

BADRY MEP CO.

شركة البدري للأعمال الكهر وميكانيكية إحدى شركات مجموعة البدرى للتنمية والاستثمار

BADRY Electro-Mechanical Works Co.



Company Pre - Qualification Document

March 2011

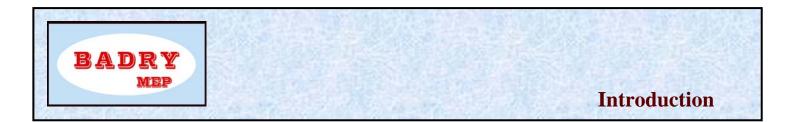


P. O. Box 1527 Alf Maskan, Cairo, Egypt. Tel: +202 229 58530, +202 229 55487 Fax: +202 229 95860 - Cell: +20 017 445 1300 E-mail: mep@badrygroup.com Web: www.badrygroup.com





SECTION 1	INTRODUCTION	PAGE 3
SECTION 2	COMPANY PROFILE	PAGE 4
SECTION 3	BUSINESS SEGMENTS	PAGE 5
SECTION 4	BUSINESS OPERATION	PAGE 6
SECTION 5	ESTIMATING & SUBCONTRACTING	PAGE 7
SECTION 6	PROJECT MANAGEMENT	PAGE 8
SECTION 7	PROJECT CONTROL	PAGE 9
SECTION 8	PROJECT MATRIX	PAGE 10
SECTION 9	PROJECT QUALITY PLAN	PAGE 11
SECTION 10	QUALITY & ENVIROMENTAL POLICIES	PAGE 23
SECTION 11	HEALTH & SAFETY POLICY	PAGE 24
SECTION 12	ORGANIZATION CHARTS	PAGE 25
SECTION 13	KEY PERSONNEL	PAGE 28
SECTION 14	EXPERIENCES & REFERENCES	PAGE 29
APPENDIX A	ISO QUALITY CERTIFICATION	PAGE 30
APPENDIX B	GOVERNMENTAL COMMERCIAL REGISTERS	PAGE 33
APPENDIX C	GOVERNMENTAL TAXES REGISTER	PAGE 34
APPENDIX D	BADRY MEP CONTACTS	PAGE 35



BADRY MEP Co. is a **BADRY GROUP** Member, Works as a specified **MEP Contractor**, Design, Build, Construct, Supply, Install, Service, Upgrade, Maintenance Electro-Mechanical Systems & Networks, Utilities and Equipments – our facilities covering Engineering, Documentation, Submittals Approval, Shopdrawings, Coordinating Drawings, Commissioning, Start-Up, As-Built Acc. To Contract Programs, Project Time Schedules – Complying Consultant Specifications, International Standards & Codes, Safety & Quality Plans.

Our Business activity extends to cover all areas of electromechanical works including but not limited to;

Substation & Plants Works	Electrical Networks & Works
Low Current Networks	Tele-Communication & Security Systems
Mechanical Works	Piping & Plumbing Works
HVAC Works	Ducting & Thermal Insulation Works
Fire Fighting Works	Industrial Installations Works

BADRY MEP is implementing its previous business & disciplines inside and outside Egypt, within the highest efficiency and in accordance with the latest technologies and conformity with international standards of quality, security and safety and the preservation of the environment and through suitable trained and experienced staff crews for the implementation and delivery according to the timetables adopted and a commitment to contract terms, conditions.

BADRY MEP has specialized Departments in accordance with the previous classification - each department is divided into a set of Divisions To cover the different types and styles of property, plants, buildings and constructions which had become much distinctive and feature character's;

Residential & Housing	Commercial & Businesses
Administrative & Organizations	Governmental & Public
Touristic & Hotels, Resorts	Educational & Cultural
Trade Centers & Malls, Hyper	Sport & Clubs
Industrial & Factorial	Sites & Open Areas

Execution in accordance with strategic and technical & financial programs to fit the distinctive character of the construction and investments and to achieve the maximum benefit for our customers

As we taking extend our sincere thanks for your interest, we hope fruitful cooperation brings us together and ensure **BADRY MEP** to your approved Vendor / MEP Contractor lists.



