

PROVISION OF ZERO-MAN ENTRY & AUTO-TANK CLEANING & SLUDGE REMOVAL, TREATMENT & MANAGEMENT SERVICES AT SELECTED RENAISSANCE FACILITIES

(RENAISSANCE Contract / Tender Nos.: CW-68582 / CW-515913)

DOCUMENT TITLE: PROJECT QUALITY ASSURANCE / QUALITY CONTROL PLAN (QA/QCP)



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Project QA / QC Plan - For Zero-Man Entry Auto-Tank Cleaning Services at Selected RENAISSANCE Facilities

1.0 INTRODUCTION TO SWDA'S QUALITY ASSURANCE PLAN (QA/QCP)

South West Design Africa Limited's (**SWDA**) Team has recently been awarded, from Renaissance Africa Energy Company (**RAEC**), an 18-Tank No-Man Entry (**NME**) Tank Cleaning, Sludge Treatment, Oil Recovery & Waste Management Project, which shall be performed over the next two (2) to three (3) years at five (5) different locations in Nigeria. **SWDA** has performed many Tank Cleaning & Sludge Management Projects across Nigeria, both on & off-shore, and we have successfully performed various BLABO NME Tank Cleaning Projects across Nigeria as well.

SWDA is a Leader within the Nigerian Oil & Gas Industry, and we strictly follow all Client (**RAEC**) Health, Safety & Environmental (**HSE**) & Quality Assurance operational requirements & standards. **SWDA** has prepared this Project Quality Assurance / Quality Control Plan (**QA/QCP**) in accordance with International HSE Standards & Nigerian regulations, drawing from our experience performing Tank Cleaning Projects with SPDC / **RAEC** and other major Oil Companies. **SWDA** understands that Petroleum Tank Cleaning Projects are hazardous in nature, and we have developed this Project **QA/QCP** to provide for proper Quality Assurance Measures during the implementation of this RAEC Tank Cleaning Project. To that end, **SWDA** has designed our BLABO No-Man Entry (**NME**) Tank Cleaning Systems in accordance with all Intn'l HSE Standards, and this BLABO System is the Safest & most efficient Tank Cleaning System in the World. **SWDA** has taken time to develop this **QA/QCP** in order to ensure that we follow all appropriate QA / QC procedures, requirements and activities to ensure a safe & successful Project implementation.

1.1 Purpose of SWDA'S Quality Assurance & Quality Control Plan (QA/QCP)

Based upon a detailed review of the Tank Cleaning Project Scope of Work (**SOW**), **SWDA** has prepared this Project Quality Assurance / Quality Control Management Plan (**QA/QCP**) to ensure that **SWDA** shall follow all the Client (**RAEC**), Intn'l & Nigerian regulatory guidelines & requirements for this BLABO NME Tank Cleaning, Sludge Treatment, Oil Recovery & Waste Management Project. The purpose of this **QA/QCP** is to provide the expected Quality Performance guidance for our Team to follow before, during & after Project Mobilization to ensure that we perform a Safe, High Quality and well-documented Tank Cleaning Project for **RAEC**, and avoid any uncertain activities by following our Risk Management (**RM**) and Job Hazard & Safety Analyses (**JH&SA**) prepared specifically for this Project.

SWDA shall gather all the requisite Tank Cleaning HSE & Personal Protective Equipment (**PPE**) & Consumables for **RAEC's** mandatory Pre-Mob Inspection at our Kidney Island Warehouse in Port Harcourt, and we shall provide all the requisite Personnel CVs, Certificates & Permits necessary for Mobilization Approval. Once Mobilized to our 1st Tank Cleaning site, **SWDA** shall strictly follow all the HSE & QA / QC requirements and guidance as detailed within this Project-specific **QA/QCP**.

2.0 SUMMARIZED PROJECT SCOPE OF WORK (SOW)

The Scope of Work (**SOW**) for this **RAEC** BLABO NME Tank Cleaning, Sludge Treatment, Oil Recovery & Waste Management Project is based upon the Tender ITT Documents, and is summarized below. This Project shall be executed in accordance with all **RAEC** HSE & QA / QC requirements, guidelines & standards, in line with international industry standards, to achieve the Project objectives.

As one can see within the Project **SOW**, the first Task includes the preparation of these various Project Work Plans, and to perform a mandatory Project Equipment, Consumables & Personnel Pre-Mobilization Inspection to gain **RAEC** approval for full Project Mobilization & commencement. This Project Quality Assurance / Quality Control Management Plan (**QA/QCP**) is also provided as guidance for the requisite QA / QC & HSE procedures to be followed during this Project, and to avoid any miscommunications with our Client about who or what shall be mobilized to the Project sites. **SWDA** provides the following Project **SOW** Summary to identify how we shall perform the requisite QA / QC & HSE provisions for the proper implementation of this Project to achieve a successful Project result.

2.1 Summary of Project Scope of Work (SOW)

Based upon the Instructions To Tenderers (**ITT**) Documents within the SPDC / **RAEC** Tender No.: CW-515913, **SWDA** describes the prescribed Project Scope of Work (**SOW**) to include the following Main Tasks to be performed to successfully prepare, clean, de-sludge & properly manage all Project-derived Oily Wastes during this Tank Cleaning Project, as follows:

- Preparation of Pre-Mob Work Plans (**HSE, HAZID, PIP, QA / QC, WMP, Pre-Mob Inspection Test Plan, Security Plan, Community Engagement Plan & Journey Mgmt. Plans**) & **RAEC** Pre-Mob Inspections & approval of requisite personnel & equipment for Project Mobilization;
- Land & Marine Mobilization of **RAEC** pre-mobbed personnel, equipment & materials and initial Tank Site set-up activities;
- Implementation of all pipe connections necessary, removal of Sludge from Tank using zero-man entry & automatic means and perform all Safety Requirements defined by **SWDA** & agreed by **RAEC** for the process;
- Processing of Sludge & transfer of Oil into **RAEC**-designated pipeline, transfer of all Oil-impacted sands to **RAEC**-designated area and disposal of Oil-impacted water into appropriate **RAEC**-designated location; and,
- De-Mobilization of all personnel & equipment from one Tank Site to another & provision of Final Project Report to **RAEC** & NUPRC.

2.2 Summary of Project Tanks to be Cleaned

Based upon the **RAEC** ITT documents, and for the purposes of this **QA/QCP** Plan, **SWDA** has developed the below-attached **Table 1** to summarise the known and assumed (**Sludge 1.0 Meter [M] Depth per Tank**) Tank particulars, which shall guide the Project QA / QC & Waste Management arrangements per Tank Site, as modified by the Pre-Mob Tank Site Inspection data:

- Twenty (**20**) Tanks are included within the Tank Cleaning Scope of Work (**SOW**) – Situated at five (**5**) Nigerian **RAEC** Facility locations (Bonny – 8 Tanks, Forcados – 8 Tanks, Okoloma – 2 Tanks, Gbaran – 1 Tank and Soku – 1 Tank);
- Eight (**8**) Crude Oil Storage Tanks (**COTs**) & twelve (**12**) Process Tanks (**PTs**) are included, with nine (**9**) Floating-Roofs & eleven (**11**) Fixed-Roofs, ranging in Size from **1,060-M³** to **104,707-M³** (See attached below **Table 1 – Tank & Contents Particulars**); and,

- No actual sludge depth or consistency data was provided by SPDC / **RAEC**, so for costing & planning purposes, **SWDA** has estimated a 1.0 Meter (**M**) depth of Sludge per Tank, and all SPDC Tank data & **SWDA** assumptions indicate a total estimated Sludge Volume of approximately **41,037-M³** or up to **51,101 Tons** of Sludge to be cleaned & all recovered Oil returned to **RAEC**.

2.3 Summary of Project Waste Management Services

In accordance with the **RAEC**-provided Scope of Work (**SOW**), designated as the **“Zero-Man Entry & Auto-Tank Cleaning BLABO NME System”**, complete with Sludge collection by suction systems, sludge rinsing & Oil recovery and waste management services shall be minimized; however, **SWDA** shall still be held responsible for proper HSE & Waste Management Services during the implementation of this Tank Cleaning Project. Therefore, Oily Wastes shall be properly & methodically collected, treated, managed & safely distributed to **RAEC**-designated locations, as follows:

- The residual Sludge within each Tank to be cleaned, shall be recovered through the BLABO Suction Module (**M1**), shall pass through an Oil separation phase within the BLABO Separation Module (**M2**), the remaining Sands shall be collected & all Oil shall be collected within the BLABO Skimming Module (**M4**) and recovered;
- If the residual Sludge is unpumpable, then **RAEC** shall provide **“Cutter Stock”** to be added to the Tank Sludge through the BLABO Recirculation Module (**M3**) to enable steady Sludge flow through the BLABO Suction Module (**M1**) with agitation by means of the **“Single Nozzle Sprayers - SNSs”** mounted on the Tank’s Roof;
- Tank Rinse / Wash Water shall be routed into the Tank Sludge through the BLABO Recirculation Module (**M3**) & the series of Spray Nozzles, and the Oil shall be recovered through the BLABO Skimming Module (**M4**), and once each Tank rinsing is complete, the final Rinse Water is treated on-site & disposed at the **RAEC**-designated location;
- Sands rinsed out of the Oily Sludge shall be recovered through the BLABO Tri-Decanter & high-speed Centrifuge, and shall be contained within 1-tonne woven bags and/or 2.5-M³ Waste Skips, which shall be periodically transported in bulk for disposal at **RAEC**-designated locations; and,
- All Recovered Oil from the BLABO Skimming Module (**M4**), shall be properly stored in **RAEC**-designated Tanks on-site, until transfer via vacuum trucks delivery to **RAEC**-designated pipelines for re-introduction pumping.

3.0 DESCRIPTION OF SWDA’S QUALITY MANAGEMENT SYSTEM (QMS)

Our **SWDA** Quality Management System (**QMS**) utilizes the process approach and quality management principles contained in the international standards: ISO 9000:2005, ISO 9001:2000, ISO 9001:2008 and ISO 9004:2009 to enhance our ability to continually improve.

3.1 Application of SWDA Quality Management System (QMS)

Our QMS System complies with all applicable requirements contained in ISO 9001:2000, covers the design and provision of all company products, and encompasses all operations at our facility located at Plot 6, Block 110, Olukayode Jacobs Crescent, Lekki Phase 1, Lagos State, Nigeria and project sites. The following table identifies ISO 9001:2008 requirements not applicable to our organization and provides a brief narrative justifying their exclusion from the scope of our QMS (exclusions are limited to clause 7, Product Realization, requirements in ISO 9001:2000, where such processes are not performed or managed by the organization):

ISO 9001 : 2000 Requirements – EXCLUSION TABLE:

Clause or Sub-clause	Exclusion	Justification
	None	

Appendix A contains a List of Key QMS documents referenced in this manual and defines the key top-level processes for implementing our SWDA Quality Management Policy. Note: documents are referenced throughout this manual only by document number; see Appendix A for complete titles.

3.2 SWDA QA / QC Reference Documents

The following external documents contain provisions which, through reference in this manual, constitute the provisions of our QMS: ISO 9000:2005, Quality Management Systems – Fundamentals and vocabulary ISO 9001:2000, Quality Management Systems – Requirements ISO 9004:2009, Managing for the Sustained Success of an Organization.

Appendix A contains a List of Key QMS documents referenced in this QA / QC Manual and defines the key top-level processes for implementing our Quality Management Policy. Note: documents are referenced throughout this QA / QC Manual only by document number; and, see Appendix A for complete titles.

3.3 QA / QC Terms & Definitions

Our QMS uses the same internationally-recognized terms, vocabulary and definitions given in ISO 9000:2005. Acronyms, terms, vocabulary and definitions unique to our organization, customers, industry and region are referenced throughout our QMS and are contained in Appendix B, Terms and Definitions.

4.0 SWDA's QUALITY MANAGEMENT SYSTEM (QMS) IMPLEMENTATION

4.1 General QMS Requirements

Our SWDA Quality Management System (**QMS**) is that part of our Overall Project Management System which establishes documents and implements our Quality Assurance Policy, and related processes for providing products and services which meet or exceed customer requirements, and satisfies the QMS requirements of ISO 9001:2008.

We have adopted the process approach advocated by ISO 9000:2005, by defining and managing:

- Process inputs, controls and outputs to ensure desired results are achieved; and,
- Interfaces between interrelated processes to ensure system effectiveness is achieved.

Our “Core Business” processes, which are in place to meet the specific needs of our external customers, relate directly to the requirements contained in Clause 7 of ISO 9001:2008, Product Realization Processes (i.e. things we ‘do’). The basic sequence and interaction of our operational processes is depicted in our Operating Procedures (**OPs**). The overall sequence of QMS processes is depicted in our Quality Operations Manual Techniques and tools for process management, which are discussed in Section 8.

Specific responsibilities for and the sequence and interaction of our key QMS processes are detailed in our Operating Procedures (**OPs**), many of which contain or reference deployment flow charts depicting the process or procedure described in the narrative OP, and Appendix A contains a List of Key QMS Documents, including all OPs and other key top level QMS documents.

We also recognize the significant role that subcontractors play in achieving desired results and recognize that we must ensure proper control over outsourced QMS processes (Section 7.4.1). Outsourced processes are also depicted in Operating Procedures flow charts, and, procedures governing their management are described in documents referenced in applicable OPs.

4.2 QMS Documentation Requirements

4.2.1 General

This QA / QC Manual contains documented statements of our Quality Policy and Quality Objectives and references documented procedures required by ISO 9001:2008, and other documents needed to ensure effective planning, operation and control of our key QMS processes.

The level and type of QMS documentation established for our business is continually reviewed to ensure it remains appropriate for the complexity and interaction of our processes and the competence of our employees. QMS documents and data may be in hard copy or electronic media. QMS documentation includes this Quality Manual, OPs and other internal and external documents and data needed to manage, perform or verify work affecting product and services quality.

We use Operating Procedures (**OPs**) to document and define the key QMS processes. We also issue and control work instructions, job descriptions, and other internal and external documents and data as appropriate and needed to effectively manage our QMS (Section 4.2.3).

4.2.2 Quality Manual

This QA / QC Manual is that part of our QMS System that defines the scope of our QMS and documents the policy, procedures and processes needed to implement our Quality Policy and achieve our quality objectives. This manual also documents justifications for exclusions from ISO 9001:2008 requirements (Section 1.2), and defines the overall sequence of and interaction between our key QMS processes.

4.2.3 Control of QMS Documents

The Management Representative has overall responsibility for ensuring that all QMS documents, including forms used to create quality records are controlled per procedures detailed in OP 4.2.3, and as summarized below:

- Approve documents for adequacy prior to issue.
- Review and update as necessary and re-approve documents.
- Identify the current revision status of documents.
- Ensure that relevant versions of applicable documents are available at points of use.
- Ensure that documents remain legible, readily identifiable and retrievable.
- Ensure that documents of external origin (including customer engineering standards / specifications) are identified and their distribution controlled.
- Prevent the unintended use of obsolete documents, and to apply suitable identification to them, if they are retained for any purpose.

The Engineering Manager oversees our process for assuring the timely review, distribution and implementation of all customer engineering standards / specifications and changes based on customer-required schedules. SWDA uses a Product Data Management (**PDM**) system to manage and control engineering records and data. Requirements for the establishment and maintenance of Master Lists of internal and external QMS documents are defined in OP 4.2.3.

4.2.4 Control of QMS Records

The Management Representative has overall responsibility for ensuring that all records required for the QMS (including customer-specified records) are controlled and maintained to provide evidence of conformance to requirements and effective operation of the QMS. Records are retained for a period defined by the customer, applicable regulatory requirements and/or SWDA management, as applicable, and then disposed of in accordance with applicable requirements. Records may be in the form of hard copy or electronic media. OP 4.2.4 details procedures necessary to control QMS records that, as a minimum, are prepared to document:

- Results of processes performed, including identification of the individual performing the activity.
- Product / process evaluation / acceptance criteria.
- Procedures, drawings or instructions used to perform an activity, including revision or date of document.
- Identification of material, parts or equipment used in the making of the product.
- Personnel, material or equipment qualifications.
- Pertinent technical records from subcontractors.

