



CERTIFICATE OF ACCREDITATION

This is to attest that

ADVANCED CONSTRUCTION TECHNOLOGY SERVICES (ACTS)

BUILDING #8188, AL SAMER DISTRICT, INDUSTRIAL AREA
JEDDAH 21351, KINGDOM OF SAUDI ARABIA

Inspection Agency AA-778 (Type A)

has met the requirements of AC98, *IAS Accreditation Criteria for Inspection Agencies*, and has demonstrated compliance with ISO/IEC Standard 17020:2012, *Conformity assessment - Requirements for the operation of various types of bodies performing inspection*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date June 17, 2023



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

ADVANCED CONSTRUCTION TECHNOLOGY SERVICES (ACTS)

www.acts-int.com

Contact Name Shohel Rana

Contact Phone +966 539758610

Accredited to ISO/IEC 17020:2012

Effective Date June 17, 2023

Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
Concrete Inspection in Batch Plant - Inspection of raw materials storage, handling and testing - Inspection of proportioning of concrete mixtures - Inspection of concrete batching, mixing and conveying	- SOP Concrete Inspection (Pre-placement, Placing & Post-Placement) - ACI SP-2: Manual of Concrete Inspection - ACI 304: Guide for Measuring, Mixing, Transporting, and Placing Concrete - NRMCA National Ready-mix Concrete Association
Pre-placement Formwork Inspection - Inspection of the forms versus the approved plans/drawings (flatness, tightness, cleanness, tie rods, shores...)	- SOP Concrete Inspection (Pre-placement, Placing & Post-Placement) - ACI 347: Guide to Formwork for Concrete - ACI SP-2: Manual of Concrete Inspection - ACI 117: Specification for Tolerances for Concrete Construction and Materials - ACI 301: Specifications for Structural Concrete
Pre-placement Steel Reinforcement Inspection - Inspection of the steel reinforcement versus the approved drawings (rebar size, spacing, concrete cover...)	- SOP Concrete Inspection (Pre-placement, Placing & Post-Placement) - CRSI Manual of Standard Practice (Concrete Reinforcing Steel Institute) - ACI SP-2: Manual of Concrete Inspection - ACI 117: Specification for Tolerances for Concrete Construction and Materials - ACI 301: Specifications for Structural Concrete
Concrete Placing Inspection - Inspection of the placing, consolidation, finishing and curing operations	- SOP Concrete Inspection (Pre-placement, Placing & Post-Placement) - ACI SP-2: Manual of Concrete Inspection - ACI 301: Specifications for Structural Concrete - ACI 304: Guide for Measuring, Mixing, Transporting, and Placing Concrete - ACI 304.2: Placing Concrete by Pumping Methods - ACI 305: Guide to Hot Weather Concreting - ACI 308: Guide to Curing Concrete - ACI 309: Guide to Consolidation of Concrete
Post-placement Inspection - Condition inspection of the concrete surfaces textures upon form removal (free or presence of defects...)	- ACI SP-2: Manual of Concrete Inspection - ACI 201.1: Guide for conducting a visual inspection of concrete in service