COMPANY PROFILE

Do you know? BADRY MEP

Active since 2000, this major player in Construction and Electromechanical fields has a good C.V for Supplies and Turnkey Projects and well known customers in Egypt market.

Our Primary purpose is to complete the supply, install, service and upgrade chains in the Electro -Mechanical fields. With our staff experience and technical know-how,

We have become a one stop shop for our clients' total Electro-Mechanical needs.

BADRY MEP enjoys a strong presence on various markets; in

TRADING	CONTRACTING	SERVICES
MAINTENANCE	MANUFACTURING	DEVELOPMENT

Within a very competitive position, this is the result of high efficiency and full autonomy in phases of:

PLANNING	ENGINEERING	QUALITY CONTROL
COORDINATION	PERSONALITY	AFTER SALES.

Today *BADRY MEP* is one of the leading MEP Contractors operating in MEP sectors, and is capable of offering full range of Industrial Equipments, Construction, Contracting, Engineering Services in the fields Energy, Electrical, Lighting, Electro-mechanical (MEP), Steel structure, Metal & Metal Workings, Safety & Security, Measurements & Meters, Process Equipments, Motors, Generators, Pumps, Water, Drainage, Plumbing, Pipe lines & Fittings, Oil & Gas field Services, Factorial Installations, Marking, Fencing and Automatic Control, BMS & Automation.

Every day, *BADRY MEP* offers (Optimum & Economical) Quotes to its customers, required for MEP Services & Solutions according to approved standards and an ever wider range of Products & Services.

You are very welcomed on *BADRY MEP* website <u>http://www.badrygroup.com</u> for a detailed presentation of the company.

Please do not miss the opportunity to send us your inquiries (Fax: +20 2 229 95860) <u>E.mail: badry@badrygroup.com</u>); Att. MR. <u>Hany El-Badry</u> (Department Head)

Also we can receive written Inquires on ordinary mail of P.O. Box 1527 Alf Maskan, Cairo, 11777, Egypt. --We will offer you our best prices in a short time.



BUSINESS SEGMENTS

Mechanical Works

- ✓ HVAC -- Heating, Ventilating, and Air Conditioning Systems
- ✓ District Cooling and Chilled Water Plants
- ✓ F.F Fire Fighting
- ✓ Ducting, Pipelines, Thermal Insulation
- ✓ Industrial Installation, Metal Structures
- ✓ Oil & Gas Distribution & Services
- ✓ Pumping, Motors, Generators, Turbines Works
- ✓ Tanking, Valves, Instrumentation

Electrical Works

- ✓ Power Transmetion & Distribution Networks and Systems
- ✓ Substation, Plants, Switchgear, Protection
- ✓ Electrical L.V Networks, Outlets, Earthing, Lightening
- ✓ Cabling, Wiring, Lighting, Dimming
- ✓ Telecommunications (Communications & Data)
- ✓ Fire Alarm, Security, A/V Networks
- ✓ Automatic Control, BMS, Automation

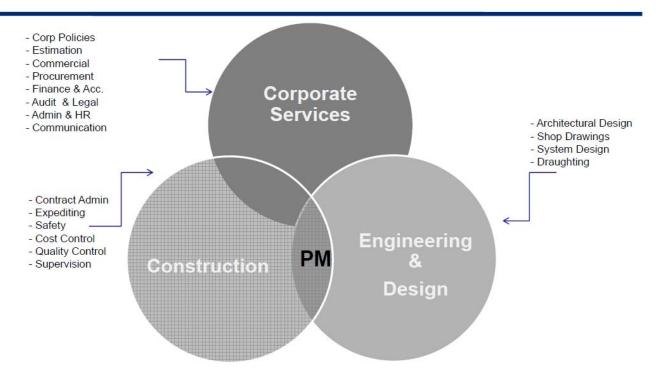
Plumbing Works

- ✓ Water & Drainage Distribution Systems
- ✓ Water & Waste Water Pumping Stations
- ✓ Water & Sewage Treatment, Filtration and Desalination Plants
- ✓ Sanitary Fixtures Works
- ✓ Boastering, Inspection Chambers



