testing</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> </ul>	2mm-200mm Thickness	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• In-service Inspection</li> <li>• Repair</li> </ul>	<b>Codes/Standards</b> a) ASME B 31.1, (2018 & 2020 Editions) b) ASME SECT. VIII, 2019 Edition, 2019 c) ASNT-SNT-TC-1A: (2016 & 2020 Editions) d) ASME B 31.3: Process piping, 2018 Edition, 2018 e) ASME V: Non-Destructive Examination, 2019 Edition, 2019 f) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015) (Section 6) <b>Internal Procedure</b> Ultrasonic Thickness Procedure (ITL/PROD/UT/013) Rev.04
1.5	<b>Liquid Penetrant Examination on welds and non-porous materials</b>	<ul style="list-style-type: none"> <li>• Penetrant Testing (Fluorescent and Visible)</li> <li>• Visual Testing</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> </ul>	NA	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• Fabrication</li> <li>• In-service Inspection</li> </ul>	<b>Codes/Standards</b> ASME SECT. 1 (2019 Edition, July 2019) b) ASME B 31.1, (2018 & 2020 Editions) c) ASME SECT. VIII, 2019 Edition, 2019

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					<ul style="list-style-type: none"> <li>Repair</li> </ul>	d) ASNT-SNT-TC-1A: (2016 & 2020 Editions) e) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015) f) ASME B 31.3: Process piping, 2018 Edition, 2018 g) ASME V: Non-Destructive Examination, 2019 Edition, 2019 h) ASTM E165/E165M 2018 Edition, November 15, 2018 <b>Internal Procedure</b> Liquid Penetrant Procedure (Doc. No.: ITL/PROD/PT/018, Rev.: 04)
1.6	Visual Examination of fusion welds in metallic materials in the as-welded condition.	<ul style="list-style-type: none"> <li>Visual Testing</li> </ul>	<ul style="list-style-type: none"> <li>Product</li> </ul>	NA	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>Fabrication</li> <li>In-service Inspection</li> <li>Repair</li> </ul>	<b>Codes/Standards</b> a) ASME B 31.1, (2018 & 2020 Editions) b) ASNT-SNT-TC-1A: (2016 & 2020 Editions) c) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015) d) API 1104 21 <sup>st</sup> Edition, September 2013 <b>Internal Procedure</b> Visual Examination Procedure (Doc. No.: ITL/PROD/QP/037, Rev.:03)
<b>2</b>	<b>ENGINEERING- MECHANICAL</b>					
2.1	Inspection of “Lifting Appliances”, “Lifting Accessories” and “Lifted Equipment” (See list of items in Appendix 1)	<ul style="list-style-type: none"> <li>Magnetic Particle Testing</li> <li>Dye Penetrant Testing</li> <li>Visual Testing</li> <li>Load Test</li> </ul>	<ul style="list-style-type: none"> <li>Product</li> </ul>	1 -100T	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>In-service Inspection</li> <li>Repair</li> </ul>	<b>Codes/Standards</b> a) BS EN ISO 10855-1 Offshore containers and associated lifting sets Part 1: Design, manufacture and marking offshore containers (2018 Edition, July 31, 2018) (Superseded BS EN 12079) b) DNVGL-ST-E271; 2017 Edition, August 2017 (2.7-1 Offshore containers) c) Lifting and Allied Work Equipment (Safety) Regulations, 2018. Federal Republic of Nigeria Official Gazette, 2018 d) Department of Petroleum Resources-Guidelines and Procedure for Lifting Equipment and Lifting Operations, 2013) <b>Internal Procedures</b> Lifting Equipment Inspection Procedure (Doc. No.: ITL/PROD/QP/028, Rev.: 02)
2.2	Pre & Post Weld Heat Treatment of Welded pipes and plates	<ul style="list-style-type: none"> <li>Resistant Heating Process</li> </ul>	<ul style="list-style-type: none"> <li>Product</li> </ul>	100°C-700°C	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>Fabrication</li> </ul>	<b>Codes/Standards</b> b) ASME SECT. VIII, 2019 Edition, 2019 c) ASME B31.3, 2018 Edition, 2018 (Process Piping) d) ASME B31.4, 2019 Edition, November 1, 2019

