

Curriculum Vitae

**Name:****SELVAKUMAR SUDALAIYANDI**

Job Title:

Inspection Engineer/RBI Engineer

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Email:

selvakumar590@rediffmail.com**Summary :**

- Over 21 years of experience in Operations, Maintenance, Inspections, Testing, Piping Engineering, Quality Assurance & Control and Client Relationship Management.
- Well-versed in carrying out Inspection in fixed equipment (column, heaters, drums, exchangers, boilers and reactors), piping (Hot/cold) and storage tanks in the Oil and Gas Process Plant (Offshore Well Head, Refinery, Petrochemical and Fertilizer).
- Gained hands-on experience in Risk Based Inspection (RBI), Corrosion Mapping, Remaining Life Assessment (RLA) and Fitness for Service (FFS) in the leading Oil & Gas Industry in the Middle East as well as in India.
- Participated as a team member in Failure Root Cause Analysis, Mitigation Team for On-stream Failure and Preventive Maintenance Projects in the leading Oil & Gas Industry in the Middle East as well as in India.
- Professionally certified in API (510/570/653/580), TWI-CSWIP 3.2.1, ASNT Level III (RT/UT/MT/PT) and BGAS-Gr.1
- Gained hands-on experience in handling the entire gamut of inspection & NDT services, conducting piping inspection surveys, on-stream/shutdown inspection activities in Static Equipment/Piping and developing QCP for onsite fabrication
- Demonstrated proficiency in executing operations under contract conditions and ensuring Quality Compliance
- Adept with Planning and Project Execution and Non-Destructive Testing (NDT) ensuring cost as well as time effectiveness
- A keen implementer with expertise in handling the commissioning activities and maintenance of Fixed Equipment/Piping, implementing process enhancement and quality control techniques
- Expertise in implementing plans & annual turnaround with a focus on optimum utilization of manpower and materials

Education/Qualifications/Affiliations

- P.G - Master of Science - Manonmaniam Sundaranar University in India (Nov-2003)
- **CSWIP - 3.2.1** FROM TWI, UK, Certificate Number - 403301
- **Certified Welding inspector** by Welding Research Institute-BHEL India in 2005
- Certified Painting Inspector **BGAS-GRADE-1** Certificate Number - 394689
- **Certified API 570** Certificate Number - 62757
- **Certified API 653** Certificate Number - 65085
- **Certified API 510** Certificate Number - 66273
- **Certified API 580** Certificate Number - 72548
- **ASNT Level III** in Radiography Testing, Ultrasonic Testing, Magnetic particle Testing &
- Liquid Penetrant Testing I.D No: 212367
- **IRATA-Level 1** Certificate Number - 268798

OTHER CERTIFICATIONS

- T-BOSIET (Offshore Travel Safety)
- IMIST

CORE COMPETENCIES

- Carrying out Inspection on Pressure Vessels (Vertical/Horizontal), Heat Exchangers, Reactors, Drums, Hot/Cold Piping, Storage Tanks, Pumps and Valves
- Responsible for Corrosion Rate & Remaining Life Calculation
- Identifying the Failure Mechanism and Failure Mode
- Developing Equipment Strategy for Fixed Equipment and Piping
- Carrying out all inspection activities in Oil & Gas Projects
- Controlling/monitoring the welding activities
- Developing and implementing a stage-by-stage quality assurance and control system to ensure adherence to technical specifications/codes & standards/ contract
- Preparing & reviewing project-specific Inspection and Test Plan (ITP), reviewing procedures and maintaining QC documentation to ensure adequate documented evidence is available to prove contract compliance
- Liaising with clients regarding ongoing Inspection & NDT Activities
- Knowledge about RBI Software in Meridium (ADNOC) and CIRRAS (Brunei Shell petroleum)

Professional Experience :