BUSINESS OPERATION

Operational Activities



Project Management

Design	Engineering	Procurement	Construction	Commissioning	Operations & Maintenance
 Design and planning of projects/plants 	 Determination of all key components by 	 Mainly third party manufacturing 	 Lead engineering functions construction 	 Process knowledge and complex system interaction control 	 Spare parts stock and service management
		 Manufacturing 	 Erection of 		
 Detailed design of process, mechanical 	-Technical specifications	inspection	electromechanical	 Detailed knowledge of plant and key 	 Short reaction time in case of plant
and electrical		 Long-term 	 Control of key plant 	technologies used	malfunction
components	-Interface definition	relationships with key	construction milestones	5	
'	and management			 Start-up and test 	 Maintenance
 Civil guide, layout 		 Own process and 	 Knowledge of local 	runs	schedules
and general	-Supplier evaluation	product knowledge	markets and reliable		
arrangement drawings		product into mougo	construction partners		 Plant optimization
· ·	- Documentation				
			 Other construction 		 Operation
			activities such as civil		*Applies in IWP
			works all in house		projects ONLY Varies
					from one contract to

the other



ESTIMATING & SUBCONTRACTING

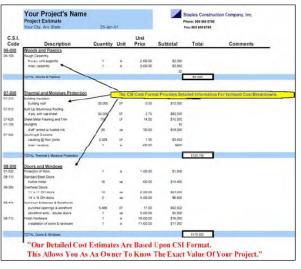
Estimating & Subcontracting

A fundamental part of our success is based upon our extensive database of qualified subcontractors. This is key to our ability to deliver quality workmanship, on-time and onbudget. Our prequalification process for new subcontractors includes a review of their staffing, financials and previous work experience. We believe that the quality of our work is directly related to the quality of the trade subcontractors involved, and we demand superior performance.

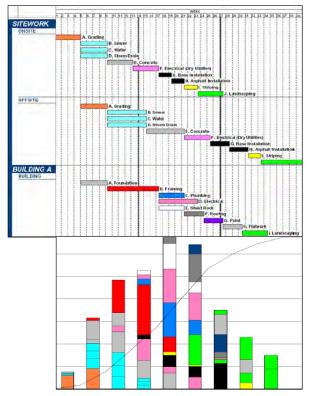
We solicit multiple subcontract quotes for each of the disciplines involved in a project; not only to assure competitive pricing, but also to safeguard against potential nonresponsiveness by a subcontractor. Invoices are processed promptly and subcontractors are paid immediately upon receipt of monies from owner, while retention policies ensure compliance with owner's expectations and subcontractor's contractual obligations.

We ensure there is a clear understanding of the scope of work, safety expectations and time constraints prior to the commencement of work. We require comprehensive submittals and documentation of materials to ensure conformance to project specifications. Continual oversight and documented status meetings ensure compliance with project objectives. Upon completion, we perform a thorough punch-list, sign off and owner acceptance process. We approach each project, regardless of size, in the same proven manner. We believe that quality management is our responsibility to the owners.

Sample Estimate



Sample Schedule and Cash Flow

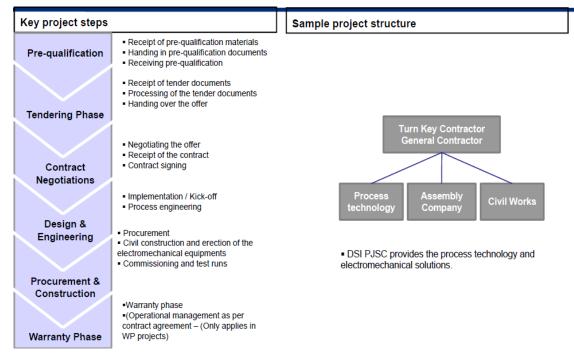




Project Team:

- Experienced management teams provide detailed attention throughout the project, from design review to project completion.
- Qualified superintendents, trained in document, project and data control processes, are assigned to project types in which they have specific experience and expertise.
- Proven estimating skills and systems manage costs and contracts with cross-training for all levels of employees.

Project Key Steps:



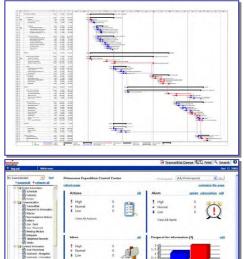
Project Critical Path & Data Management:

Critical Path Schedules

- Consistent utilization of critical path schedules to plan, manage and control projects.
- Tracking of long lead time items, permitting, critical path tasks and adjustments for unforeseen weather conditions.
- Durations include start and end dates, key milestones, work scope and deliverables for all phases of the project.