5.0 QMS MANAGEMENT RESPONSIBILITY

5.1 Management Commitment to QMS System

Top SWDA Management provides evidence of its commitment to the development, implementation and improvement of our QMS in very tangible ways.

Our Quality Policy Statement (Section 5.3) documents and communicates the importance of meeting or exceeding all applicable requirements (including customer, regulatory and legal requirements) through continual improvement of our processes, products and services.

We ensure that our Quality Policy is understood, implemented and maintained at all levels of the organization through widespread printed distribution of our Quality Policy Statement, and through periodic management review of the Quality Policy Statement and corporate level improvement objectives (Section 5.4). In addition, our Quality Policy and objectives are communicated and deployed throughout the organization through individual performance objectives established and reviewed during employee performance reviews (Section 6.2.2).

All managers demonstrate their commitment to the development and improvement of the QMS System through the provision of necessary resources (Section 6.1), through their involvement in the internal audit process (Section 8.2.2), and through their proactive involvement in our continual improvement activities (Section 8.5.1) – where emphasis is placed on improving both effectiveness and efficiency of our key QMS processes.

5.2 Customer Focus

Our Quality Policy Statement articulates our commitment to our customers. Our mission is to successfully deliver to customers the required quality of products and services on time, every time.

SWDA's Management ensures a proper Customer Focus is established and maintained through the following activities: Customer complaints and other customer input / feedback are continually monitored and measured to identify opportunities for improvement (Section 8.2.1).

We continually look for other ways to interact directly with individual customers to ensure a proper focus to their unique needs / expectations is established and maintained: e.g. customer audits, customer visits, trade shows, joint planning sessions, etc.

These customer focused communications and interactions will yield clear, explicit customer requirements and expectations in the form of a contractual agreement or customer order, and the Sales Manager (**SM**) has overall responsibility for ensuring that specified and unspecified requirements are determined, understood and converted into requirements (Section 7.2).

5.3 SWDA Quality Policy

SWDA is committed to achieving Total Customer Satisfaction through vigorous innovation and constant improvement of its business processes. Our mission is to successfully deliver to customers the required quality of products and services on time, every time.

To this end, we shall maintain a practical but comprehensive Quality System based on Global Best Practices (**GBP**) with a focus on customer satisfaction and continuous improvement. The policy embraces the following key principles:

- The satisfaction of customers, both external and internal.
- A proactive stance towards Quality Management. A focus on Prevention rather than Inspection.
- Adequate management of contractors and suppliers as integral aspects of the Quality Process in order meet customer's needs.
- Continuous improvement.
- Management's commitment to the Quality Policy through leadership and active participation in quality improvement activities.

We will achieve customer satisfaction by continually improving processes, products and services to ensure they consistently meet customer requirements. Our Quality Policy Statement indicates our commitment and focuses on what is important to us as an organization: achieving customer satisfaction; and it prescribes the method by which we accomplish this: through vigorous innovation and constant improvement of its business processes. Moreover, our Quality Policy Statement acts as a compass in providing the direction and a framework for establishing key corporate level performance measures and related improvement objectives (Section 5.4.1).

We ensure that our Quality Policy is communicated and understood at all levels of the organization through documented training, regular communication and reinforcement during annual employee performance reviews (Section 6.2.2).

Our Quality Policy Statement is controlled by inclusion in this QA / QC Manual, and along with all policies contained in this manual, is reviewed for continuing suitability during management review meetings (Section 5.6.2).

5.4 QMS Quality Planning

5.4.1 Quality Objectives

Our overall Quality Goal is to achieve our Quality Policy, and maintain the integrity of and continually improve a QMS compliant with ISO 9001:2008. Further, we establish both corporate level and operational level improvement objectives that are measurable and achievable within a defined time period. Corporate level improvement objectives, derived from our Business Plan and customer goals / targets when appropriate, are documented on a Continual Improvement Form, Form 8.5-6, and reviewed for achievement during management reviews (Section 5.6.2). All managers of key QMS processes monitor and measure performance of processes within their area(s) of responsibility and, where appropriate, establish measurable operational level improvement objectives consistent with our Quality Policy and corporate level improvement objectives. Operational level improvement objectives are documented on Process Assessment Worksheets (PAWs), Form 8.4-1, and deployed to individuals or individual work areas and monitored for achievement through employee performance reviews (Section 6.2.2).

Corporate and operational level improvement objectives are reviewed for consistency, accomplishment and clarity through our management review process (Section 5.6), and may include any / all of the following possible measures:

- Customer Satisfaction: SLS; Section 8.2.1.
- Supplier Performance: Materials Manager (MAT); Section 7.4.1.
- QMS Effectiveness: ISO Management Representative (ISO); Section 8.5.1.
- Overall Operational Efficiency and Manufacturing Process Efficiency: Chief Financial Officer (CFO); with input from the Production Manager (PRO); Section 6.1.
- Training Effectiveness and Employee Awareness: Human Resources Officer (HRO) with input from the Training Manager (TM); Section 6.2.2.
- Product Performance: ENG; Section 7.3.
- Effectiveness of Manufacturing Processes: PRO; Section 7.5.1.
- Product Quality: Quality Manager (QM); Section 8.2.4.

5.4.2 Quality Management System Planning

The QMS planning process involves the establishment and communication of our Quality Policy (Section 5.3) and objectives (Section 5.4.1) through issuance of this manual and its associated procedures, and through the provision of resources needed for its effective implementation (Section 6.1). Accordingly, this manual constitutes our overall plan for establishing, maintaining and improving an effective QMS System. Our management review process (Section 5.6) and internal audit process (Section 8.2.2) ensure the integrity of our QMS is maintained when significant changes are planned and implemented that affect our key QMS processes depicted in DFC 4.1.

The QM develops appropriate quality planning documents for specific products, projects or contracts whenever customer requirements exceed the capability or intent of the product / service realization and support processes described in our QMS System (Section 7.1).

5.5 QMS Responsibility, Authority & Communication

5.5.1 QMS Responsibility & Authority

The Chief Executive Officer (**CEO**) sets direction and ensures the success of our business through the clear definition and communication of QMS responsibilities and authorities. Other members of Top Management (**MGT**) include: the Chief Operations Officer (**COO**), the Chief Financial Officer (**CFO**) and the Human Resources Officer (**HRO**). The interrelationship of MGT and other key personnel is depicted our Organization Chart, Form 5.5.1. Overall QMS responsibility and authority is summarized in the following paragraphs:

- Top Management (**MGT**) – Members of MGT are ultimately responsible for the quality of SWDA's products and services since they control the systems and processes by which work is accomplished. MGT is responsible for Business Planning, development and communication of our Quality Policy (Section 5.3), QMS Planning (Section 5.4.2) including the establishment and deployment of objectives (Section 5.4.1), the provision of resources needed to implement and improve the QMS (Section 6.1) and management reviews (Section 5.6).
- Management – All managers are responsible for execution of the Business Plan and implementation of the policy, processes and systems described in this manual. All managers are responsible for planning and controlling QMS processes within their area(s) of responsibility, including the establishment and deployment of operational level objectives (Section 5.4.1), and the provision of resources needed to implement and improve these processes (Section 6.1). Managers also conduct employee performance reviews (Section 6.2.2). Management with responsibility and authority for corrective action are notified promptly of non-conformities (Section 8.5.2). Management ensures that production across all shifts is staffed with personnel in charge of, or delegated responsibility for product quality (Section 7.5.1).

- Employees - All employees are responsible for the quality of their work and implementation of the policy and procedures applicable to processes they perform (Section 8.2.3). Personnel responsible for product quality have the authority to stop production to correct quality problems (Section 8.3). Employees are motivated and empowered (Section 6.2.2) to identify and report any known or potential problems and recommend related solutions through internal audits (Section 8.2.2) and/or the continual improvement and corrective / preventive action processes (Section 8.5).
- Detailed responsibilities and authorities for QMS implementation and improvement are contained in lower-level documents referenced throughout this manual and other QMS documents including procedures, flow charts, job descriptions, work instructions, etc.

5.5.2 QMS Management Representative

Mr. Gliffeth Wonuigwe is appointed as SWDA Management Representative with delegated responsibilities for ensuring that an ISO 9001:2008 compliant QMS is established, implemented, and maintained; for promoting awareness of customer requirements throughout the organization (Section 5.5.3); and for ensuring that the performance of the QMS is reviewed by MGT for effectiveness, continuing suitability and the need for improvement (Section 5.6).

5.5.3 Internal QMS Communication

We communicate information regarding QMS processes and their effectiveness through documented training (Section 6.2.2), the internal audit process (Section 8.2.2), continual improvement and corrective / preventive action processes (Section 8.5), and regular formal and informal communications as follows:

- The MR posts information on Quality Bulletin Boards throughout the facility to convey information regarding customer requirements, and the status and importance of quality activities. Internal audits (Section 8.2.2) are also used to reinforce or communicate appropriate information to employees.
- The SM posts information on Safety Bulletin Boards throughout the facility to convey Information regarding the status of the Safety and Environmental Management Program and related statutory / regulatory requirements.
- The HRO posts information on Employee Bulletin Boards throughout the facility to convey information regarding employee benefits, programs, involvement opportunities and applicable statutory / regulatory requirements.
- The ITM ensures that consistent and effective formal communication is facilitated through our Intranet system and web site.
- All officers, managers and supervisors, are responsible for establishing internal communications as needed to convey to their employees the relevance and importance of their activities; typically, this information is conveyed through production team meetings and cross- functional improvement projects (Section 8.5.1) (identify your communication mechanisms here). Communications regarding how employees contribute to the achievement of objectives is also conveyed and reinforced during employee performance reviews (Section 6.2.2).

5.6 Management QA / QC Review Process

5.6.1 General Review Process

The CEO has overall responsibility for conducting a Management Review Meeting at least once annually to ensure the continuing suitability, adequacy and effectiveness of our QMS System in accordance with procedures detailed in OP 5.6. The primary inputs reviewed include data that measures the conformance and performance of our QMS. Conformance is primarily assured through internal audits (Section 8.2.2); demonstrated through a review of internal audit results; and, our demonstrated ability to correct / prevent problems. Performance is primarily assured through the deployment of corporate / operational level objectives (Section 5.4.1) and demonstrated through a review of our demonstrated ability to achieve desired results. The primary output of Management Review Meetings are management actions taken (Section 8.5) to make changes or improvements to our QMS System and the provision of related resources.

5.6.2 QMS Review Input

The Management Review Meeting includes a review of our Quality Policy (Section 5.3), all applicable requirements of the QMS, related performance trends and opportunities for improvement, follow-up actions from earlier management reviews, results of self-assessments (Section 8.4), and strategic or operational changes that could affect the QMS System.

5.6.3 QMS Review Output

Outputs from Management Review Meetings include new / revised corporate level improvement objectives and any related actions required for improvement of the QMS and its processes, improvement of product related to customer requirements, and provision of resource needs. Results of Management Review Meetings are recorded and maintained by the MR per OP 5.6.

6.0 QMS RESOURCE MANAGEMENT

6.1 Provision of QMS Resources

The CFO, with input from all responsible managers, ensures, appropriate resources, including trained employees and appropriate equipment, facilities, support services and work environment needed to implement, manage and improve an effective/efficient QMS and enhance customer satisfaction, are identified and provided through our budgeting and other business management processes including but not limited to:

- QMS Planning
- Human Resource Planning
- Plant, Facility, Equipment and other Infrastructure Planning
- Section 6.4, Work Environment and Safety Planning
- Product Quality Planning
- Planning of Customer-related Processes
- Section 7.3.1, Product Design and Development Planning
- Planning of Purchased Product (Materials, Services and Vendors)
- Section 7.5.1, Production and Service Provision Planning

- Measurement Systems Planning
- Measurement, Analysis and Improvement Planning
- Section 8.5.1, Continual Improvement Planning

6.2 QMS Human Resources

6.2.1 General

SWDA believes that our employees are our most valuable resource, and we do our best to help them achieve their full potential through continual education and training, including both domestic & international training.

6.2.2 QMS Competence, Awareness & Training

The competency of **SWDA's** Key Managers assigned responsibilities defined in the QMS System is determined on the basis of documented criteria for appropriate education, training, skills, and experience for each required competency or work assignment. The HRO has overall responsibility for administering SWDA's Human Resource Management programs in accordance with procedures detailed in OP 6.2.2 and the following policies.

- 1) **Needs Determination** – We determine competency needs, including employee training and awareness needs, through the following actions:
 - a. MGT identifies emerging competency needs during business planning and reports / evaluates their impact during Management Reviews (Section 5.6).
 - b. Emergent competency needs are converted into job descriptions for the type and number of positions that need to be filled through external recruitment, internal reassignment / promotion, and/or outsourcing actions.
 - c. The HRO, with input from responsible managers, evaluates and qualifies applicants for specific job openings on the basis of documented or demonstrated competencies. Where possible, we help existing employees qualify for new / changed jobs through the provision of appropriate education and training, including On-the-Job-Training (**OJT**).
 - d. The HRO, with input from responsible managers, establishes and maintains job descriptions for each position held at SWDA to document the specific competencies needed to ensure the quality of SWDA's products and services.
- 2) **Training Provision** – Training needs identified as a result of the Needs Determination activities discussed above are passed on to the TM for appropriate planning and timely provision.
- 3) **Training Effectiveness** – We evaluate the effectiveness of all actions taken to meet competency needs. Training provided is evaluated through immediate feedback from the employee and the manager, officer, or supervisor who identified the training requirement. Training effectiveness is collected and documented by the responsible manager for each training event. The HRO, with input from the TM and other responsible managers, monitors and measures the overall effectiveness of training and other actions taken to meet competency needs and provides related recommendations to MGT for review and action (Section 5.6).
- 4) **Employee Awareness** – We ensure that our employees are aware of customer requirements (Section 5.5.2), the relevance and importance of their activities, and how they contribute to the achievement of our Quality Policy (Section 5.3) and objectives (Section 5.4.1). This is accomplished through Awareness Training (See Employee Overview and Executive Overview), employee performance reviews (Section 6.2.2), and employee participation in our internal audit (Section 8.2.2) and improvement (Section 8.5) processes.

- 5) **QMS Records** – We maintain appropriate records of education, training, skills and experience in accordance with provision of Section 4.2.4. Employee qualification / competency review records and annual performance review results are maintained by the HRO. The TM maintains records of all training completed.

6.3 QMS System Infrastructure

The **SWDA** COO has overall responsibility for planning, providing and maintaining the resources needed to achieve product conformance, including buildings, workspace and associated utilities; process equipment (hardware and software); and, supporting services (such as internal transportation and material handling systems and communications systems). The MM has overall responsibility for managing our Facilities and Equipment Maintenance programs in accordance with OP 6.3; these programs include:

- Facilities management, maintenance and repair;
- Housekeeping / custodial services management;
- Process equipment management, maintenance and repair;
- Production tooling management; and,
- Transportation and material handling equipment management, maintenance and repair.

6.4 QMS Work Environment

SWDA provides employee benefits, job and schedule flexibility, interesting work, and involvement of our employees in an empowered environment of continual improvement (Section 6.2.2). We engender total participation by involving employees in internal audit (Section 8.2.2) and improvement (Section 8.5) activities. The HRO has overall responsibility for identifying, implementing and maintaining effective employee benefit and workforce involvement programs.

The Safety Manager (SM) has overall responsibility for identifying, implementing and maintaining safety and environmental management systems, processes and controls needed to ensure product conformance and meet customer, statutory or regulatory requirements. We monitor and improve workplace safety, health, and ergonomics through adherence to good manufacturing practices, and through safety team meetings and training (Section 6.2.2).

6.5 QMS Product Realization

6.5.1 Planning of QMS Product Realization

SWDA's QMS System identifies, plans for and documents our product and service realization processes to ensure consistency with all applicable requirements, including customer requirements and related quality objectives and requirements for specific products / services, and any / all applicable statutory/legal requirements. The outputs of product / service realization planning include the specific methods, facilities, equipment, people and materials / support services needed to achieve all desired results for a particular product, service, or contract. Essentially, the outputs of the quality planning process applicable to all products/services are the traveler, work instructions and other data in job packs (Section 7.5.1) or located in work areas where needed.