Date	Feb 2024 – Oct 2024
Employer	Stork -Abu Dhabi
Project	Adnoc Sour Gas
Role	Inspection Engineer
Description	<u>Develop Inspection Plan & Schedule:</u> Create a comprehensive inspection plan and schedule based on historical data and Risk-Based Inspection (RBI). Collaborate with the Plant Availability Division to coordinate various online inspection activities, ensuring that inspections are conducted efficiently and within the planned timeframe. <u>Testing Techniques and Reporting:</u> Apply appropriate testing techniques for inspections and document observations, abnormalities, and recommendations in detailed reports. Attach relevant documents such as checklists, assembly drawings, and sketches that highlight specific defects for review by the concerned departments. <u>Valve Inspection for Shutdowns:</u> Monitor and witness valve inspections during shutdowns in accordance with client requirements, ensuring that the inspections meet all specified standards and criteria. <u>Maintenance Work Orders:</u> Raise and review maintenance work orders based on inspection findings. Ensure corrective or preventive actions are implemented and verify job completion before closing the work order. <u>Review QC Dossier & Coordinate with Agencies:</u> Review the final Quality Control (QC) dossier from contractors and coordinate with third-party inspection agencies to execute specialized inspection tasks. <u>Inspection Activities and Standards Compliance:</u> Perform all inspection activities, including technical evaluations and the acceptance of examination results. Follow up on recommendations and ensure that all activities adhere to the ADNOC Code of Practices and relevant codes and standards. <u>Corrective Action Follow-Up:</u> Track and follow up on any required corrective actions to maintain the integrity of equipment and ensure issues are resolved effectively. <u>Re-evaluate and Develop Inspection Program:</u> To reassess and refine the inspection program based on inspection results and deliverables to ensure continuous improvement and effectiveness. <u>Inspection Scope Preparation:</u> Prepare detailed scopes for both external and internal inspection activities to ensure that all necessary inspection aspects are covered and aligned with project and safety requirements.

Date	Sep 2021 – SEP 2023
Employer	RSSB -Brunei Darussalam
Project	BSP Project (Offshore & Onshore)– Provision of Integrated Inspection Services.
Role	Inspection Engineer (Chief Inspector -Head of Inspection Team)
Description	RSSB is an accredited Independent Inspection body providing Inspection Services to Brunei Shell Petroleum as a business Partner. <u>Inspection Management:</u> Conduct internal and external inspections of static equipment and facilities, both planned and unplanned. Engage with RBI and Corrosion Engineers to develop inspection reference plans and scope for offshore and onshore activities, including shutdown campaigns. <u>NDE Techniques:</u> Recommend appropriate Non-Destructive Examination (NDE) methods for detecting welding imperfections, degradation, or corrosion. Coordinate with NDT crews to ensure proper methods are used <u>Report Review and Anomaly Assessment:</u> Review inspection and NDT reports, ensuring correct techniques are used. Enter anomaly details into CIRRAS, perform assessments, and carry out fitness-for-purpose analysis to evaluate failure risks. <u>Turnarounds and Maintenance:</u> Oversee corrective maintenance during turnarounds and advise on repair methods. Evaluate visual and NDT data to determine cost-effective repair solutions and prepare detailed inspection reports.