Data Management Software

- Extensive use of Expedition software: a multiuser, multi-project, client/server database. Implemented for each project, controlling documents and information.
- Organization of daily reports, meeting minutes, submittals, RFIs, cost reporting, insurance and project team contact information.
- Historical data used to resolve issues; questions answered by cross reference and document linking for quick referral.

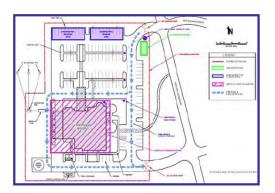




PROJECT CONTROL

Project Control:

- Closely manage projects with early warning systems to catch potential problems.
- Disciplined accounting system enforcing subcontractor requirements including lien releases and insurance.
- Project specific logistics planning for coordination meetings, inventory management and site utilization for construction sequence, staging areas, site offices and security options.



Project Coordination

- Planning, communication, documentation and experience are required to maximize work flow, project execution and materials delivery.
- Utilization of third party safety consultants offer neutrality of oversight, ensure subcontractor compliance and provide written compliance reports.
- Client and workforce safety is a top priority and requires precise logistical site control and adherence to regulatory safety requirements.

DRAWINGS SUMMITALS NATERNALS UMMITALS TRACKING LOGS FIELD REFORTS FIELD REFORTS FUNCH LISTS PROPOSALS & BIOS CONTRACTS PROPOSALS CONTRACTS CONTRACTS CONTRACTS CONTRACTS CONTRACTS CONTRACTS CONTRACTS CONTRACTS CONTRACTS

INFORMATION CONTROL

Quality Control:

- Clarify the objectives and develop a scope of work with quantified, realistic budgets and schedules.
- Proper document control, submittal review, project closeouts, as-builts, start up and commissioning.
- Pre-qualification and selection of trades assuring that quality craftsmanship and materials comply with technical specifications.





PROJECT MATRIX

Service Matrix

Quality Project Management requires detailed and methodical internal practices and policies throughout each phase of the project.

Legend

Planning Phase	~	0	Į.
Pre-Construction Phase			
Construction Phase			
Post-Construction Phase		5	i.

Management

	1	~	-	1
Program Management	•	۰		•
Project Management	•			
Construction Management			۰	•
Owner's Representation	•	۰	•	
Project Team Facilitation	•	•	•	
Project Stakeholder Liaison		•		
Strategic Planning	۰	۰	ε.	-
Project Development	•			
Agency Interaction	•	۰	۰	
Contract Negotiation	•	•	•	•
Prequalification of Designers/Contractors	•		•	
Feasability Review	•	•		
Materials Recommendations	•	•	۰	4
Project Delivery Methods	•		0	î.
Procurement Strategies	۰	•		
Construction Methods			۰	

Controls

	1	1	~	1
Budget Establishment	•	0		
Budget Contingency & Escalation	•		۰	
Cash Flow Analysis	•			
Budget Controls	•	۰	۰	•
Conceptual Estimates	•	•		
Check Estimates		•		
Change Order Estimates		•		
Cost Review	•		۰	
Value Engineering	•		•	
Project Schedule	•	0		
Schedule Interfaces / Constraints				
Long Lead Items	•	۰	۰	
Schedule Review	•		•	
Phasing/Logistics Plan	•			
Milestones		•	۰	
Change Order Validation				
Performance Measurement		0		
Cost & Schedule Analysis	•	0	•	
Progress Reporting	•		۰	
Issues Management			0	. 0
Claims Avoidance		0		
Claims Resolution			•	