When requirements are not adequately addressed in the standard job pack documentation / data, or as required by the customer, the QM has overall responsibility for developing and implementing a quality control plan to address additional requirements or controls needed to verify work for the specific process, product or contract in question; see OP 7.1.

The outputs of quality planning (i.e. job packs, control plans, etc.) are carried out in accordance with planned monitoring and measurement activities (Section 8.2), which may also include the use of appropriate statistical techniques (Section 8.1).

In addition, we utilize the production part approval process (PPAP) detailed in OP 7.1, to validate new/changed production parts (unless another PPAP or trial part method is specified by our customers). The QM establishes a PPAP Team and serves as PPAP contact with the customer throughout process validation and product launch. When applicable, PPAP approval by the customer is obtained prior to the first production shipment of product (unless specifically waived by the customer).

The QM obtains necessary customer approval of quality plans, acceptance criteria, product and/or manufacturing process, and all related changes that may impact product realization. For propriety designs, impact of form, fit and function are reviewed with the customer so all effects can be properly evaluated (Section 7.3.7 and OP 7.1). When required by the customer, additional verification is performed, such as required for new product introduction and validation (Section 7.3.6) and OP 7.1).

6.6 Customer-Related QMS Processes

Achieving our **SWDA** Quality Policy “to meet or exceed customer requirements” requires that we determine, understand, and consistently meet or exceed our customers’ requirements and expectations, and that we establish effective communication systems with our customers with regards to product information, inquiries, contract or order handling and related changes, and customer feedback, including complaints. These efforts are described below. **SWDA** has overall responsibility for developing and implementing effective customer-related processes in accordance with the policies in this section and Section 8.2.1.

6.6.1 Determination of QMS Requirements Related to the Product

SWDA Sales personnel generate quotes / bids and negotiate final contracts / orders, and Customer Service personnel receive customer orders for standard (catalog) items or for items included previously bid or negotiated. Requirements for most major customers are identified in contracts documented and reviewed annually. In other cases, a customer order constitutes a contract, and we ensure that the customer’s requirements are clearly identified and confirmed prior to acceptance. OP 7.2.2 defines our process for determining product related requirements:

- Product requirements specified by the customer, including the requirements for availability, delivery and support including any after-sales product service and/or post-delivery servicing (Section 7.5.1) provided as part of the customer contract or purchase order (**PO**).
- Product requirements not specified by the customer but necessary for intended or specified use and obligations related to product, including regulatory and legal requirements; this may include recycling, environmental impact and characteristics identified as a result of **SWDA’s** knowledge of the product and related production processes.
- All applicable government, safety and environmental regulations applied to the acquisition, storage, handling, recycling, elimination or disposal of materials.

6.6.2 Review of QMS Requirements Related to Products & Services

Sales or Customer Service personnel review customer requirements identified during the determination process (Section 7.2.1) to ensure that they are clearly stated, understood, and recorded. Our process for reviewing all applicable requirements is defined in OP 7.2.2 to ensure:

- All applicable product requirements are defined, understood and confirmed with the customer prior to acceptance;
- Manufacturing feasibility of proposed (new or changed) products is investigated, confirmed and documented prior to making a commitment to supply;
- Contract or order requirements differing from those previously expressed are resolved;
- Records of the review and actions resulting from the review are maintained (Section 4.2.4); and,
- Where product requirements are changed, we ensure relevant documents are amended and relevant personnel are made aware of the changed requirements; see OP 7.2.2.

6.6.3 Customer QMS Communication

Customers will be provided information for the following 'key' customer contact personnel: Buyer, Quality Engineer / PPAP Team Leader, Design Engineer / Design Project Team Leader. Customers will also be provided points of contact for the following key functions: Manufacturing / Production, Materials Management / Logistics, Purchasing, PPAP Team Leader. Customer communications are established through a variety of channels:

- Sales and Customer Service personnel provide product information directly to customers including verbal and printed information on our standard products & services offerings as well as customized information for unique customer applications.
- Inquiries are handled by our Sales or Customer Service personnel depending on the nature of the inquiry or who made initial contact, see Section 7.2.1. Engineering personnel provide technical assistance and related information as needed.
- We pay particular attention to customer feedback, including customer complaints and customer satisfaction. Customer satisfaction is evaluated on an on-going basis by customer contact personnel.
- The ITM establishes / maintains an ability to communicate necessary information, including data, in a customer specified language and format, including but not limited to computer-aided design (**CAD**) data and electronic data interchange (**EDI**).

6.7 QMS Design & Development

SWDA QMS design and development processes are employed to transform customer requirements into specifications, products, processes or systems. The ENG maintains a list of products / services for which **SWDA** has design responsibility, i.e. the authority to establish a new, or change an existing, product specification, and this responsibility includes testing and verification of design performance within customer specified applications. The ENG has overall responsibility for managing product design and development activities in accordance with OP 7.3. and serves as the overall Product Design Team Leader (as referenced throughout this section). The ENG with assistance from the QM has overall responsibility for managing manufacturing process design and development activities in accordance with our PPAP process detailed in OP 7.1.

6.7.1 QMS Design Planning

The **SWDA** ENG assigns a qualified Design Engineer to serve as Design Team Leader for design projects for new / changed products and related manufacturing processes. The Design Team Leader utilizes project management planning tools (available software etc.) to establish a Design Plan that, at a minimum, identifies design stages, predetermined design reviews, scheduled verification and validation activities. Design Plans are retained in a Design Folder. The Design Team Leader forms a Design Team composed of design, manufacturing, engineering, quality, production and other appropriate qualified personnel to prepare for product realization, through:

- Development / finalization and monitoring of special characteristics;
- Development and review of Potential Failure Mode Effects Analysis (FMEA) including actions to reduce potential risks per customer requirements or guidance documents; and,
- Development and review of control plans.

6.7.2 QMS Design Inputs

The **SWDA** Design Team Leader identifies, documents (Section 4.2.4) and reviews design inputs; and, before finalizing documentation of required inputs, resolves any incomplete, ambiguous or conflicting requirements (Section 7.2.2):

- The functional and performance requirements as derived from customer input, legal and regulatory requirements which apply;
- Useful information or experience from previous similar design efforts; and,
- Targets for product quality, life, reliability, durability, maintainability, timing and cost.

6.7.3 QMS Design Outputs

The **SWDA** Design Team Leader ensures that design outputs comply with the design input requirements; include information needed for production and service provision; include or reference acceptance criteria; indicate design characteristics critical to the safe and proper operation of the product; and are approved before issuance. Product design outputs are expressed in terms that can be verified and validated against product design input requirements, including: design FMEAs and reliability results; product special characteristics and specifications; product error-proofing; product definition including drawings or mathematically based data; product design review results; and, diagnostic guidelines.

6.7.4 QMS Design Review

During the evolution of each design project, the Design Team Leader conducts design reviews as planned and records results and any necessary actions. All functions concerned with the stage being reviewed are represented at the planned review(s). Design reviews are intended to assure that requirements are being fulfilled; when they are not, the Design Team Leader utilizes input from those involved in the review to propose a remedy for each identified problem.

6.7.5 QMS Design Verification

The Design Team Leader ensures design verification activities are carried out as planned (per the Design Plan) and records results and any necessary actions. Design verification activities are intended to determine if design output meets design input requirements, and design reviews can be a form of design verification.

6.7.6 QMS Design Validation

The **SWDA** Design Team Leader ensures design validation is carried out as planned (per the Design Plan) and records results and any necessary actions. Design validation is performed to ensure the product or service resulting from design efforts performs as intended for all specified or known uses / applications. As applicable, the Design Team Leader plans and carries out or oversees:

- Design validation to ensure it is performed in accordance with customer requirements, including program timing.
- Prototype program to ensure: 1) it is carried out using the same suppliers, tooling and manufacturing processes as will be used in production; 2) all performance-testing activities are monitored for timely completion and conformity to requirements; and 3) technical leadership is provided to ensure outsourced services are performing as intended; and/or,

- Product approval process, detailed in OP 7.1, through the PPAP Team Leader, to ensure all Customer engineering design record and specification requirements are properly understood and that the process has the potential to produce products and/or services consistently meeting these requirements during an actual production run or services provision contract at the quoted production / services rate.

6.7.7 Control of QMS Design Changes

The **SWDA** Design Team Leader ensures all design changes are identified, documented, reviewed, approved and communicated to all affected organizations and functions, and the results and any necessary actions are recorded throughout the product program. Design change control includes an assessment of the impact of changes upon component parts and completed products, including those that may have already been delivered. Control also includes the determination of treatment required for each change, which may include verification or validation.

6.8 Purchasing during the QMS Process

SWDA works in partnership with our suppliers to ensure that purchased products and services meet all applicable requirements. The processes applicable to the planning, acquisition and verification of all products and services that affect customer requirements (such as subassembly, sequencing, sorting, and rework and calibration services) are defined in OP 7.4.1, OP 7.4.2 and OP 8.2.4 in accordance with the policies outlined in this section.

6.8.1 QMS Purchasing Process

The type and extent of control **SWDA** applies to our suppliers and purchased products is dependent upon the effect on subsequent realization processes and their output, as well as consideration of other characteristics including: the type of product; the potential impact of the product on our processes, products, or services; the results of supplier evaluations; and, past performance.

Purchased products are verified (Section 7.4.3 and Section 8.2.4) to ensure conformity to specified purchase requirements and applicable regulatory requirements (Section 7.4.2). The MAT defines and documents the supplier approval process, including criteria for selection, the extent of control to be exercised, and periodic evaluation; OP 7.4.1. All Suppliers are evaluated and selected based on their ability to supply products or services in accordance with our requirements.

Where specified (by contract, customer engineering drawings or specifications), **SWDA** purchases products, materials or services from customer-approved sources. Supplier performance is monitored by the MAT per OP 7.4.1 through one or more of the following indicators: delivered product quality; customer disruptions including field returns; delivery schedule performance (including incidents of premium freight); and, special status customer notifications related to services quality or delivery issues.

6.8.2 Purchasing information

The MAT ensures the adequacy of specified purchase requirements prior to communication to the supplier per procedures defined in OP 7.4.2 and the following policies: Purchasing information communicated to our suppliers contains the appropriate data needed to clearly and fully describe requirements for purchased materials and services; including, where appropriate, requirements for approval / qualification of product, procedures, processes / systems, equipment; qualification of personnel; and, quality management system requirements.

6.8.3 Verification of Purchased Products

The QM ensures that purchased product is verified prior to use or release in accordance with provision of this section. The QM has overall responsibility for ensuring the quality of purchased products using one or more of the following methods: receipt and evaluation of statistical data; receiving inspection and/or testing (such as sampling based on performance); second or third party audits of supplier sites (when coupled with records of acceptable delivered product quality); part evaluation by a designated laboratory; and/or, another method agreed with the customer. Receiving inspection is performed per Section 8.2.4.

The QM plans and implements appropriate sampling plans and/or other statistical techniques to verify purchased products per Section 8.1. All requirements for approval of purchased products and/or supplier procedures, processes, equipment, personnel, and/or quality systems are reviewed for adequacy prior to communication to the supplier per Section 7.4.2.

As applicable, the QM documents and communicates the intended verification arrangements and method of product release related to verification activities performed at our suppliers' premises. As needed, the MAT, with input and assistance from the QM and other **SWDA** Management, and technical personnel initiates, monitors and follows on supplier corrective action requests in accordance with OP 7.4.2.

6.9 QMS Production & Service Provision

6.9.1 Control of Production & Service Provision

SWDA utilizes a process-focused approach to plan and control operations and support services related to production and service provision. Our initial focus is to assure the quality of process inputs - that is, employees, material, facilities, equipment and methods. Employees must be equipped to perform the process properly through appropriate education, training and certification. Material must meet specified requirements and be properly identified, stored and issued. Equipment and facilities must be adequate, accurate, available and properly utilized. Work instructions and other important data must be current and correct. Methods must be appropriate and proven capable of accomplishing the desired results. The appropriateness of all these fundamental process inputs must be assured, and processes must be measured, monitored and controlled to assure effectiveness and/or to identify opportunities for improvement.

The PRO ensures that production / service jobs are planned, scheduled and carried out in accordance with procedures detailed in OP 7.5.1 as summarized below.

6.9.2 Production Process Information

Information inputs to the process include both product characteristics and appropriate work instructions containing specific work methods and/or other pertinent information, including process monitoring and verification instructions and criteria developed during product quality planning (Section 7.1).

The **SWDA** PRO, through Product Line Team Leaders, Production Shift Supervisors and Production Control Supervisors, ensures that all appropriate information including final product specifications, raw material characteristics and the required product parameters, is provided to production personnel throughout the product / service provision process. Such information is provided through job schedules / plans, production team meetings, work instructions posted in areas where they are needed, and/or through job specific information included in individual job packs (including control plans, where applicable).

6.9.3 QMS Work Instructions

The necessity for and required detail of **SWDA** Work Instructions is dependent upon the knowledge, skills and abilities of our employees and the complexity of the work process they are assigned to perform. Product Line Team Leaders, with input from Engineering, Quality and other technical personnel, identify critical production / service work steps in process sheets included in the job pack or other information included in work instructions posted in areas where they are needed.

6.9.4 QMS Equipment

The **SWDA** MM ensures the suitability and availability of all equipment, facilities and tooling used for production and service operations; Section 6.3.

6.9.5 QMS Monitoring & Measurement Devices

The **SWDA** QM ensures that monitoring and measurement devices capable of meeting our measurement requirements are available for use during production and service provision; Section 7.6.

6.9.6 QMS Monitoring Activities

The **SWDA** PRO, through Production Shift Supervisors, ensures that production personnel monitor the quality of their own work and understand the procedures for reporting related problems and/or suspected nonconforming conditions, see OP 7.5.1 and Section 8.2.3. The QM is responsible for planning and implementing in-process inspections needed to ensure process control and product quality, see Section 8.2.4.

6.9.7 Release, Delivery & Post-Delivery QMS Processes

SWDA's release of products and/or services is dependent on its compliance with all technical specifications and its ability to meet additional customer requirements including packaging, shipping, and delivery, as identified in the contract or Purchase Order (**PO**). The COO, through the MAT, the PRO, and the QM, ensures that records of product and/or services approval are maintained and clearly indicate the authorizing employee (Section 7.5.3).

The COO periodically reviews operational data as well as progress towards achievement of corporate level product / service performance objectives (Section 5.4.1) and provides related recommendations for review by MGT (Section 5.6.1).

6.9.8 Validation of QMS Processes for Production & Service Provision

SWDA defines processes in which results cannot be verified by subsequent monitoring or measurement as "Special Processes", and, this includes any processes where deficiencies may become apparent only after the product is in use or the service has been delivered. The ENG has overall responsibility for ensuring "Special Processes" are validated in accordance with procedures detailed in OP 7.5.2. As applicable, arrangements are established for: defining criteria for review and approval of the processes; approval of equipment and qualification of personnel; use of specific methods and procedures; requirements for records; and, revalidation.

The PPAP Team Leader utilizes the PPAP process detailed in OP 7.1 and depicted in DFC 7.1-1 (or equivalent process acceptable to our customer) to validate that product realization processes are capable of achieving desired results.

6.9.9 Identification & Traceability

SWDA has overall responsibility for establishing and maintaining product identification throughout all stages of design, production, installation and delivery in accordance with procedures defined in OP 7.5.3. Where product traceability is a customer-specified requirement, appropriate controls and records are established and maintained.

SWDA establish and maintain product monitoring and measurement status through the use of both physical identification tags / labels and electronic records. Additionally, the physical location in clearly designated hold areas is an indicator of product status; however, physical location in production process areas may serve as an indicator of product status only where product identification and inspection status is inherently obvious, e.g. in our automated production transfer process. The COO, through the MAT, the PRO, the MM, and the QM, ensures that all incoming, in-process, and final product is suitably identified, and the current status is appropriately tracked and displayed in accordance with procedures detailed in OP 7.5.3.

Where contractually required, the QM Plans for, establishes and maintains appropriate traceability records in accordance with customer requirements (Section 7.1). At a minimum, where products are made in lots or batches, we identify and record a unique lot or batch number and related information on the job traveler (See Section 7.5.1 and OP 7.5.3).