	5. <u>Repair Monitoring:</u> Monitor repairs to ensure they meet company and international standards and conduct final acceptance tests. 6. <u>Emergency Repairs:</u> Participate in emergency repairs for piping, vessels, risers, or tanks in case of ruptures or leaks. 7. <u>Root Cause and Failure Analysis:</u> Perform root cause analysis (RCA), prepare welding and repair procedures, and conduct welder qualification tests. 8. <u>Inspection Planning and Risk Management:</u> Develop risk-based inspection plans and strategies, schedule inspections accordingly, and manage corrosion identification and mitigation programs. 9. <u>Procedure Development:</u> Create and monitor repair, alteration, and NDT procedures, and oversee NDT personnel training and certification. 10. <u>Training and Certification:</u> Monitor and approve welder training programs as per qualified welding procedures. 11. <u>Testing Oversight:</u> Review and approve hydrostatic and leak test packages for pressure vessels, piping, heat exchangers, and tank bottom plates. 12. <u>Coordination and Compliance:</u> Liaise with the Operations and Maintenance departments to ensure safe and effective execution of inspection scopes and repair works. Ensure adherence to Quality Management, safety regulations, and HSE management systems Knowledge about ASME Sec V, API 510, API 570, API 653, ASME PCC-1 & 2, API 6D, ASME B 31.3, ASME Sec IX, API 1104, API 6D
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Date	Nov 2014 – Aug 2021
Employer	Mozzat Enterprise Sdn Bhd- Brunei Darussalam
Project	BSP Project (Offshore & Onshore)– Provision of Integrated Inspection Services
Role	Plant Inspector / Assistant Inspection Engineer
Description	1. <u>Compliance and Standards:</u> Ensure all work adheres to BSP standards and practices. Review and address feedback from the client's Integrity Focal Point. 2. <u>Inspection Management:</u> Conduct offshore inspections as agreed, ensuring timely execution and completion. Prepare and submit detailed reports on inspection compliance, KPIs, and anomalies (weekly, monthly, and annually). 3. <u>Plant Equipment and Facilities:</u> Inspect various equipment including pressure vessels, heaters, fired boilers, heat exchangers, storage tanks, structural assets, helideck platforms, cranes, and verify slings (colour coding) and scope of painting work. 4. <u>Inspection Techniques:</u> Plan and execute visual and NDT inspections of pressure equipment during shutdown campaigns. Conduct safety relief valve inspections and testing. Prepare final inspection reports. 5. <u>Documentation and Record Keeping:</u> Maintain and update inspection files in CIRRAS (BSP Integrated Inspection Software Application). Develop and update asset registers for piping, tanks, pressure vessels, risers, and structures. Ensure accurate historical records of inspections, repairs, and changes. 6. <u>Quality Assurance:</u> Oversee QA/QC processes for repairs, welding, replacements, and modifications. Ensure the inspection team understands the scope of work and associated risks, and that work is reported as specified. 7. <u>Work Packs and Anomaly Reporting:</u> Review work packs and prioritize RED and ORTA anomaly reports. 8. <u>API Standards Compliance:</u> Conduct inspections as per API standards: API 653 for storage tanks (bottom, shell, roof, and structures). API 570 for piping (onstream/ad-hoc inspections). API 510 for pressure vessels (onstream/shutdown inspections).