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
<p>Existing concrete structures -Condition assessment of existing concrete structures including the following: - Visual inspection for categorizing and quantifying the concrete defects - Non-Destructive Testing and Evaluation for concrete integrity - Detection of embedded steel reinforcement and embedded items</p>	<ul style="list-style-type: none"> - Freedom Data PC – Standard Operating Procedures - SOP - Ground Penetrating Radar (GPR) - SOP - Impact Echo - SOP - Slab Impulse Response (SIR) - SOP - Spectral Analysis of Surface Waves - SOP - Ultrasonic Pulse Velocity - ACI 201.1: Guide for conducting a visual inspection of concrete in service - Ultrasonic/Sonic Pulse Velocity and Velocity Tomography for quality and integrity of concrete as per ACI 228.2 and ASTM C597 - Impact Echo for thickness and integrity of concrete as per ACI 228.2 and ASTM C1383 - Spectral Analysis of Surface Waves (SASW) as per ACI 228.2 - Slab Impulse Response for structural evaluation and void detection as per ACI 228.2 and ASTM C1740 - 2D and 3D scanning by Ground Penetrating Radar (GPR)
<p>Structural Steel Inspection Fillet weld & Butt welds in : Railways , Buildings, Canopies, station , Trusses , assemblies</p>	<ul style="list-style-type: none"> - SOP MP - SOP UT - SOP LP -Ultrasonic inspection by flaw detectors (AWS D1.1 And ASTM E164) - Liquid Penetration inspection by Aerosols AWS D1.1 And ASTM E165) - Magnetic particle inspection by yokes (AWS D1.1 & ASTM E709)
<p>Coatings Inspection On-site Inspection of Paint Coatings: Primer, Midcoat, Final, and Laminar on any structure surface</p>	<ul style="list-style-type: none"> -SOP DFT -Dry Film Thickness Inspection by Digital Thickness Magnetic Gauges (ASTM D7091 and SSPC-PA2)
<p>Bolts Inspection On-site Inspection of Preinserted Structural Bolts and nuts</p>	<ul style="list-style-type: none"> -SOP BT -Bolts Visual and Tightening inspection by Torque Wrenches (ASTM A325 and ASTM A490)
<p>Fire Stop Inspection On-site Inspection of Fire Stop Sealant Installations</p>	<ul style="list-style-type: none"> -SOP FT -Installed Fire Resistive Joint Systems and Perimeter Fire Barriers On-site Inspection (ASTM E2393) -Installed Fire Stops (ASTM E2174)
<p>Water Tightness Inspection On-site inspection of Water Leakage of Installed Storefronts, Curtain Walls and Glazing Systems</p>	<ul style="list-style-type: none"> -SOP WT -Quality Assurance & Diagnostic Water Leakage Field Check of Glass Panels (AAMA 501.2) -SOP WPT -Field Determination of Water Penetration of Installed Exterior Windows Skylights Doors, and Curtain

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
	Walls, by Uniform or Cyclic Static Air Pressure Difference (ASTM E1105)
Air Infiltration/Tightness Inspection -Onsite inspection and measurement of Air Leakage of Installed Windows and Doors Systems	-SOP AIT -Field Measurement of Air Leakage Through Installed Exterior Windows and Doors (ASTM E783)
Geomembrane / Waterproofing Inspection	SOP VB - Geomembrane Seam Evaluation by Vacuum Box (ASTM D5641) SOP ST - Nondestructive Inspection of Geomembrane Seams Using the Spark Test (ASTM D6365) SOP DRT - Electronic Methods for Detecting and Location Leaks in Waterproof Membranes (ASTM D7877)
Ferrite Content Inspection	SOP FER - Determination of Ferrite Number (FN) in austenitic and duplex ferritic-austenitic Cr-Ni stainless steel weld metals at Field (ISO 8249 / AWS A4.2)
Hardness Value Inspection	SOP HT - Inspection Method for Leeb Hardness Testing of Steel Products (ASTM A956) - Inspection Method for Portable Hardness by the Ultrasonic Contact Impedance Method (ASTM A1038)
Post Weld Heat Treatment (PWHT)	SOP PWHT - Post Weld Heat Treatment (PWHT) of Weld Joints between Alloy Steel to Alloy Steel, Alloy Steel to Carbon Steel and Carbon steel to Carbon steel materials (ASME Sec. VIII Div. I, ASME B31.1 & B31.3)
Fire Doors Site Inspection	NFPA 80 - Standards for Fire Doors and Other Opening Protectives.
Positive Material Identification Inspection (OES)	-SOP PMI -Material Verification of ferrous Material Specifications (ASME BPVC Section II part A) -Material Verification of Nonferrous Material Specifications (ASME BPVC Section II part B)
NDT (Radiographic Inspection - X-Ray)	ASME BPVC Section V, Article 2