6.9.10 Customer Property

Customer property includes customer-owned material, tools (including returnable packaging), tooling (including test/inspection tooling and equipment), and intellectual property. We identify, verify, protect and maintain customer property provided for use or incorporation into the product, by applying the same process controls as we do to purchased product (Section 7.4).

Whenever customer-specified requirements for property management are beyond the control or capability of our established QMS, the QM has overall responsibility for planning, documenting and communicating such requirements to all appropriate personnel as a part of product quality planning (Section 7.1).

Additional special requirements applicable to customer supplied products are detailed in OP 7.5.4. The QM ensures that lost, damaged or unsuitable customer property is recorded and immediately reported to the customer (Section 8.3).

6.9.11 Preservation of Product

The **SWDA** MAT has overall responsibility for establishing and implementing a Material Management System (**MMS**) to ensure product conformity is preserved during internal processing and delivery to the intended destination. This system, defined in OP 7.5.5, includes the handling, storage, packaging, delivery, and protection of final products, as well as raw materials and in-process constituents, of the final product, to ensure:

- Components and products are handled and stored in a manner that prevents damage or deterioration, pending use or delivery.
- Each department ensures that controls are implemented to prevent mixing conforming and non-conforming material.
- Packing ensures specified or original manufacturing packaging is utilized.
- All components and products are suitably packed to prevent deterioration or damage during storage and delivery.

6.10 Control of QMS Monitoring & Measuring Devices

The QM is responsible for establishing and maintaining an effective system for identifying, selecting and controlling the use of monitoring and measuring devices used to provide evidence of product conformance to established requirements. These controls, defined in OP 7.6, apply to SWDA/NCS owned, customer-owned and employee-owned devices.

On a project-specific basis, **SWDA** determines the measurements to be made and the accuracy required to assure conformity of our product to specified requirements. We identify and select monitoring and measuring devices and verify their capability of meeting such requirements prior to use. In addition, the ENG documents the method for confirming the ability of software to satisfy the intended application.

Monitoring and measuring devices are used and controlled in a manner that ensures continuing suitability; this includes ensuring that the environmental conditions are suitable for the calibration, inspections, measurements and tests being carried out. We also define the processes employed for the on-going calibration, control and maintenance of monitoring and measuring devices including their identification, location, frequency / method of checks, uses / acceptance criteria and the action to be taken when results are unsatisfactory.

- All monitoring and measuring devices that can affect product quality are identified and calibrated at prescribed intervals against certified equipment having a known valid relationship to internationally or nationally known standards. Where no such standards exist, the basis used for calibration is documented. **SWDA** does not have an internal laboratory facility; and, therefore cannot perform all required inspections, tests and/or calibrations; accordingly, external laboratories used for inspection, test or calibration services are selected, qualified and monitored per Section 7.4.
- When monitoring and measuring devices are found to be out of calibration (or when calibration status is not known), they are adjusted or re-adjusted as necessary and the validity of previous measuring results is documented; actions taken are documented, including appropriate corrective actions to remedy the situation and preclude its recurrence; Section 8.5.2.
- Appropriate calibration records are maintained to document results of calibration activities (Section 4.2.4) and suitable indicators are used to show current calibration status. A number or other identifier is used to provide traceability to the device calibration record.
- All monitoring and measuring devices are safeguarded from adjustment that would invalidate the calibration.
- All monitoring and measuring devices are handled, maintained and stored in a manner that ensures accuracy and fitness for use is maintained.

The QM manages our internal laboratory and maintains records that define/demonstrate its capability to perform the required inspection, test or calibration services; see OP 7.6. The QM ensures external laboratories used for inspection, test, or calibration services are either acceptable to the customer or accredited to ISO 17025 (or the national equivalent).

7.0 QMS MEASUREMENT, ANALYSIS & IMPROVEMENT

7.1 General

This section describes how **SWDA** defines, plans and implements the monitoring, measurement, analysis and improvement activities needed to assure product and QMS conformity and achieve continual QMS improvement. These activities include assessment of customer satisfaction, conduct of internal audits, process monitoring and measurement, and product monitoring and measurement. OP 8.1 details procedures governing the selection and use of appropriate statistical techniques used in monitoring, measurement, analysis and improvement activities.

The **SWDA** QMS ensures that statistical tools used to monitor QMS processes are identified during quality planning and included control plans, as applicable (Section 7.1). Statistical techniques for on-going process control and improvement are established per OP 8.1, and any applicable customer or industry requirements or guidance documents.

SWDA employees utilizing statistical tools to manage, verify or perform work will attend a Basic Statistics Course containing an overview on basic concepts such as variation, control (stability) process capability, and over-adjustments will be understood and utilized throughout the organization (See Section 6.2.2).

7.2 QMS Process Monitoring & Measurement

7.2.1 Customer Satisfaction

Customers are the reason **SWDA** exists and drives our Quality Policy “to meet or exceed customer requirements.” **SWDA** has overall responsibility for identifying and reviewing customer requirements (see Section 7.2.1 and Section 7.2.2) and for monitoring and measuring customer satisfaction per procedures contained in OP 8.2.1, summarized as follows.

Data collected by customer contact personnel during routine communications (Section 7.2.3) provide our primary basis for assessing customer satisfaction. Sales personnel and Customer Service staff utilize a very simple customer satisfaction survey form (hard copy or electronic) to ascertain the customer's overall perception of how well we are meeting their requirements and to document any recommendations for improvement.

Customer complaints (whether received in writing, verbally or electronically through our web site customer contact form) are immediately forwarded to appropriate Sales or Customer Service personnel for action. If these personnel cannot resolve the issue to the customer's satisfaction, then the complaint is transferred to **SWDA** for assignment to another appropriate manager or function for resolution. Customer complaints are documented and monitored through resolution through our management action system (see Section 8.5).

Customer feedback (including written or verbal complaints and information collected from our web site's customer feedback form) is reviewed daily by Sales personnel and Customer Service staff to initiate any improvement or corrective / preventive actions needed (see Section 8.5).

SWDA periodically reviews customer satisfaction survey data and other customer feedback (including complaints), as well as progress towards achievement of corporate level customer satisfaction improvement objectives (Section 5.4.1) and provides related recommendations for review by MGT (Section 5.6.1).

7.2.2 Internal QMS Audit Procedures

SWDA's Internal audit results are critical inputs to aid in assessing the effectiveness of our QMS System, in identifying opportunities for improvement, and in promoting awareness of customer requirements and effectiveness of the QMS to our workforce. **SWDA** conducts QMS Audits to determine conformity to ISO 9001:2008 and any additional QMS requirements that may apply (ISO 14001:2004, for example). Our overall measure of QMS effectiveness is the absence of repeat problems / findings, as an indicator that our QMS System was effective in eliminating the cause of such problems.

Internal **SWDA** Audits are conducted in accordance with a published schedule that identifies the audit scope and frequency. The schedule is updated on the basis of status and importance of the activity to be audited and previous audit results. Each of **SWDA's** key QMS processes, with a special emphasis on our 'core' customer-oriented processes and our unique product realization processes (Section 8.2.3), are reviewed at least once annually to determine effectiveness.

The **SWDA** QMS process, function or quality system element under review is effective, if it is achieving the desired results or established objectives (Section 5.4.1). In addition, employee involvement in identifying process effectiveness or efficiency improvements is actively sought during internal audits. Internal audit results are used to determine the scope, nature and frequency of future internal audits of processes, products, functions, services or quality system elements where ineffectiveness or inefficiency is most likely to be found. Responsible managers may also request that the audit be used to gather "value added" data serving as input to aid in monitoring, measurement and improvement of QMS processes and systems (Section 8.2.3 and Section 8.5.1).

ISO has overall responsibility for managing the internal audit process in accordance with OP 8.2.2, as summarized below.

Internal Auditors are qualified to audit to ISO 9001:2008 requirements (Section 6.2.2). Audits are carried out by qualified personnel who do not have direct responsibility for the activity being audited. Audit checklists are prepared and used to aid in ensuring audit consistency and comprehensiveness. Auditors record audit results and submit findings to management personnel with responsibility for the process, function or quality system element audited.

Management responsible for the area audited implement timely corrective action to eliminate detected non-conformances and their causes, and initiate other appropriate actions in response to opportunities for improvement identified by process participants or managers. Follow-ups are conducted to verify timely and effective implementation of the proposed actions.

SWDA's MR maintains all internal audit records, including internal auditor training records, results of internal audits and related follow-ups; periodically reviews internal audit results as well as progress towards achievement of corporate level objectives aimed at improving overall QMS effectiveness (Section 5.4.1); and provides related recommendations for review by MGT (Section 5.6.1).

7.2.3 Monitoring & Measurement of QMS Processes

SWDA applies suitable methods for monitoring and measuring all QMS processes. QMS processes are documented, measured, controlled and evaluated (Section 8.2.2) to ensure they are effective and efficient (i.e. achieve desired results) and to identify opportunities for improvement. At a minimum, managers with overall responsibility for carrying out a QMS process, analyze process performance (Section 8.4) and takes appropriate improvement, corrective or preventive action (Section 8.5); and, also see **SWDA's** QMS Process Management Overview:

- **Process Capability** – The ENG, through our PPAP process (Section 7.1), ensures process studies are performed on all new product realization processes to verify process capability and provide additional input for process control. Process capability study results, where applicable, and specifications (including methods of production, measurement and test, and maintenance instructions) are documented. Acceptance criteria (as well as objectives for process capability, reliability, maintainability and availability) and appropriate reaction plans are included in control plans and/or job packs (see Section 7.5.1).
- **Job Set Up** – Job Set-Ups (Section 7.5.1) are verified (Section 8.2.4) prior to commencing each new production run or service provision and when process changes are made.
- **Process Monitoring** – Processes are monitored by process operators per applicable instructions (Section 7.5.1) and procedures defined in OP 8.2.3. Significant process events, such as tool change or machine repair are recorded. Control Plans (**CPs**) and Process Flow Diagrams (**PFDs**) are implemented (Section 7.5.1) to ensure adherence to the specified measurement techniques, sampling plans, acceptance criteria, and reaction plans when acceptance criteria are not met; see Section 7.1 and Section 8.1. Production personnel follow documented reaction plans when processes become unstable or no longer capable. The **SWDA** QM then initiates a Corrective Action Plan (**CAP**) indicating the specific timing and assigned responsibilities to assure the process becomes stable and capable. As required, the CAP is reviewed with and approved by the customer and usually requires application of a customer-recognized or approved problem-solving approach (Section 8.5.2).

7.2.4 Monitoring & Measurement of QMS Products & Services

The **SWDA** QM has overall responsibility for planning (Section 7.1) and implementing inspection and test activities needed to verify product & services requirements are met at appropriate stages of the product realization process in accordance with the applicable Control Plan. When selecting product & services parameters to monitor compliance to internal and external requirements, product characteristics are determined leading to the types of measurement, suitable measurement means, and the required capability and inspection / test skills needed.

The scope of our product & services monitoring and measurement system (defined in OP 8.2.4) includes receiving inspection, job set up verification, in-process inspection, final inspection and test, layout inspection and functional test, and special consideration regarding monitoring and measurement of appropriate items:

- **Receiving Inspection** – Incoming product is not used or processed until it has been inspected or otherwise verified as conforming to specified requirements in accordance with the Control Plan and/or documented procedures. Methods used to verify incoming product (see Section 7.4.3) may include: receipt and evaluation of statistical data by the supplier; formal receiving inspection and/or test (see OP 8.2.4), evaluation by accredited laboratories or source inspections.
- **Job Set-Up Verification** – Job Set-ups are verified per procedures defined in OP 8.2.4 prior to commencing each new production run, services provision and/or when process changes are made.
- **In-Process Inspection** – Formal in-process inspections are performed by Quality Control (**QC**) personnel in accordance with the Control Plan and OP 8.2.4. Manufacturing process monitoring (Section 8.2.3) is performed by production personnel in accordance with the applicable Control Plan (Section 7.5.1).
- **Final Inspection & Test** – All finished products and completed services are verified by final inspections / tests specified in the Control Plan and OP 8.2.4.

- **Release** – Products are not released for further processing or delivery until we have objective evidence that all requirements have been met.
- **Evidence of Conformity** – Test and inspection records are maintained for a minimum of three years. These records include final inspection authority and identify and confirm that all critical parameters are in accordance with established requirements and specifications. Additionally, product samples are stored for a minimum of 3 years.
- **Product Release & Delivery** – Product is not normally released or delivered until all planned inspections and tests have been completed, and records have been maintained providing evidence of conformity with acceptance criteria and identifying the person(s) authorizing release. In rare cases (due to customer demands and/or production emergencies), unverified product may be released or delivered under controlled conditions of positive recall documented and authorized by the QM and, where applicable, approved by the customer. Non-conforming (or suspect) products or services are identified and controlled to prevent their inadvertent misuse.

7.3 Control of Non-Conforming Products or Services

The **SWDA** QM has overall responsibility for implementing an effective process for identifying, documenting, segregating, evaluating and disposing of non-conforming product. Personnel responsible for product & services quality, have the authority to stop production to correct quality problems in accordance with OP 8.3; related procedures are summarized below:

- **Identification** – Identification of non-conforming products or services originates from inspection, internal testing, product audits or customer complaints. Employees clearly mark or otherwise identify non-conforming product, services or suspect material.
- **Documentation** – The QM or authorized QC personnel enter the non-conformance into the Corrective Action System (Section 8.5.2), identifying the non-conforming product and lot number if applicable, description of nonconformance, and location where the non-conforming products or services are being held pending further review or disposition.
- **Segregation** – Non-conforming products or services are segregated or curtailed, pending evaluation and disposition.
- **Evaluation** – The QM through authorized QC personnel, perform the initial evaluation of non-conforming product in accordance with approved test and inspection procedures. Where needed, Engineering, Production and other technical personnel may become involved in the evaluation and recommendation for disposition.
- **Disposition** – The results of the evaluation and resultant disposition determinations are documented. Dispositions resulting from the evaluation of non-conforming products or services may include: re-work to meet specified requirements; re-grade for an alternative application; use as is (under customer concession or other required approval authority); obtain (from relevant authority) a waiver of or deviation from requirements; return to supplier; scrap or other disposal.

Where the customer has previously approved the production process, the **SWDA** ENG obtains a customer concession or deviation permit prior to further processing whenever the product or product realization process is different from that which is currently approved. The ENG maintains a record of the expiration date or quantity authorized; ensures compliance with the original or superseding specifications and requirements when the authorization expires; and, ensures material shipped on an authorization is properly identified in each shipping container. This waiver process also applies to purchased product, and **SWDA** will provide evidence of concurrence with the supplier (if applicable) before submission to the customer. A Deviation Request will be accompanied by an Action Plan identifying root cause and steps to implement a permanent corrective action. Customer waivers and deviation are detailed in Section 8.3.

7.4 Analysis of QMS Data

SWDA's MGT and other officers, managers and supervisors collect and analyze data using appropriate statistical techniques (Section 8.1) to determine the suitability and effectiveness of key QMS processes (DFC 4.1) applicable to their area(s) of responsibility and to identify opportunities for improvement. At a minimum, data is analyzed to assess achievement of the corporate level quality objectives (Section 5.4.1).

SWDA manages our key QMS processes through the use / application of what we call Process Assessment Worksheets (**PAWs**), Form 8.4-1, and associated 'Turtle Diagrams', Form 8.4-2, which are used to define and analyze the selected process in terms of inputs, throughputs / activities and outputs. Related guidance and information are contained in our Process Management Guide and in WI 8.4-2 and Section 8.5.1.

A process is effective if the desired results are achieved. Effectiveness can be measured in terms of product quality, process accuracy, delivery / schedule performance, cost / budget performance, employee / function performance against established objectives and/or customer satisfaction. A process is efficient when resource utilization is optimal. Efficiency can be measured in terms of total resource utilization, productivity indicators, and/or the cost of poor quality (such as waste / rework costs or hours).

Trends in quality and operational performance are compared with progress toward objectives and related recommendations for improvement are developed and are presented to **SWDA's** MGT for review and action during management reviews (Section 5.6.1).