	<u>Achievements:</u> - Contributed to the overall accomplishment of inspection activities allocated in 2014-2021 - Supported to achieve the HSE & Quality KPI in 2014-2021 and received Special Incentives. - Minimized the Inspection errors and re-verification by being involved in Quality Control Verifications and achieved the target of 4 verifications per inspector in 2014-2021
Date	Nov 2013 – Oct 2014
Employer	QOS Sdn Bhd - Brunei Darussalam
Project	BSP Project (Offshore & Onshore)– Provision of Integrated Inspection Services
Role	Senior Inspector
Description	Inspection and NDT Coordination Responsibilities: <u>Oversight and Coordination</u> Manage and coordinate all inspection and NDT activities at assigned locations. Supervise and distribute work among inspectors and NDT crews. Monitor and verify the quality, accuracy, and consistency of inspection results. <u>Documentation and Record Keeping</u> Review work packs to ensure correct inspection techniques are used. Maintain quality record files and control the Equipment Assets Register. Compile, review, and ensure completeness and accuracy of hard copies of work packs. Prepare and manage documentation transmittals, including both electronic and hardcopy formats. Download, validate, and upload electronic work packs as per the BSP/PACER Data Acquisition Software Users Guide. <u>Inspection and NDT Execution</u> Perform visual inspections and NDT as required by the scope of work and appropriate procedures. Report leaks, perforations, and SRI's immediately to BSP operations, BSP Maintenance Coordinator, Inspection Engineer, and Area Plant Inspector. <u>Communication and Liaison</u> Liaise with BSP operations to progress work and resolve queries. Validate and report anomalies to the Operations Coordinator and Plant Inspector, maintaining anomaly records. <u>Equipment and Resource Management</u> Maintain and control equipment, stationery, and materials needed for efficient operation. Ensure that the appropriate work permits are raised. <u>Safety and Training</u> Organize and conduct regular Toolbox Talks for the inspection team, following the BSP HSE plan. <u>Achievements:</u> - Supported to achieve 95% of the HSE & Quality KPI in 2013/14 and received Special Incentives - Achieve QC Verification Targets
Date	Sep 2010 – Oct 2013
Employer	JGC -KSA
Project	Aramco Project– USSF (Manifa)
Role	Q.C Inspector (Welding, Painting & NDT- SAP No: 70013057)
Description	<u>Surveillance and Monitoring:</u> Oversee daily construction activities according to Inspection Test Plans (ITP). Conduct surveillance, inspection, and witnessing of coating processes. <u>Documentation and Compliance Review:</u> Review Quality Control (QC) documents such as Quality Control Plans (QCP), Inspection Test Plans (ITP), Quality Control Specifications (QCS), and Method Statements. Ensure all documents comply with project specifications and standards. <u>Material Inspection:</u> Verify material traceability, colour codes, test certificates, dimensions, physical conditions, and chemical composition. <u>Welding and Heat Treatment Inspection:</u> Inspect welding according to approved test plans, engineering drawings, international standards, and project specifications. Review Post-Weld Heat Treatment (PWHT) procedures, results, and records as per ASME SEC. VIII. <u>Painting and Coating Inspection:</u> Conduct pre-blast checks and ensure proper surface preparation. Monitor paint quality, application methods, thickness, and curing periods. Identify and correct paint defects, perform holiday detection tests, and conduct adhesion tests. Supervise the application of coatings such as FBE, Glass Flake Epoxies, and Polyurea. <u>Inspection and Testing:</u> Perform installation alignment, hydro tests, and other necessary tests for storage tanks, and potable and irrigation water lines. Inspect piping spool fabrication, line checks, hydro tests, and pneumatic/leak tests for piping, tanks, and valves.

	7. <u>Coordination and Communication:</u> Supervise and coordinate with the contracted Non-Destructive Testing (NDT) team. Conduct toolbox meetings with QC inspectors. Attend weekly QA/QC meetings with construction engineers. Issue Non-Conformance Reports (NCR) and discuss corrective actions with relevant departments. 8. <u>Standards and Calibration:</u> Ensure instruments, gauges, and process equipment are calibrated as per requirements. Demonstrate exceptional knowledge of ARAMCO standards, including SAES, SAIC, and SATIP. 9. <u>Documentation and Requests:</u> Ensure timely issuance of Requests for Inspections (RFIs) for assigned disciplines. Ensure that any changes per site conditions are approved by the Design Department.
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Date	MAR'2009 – AUG'2010
Employer	CONSOLIDATED CONTRACTORS COMPANY (CCC) – KSA
Project	Aramco Project– Khursaniyah Gas Plant (K.G.P)
Role	Certified Q.C Inspector (Welding & NDT)
Description	<u>Daily Weld Report and NDT Report:</u> Purpose: Ensure welds and non-destructive tests are documented correctly. Actions: Review daily reports for accuracy, completeness, and compliance with project requirements. <u>Documentation Familiarity:</u> Drawings, Welding Procedures, Welder Qualification, Project Specification, NDT Procedures Purpose: Ensure all welding and NDT activities adhere to approved procedures and specifications. Actions: Familiarize with all relevant documents to verify compliance during inspections. <u>Inspection Parameters:</u> Fit-up, Dimensional, Orientation, Preheating, Post Heating, Inter-pass Temperature Control Purpose: Confirm that welding preparations and conditions meet specified requirements. Actions: Check these parameters before and during welding to ensure adherence to procedures. <u>Visual Inspection and Quality Control:</u> Visual Inspection of Weldments, PWHT (Post Weld Heat Treatment), HT (Heat Treatment), NDT Requirements Purpose: Detect any visible defects and confirm heat treatment processes are followed. Actions: Conduct thorough visual inspections and verify NDT results and heat treatment records. <u>Testing Tools:</u> HI-LO Gauge, Fillet Gauge, Cambridge Universal Weld Gauge Purpose: Measure and verify weld dimensions and profiles. Actions: Use these tools to ensure welds meet the specified standards. <u>Welding Stage Inspection:</u> Before, During, and After Welding Purpose: Monitor the entire welding process to ensure compliance. Actions: Inspect welds at various stages to catch issues early and verify final results. <u>Welder and NDT Personnel Monitoring:</u> Status Logbook, Performance Reports Purpose: Track the performance and qualification of welders and NDT personnel. Actions: Review logs and reports regularly to ensure ongoing competency and adherence to standards. <u>Golden Joints Inspection:</u> Stage-wise Inspection, Coordination with Client and Contractor, ITP (Inspection Test Plan) Purpose: Ensure critical joints meet all requirements before final acceptance. Actions: Inspect and document golden joints according to updated standards and coordinate with all stakeholders. <u>Welder Performance Qualification:</u> SAW, SMAW, GMAW, FCAW, GTAW Purpose: Verify that welders are qualified for each welding process. Actions: Monitor and document welder qualifications for each process. <u>NDT Examination:</u> Performance, Interpretation, Evaluation of Results Purpose: Ensure non-destructive testing results meet project specifications. Actions: Review NDT results and interpretations for accuracy and compliance. <u>Preheating Verification:</u> Purpose: Ensure preheating is performed according to specifications.