Coordination

	1	1	1	1
Scope Development & Review	۰	۰	۰	
Design Standards / Criteria	۰	۰	6	1
Designer Proposal Review	۰	•		
Pre-Design Meetings				11
Design Coordination Meetings			•	
Design Reviews		•	•	
Technical / Specification Writing		•	ε	
Specifications Review	۰		۲	
Construction Documents Review	(•	•	1
Site Utilization Plan	۰			Û.
Utility Agency Coordination			•	
Pre-Bid Meetings		•		
Subcontractor Bidding				
Contractor Bid Review			۰	
Contract Review			۰	۰
Safety Program		•	•	٠
Pre-Construction Meetings			•	1
Submittal Review	l.	•	•	1
Construction Coordination Meetings			۰	
Construction Progress Meetings	6		•	
Quality Assurance				
Field Notices	2	-	•	1
Payment Requisitions Review			۰	•
Change Order Review			•	
Certificate Of Occupancy			0	•
Punch List				
Close-Out	6	0	•	
Testing, Implementation & Start-Up	8	6	0	۰
Furnishings & Equipment			•	

Administration

1 (11) - T	1	1	1	1
Contract Administration	•	•	•	
Meeting Minutes	•	•	•	•
Submittals Log		•		
Requests For Information Log		۰	•	
Change Orders Log and Administration			•	
Payment Requisitions	•	•	•	.0
Lien Releases		•		۰
Drawing Log	•	•	•	•
Correspondence	۰	•		
Labor Compliance		•		
Insurance	•		•	0
Close-Out Documentation				



1.0 Purpose & Scope

The purpose of this quality plan is to define specific key requirements related to quality performance and ensures a thorough understanding of such by all project parties concerned.

Through **PQP** awareness and implementation the performance of the engineering, procurement construction and support functions may effectively and efficiently achieve their objectives and provide the Client with a project that fulfills their quality requirements and expectations.

The **PQP** is supplemental to **BADRY MEP** Quality Management System (**QMS**) and provides the mechanism to link specific requirements of the Client / project to those of **BADRY MEP** quality system.

In summary the **PQP** details the activities and responsibilities related to

- Mobilization
- Engineering
- Procurement and Material Management
- Planning
- Execution
- Coordination for Major Subcontractors and Specialists
- Quality Control
- Contracts Administration
- Document Control
- Warehousing
- Quality Assurance
- Site Administration

And ensuring that these related activities are planned, implemented and controlled and their progress and effectiveness is monitored.

The above summarized and referenced key activities are further expanded upon within the following **PQP** *Section 2.0.*

2.0 Key Activities and Output

Necessary project planning and controls shall be established as part of the developed **BADRY MEP** Quality Management System and as appropriate the quality plan refers to this documentation under the key activity headings within this section.

2.1 Mobilization

Mobilization is defined as the period starting from contract award and continuing until all Construction Support facilities and infrastructure is complete. Key activities and controls to be established are:

- Programs design /procurement / construction.
- Plant and equipment approved budget
- Organization and staff resources
- Document control system
- Procurement tracking system
- Project Quality Plan (including method statement scheduling)
- Project Safety Plan
- Setting up of site offices, accommodation, temporary works.
- Initiation of early temporary or permanent work materials procurement



PROJECT QUALITY PLAN

2.2 Engineering (H. O.)

Review of contract drawings, specifications obtain / provide clarifications, coordinate among all related disciplines and produce shop drawings within performance parameters. Key activities and controls to be established are listed below:

- Shop Drawings
- *Production program*
- Organization of engineering personnel
- Identification, notification and implementation of changes
- Drawing submittal

2.3 Procurement and Material Management (H. O.)

To prepare technical packages comparisons for permanent materials and to secure competent and reliable sources for procurement. Key activities and controls to be established are:

- Procurement program
- Preparation of material submittal for Client approval in accordance with the terms of contract agreement, contract scope of work, approved drawings and specifications
- Approved material deliveries to the project warehouse
- Procurement tracking report on suppliers

(Procurement & Material Delivery Processes PMD-DP-01 and PMD-DP-02 refer)

2.4 Planning

To develop planning schedules, monitor, accommodate changes and report progress. Key activities and controls to be established are:

- Mobilization program covering all aspects of mobilization, design, procurement and early construction activities
- Detailed construction program
- Program review
- Work package program for subcontractors
- Program Monitoring and control (Planning Process PLN-DP-02 refers)

2.5 Execution

Execute the construction program within the set performance parameters defined by approved shop drawings, approved material submittals and approved quality controls. Key activities and controls to be established are:

- Short term programs to direct and control the works
- Weekly productivity reporting /Planned vs. Actual Progress
- Weekly procurement reporting
- Formal pre-qualification of subcontractors and suppliers
- Weekly design progress reporting
- Method statement schedule and update as necessary
- Inspection and test planning (Process Control Sheets)
- Monthly quality performance reporting
- Monthly safety performance reporting
- Monthly update of the contract program

(Operations Process OPS-DP-03refers)



2.6 Coordination of Major Subcontractors and Specialists

Coordination of technical matters, material procurement deliveries to site and site progress. Key activities and controls to be established are:

- Monitor material and drawing submittals and timely processing of such with client for approval.
- Coordination with internal / external parties to ensure potential problems are high lighted and reported.
- Monitor and report on progress and performance at scheduled weekly progress meetings

(Operations Process OPS-DP-04 refers)

2.7 Quality Control

To carry out the QC activities required for achieving compliance with defined plans and specifications through the organization of respective works on site and monitoring quality activities. Key activities and controls to be established are:

- Coordination of the review of subcontractors /supplier quality related documentation and QA / QC resources
- Preparation and monitoring of defined process control documentation, inspection and test planning and associated work execution
- Establishing coordinated inspections and tests and associated records
- Recording of observations /non-conformance and corrective /preventive actions

(Quality Management Process QM-DP-02 refers)

2.8 Contract Administration

Monitor, administer and protect the Company's contractual and financial relationship with client, consultant, subcontractors and suppliers. Key activities and controls to be established are:

- Settlement of the final account and final cost.
- Monthly Interim Application for payment.
- Identification, recording and notification of changes which maybe identified through any of the following:
 - > Variations arising during the preparation of shop drawings.
 - > Changes in the scope suppliers /subcontractors /specialist work.
 - > *Request for clarification.*
 - > *Meetings with the client.*
 - > Corrective actions identifying errors or omissions in the contract documents.
 - > Formal notification from the employer.
- Comprehensive file of each subcontractor / supplier / specialist shall be maintained including signed copies of the subcontract / supplier / specialist, progress and approved payment vouchers.

(Commercial Process COM-DP-01, 02, 03 and COM-DP-04 refers)



2.9 Document Control

BADRY MEP Research & Development Department and associated processes and procedures will as appropriate be utilized to develop and implement the following controls:

- Receiving Documents and Workflow Tracking
- Generating Documents
- Document Security, Retrieval and Disposal
- Generating Internal Document
- Information Technology Help Desk

(ITD Dept Processes/procedures- refer to Appendices)

2.10 Warehousing

Receive, store, protect and distribute materials as required by construction. Key activities and controls to be established are:

- Ensure permanent materials are acceptable prior to release for site use
- Status recording and reporting of materials arrival and notification to concerned construction team
- Upon delivery of material at site the following initial verification will be carried out:
 - > Inspection of delivery documentation against the Purchase Order
 - > Checked for quantities under, over and obvious damage
 - > Notification to site QC for inspection
 - > Computer data entry in store receiving system
- The issuance of material shall be made on request and warehouse records and computer data base updated accordingly
 - > Stores receiving voucher (SRV)/Material Receiving Report (MRR)
 - > Site request to stores
 - > Store Issue Voucher (SIV)
 - > Materials /services acceptance
 - > Weekly permanent materials report
 - > Reconciliation of as-built quantities and material wastage

(Warehouse Process WHS-DP-01 refers)

2.11 Quality Assurance

To carry out the quality assurance activities required for achieving compliance with defined plans, manuals, processes, procedures, and method statements. Key activities and controls to be established are:

- Provision and maintenance of a documented QMS
 - Internal audits of documented **QMS**
- Provision of in-house training on the **QMS** to project personnel
- Performance reporting for Management Review (Quality Management Process QAM-DP-01 refers)

2.12 Site Administration

To provide a wide variety of administrative services to the project, including the maintenance of personnel files, handling and storage of consumable materials related to administrative services. Key activities and controls to be established are:

- Transfer of employees between projects
- Personnel evaluations in liaison with HO Human Resources Department (*Operations Process OPS-DP-05 refers*)



3.0 Project Realization

3.1 Introduction

When the process of achieving results is planned, designed and managed effectively, the quality of the end result becomes predictable. To achieve this project goal, assigned key project team members shall plan and develop processes and associated supporting documentation that will encompass a systems management approach. The organization shall implement defined methodologies and monitor their effectiveness and efficiency in order to provide control of the quality of project activities undertaken as summarized in Section 2.0 of this document.