7.5 QMS Process Improvement

7.5.1 Continual QMS Improvement

At **SWDA**, continual improvement process begins with the establishment of our Quality Policy (Section 5.3) and objectives for improvement (Section 5.4.1), based on objectives contained in our Business Plan and customer targets / goals. Customer satisfaction, internal audit, process and product performance data, and the cost of poor quality are then compared to progress against objectives to identify additional opportunities for improvement (Section 8.4).

Appropriate improvement initiatives are established, supported and monitored for achievement through the use of a Continual Improvement Form (**CIF**), Form 8.5-6, and our Management Review Process (Section 5.6). We also consider corrective and preventive actions as a vital part of our Continual Improvement Programme. Corrective Actions are initiated when desired results are not achieved, and preventive actions are initiated to prevent the occurrence of problems or to implement other improvement actions. Management Action Requests (**MARs**), Form 8.5-1, are used to document improvement, corrective and preventive actions; all management actions are prioritized and implemented on the basis of data analysis (Section 8.4): the impact of failures / problems is used to prioritize needed corrective actions; risks are evaluated to identify and prioritize needed preventive actions; and, cost / benefit analyses are performed to identify and prioritize needed management actions. Procedures governing our Management Action System are detailed in OP 8.5.

The overall effectiveness of **SWDA's** Management Action System (including Corrective and Preventive Actions taken as well as the overall progress towards achieving corporate level improvement objectives) is assessed through our Management Review Process (Section 5.6).

Essentially, such actions are effective if the problems corrected do not reoccur, potential problems identified do not occur, and other improvement actions accomplish the desired results or objectives. Inputs to the Management Review Process are used to establish new / changed improvement objectives and to initiate / prioritize additional improvement actions (Section 5.6.1).

MR has overall responsibility for establishing and implementing an effective management action system (OP 8.5) which includes improvement actions, as outlined in Section 7.5.1 above, and corrective and preventive actions as outlined in the following Section 7.5.2 and Section 7.5.3.

7.5.2 QMS Corrective Action

Evidence of non-conforming product, customer dissatisfaction or ineffective processes is used to drive our Corrective Action System because a problem exists requiring immediate correction and possible additional action aimed at eliminating or reducing the likelihood of its recurrence. Management with responsibility and authority for Corrective Actions are notified promptly of product or process non-conformities. Investigating and eliminating the root cause of these failures is a critical part of our Corrective Action Process. Key features of our Corrective Action Process, defined in OP 8.5, include:

- We utilize a structured problem-solving approach that meets customer specified requirements and leads to root cause identification and elimination.
- We also use error-proofing methods in the Corrective Action Process.
- We apply Corrective Action and implemented controls to other similar processes and products to eliminate the cause of the non-conformity.

Follow-ups are conducted (through the internal audit process; Section 8.2.2) to ensure that effective Corrective Action is taken appropriate to the impact of the problem encountered. In addition, MR summarizes and analyzes corrective action data to identify trends needed to assess overall effectiveness of the Corrective Action System and to develop related recommendations for improvement.

The Corrective Action System is considered effective if specific problems are corrected and data indicates that the same or similar problems have not recurred. Results of this analysis and related recommendations are presented to MGT for review and action during management reviews (Section 5.6.1).

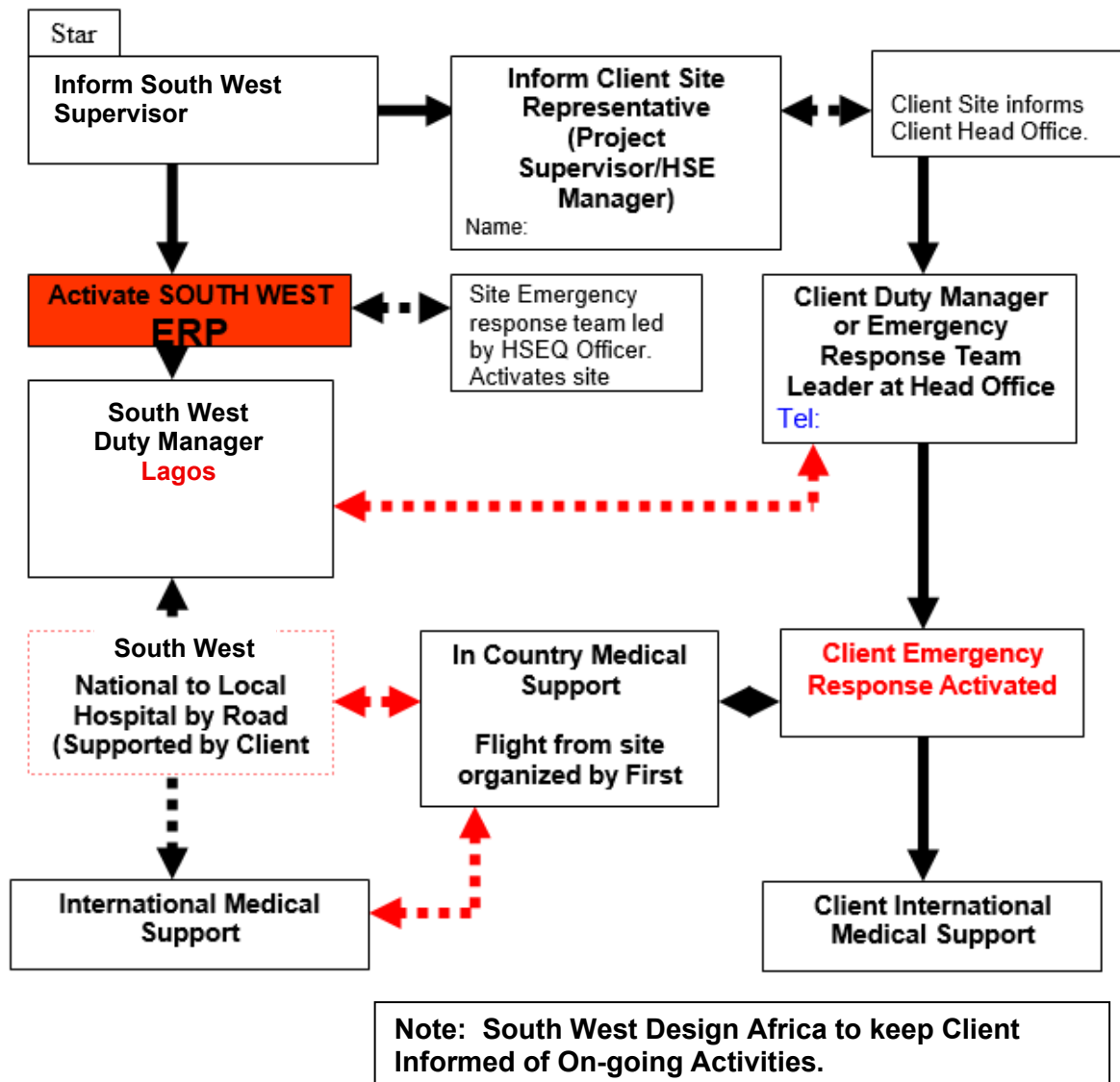
7.5.3 QMS Preventive Action

Data from internal audits, customer feedback, employee suggestions and other appropriate data is collected and analyzed (Section 8.4) to identify the actions needed to eliminate the causes of potential problems and thereby prevent their occurrence. We also utilize Potential Failure Modes and Effects Analysis (**FMEA**) tools to identify potential failures and their causes. Investigating and eliminating the root cause of potential failures is a critical part of our Preventive Action Process (**PAP**). We review and initiate preventive actions through our Preventive Action Process defined in OP 8.5.

SWDA applies controls and follow-up to ensure that effective preventive action is taken appropriate to the risk and impact of potential problems and losses. In addition, MR summarizes and analyzes preventive action data to identify trends needed to assess overall effectiveness of the Preventive Action System and to develop related recommendations for improvement. The Preventive Action Process is considered effective if potential losses were avoided. Results of this analysis and related recommendations are presented to MGT for review and action during management reviews (Section 5.6.1).

SWDA's INTEGRATED RESPONSE FLOW CHART

Incident Onsite:



Appendix A: List of Key Internal QMS Documents Referenced in this QA / QC Manual

QSM Quality System Manual OP Description

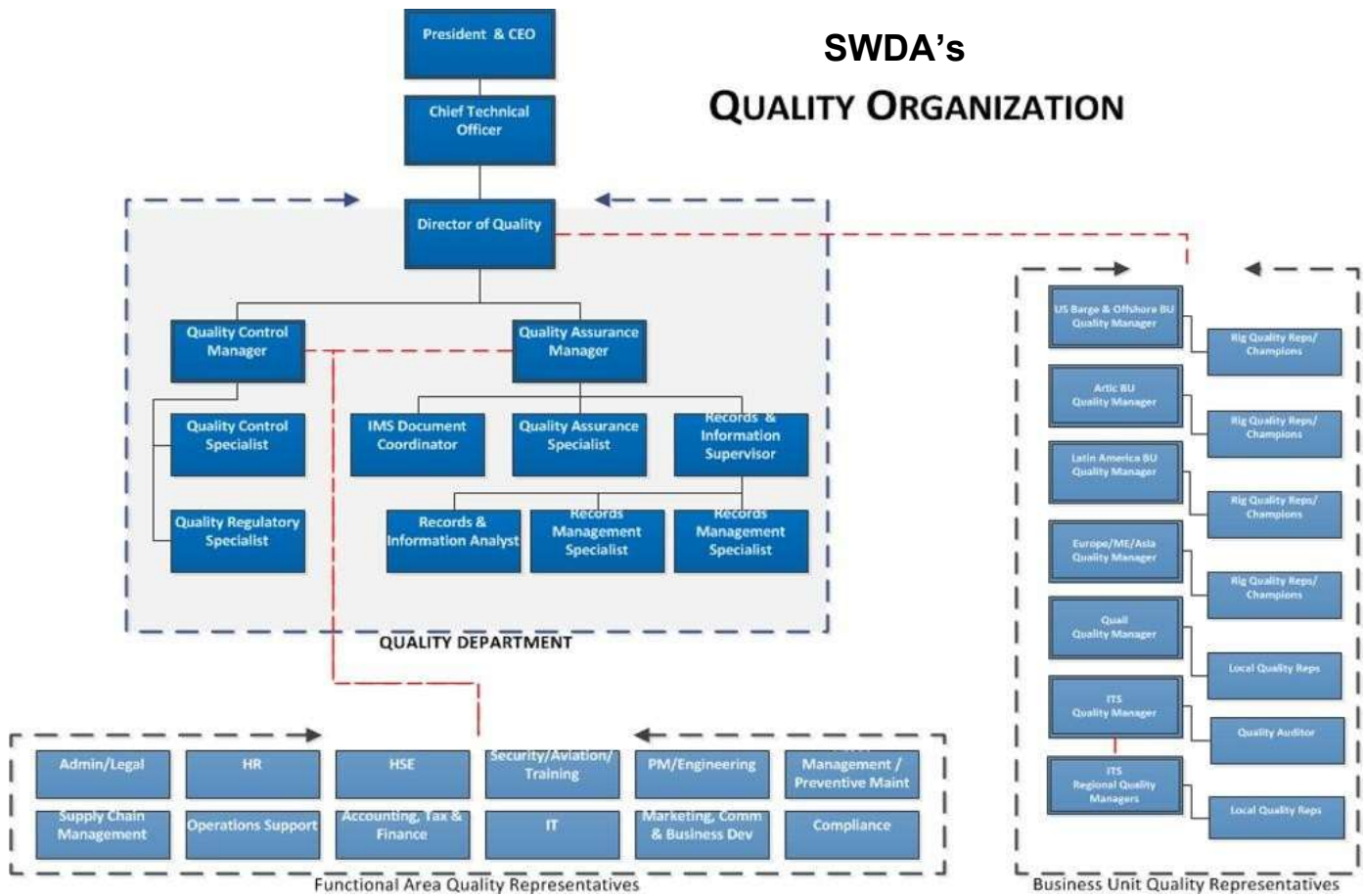
OP 4.2.3	Control of Documents
OP 4.2.4	Control of Records
Form 5.5.1	Organization Chart
OP 5.6	Management Review
OP 6.2.2	Competence, Awareness and Training
OP 6.3	Facilities and Equipment Maintenance
OP 7.1-1	PPAP Process
OP 7.2.2	Product Requirements Identification and Review
OP 7.3	Design and Development
OP 7.4.1	Supplier Evaluation
OP 7.4.2	Purchasing
OP 7.5.1	Production Planning and Control
OP 7.5.2	Production Planning and Control
OP 7.5.3	Production Identification and Traceability
OP 7.5.4	Control of Customer Supplied Property
OP 7.5.5	Preservation of Product
OP 7.6	Control of Monitoring and Measuring Devices
OP 8.1	Statistical Techniques
OP 8.2.1	Customer Satisfaction
OP 8.2.2	Internal Audit
OP 8.2.3	Monitoring and Measurement of Processes
OP 8.2.4	Monitoring and Measurement of Product
OP 8.3	Control of Nonconforming Product
OP 8.5	Management Action System
Form 8.5-1	Management Action Request (MAR)
Form 8.5-6	Continual Improvement Form (CIF)

Appendix B: Terms and Definitions

CCF	Customer Complaint Form
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIF	Continual Improvement Form
COO	Chief Operating Officer
COP	Customer Oriented Process
CP	Control Plan
Cpk	Process Capability
CR	Customer Representative
CSF	Customer Satisfaction Form
DCN	Document Change Notice
DFC	Deployment Flowchart
DVP	Design Verification Plan
EIFIR	End Item Final Inspection Report
ENG	Engineering Manager
FMEA	Failure Mode and Effects Analysis
GRR	Gage Repeatability and Reproducibility
HRO	Human Resources Officer
IM&TE	Inspection, Measuring and Test Equipment
ISM	Information Systems Manager
IR	Inspection Report
MAR	Management Action Request
MEA	Measurement Error Analysis
MGT	Top Management
MAT	Materials Manager
MM	Maintenance Manager

NC	Non-Conforming
OEM	Original Equipment Manufacturer
OI	Opportunity for Improvement
OJT	On-the-Job Training
OP	Operating Procedure
PAW	Process (or System) Assessment Worksheet
PCS	Process Capability Study
PFD	Process Flow Diagram
PM	Preventive Maintenance
PRO	Production Manager
PPAP	Production Part Approval Process
PSW	Part Submission Warrant
QM	Quality Manager
QMS	Quality Management System
QSA	Quality System Assessment
QSM	Quality System Manual
SCAR	Supplier Corrective Action Request
SLS	Sales Manager
SM	Safety Manager
SPC	Statistical Process Control
TM	Training Manager
WI	Work Instruction

SWDA's QUALITY ORGANIZATION



SWDA's Regulatory Compliance Permits & ISO 9001 Certifications & Permits



FEDERAL REPUBLIC OF NIGERIA
PERMIT TO OPERATE AS AN OIL INDUSTRY SERVICE COMPANY
SPECIALIZED CATEGORY

PERMIT NO: NUPRC/OGISP/24/7619778/R359171

This Permit is hereby granted to

SOUTHWEST DESIGN AFRICA LIMITED

of **6B OLUKAYODE JACOBS STREET, LEKKI PHASE 1, LAGOS,**

NIGERIA LAGOS, LAGOS, NIGERIA

to render the service to the Oil Industry in the Category listed hereunder:
WASTE MANAGEMENT SERVICES
- Tank Vessel Cleaning

This Permit expires on the **Friday, April 4, 2025**

Fee Paid: N **250,000.00**

Dated **4th** day of **April** **20 24**



Commission Chief Executive

This permit does not cover "Supply of Expatriate Manpower" in any guise



NIGERIAN CONTENT DEVELOPMENT AND MONITORING BOARD



NIGERIAN CONTENT EQUIPMENT CERTIFICATE (NCEC)

Awarded to

SOUTH WEST DESIGN AFRICA LIMITED (SWDA)

For

Non Moveable Assets in the
Nigerian oil and gas industry

TYPE 5 (CONTRACTS BELOW \$10M)

NCEC/DA-C-5/7210

Date Issued: April 19, 2025

Date Expire: April 18, 2026



Director, CBD

Executive Secretary

This NCEC is only valid for procurement of the listed product(s) in this certificate. Please scan the QR code to validate the scope of this NCEC



NIGERIAN OIL & GAS INDUSTRY CONTENT JOINT QUALIFICATION SYSTEM (NOGIC JQS) REGISTRATION CERTIFICATE

This is to certify that :-

SOUTH WEST DESIGN AFRICA LIMITED (SWDA)

Of Plot 6b, Blk 110 Oluwakayode Jacobs Crescent, Lekki 1,

Has been registered on the NOGIC JQS platform as a Service Company in the Oil & Gas Industry to provide the following service(s):

WASTE MANAGEMENT SERVICES

Issued on this day: August 8, 2024

The Board reserves the right to revoke this Certificate in the event of the violation of any of the provisions of the NOGICD Act and amendments thereto, Or where the Board discovers that the Certificate was obtained by misrepresentation of facts.