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						e) ASME b31.8 2018 Edition, November 20, 2018 f) API SPEC 6A, 21 <sup>st</sup> Edition, November 2018 <b>Internal Procedures</b> 2.3 Post Weld Heat Treatment Procedure (TL/PROD/QP/029) Rev. 03
2.5	<b>Tank Inspection (Carbon and low Alloy Steel Plate tanks)</b>	<ul style="list-style-type: none"> <li>Visual testing</li> <li>Ultrasonic testing</li> <li>Leak Testing</li> <li>Radiographic Testing</li> <li>Magnetic Particle Testing</li> <li>Cathodic Protection Survey</li> </ul>	<ul style="list-style-type: none"> <li>Product</li> </ul>	NA	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>Fabrication</li> <li>In-service Inspection</li> </ul>	<b>Codes/Standards</b> a) API 510, 10 <sup>th</sup> Edition, May 2014; Pressure Vessel b) API RP 576, 4 <sup>th</sup> Edition, April 2017; Inspection of Pressure-relieving Devices c) API RP 577, 2 <sup>nd</sup> & 3 <sup>rd</sup> Edition, December 2013 & October 2020  <b>Internal Procedures</b> Tank Inspection Procedure (Doc. No.: ITL/PROD/QP/035, Rev.02)
2.6	<b>Mechanical Inspection of Boilers, Rotating Equipments, Heating Ventilation and Air Condition (HVAC) Systems</b>	<ul style="list-style-type: none"> <li>Visual Testing</li> <li>Functional Tests Witness</li> </ul>	<ul style="list-style-type: none"> <li>Product</li> <li>Process</li> <li>Installation</li> </ul>	NA	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>Fabrication</li> <li>In-service Inspection</li> </ul>	<b>Codes/Standards</b> a) ASME B 31.1, (2018 & 2020 Editions) b) ASNT-SNT-TC-1A: (2016 & 2020 Editions) c) American Welding Society (AWS) D1.1 CCRM Structural Welding Code (2015 Edition, 2015) d) API 1104 21 <sup>st</sup> Edition, September 2013
<b>3</b>	<b>ENGINEERING-CORROSION</b>					
3.1	<b>Painting &amp; Coating inspection of tanks, vessels, pipes, rigs</b>	<ul style="list-style-type: none"> <li><b>Pre-coating</b> Inspection (Visual Testing, Surface Profile Checks, Soluble Salts Extraction, Surface Cleanliness checks, Ambient Monitoring)</li> <li><b>Post-coating</b> (Coating Thickness Gauging, Adhesion Testing, Holiday Detection)</li> </ul>	Product	NA	<ul style="list-style-type: none"> <li>Initial Inspection</li> <li>In-service Inspection</li> <li>Repair</li> </ul>	<b>Codes/Standards</b> a) NACE SP0188, 99 <sup>th</sup> Edition, December 2006. b) NACE SP0169, 2013 Edition, October 4, 2013 c) API 5L, 46 <sup>th</sup> Edition, April 2018 d) API SPEC 5L, 46 <sup>th</sup> Edition, April 2018 e) ASNT-SNT-TC-1A: (2016 & 2020 Editions) a) ASTM D3359, 2017 Edition, February 1, 2017 b) API STD 1104, 21 <sup>st</sup> Edition, September 2013 c) ISO 8501-1 2 <sup>nd</sup> Edition, May 1, 2007  <b>Internal Procedures</b> <ul style="list-style-type: none"> <li>Blasting and Painting Procedure (ITL/PROD/QP/034, Rev.02)</li> <li>Procedure for Direct Current Voltage Gradient Inspection (ITL/PROD/QP/042, Rev.: 00)</li> </ul>

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4	<b>ENGINEERING-DRILLING ACTIVITES (OIL COUNTRY TUBULAR GOODS)</b>					
4.1	<b>Inspection of Bottom Hole Assemble (BHA), Tubular and Drill Pipes</b>	<ul style="list-style-type: none"> <li>• Visual Thread Testing</li> <li>• Magnetic Particle Testing</li> <li>• Dye Penetrant Testing</li> <li>• Dimensional Check</li> <li>• Ultrasonic Inspection</li> </ul>	Product	NA	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• In-Service Inspection</li> <li>• Repair</li> </ul>	<p><b>Codes/Standards</b></p> <ul style="list-style-type: none"> <li>a) Standard DS-1 Volume 3 "Drill Stem Inspection, 4th Edition, May 2012, 2018 Printing (includes Addendum 8)</li> <li>b) Standard DS 1-vol 1-6 Set, 5<sup>th</sup> Edition, August 2020</li> <li>c) API RP 5A5, 4<sup>th</sup> Edition, January 2017</li> <li>d) API RP 7G-2, 1<sup>st</sup> Edition, August 2009</li> <li>e) API RP 8B, 8<sup>th</sup> Edition, May 2014</li> <li>f) API SPEC 8C; 5<sup>th</sup> Edition, April 2012</li> <li>g) API SPEC 5CT, 10<sup>th</sup> Edition, June 2018</li> <li>h) API SPEC 6A, 21<sup>st</sup> Edition, November 2018</li> </ul> <p><b>Internal Procedures</b></p> <ul style="list-style-type: none"> <li>• Drilling Equipment Inspection Procedure (Doc. No.: ITL/PROD/QP/026, Rev.: 03)</li> <li>• Procedure for Inspection of Tubular and Drilling Pipes (Doc. No.: ITL/PROD/QP/027, Rev.: 03)</li> </ul>
5	<b>ENGINEERING-ASSET INTEGRITY</b>					
5.1	<b>Technical Integrity Verification of Safety Critical Elements</b>	<ul style="list-style-type: none"> <li>• Desktop Verification</li> <li>• Visual Testing</li> <li>• Spot Witness</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Process</li> <li>• Installation</li> </ul>	NA	<ul style="list-style-type: none"> <li>• Initial Inspection</li> <li>• Pre-commissioning</li> <li>• Commissioning</li> </ul>	<p><b>Codes/Standards</b></p> <ul style="list-style-type: none"> <li>a) ISO 55001:2014 Asset Management-Management Systems-Requirements</li> <li>b) UK HSE SCE management and verification inspection expectations; SPC/ENFORCEMENT/183</li> <li>c) UK HSE SCE Safety Critical Elements Good Repair and Condition; SPC/Enforcement/175</li> </ul> <p><b>Internal Procedures</b></p> <ul style="list-style-type: none"> <li>• Technical Integrity Verification Procedure (Doc. No.: ITL/PROD/QP/049, Rev.:01)</li> </ul>