	Actions: Check that preheating temperatures and procedures are followed as required. 12. <u>Confined Space Inspection:</u> Purpose: Conduct inspections in restricted spaces. Actions: Ensure all safety protocols are followed while inspecting welds in confined spaces. 13. <u>Identification of Welding Defects:</u> Purpose: Detect and document any defects in welds. Actions: Use visual and other inspection methods to identify and report defects. 14. <u>As-Built Drawings:</u> Purpose: Update drawings to reflect actual conditions. Actions: Make necessary changes to drawings based on inspections and modifications. 15. <u>Follow-Up on NDT and Heat Treatments:</u> Purpose: Ensure all NDT and heat treatments meet project specifications. Actions: Monitor and verify completion of required tests and treatments. 16. <u>Toolbox Meetings:</u> Purpose: Discuss QC issues and updates with inspectors. Actions: Conduct regular meetings to address quality concerns and procedural updates. 17. <u>PMI Testing:</u> Purpose: Verify material composition as needed. Actions: Witness and verify PMI tests when required. 18. <u>Raising NCRs (Non-Conformance Reports):</u> Purpose: Document and address any non-conformances. Actions: Issue NCRs when deviations from standards are identified. 19. <u>Knowledge of Standards:</u> SAES-W11, ASME B31.3, ASME Sec IX, ASME Sec V, API 1104 Purpose: Ensure familiarity with relevant codes and standards. Actions: Stay updated and apply these standards in inspections and reporting.
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Date	Apr '2006 – Jan 2009
Employer	SGS Inspection Services S.A. Ltd – KSA
Project	➤ AQPCT-Dammam in double joint area ➤ APCO-Jubail in double joint area ➤ AL-Rushed Factory in Khobar ➤ MMG Steel Factory at Dammam ➤ MMG Tanajib Off-Shore Maintain Potential projects of Saudi Aramco ➤ MSTC Fabyard at Daharan & Pipe line job at Hawiyah , Haradh & Harmaliyah ➤ MACE S.A.LTD, Saudi Arabia - Pipe line job at Uthmaniyah ➤ M.H.S, Saudi Arabia – Pipe line job at Abqiaq ➤ AL-QABEL- Saudi Arabia – Pipeline job at Abqiaq ➤ MMG-Juaymah Gas plant Expansion Project at Rastanurah ➤ SAIPEM-Ghawar Water Injection Project Pipeline Quriyah-uthmaniyah-hawiyah ➤ SAIPEM-Khuraish Crude Construct Plant
Role	Welding & NDT Inspector
Description	• Working in different Project Sites for various clients Performing Welding Inspections and witnessing NDT.