This Certificate expires on August 7, 2025



.....
Executive Secretary



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2000

This is to certify that:

SOUTHWEST DESIGN AFRICA LIMITED
Plot 6B, Blk 110, Oluwakayode Jacobs
Street, Lekki Phase 1, Lagos Nigeria.

Holds Certificate No: QSC 8032

and operates a Quality Management System which complies with the requirements of ISO 9001:2000 for the following scope:

Quality Management, Procurement, Engineering, Waste Management, Facility Maintenance.

For and on behalf of BSI:

Gary Fenton, Global Assurance Director



Latest Issue: 13/09/2018

Expiry Date: 13/09/2021

Page: 1 of 1

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated [online](https://www.bsi-global.com/ClientDirectory).
Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +971 (0) 5540917

BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W6 4AL, UK.
A Member of the BSI Group of Companies.



BUREAU VERITAS
Certification



Certification

Awarded to

Oreco A/S

Lejrevej 25, 3500 Værløse, Denmark

Bureau Veritas Certification Denmark A/S certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the Management System standards detailed below.

STANDARD

ISO 9001:2008

SCOPE OF CERTIFICATION

Development, sales and service of oil recovery, water recycling and tank cleaning solutions.

Original approval date: 19.05.2004

Certification cycle start date: 18.09.2015

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: 17.09.2018

To check the validity of this certificate, please call: (+45) 77 311 000.

Further clarification regarding the scope of this certificate and the applicability of the system requirements may be obtained by consulting the organisation.

Certificate Number: DK005600-1 Date: 16.09.2015



[Signature]
Certification Officer Bureau Veritas Certification Denmark A/S, Odeonsgade 10, 7000 Fredericia, Denmark



SWDA's Quality Assurance / Quality Control (QA / QC) Procedures

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SWDA's – RENAISSANCE TANK CLEANING PROJECT QUALITY ASSURANCE & QUALITY CONTROL (QA / QC) PLAN

1.0 QUALITY MANAGEMENT SYSTEM (Overview)

1.1 GENERAL REQUIREMENTS

SOUTH WEST DESIGN AFRICA LIMITED (SWDA), in compliance with the requirements of NIS ISO 9001:2008 Standard and to guarantee the effectiveness of the SWDA Quality Management System (**QMS**), has established the following:

- Identification and documentation of processes required for the implementation of the Quality Management System (**QMS**) in SWDA as contained in our operational work / departmental procedures.
- Preparation of activities and their interaction (see System Process Flow Chart - Fig. 2).
- Methods of operation, performance criteria and the application controls needed to ensure their effectiveness.
- The Heads of Department for each related process ensure resources availability and circulation of necessary information within the department.
- The departmental / work procedures contain necessary requirements for monitoring, measuring and analyzing of the process effectiveness.
- Coordinating the processes to ensure achievement of planned results with focus on continual improvement.

2.0 DOCUMENTATION REQUIREMENTS

SWDA's Quality Management System (**QMS**) documentation is organized in four categories (See Fig. 3), and these categories are described as follows:

- Quality Manual / Policy and Objectives;
- Departmental / Mandatory / Other Documented Procedures;
- Work Instructions / Quality Plan; and,
- Quality Records.

SOUTH WEST DESIGN AFRICA LIMITED – Quality Manual

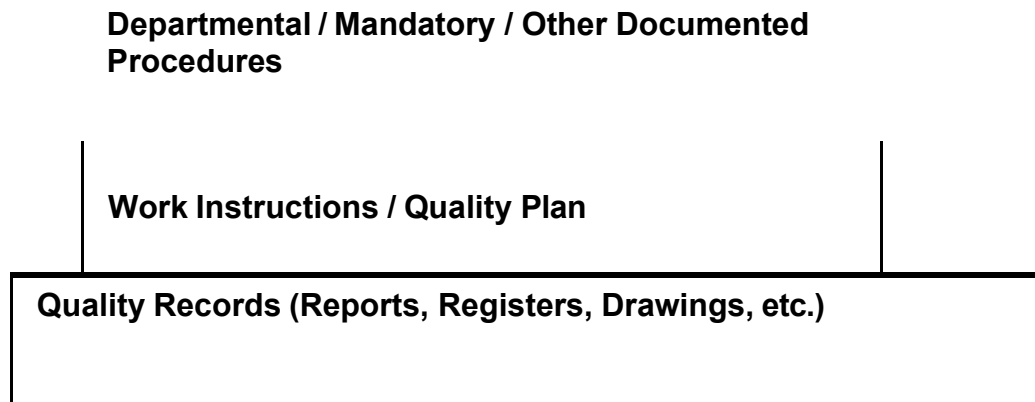


Figure 3. – (Quality Management System Documentation Structure)

2.1 Quality Manual / Policy & Objectives

SWDA's Quality Manual is the apex Quality Management System (**QMS**) document within the Company's documentation structure. The Quality Manual is the road map to SWDA's Quality Management System, and it contains information on the requirements of the sections of the NIS ISO 9001:2008 Standards. SWDA's Quality Manual contains the Company's overall quality policies, which direct the quality of products / services provided to our customers in accordance with the requirements of the NIS ISO 9001:2008 Standards.

2.2 Departmental / Mandatory / Other Documented Procedures

This is the second level of SWDA's Quality Management System documentation structure. SWDA's departmental procedures provide details of what, when and where quality-related activities take place in each department. It defines authorities, responsibilities and the interrelationship of personnel who are involved in QMS-related activities. These procedures have been prepared to satisfy the detailed requirements of NIS ISO 9001:2008 Standards with respect to departmental activities.

In line with the requirements of the NIS ISO 9001:2008 Standards, there are mandatory procedures, which govern the Control of Records, Control of Non-Conformity, Internal Audit, Corrective Action, Preventive Action and Document Control, respectively. These procedures address the issues contained in the Standard with respect to SWDA's Quality Management System.

Within SWDA, documented procedures have been established for the control of processes involved in the provision of quality products and services. The QA / QC Manager (**QM**) maintains a register of all the Quality Management System Procedures.

2.3 Work Instructions / Quality Plan

Within SWDA, Work Instructions / Quality Plans preparations are tailored towards the specific contract or project being executed. It exhibits details of how specific quality requirements are achieved. Work instructions / work programs give comprehensive details on sequence of quality-related activities including the materials, equipment and documents to be used and how the activities are to be controlled and the results documented.

SWDA's Project Quality Plans are prepared for each project / contract to ensure compliance with stated Quality Standards, Regulations and Codes. Quality Planning is made to meet the requirements of each customer's project.

2.4 Quality Records

Quality Records are generated and maintained from the implementation of Quality Management System (**QMS**) procedures based on NIS ISO 9001:2008 Standards. These records and data are used for the review of the Company's Quality Management System.

3.0 DOCUMENT CONTROL REQUIREMENTS

SWDA's Quality Management System-related documents and data covers design, procurement, installation, construction, among others. The extent of the control of these documents and data depend on their level or hierarchy and importance of the document in question.

Documents and data exist both in hard copy and/or soft copy. The responsibilities for document and data control, which include approval, issue, distribution, and the removal of obsolete document are defined and documented in SWDA's Document Control Procedures (TSL-QMS-PROC-001). Document and data changes are routed through the QA / QC Manager for approval by appropriate / designated authority.

4.0 CONTROL OF RECORDS

Records generated in SWDA's Quality Management System (**QMS**) are maintained to provide evidence of conformity to the requirements and of the effective operation of the Quality Management System. SWDA's Quality Records are retained for a period of not less than 3 years after which they are reviewed and classified for disposal by shredding and / or burning. See Quality Record Control Procedure - TSL-QMS-PROC-002.

The Quality Management System for the operations of SWDA is documented and taken into consideration for all the relevant requirements of ISO 9001:2008 clauses. Due to SWDA's top Management commitment to our Quality Management System, its documentation and improvement, this process is supported by procedures, work instructions, records and other documentation necessary to ensure consistent and effective fulfillment of our commitments to customer satisfaction.

The Project Quality Management System of SWDA is geared towards the achievement of quality objectives, in order to communicate to our employees and our customers the globally-acceptable QA / QC Standards for the production and provision of quality goods and services.

SWDA's Management is responsible and committed in providing the leadership, training and resources required to enable our employees to consistently adhere to the Best Available Current Technologies & Global Best Practices (**BACT / GBP**) to achieve the requisite standards and requirements, as defined in the SWDA Quality Manual and to satisfy or exceed our customer expectations.

Within SWDA, it is expected that employees know and understand the requirements of our Quality Management System, including those requirements from internal (Subcontractor) and external customers, in order to measure performance against our customers' requirements and world-class standards, and to continually seek improvement of our processes.

Our goal is to be perceived by our customers, and by the communities where we operate, as leading providers of quality products and services. Our Quality Management System is a critical element of our effort to achieve this quality-oriented goal.

ISO 9001 is a process-based management system that assures product and services quality and continual improvement (to add value faster and prevent loss sooner). Hence, the need to establish:

- How we can meet and/or exceed customer requirements;
- To elucidate the control of risk of product liability, damaging environment and endangering health and safety of employees;
- To drive continual improvements through preventive actions;
- To identify, remove and control / communicate to employees the root cause of the problems associated with various stages of operation / construction; and,
- How a well-defined and continually-improved Quality Management System (QMS) has enabled SWDA to maintain its Quality Policy and Quality Objectives overtime.

NIS ISO 9001:2008 Standards will be fully operational in the SWDA Quality Management System to carry out the RAEC Tank Cleaning Project. Invariably, SWDA, as part of its already existing QMS, will establish the following:

- Identification and documentation of processes needed for the Quality Management System in SWDA, as contained in the Company project execution and other departmental procedures.
- Preparation of activities and their interaction for maximum efficiency and customer satisfaction.
- Methods of operation, performance criteria and the application controls needed to ensure their effectiveness and quality product and services realization.
- The Head of Department (**HOD**) for interrelated processes will ensure resources availability and circulation of necessary information within the various departments.
- The various work procedures contain necessary requirements for monitoring, measuring and analyzing of the process effectiveness.
- Coordination of the processes and those of the subcontractors to ensure achievement of planned results with focus on customer satisfaction and continual improvement.

LIST OF SWDA's – QUALITY MANAGEMENT PROCEDURES

Document No.	Document Description	Rev.	Objective / Field Application
TSL-QM-001	SWDA - Quality Manual	1	(a) Demonstrates the ability of SWDA to consistently provide products and services that meet Customer, Regulatory and Statutory requirements. (b) Enhance Customer satisfaction by continuously striving to improve the quality of products and services through application of Quality Management System.
TSL-QMS-PROC- 001	Document Control Procedure	1	Ensures that document and data are available to users at the point of need and precludes the use of obsolete documents.
TSL-QMS-PROC- 002	Quality Record Control Procedure	1	Document stating results achieved or providing objective evidences of activities performed.
TSL-QMS-PROC- 003	Internal Quality Audit Procedure	1	A systematic, independent and documented process for obtaining audit evidence and evaluating objectively to determine the extent to which audit criteria are fulfilled.

LIST OF SWDA's – QUALITY MANAGEMENT PROCEDURES - Continued

TSL-QMS-PROC- 004	Non-Conformance Control Procedure	1	Document that identifies, control, evaluate, record and or dispose products and services that does not conform to specified requirements.
TSL-QMS-PROC- 005	Corrective Action Procedure	1	Ensures corrective action implementation for all Quality Assurance system and project activities in order to correct the conditions that affect the quality of our product and services.
TSL-QMS-PROC- 006	Preventive Action Procedure	1	Documented process put in place to prevent the use of non-conforming goods, defective materials and non-standard work processes, from getting to our customer.
TSL-QMS-PROC- 007	Inspection Test Plan Procedure	1	Illustrates the inspection activity, referenced procedures, acceptance criteria and responsible person.

5.0 QUALITY MANAGEMENT

5.1 Perennial Quality Management System (QMS)

This SWDA Project Quality Plan (**PQP**) will be the administrative tool for control over the RAEC Provision of Tank Cleaning & Sludge Management Project, and shall be used by all SWDA Project Personnel to ensure that the above Project Quality Objectives (**PQO's**) are performed in accordance with the requirements of the Contract.

5.2 Project Quality Objectives

The Project Quality Objectives of the SWDA Project Team are to:

- Use this PQP and the SWDA Quality Management System (**QMS**) as the administrative tool for control over all SWDA's Project operations;
- Ensure that all the suitable resources and tools, during all Project Phases are applied;
- Identify and acquire all necessary controls, processes, equipment, fixtures, resources and skills needed to achieve the timely completion of all planned activities in accordance with the SWDA QMS and contract requirements.
- Evaluate and monitor subcontractors and suppliers performance against contractual requirements.

5.3 Purpose of the Project Quality Plan

The purpose of the SWDA PQP is to provide all the Project personnel and the client representatives with a concise and readily-understandable description of the SWDA Quality Management System (**QMS**) and the way in which it will be applied to the various activities covered by the contracted scope of work. It shall thereby serve as an effective and familiar tool in the daily work of SWDA on this RAEC Tank Cleaning Project.

5.4 Client's Representatives

Client's Representative shall have the right to verify that all aspects of the approved SWDA PQP are met. They shall also be granted access to all documentation and all facilities SWDA considers relevant to the contractual work with assistance provided by SWDA's responsible person.

6.0 REFERENCES

NIS ISO 9001: 2000 Quality Management System – Requirements;

SWDA – QMS – 001;

SWDA – Quality Manual;

SWDA Project Execution Team – Operating Procedures;

ISO 8402: 1994 – Guidelines for Quality Management & Quality Assurance Plan; and,

ISO 1005: 1995(E) – Quality Management – Guidelines for Quality Plan.

DEFINITION OF TERMS AND ABBREVIATIONS

TERMS	DEFINITION
APPROVAL	Acceptance of a document, materials or process usually indicated by the signature of the person in authority.
APPROVED SUPPLIER	Approved by SWDA Management.
COMPANY CONFORMING	Meeting the specified requirement.
CUSTOMER / CLIENT	The recipient of SWDA goods and services.
PROCEDURE	A documented accepted way of doing things. A description of how each work process is done, a collection of various works instructions.

CONTRACT / PROJECT	This covers all classes of works carried out by SWDA in agreement with their customers who have the need for such works and are willing to pay SWDA for carrying out such works, in agreement by both parties.
SUB-CONTRACT	Any part of contract or work given out to another contractor (called a sub-contractor to SWDA for execution on behalf of SWDA who in turn is called the main contractor).

BID	To win contracts by way of pricing the initial process of proposal which SWDA goes through and stating the necessary conditions required to carry out the works for the customer when secured.
WORK PROGRAMME	This is a chart stating the stages each item of work is to be carried out in systematic form with specific starting and completion dates, etc.
VARIATION	Any work(s) that was (were) not originally part of the contract works, but may come up as a result of site conditions or customers' decision to change or include such in the works during the contract execution.
QUALITY PLAN	Document setting out the specific quality practices, resources and sequence of activities relevant to a particular product, project or contract.
QUALITY SYSTEM	Organizational structure, procedures, processes and resources needed to implement quality management.
WITNESS TESTING	Testing of a product in the presence of the client or its representative.

ABBREVIATIONS

QA
QC
SHE
PROC
PQP
MR
E&I
QMS
MGR
QM
TSL
API
ISO
NCR

DEFINITIONS

Quality Assurance
Quality Control
Safety, Health and Environment
Procedure
Project Quality Plan
Management Representative
Electrical and Instrumentation
Quality Management System
Manager
Quality Manual
SOUTH WEST DESIGN AFRICA LIMITED
American Petroleum Institute
Organization for Standardization
Non-Conformance Report

7.0 PROJECT QUALITY SYSTEM

7.1 GENERAL REQUIREMENTS

SWDA, in compliance with the requirements of NIS ISO 9001:2000 Standards and to guarantee the effectiveness of the SWDA Quality Management System (**QMS**) has established the following:

- Identification and documentation of processes required for the SWDA Quality Management System contained within the SWDA work / departmental procedures;
- Preparation of activities and their interaction.
- Methods of operation, performance criteria and the application controls needed to ensure their effectiveness.
- The heads of department for each related process ensure resources availability and circulation of necessary information within the department.

7.2 DOCUMENTATION REQUIREMENTS

SWDA's Quality Management System (**QMS**) documentation is organized in four (**4**) categories. These categories are included within the following four (**4**) subsections:

7.2.1 Quality Manual / Policy & Objectives

a) Quality Manual:

The SWDA Quality Manual is the controlling quality document listing the company's established process of performing tasks with sufficient assurance steps, and upon which other documents such as procedures and plans references and which preparation shall be in conformance with applicable Standards and Codes. This is not a project-based document.

(b) Quality Policy & Objectives

SWDA's Quality Process & Objectives convey the overall intentions and direction of our organization related to Quality, as formally expressed by Top Management. The SWDA Management and entire staff are committed to meeting and exceeding customer needs for high quality products and services through adequate training of personnel, communication and review for continual improvement of the Quality Management System.

7.2.2 Work Instructions / Quality Plan

These Work Instructions within SWDA's Quality Plan are Methods Statements that shall be developed for the execution of work at all phases and approved by client for use to confirm our ability and capability to provide product and services that are "Fit for Purpose". For this RAEC Tank Cleaning Project, the applicable procedures / method statements and plans including this Quality Plan shall be provided to the client in our Master QA / QC Document Register (**MDR**) to be submitted.

7.2.3 Quality Records (Reports, Registers & Drawings)

These SWDA Quality Records are production reports, progress reports, meetings, registers and letters and drawings, manufacturers' datasheets and certificates that are maintained and kept for the purpose of the job completion and references for operability.

The SWDA Directors, Managers and all Department Heads have access to these documents. The Project Manager (**PM**) assigned to the Project has the duty to inform personnel on the Project with the contents and implications.

The application of SWDA Management Procedures and supporting general instructions is mandatory to all personnel involved on the Project. The Project Manager (**PM**) shall have the right to revise the Project Quality Plan (**PQP**) by requesting a concession, if there is any on quality requirements.

7.2.4 Quality Requirements

The overall SWDA Project Quality requirements are transformed in various quality activities and the Manager (s) and/or subcontractors shall develop project procedures and plans for their assigned scope of work. Wherever feasible, the documentation should include a list of activities to be performed, acceptance criteria and the project personnel assigned for actual performance of the activity. The Project Management Procedures and Plans shall include those documents, as listed in the Master Document Register (**MDR**).

The procedures cover all Project Quality requirements and therefore, there is normally no necessity for exclusively developing project-specific management procedures. Where work is performed by subcontractors, Project Quality requirements will be addressed (where applicable) in similar documents.

The SWDA Quality Records, which will demonstrate that the work has been performed in accordance with the SWDA QA / QC Management Procedures, are as follows:

- Project As-Built Documents Index;
- As-Built Planning Documents;
- Quality Control Records;
- As-Built Construction / Fabrication Drawings & Reports; and,
- Completed Forms (e.g. Concessions & SOW Adjustment requests).

The precise records are collected to assure Quality is maintained, and they can be found in the SWDA Management Procedures, General Instructions and the Project As-Built Index.

8.0 QUALITY PLAN & QUALITY AUDITS

8.1 Internal Quality Audits

The SWDA Project QA Superintendent shall perform Internal Quality Audits on the Project Quality System to monitor and to measure the effectiveness and adequacy of implementation. The Project QA Superintendent will prepare the Quality Audit schedule and the Quality Audit Plan.

The results of any Project Quality Audit shall be recorded and brought to the attention of the personnel having responsibility to have Project-specific activities audited. The SWDA Project Manager (**PM**) shall take timely Corrective Action on deficiencies identified during the Audit. Follow-up Audit activities shall verify and record the implementation and effectiveness of the Corrective Action.

8.2 Internal Subcontractor Audits

The Audit Programme for each SWDA Project varies according to the complexity and the location of the Project. The main requirement for determining the need for Project Audits particularly rests with the PM.

For main subcontractors and suppliers, inspections are undertaken at supplier premises as per the applicable Inspection and Test Plan. The need for Subcontractor Audits or upon the Project Management Team (**PMT**) itself and supporting disciplines is discussed at an early stage between the Project Manager and QA Engineer. Where possible, Audits upon the Project Management Team and disciplines are carried out by an Independent Auditor.

SWDA implements a Corporate Internal Audit Programme. Some of these Internal Audits may be expanded to cover the Project Quality requirements of subcontractors and suppliers, as well. The Project Schedule is a live document and will be updated and included in the Bi-Monthly Project Summary Report. Audits encompass Quality issues, as applicable to the Scope of Work (**SOW**) or area concerned.

8.3 External Client Audits

Audits and inspections by clients are normally requested in writing, and are performed by Independent Third-Party Auditors. Audits will be planned at least three (3) weeks in advance, and the client is asked to provide the following standard audit notification content:

- Auditor Team / Technical Experts details, including Auditor qualifications;
- Audit Criteria;
- Audit Plan;
- Audit Scope; and,
- Audit Evidence sought.

SWDA's QA / QC Project Quality Plan

SWDA's – RENAISSANCE TANK CLEANING PROJECT QUALITY ASSURANCE & QUALITY CONTROL (QA / QC) PLAN

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1.0 INTRODUCTION OF SWDA's QA / QC PLAN PRINCIPLES

This SWDA Quality Assurance and Quality Control (**QA / QC**) Plan is based on ISO:9000, which is a Quality Management System (**QMS**), and has a series of seven (**7**) pivotal Quality Management Principles (**QMPs**). The seven (**7**) Quality Management Principles (**QMPs**) are:

- QMP 1 – Customer Focus;
- QMP 2 – Leadership;
- QMP 3 – Engagement of People;
- QMP 4 – Process Approach;
- QMP 5 – Improvement Processes;
- QMP 6 – Evidence-based Decision-making; and,
- QMP 7 – Relationship Management, as detailed below.

1.1 Principle 1 – Customer Focus

SWDA takes Project engagement from their customers with the highest respect and professional due diligence, and on the basis of this, the Company strives to meet or exceed the client's needs and expectations, this is in tandem with RAEC's tenets of operation under QMP Number 4, which states that our provided products and services shall "Meet or exceed our customer's requirements".

1.2 Principle 2 – Leadership

SWDA Leaders establish unity of purpose and pursue the forward direction of the organization. In SWDA, the Management creates and maintains a congenial work place environment, in which employees can become fully involved in achieving the organization's objectives.

1.3 Principle 3 – Engagement of People

People engaged as employees in SWDA at all levels are the building blocks of our Company, and their full involvement enables their abilities to be maximized and used for the Company's benefit.

1.4 Principle 4 – Process Approach

A desired result is achieved more efficiently when activities and related resources are managed as a process.

1.5 Principle 5 – Improvement Procedures

SWDA's Improvement of the organization's overall performance is an objective of our Company; therefore, the employees are sent for trainings and refresher courses as at when due.

1.6 Principle 6 – Evidence-based Decision-making

In SWDA, decisions are based on the proper analysis of data and information, and when evaluated, these data are utilized to achieve the Project & client objectives.

1.7 Principle 7 – Relationship Management

SWDA and its external providers (suppliers, contractors & service providers) are interdependent and have a mutually-beneficial relationship; and, this fosters unity, thus enhancing the ability of both to create values.

2.0 PURPOSE OF SWDA's QA / QC PLAN

This SWDA QA / QC Plan outlines the general principles and guiding philosophy for executing Quality Assurance and Quality Control (**QA / QC**) activities for various Tank Cleaning Projects for RAEC across Nigeria. It addresses how the Company intends to carry out QA / QC activities internally, and this forms the basis for engaging surveillance and intervention teams to monitor on-going Project activities.

3.0 SCOPE OF SWDA's QA / QC PLAN

This SWDA QA / QC Plan conforms to all the intr'n'l BACT / GBP requirements of the Contract Scope of Work (**SOW**) and applicable Nigerian Oil & Gas Industry Codes and Standards. This document is intended for use by the Project Management Team (**PMT**) in setting out the requirements for Quality Assurance and Control activities throughout all phases of the Project. The Project scope covers Project Management, Tank Cleaning, Sludge Management & Waste Management services required by RAEC under this Contract. This document addresses the following Key activities during all phases of the Project.

- General Description of Project Quality Management System (**PQMS**);
- RAEC / SPDC - Contractor Quality Management System Interface (**CQMS**);
- Responsibilities of the Project Quality Assurance Team (**PQAT**);
- Project Quality Plan (**PQP**);
- Intervention Strategies;
- Reviews, Audits and Assessments; and,
- Competence, Awareness and Training.

4.0 DEFINITION OF TERMS

- | | | |
|----|----------|-------------------------------------|
| a) | QA / QC: | Quality Assurance / Quality Control |
| b) | QMS: | Quality Management System |
| c) | QM: | Quality Management |
| d) | PQCP: | Project Quality Control Procedure |
| e) | ITP: | Inspection & Test Plan |
| f) | PQMS: | Project Quality Management System. |
| g) | PMT: | Project Management Team |

5.0 REFERENCES

- a) ISO 9000:2000 – QMS - Fundamentals and Vocabulary;
- b) ISO 9001:2008 – QMS - Requirements;
- c) ISO 10005:1995 – QMS - Guidelines for Quality Plans; and,
- d) ISO 10006:2003 – QMS - Guidelines for Quality Management in Projects.

6.0 SWDA's QMS & QA / QC RESPONSIBILITIES

6.1 Project Management Team (PMT)

The entire Project Management Team (PMT) shall be responsible for implementing the Project Quality Management Manual, with full support from SWDA's Top Management.

7.0 PROJECT QUALITY MANAGEMENT SYSTEM (PQMS)

7.1 General Description of the PQMS

Each Project Quality Management System procedure will be allocated an owner who shall be responsible for reviewing and updating the procedure for adequacy, effectiveness and improvement. The QA / QC section will maintain a Responsibility Matrix which identifies the status of each procedure and the owner.

Prior to the commencement of each phase of the Project, the owners and the relevant project discipline leader shall review all applicable procedures for adequacy. Once procedures have reached an 'Approved' status, they shall be posted for implementation on the Project network.

SWDA has developed project-specific procedures consistent with the entire Project in fulfilment of the Contract requirements. SWDA QMS System shall have sufficient control of, and exercises responsibilities for, the activities of her subcontractors and vendors. The primary responsibility for meeting contractual and product specifications rests with SWDA.

7.2 Project Quality Control Procedure (PQCP)

The SWDA QA / QC Manager, and in his absence the Project Engineer, is responsible for the implementation and compliance of the Project Quality Control Procedure (**PQCP**). However, they are under the supervision of the Project Manager.

The PQCP has identified critical activities and defines the controls required to ensure that the Project Quality Objectives are met. Project Objectives, Targets and Governing regulations / Standards have been clearly defined and understood by all Project Team members.

7.3 Project - Contractor QMS Interface

The SWDA QA / QC Manager shall conduct a review of Project Subcontractors' QMS Systems to ensure that all interfaces with the Project QMS are addressed and all project-specific requirements are met. The QA / QC Manager shall review and approve the QMS / Quality arrangements of his Key vendors and subcontractors, subject to the approval by the Project Manager. The review shall address the adequacy of the Systems with respect to the Quality Standard applicable and the specific requirements of the Purchase Order / Subcontract.

The Project Quality Control Procedure will clearly define the Interfaces between the SWDA Project and Subcontractors' QMS Systems. The SWDA PMT shall have primary responsibility for the activities of her Subcontractors and Vendors and determine our involvement in their operations, in order to meet contractual requirements & our Project Objectives.

SWDA's Project QA / QC Team shall verify the Subcontractor's compliance with specified requirements by a combination of system audits, surveillance and product sampling and specified witness points on approved Inspection & Test Plans supported by formal documentation. All the above events shall be based on a Quality Criticality Assessment performed by the SWDA Project Team.

SWDA's PMT shall be free to intervene in the Subcontractors' activities, as required, without hindrance. If a non-conformance is identified, the SWDA PMT Inspection and Surveillance personnel shall raise a Non-Conformance Report (**NCR**) in accordance with the Project Non-Conformance procedure, and the SWDA Project QA / QC Manager shall monitor the status of the NCR until satisfactory close out.

7.4 Responsibilities of the Project Quality Assurance Team

The SWDA Project Quality Assurance Team (**PQAT**) shall perform the following activities amongst others:

- Budget forecast and monitoring of QA / QC costs & Administration of Contracts for QA / QC services.
- Monitor, measure and analyze the effectiveness of the QMS System and provide PMT feedback.
- Implement actions to ensure a continual improvement process is achieved.
- Take ownership of the Project Action Tracking System (**PATS**).
- Monitor the implementation of Project Change Request / Order Procedure.
- Plan and execute Audits of Subcontractors and its Vendors.
- Interface with Client Quality groups.
- Report all Quality activities and progress & Review of Project QMS Activities.
- Review all laboratory results of the Crude Oil samples of both the Cutter Stock and Recovered Oil from SPDC and/or Project Laboratory. Where possible, Xylene solubility test of the Recovered Oil should be carried out to verify the quality of the oil.
- Coordination of Surveillance Teams for Works and all Site activities.
- Monitoring of close-out of punch lists and Corrective Actions resulting from NCRs.
- Witnessing of Pre-Commissioning checks and verification of processes and equipment.
- Implementation of Mock Pre-Start up Audit.
- Monitoring of Commissioning activities including review of commissioning procedures.
- Review and acceptance of Final Record Handover packages.

Whilst executing their duties the Project QA/QC Manager shall have the organizational freedom to report to Senior Management on issues contested by Project Management.

7.5 Project Monitoring & Surveillance Strategy

The Project QA / QC Manager will establish a team of experienced QA / QC personnel, to monitor the Tank Cleaning activities in compliance to the requirements of the Project scope and specifications. The Quality Assurance Team (**QAT**) shall consist of personnel who are experienced in relevant Engineering disciplines. They will be required to undertake verification, reviews, site surveillance, intervention and audits as required, in pre-agreed Quality Audit Plans / Schedules. The extent of QA / QC resources and attention is determined by the equipment criticality rating inspection levels and by the Risk identified or perceived for each Project activity.

The QA / QC Teams are required to ensure compliance with all Project requirements, including but not limited to:

- All relevant national and international standards, governance requirements, technical specification; and,
- HSE & land requirements and all relevant Codes and Standards.

Milestone verification work shall be conducted by the inspection personnel when called upon by the Project Team. Approval of Job Completion Certificates (**JCCs**) for the various Contract milestones shall be predicated on the successful closure of non-conformances associated with the milestone.

7.6 Inspection & Test Resources

Where applicable, SWDA's PMT shall supply the necessary resources and inspection and test equipment in order to conduct applicable inspection and test activities that will be required to demonstrate compliance to Project specifications. It is therefore necessary for Quality Assurance purposes, that valid Calibration Certificates of the manometers in the various modules will be made available on demand.

7.7 Reviews & Assessments

The SWDA QA / QC Manager shall develop an integrated Review and Audit Programme covering all phases of the Project. The programme shall include as a minimum: Project Milestones, Technical Audits and Reviews, including HSE activities. Action items resulting from Reviews and Audits shall be entered onto the Project Action Tracking database by the QA / QC section. Each action item shall be given an owner who shall be responsible for closing out the action.

The SWDA QA / QC Manager is responsible for monitoring the status, and subsequent close-out, and reporting delayed action items to the Project Manager. The results of these Reviews shall be recorded in Monthly Summary Reports and agreed by all Parties involved.