EMPLOYMENT HISTORY IN INDIA :

Date	Jan '2006 – Mar '2006
Employer	Satnam Engineers & Fabricators (P) Ltd.,-Rajasthan
Project	New yarn project at Chennai
Role	Q.C Inspector (Welding & NDT)

Date	Sep '2005 – Jan '2006
Employer	Jayanthi Constructions.,-Goa
Project	Fabrication and Erection of Hot Blast Furnace at Goa- for M/S .Sesa Industries Ltd
Role	Q.C Inspector (Welding & NDT)

Date	Feb '2004 – Aug '2005
Employer	Metal Engineers at Trichy
Project	Bhell jobs
Role	Q.C Inspector (Welding & NDT)

Description	<u>Quality Control & NDT Responsibilities:</u> - Conducted visual inspections before, during, and after welding, and monitored NDT activities for pressure parts of boilers, furnaces, and piping. - Inspected and verified raw materials, including certification. - Checked weld sizes and dimensions against drawings. - Requested, witnessed, and monitored NDT activities per client requirements. - Reviewed NDT reports and interpreted RT films. - Prepared welding and NDT documentation, including daily inspection reports. - Managed final client documentation and QC inspection activities. - Prepared hydro test packages and reviewed test results. - Studied structural and piping drawings. - Prepared daily NDE requests for subcontractors and finalized NDT work packages before client handover. - Tracked NDT personnel certifications, equipment calibrations, and planning. - Coordinated with departments for equipment transportation and assisted with qualification and project validation activities. - Ensured NDT requirements were met as per ITP and project specifications. - Maintained relationships with NDT equipment suppliers and consumable vendors to stay updated with advancements in NDT technology.
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Date	May '2003 – Jan '2004
Employer	Super Quality Services
Project	NDT Inspection Services to various client at Trichy
Role	NDT Technician

Description	<u>Responsibilities and Tasks :</u> <u>Conducting Stage-Wise NDT Inspections</u> Perform Ultrasonic Testing (UT), Magnetic Particle Testing (MT), Penetrant Testing (PT), and Radiographic Testing (RT) during the fabrication and erection stages. Ensure inspections are conducted at appropriate stages to monitor and verify quality <u>NDT Inspection for Quality Preservation</u> Carry out NDT inspections on construction activities at project sites to ensure adherence to quality standards and specifications <u>Surveying and Project Implementation</u> Conduct primary and detailed surveying for designing and implementing projects. Oversee project execution to ensure it aligns with design specifications and standards. <u>Preparation and Submission of NDT Reports</u> Prepare comprehensive NDT reports based on client requirements. Ensure timely and accurate submission of reports for review and approval <u>Review of Quality Control Documentation</u> Review quality control submittal matrices and ensure accurate documentation submission to clients. Verify compliance with quality control standards and project specifications. <u>Record Maintenance</u> Maintain detailed records for Radiographic Testing (RT), Magnetic Particle Inspection (MPI), Liquid Penetrant Inspection (LPI), and Ultrasonic Testing (UT). Ensure records are up-to-date and readily accessible for audits and reviews.
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PERSONAL PROFILE:

Date of birth : 30th March 1981
 Nationality : Indian
 Languages known : English, Hindi, Malayalam & Tamil
 Passport Number : Z 5652447
 Place of Issue : BRUNEI DARUSSALAM
 Date of Issue : 29.01.2020
 Date of Expiry : 28.01.2030

I hereby declare all the above Particulars are true and Correct to the Best of My knowledge.

Your's truly

S.Selvakumar

Station: vellamadam

Date: 13.01.2025