Reports shall clearly define Action Items together with Action Party responsibility. Suitably-qualified and experienced personnel shall execute Audits in accordance with relevant project procedures. Audits will be scheduled based on the criticality of an activity / product.

Technical complexity, Programme implications, Cost and Safety shall all be taken into consideration during the planning of Audits. Corrective Actions resulting from Audits will be implemented and verified at the earliest opportunity, and Learning Points from Audits will be shared with all Project personnel. The results of internal audits by SWDA's Project QA / QC Department and other groups, will be taken into consideration during the annual review of the PQMS.

When goods / services are not available from Companies on the Project-Approved Vendor List, the SWDA Project QA / QC Department shall develop procedures for the Formal Assessment of new vendors / subcontractors. The Assessment Criteria shall cover as a minimum:

- ISO 9001:2008 Third Party Certification Review of PQMS Key system documentation;
- Previous history of supplying goods / services to SWDA product range, facilities and resources;
- Insurance and Finance information, when necessary; and,
- Site visit to verify facilities and resources when deemed necessary.

7.8 Competence, Awareness & Training

All personnel engaged on the Project shall be suitably-qualified and experienced. Subcontractors supplying QA / QC personnel to the Project shall be responsible for verifying qualifications and experience of their staff.

SWDA's Quality Assurance Audit Programme

SOUTH WEST DESIGN AFRICA LIMITED STANDARD OPERATING PROGRAMME

Internal QHSE Audit

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1.0 QHSE AUDIT PURPOSE AND SCOPE

- 1.1 To verify that our HSE System is in compliance with ISO 18001 & 14001 and that our practices are in compliance with our documented HSE System.
- 1.2 To ensure the continued capability of all elements of our HSE System.

2.0 QHSE AUDIT DEFINITIONS

- 2.1 HSE System: Organizational structure, procedures, processes and resources needed to implement and maintain HSE management.
- 2.1 Auditor: An employee who has the qualifications to perform HSE Audits.
- 2.2 Lead Auditor: An auditor designated to manage an HSE Audit.
- 2.3 Observation: A statement of fact made during an Audit and substantiated by objective evidence.
- 2.4 Objective Evidence: Records or statements of fact, which can be verified.
- 2.5 Non-conformance: The nonfulfillment of specified requirements.

3.0 QHSE AUDIT PROCEDURES

3.1 AUDITOR QUALIFICATIONS

- 3.1.1 Auditor candidates must be employed at South West Design Africa Limited (SWDA) for at least 90 days.
- 3.1.1 Auditor candidates must successfully complete an Auditor Training Course.
- 3.1.2 Internal Auditor Training is conducted by the Management Representative in accordance with ISO 10011 – Guidelines for Auditing HSE Systems.
- 3.1.3 Certification from an accredited training body may be provided. If certification was received from past employment, one may be qualified after 90 days with a brief review of SWDA auditing practices.
- 3.1.4 Evidence of Auditor Qualifications is maintained in Employee Training Files.

3.2 LEAD AUDITOR – AUDIT PREPARATION

- 3.2.1 The Management Representative is the Lead Auditor, however this duty may be delegated to an experienced Auditor with management approval. The Lead Auditor has final decisions regarding the conduct of the audit and any observations.
- 3.2.2 The Lead Auditor is responsible for:
 - 3.2.2.1 Preparing and maintaining the Audit Schedule, auditee notification at least one week prior to an audit.
 - 3.2.2.2 Preparing the Audit Plan, conducting opening and closing meetings.
 - 3.2.2.3 Selecting the Audit Team, ensuring that Auditors are independent of the activity they have been assigned to audit.
 - 3.2.2.4 Briefing the Auditors, defining the requirements of each Audit assignment and assisting in the preparation of Audit checklists as needed.
 - 3.2.2.5 Assisting Auditors in preparing the Audit Reports.
 - 3.2.2.6 Reporting on Audit Results at Management Review Meetings.

3.3 OPENING MEETING OBJECTIVES

- 3.3.1 Introduce the members of the Audit Team to the auditees and establish communication links with activities being audited.
- 3.3.2 Review the scope and objectives of the Audit and provide a short summary of the methods and procedures to be used to conduct the Audit.
- 3.3.3 Clarify the details of the Audit Plan and confirm the time and date for the closing meeting and any interim meetings.

3.4 CONDUCTING THE AUDIT

- 3.4.1 All TCP's and TCW's will be audited at least once per year. In addition to annually scheduled Audits, the Lead Auditor may select certain activities for follow-up or more frequent auditing as their status and past compliance history changes.
- 3.4.2 General Housekeeping, work environment, knowledge of the HSE System and Policy, product identification and traceability, document and data control and control of HSE records are observed in all audited areas every Audit. If not reviewed, the reason must be noted in the comments space on the Audit Report.
- 3.4.3 The Auditors will collect evidence through interviews, examination of documents and HSE records, and observation of activities and conditions in areas of concern.
- 3.4.4 Information gathered through interviews should be tested or investigated by acquiring the same information from other independent sources, such as physical observation, measurements and records.
- 3.4.5 All Audit observations are documented, even if not originally covered on the checklist. Area management will be constantly informed of findings, there are to be no surprises at the closing meeting.
- 3.4.6 During the Audit, the Lead Auditor may make changes to the Auditors work assignments or the Audit Plan, if necessary to achieve the Audit Objectives.

3.5 CLOSING MEETING OBJECTIVES

- 3.5.1 Present Audit Observations to auditee management, taking into account their perceived significance.
- 3.5.2 Present the Audit Teams conclusions regarding the effectiveness of the HSE System in the form of Audit Reports and HSE issue forms.
- 3.5.3 Findings of non-conformance will be resolved through the HSE Issues Review process, keeping in mind that Corrective Actions need to be to a degree appropriate to the magnitude of the problem and commensurate with the risks encountered.

NOTE: For Internal Audit HSE issues, the Lead Auditor is authorized to accept or reject Corrective Actions unless problem solving is required.

3.6 FOLLOW-UP AUDIT ACTIVITIES

- 3.6.1 Necessary follow-up activities are determined by the Lead Auditor as Corrective Actions are submitted for approval.
- 3.6.2 The Lead Auditor will note required follow-up on the Audit Schedule and determine an appropriate length of time needed to implement the Corrective Action and judge its effectiveness.
- 3.6.3 Follow-up activities may be assigned to an Auditor or performed by the Lead Auditor. Findings are noted on the original HSE Issue and, if satisfactory, the issue is approved by the Lead Auditor and closed.

4.0 REFERENCE DOCUMENTS

- 4.1 SWDA-14.01 – Corrective and Preventive Actions
- 4.2 SWDA-14.01 – HSE Issue Form
- 4.3 SWDA-14.02 – Audit Schedule
- 4.4 SWDA-17.01 – Audit Plan Form
- 4.5 SWDA-17.02 – Audit Report Form

5.0 SAFETY AND ENVIRONMENTAL ISSUES

- 5.1 As referenced in audited Policies, Procedures and Work Instructions.

6.0 REVISION RECORD

Description of Change	Date
Original Issue No.: SWDA-2022-001	12-10-2022
Current Reference No.: SWDA-2026-005	17-03-2026

TABLE 1 - RENAISSANCE TANK CLEANING CONTRACT NO.: CW-68582 - TANK & CONTENTS PARTICULARS LIST

SWDA - RENAISSANCE 18-TANK SEMI-AUTO & MANUAL TANK CLEANING & SLUDGE REMOVAL PROJECT - 17 / 7 / 2026

(PLEASE NOTE THAT THESE ESTIMATED VOLUMES ARE NOT CORROBORATED BY RENAISSANCE, AWAITING TANK AS-BUILT DRAWINGS, MERELY OUR ESTIMATES FOR PLANNING PURPOSES.)

S/N	TENDER TANK NO.	RENAISSANCE TANK LOCATION	TYPE OF TANK OPS	ROOF TYPE	TANK DIAMETER (M)	TANK DEPTH (M)	EST. TANK VOLUME (M ³)	EST. TANK 80% CAPACITY (Bbls)	SLUDGE LIKELY TYPE & CONSISTENCY	EST. SLUDGE VOL. (Est. M ³ @ 1.0 M Depth)	EST. SLUDGE VOL. (@ 6.29 Bbls / M ³)	EST. SEMI-AUTO & MANUAL CLEAN (Days)
1	Tank 9	Bonny Tank Farm - 10 KMs South of PHC	Crude Oil Storage	Floating Roof	48.8	22.1	41,335.0	207,998.0	Flowing & Mucky to Dry Sludge	1,870.4	11,764.8	30
2	Tank 11	Bonny Tank Farm	Crude Oil Storage	Floating Roof	67.1	19.0	67,187.7	338,088.5	Flowing & Mucky to Dry Sludge	3,536.2	22,242.7	50
3	Tank T-1201-A	Bonny	Processing Tank	Fixed Roof	30.0	10.5	7,422.03	37,347.7	Flowing to Dry Sandy Sludge	706.9	4,446.4	20
4	Tank T-1201-B	Bonny	Processing Tank	Fixed Roof	30.0	10.5	7,422.03	37,347.7	Flowing to Dry Sandy Sludge	706.9	4,446.4	20
5	Tank 13	Bonny	Crude Oil Storage	Floating Roof	67.1	19.0	67,187.7	338,088.5	Flowing & Mucky to Dry Sludge	3,536.2	22,242.7	50
6	Tank 21	Bonny	Crude Oil Storage	Floating Roof	76.3	22.9	104,706.9	526,885.1	Flowing & Mucky to Dry Sludge	4,572.4	28,760.4	60
7	Tank 22	Bonny	Crude Oil Storage	Floating Roof	76.3	22.9	104,706.9	526,885.1	Flowing & Mucky to Dry Sludge	4,572.4	28,760.4	60
8	Tank T-1401-A	Bonny	Processing Tank	Fixed Roof	30.0	10.5	7,422.03	37,347.7	Flowing to Dry Sandy Sludge	706.9	4,446.4	20
9	Tank 206	Forcados Tank Farm & Depot 39 KMs West of Warri	Crude Oil Storage	Floating Roof	76.2	21.9	99,872.3	502,557.4	Flowing & Mucky to Dry Sludge	4,560.4	28,684.9	60
10	Tank 209	Forcados Tank Depot	Crude Oil Storage	Floating Roof	76.2	21.9	99,872.3	502,557.4	Flowing & Mucky to Dry Sludge	4,560.4	28,684.9	60
11	Tank 620	Forcados Tank Depot	Processing Tank	Fixed Roof	33.5	9.8	8,637.9	43,465.9	Flowing to Dry Sandy Sludge	881.4	5,544.0	20
12	Tank 901	Forcados Tank Depot	Processing Tank	Fixed Roof	15.0	6.0	1,060.3	5,335.4	Flowing to Dry Sandy Sludge	176.7	1,111.4	15
13	Tank 203	Forcados Tank Depot	Crude Oil Storage	Floating Roof	76.2	21.9	99,872.3	502,557.4	Flowing & Mucky to Dry Sludge	4,560.4	28,684.9	60
14	Tank 102	Forcados Tank Depot	Processing Tank	Floating Roof	48.0	17.0	30,762.5	154,796.9	Flowing to Dry Sandy Sludge	1,809.60	11,382.4	30
15	Tank 601	Forcados Tank Depot	Processing Tank	Fixed Roof	30.0	12.5	8,835.8	44,461.7	Flowing to Dry Sandy Sludge	706.9	4,446.4	20
16	Tank 610	Forcados Tank Depot	Processing Tank	Fixed Roof	33.5	9.8	8,637.9	43,465.9	Flowing to Dry Sandy Sludge	881.4	5,544.0	20
17	GCPF Tank	Gbaran-Ubie Central Field - Central Bayelsa (OML-28)	Processing Tank	Fixed Roof	39.0	13.0	15,529.7	78,145.5	Flowing to Dry Sandy Sludge	1,194.60	7,514.0	25
18	SGP Tank	Soku Gas Plant - 40 KMs West of PHC	Processing Tank	Fixed Roof	30.0	18.0	12,723.5	64,024.7	Flowing to Dry Sandy Sludge	706.9	4,446.4	20
TOT	18 TANKS		8 - Crude Oil Tanks 10 - Process Tanks	9 - Floating & 9 - Fixed Roof	TOTAL VOL. OF TANKS (M ³):		793,194.79 M ³	80% CAPACITY: 3,991,357 Bbls		40,247.0 M ³	253,153.5 Bbls	640 Days - or 1.83 YRS

ATTACHMENT 1

SWDA HSE & QA / QC PERFORMANCE STATISTICS & KPIs – 2023 - 2025

HSE PERFORMANCE STATISTICS PARAMETER	YR 2023	YR 2024	YR 2025	HSE KPIs / YR
Total Man-Hours Worked (MHW)	13,104	15,216	16,475	N / A
Number of Fatal Injuries (FI)	0	0	0	0
Total Lost Time Injury Cases (LTI):	0	0	1	0
Total Medical Treatment Cases (MTC):	0	2	1	1
Total Restricted Work-Day Cases (RWDC)	0	0	0	0
Lost Time Injury Frequency (LTIF) *	0.00	0.00	0.00	0.00
Total Recordable Injury Frequency (TRIF)**	0.00	0.00	0.00	0.00
Total First Aid Cases	0	2	1	< 2
Near Misses / SWA Reported	1 / 32	2 / 31	1 / 28	< 2 / 40
Number of Fire Incidents, Other Emergencies & Environmental Impacts	0	0	0	0
HAZARD OBSERVATIONS	10	8	6	< 10

Evidence of HSE & QA / QC KPI Reports:

January 2025 – Present: SWDA proudly highlights its operational achievements and performance milestones recorded across multiple Well Interventions and Off-Shore Service campaigns, reflecting strong technical capability, safety discipline and consistent delivery excellence.

Between 2023 and 2025: SWDA successfully executed several critical projects within OML 34 and Deep-Water Off-Shore FPSO Tank Cleaning & Sludge Mgmt. Programmes, delivering high-risk operations while maintaining exceptional safety and efficiency metrics & proper Project HSE Implementation and Reporting.

In 2023: SWDA performed Acid Stimulation Treatment operations at the Utorogu 26T Well in OML 34, where the program was completed with full technical success, achieving total scope delivery while maintaining zero Lost Time Incidents (LTI) and full compliance with safety and operational procedures. The execution demonstrated precise planning, effective risk management and reliable State-of-the-Art Down-Hole Well Intervention Equipment performance throughout the Well Intervention, Lifting and Optimization Programme.

Within the Same Year: SWDA delivered various Tank Cleaning, Sludge Treatment & Management Services on-board the Front Puffin FPSO. Despite the operational complexity associated with Confined Space Entry and waste handling activities, the Project was completed with zero Safety Violations, full environmental compliance and high operational efficiency. The campaign reinforced SWDA's ability to safely manage sensitive production facility services under extremely stringent & inflexible regulatory compliance and safety controls.

In 2024: SWDA further demonstrated its Well Intervention Services expertise during Acid Stimulation Treatment and Coiled Tubing Operations at Utorogu in Delta State for NEPL. The Integrated Intervention Campaign achieved complete technical objectives, supported by strong equipment reliability, uninterrupted operations and excellent safety performance. The Project recorded zero Lost Time Incidents (LTIs) while sustaining high operational up-time and procedural compliance across all phases of various Project Objectives execution.

During the 2024 / 2025 Operational Cycle: SWDA participated in the Chevron Agbami Field 4th Campaign involving FPSO Tank Cleaning Operations at the Agbami FPSO. The scope was executed with strict adherence to safety systems, procedural controls and permit-to-work requirements, accumulating a total of 15,216 -16,475 Man-Hours Worked with outstanding compliance metrics. Although the campaign experienced a Health-related Incident, it was a latent issue with No Project relativity, and the incident was determined to have resulted from personal health-related grounds and was not attributable to operational failure, safety breaches or procedural deficiencies. The project maintained a zero work-related Lost Time Incident (**LTI**) Record and achieved full task completion in line with contractual objectives. Across these campaigns, SWDA consistently demonstrated strong operational discipline, achieving high safety performance, excellent procedural compliance and reliable technical delivery. The Company's HSE Track Record reflects sustained operational efficiency exceeding industry expectations and reinforces its commitment to safety excellence, service quality and Client Value creation.