3.2 Shop Drawings Production

A project management coordination role shall be established by the Engineering Department and key responsibilities, authorities and interfaces (including those with the Client, Sub-contractors and/or Suppliers) shall be clearly defined.

Verification reviews shall be in accordance with the standard construction and civil engineering criteria.

The production of shop drawings to complete the work shall be made under the direct control of the Company Engineering function at Head Office.

3.3 Purchasing Control

BADRY MEP aims to establish sound supplier and subcontractor relations in order to develop a mutually beneficial relationship that improves the ability of all parties to create value to a project.

Assessment and recording of new and existing suppliers / subcontractor's capabilities and performance shall be implemented by the Company Supply Chain (SCD) Department at Head Office in liaison with project management. Effective controls shall be implemented to ensure that the interfaces between suppliers / subcontractors, project management and the Client are clearly defined whilst delivering products or services to the project that meet with the specification requirements.

3.4 Construction

These activities relate to a wide cross section of resources, including a wide base of personnel, skills, plant and equipment. The Company shall ensure by careful planning the provision of proper project controls during work execution, and satisfactory resourcing for the projects. Such controls will be defined within the following quality system documents:

- Project Quality Plan (PQP)
- Department manuals /programs
- Processes
- *Procedures /method statements*
- *Records (forms / formats)*

For specific elements of production that are difficult or impossible to immediately validate, (e.g. concreting, painting, welding, etc.) work procedures and/or method statements shall be established for approval prior to the commencement of the work process to ensure that the correct result can be achieved.

3.5 Identification and traceability

Appropriate methods shall be established by both **BADRY MEP** (HO) and on site for identifying and recording the identification, and traceability status of materials, products, services throughout all stages of the project as defined in the respective processes for Procurement and Quality Management.



3.6 Preservation

Throughout construction operations, appropriate methods of identification, handling, packaging, storage and protection shall be employed to ensure that all goods, materials, product and site provisions are properly protected from damage, deterioration and loss.

This is also important with regards to property belonging to the Client, which may include intellectual property (e.g. designs, drawings) and project site itself.

3.7 Monitoring and measurement devices

BADRY MEP will determine the extent of monitoring and measurements to be carried out on a project-toproject basis. Suitable measurement and monitoring devices shall then be selected and used to provide evidence of product conformity.

Systems will be established to evaluate the validity of measurements taken should the relevant measurement by the said equipment be out of calibration.

Effective controls shall be established for Company laboratory and survey equipment, determine as requiring periodic calibration, where consistent verification measurements on product conformity are essential.

Similarly, subcontractors monitoring and measurement devices shall be identified, reviewed and confirmation of their calibration status made.

(The documented procedure established to define the QMS controls to be implemented is QAM-DPR-014 - Equipment Calibration)

3.8 Measurement, Analysis and Improvement

This element of project control shall be planned in order to provide a clear organization-wide approach to continual improvement of the project performance of key project activities (i.e. Key performance Indicators) and shall be regarded as permanent Company objective.

Elements of control shall focus on four (4) areas of the Company activities:

- 1) Product conformity by monitoring and measuring the product (QC)
- 2) Quality management system conformity by internal and intrinsic audit (QA)
- 3) Continual improvement of the effectiveness of the quality management system by:
 - a) Internal audit (**QA**)
 - b) Monitoring and measurement of the processes (KPI 's)
- 4) Evaluation of appointed Suppliers and Subcontractors.

The documented Company procedures established to define the controls needed in relation to the above are as follows:

- QAM-DPR-001 Internal audits
- QAM-DPR-002 External audits and assessments
- QAM-DPR-003 Improvement and suggestions
- QAM-DPR-004 Inspections and tests plans
- QAM-DPR-005 Permanent material verification
- QAM-DPR-006 Inspection and verification of construction and installation works
- QAM-DPR-008 Non conformance reporting
- QAM-DPR-013 Management review
 - QAM-DPR-015 Evaluation and monitoring of subcontractors

The analysis of data in relation to the results from the above elements of control shall be collected and reviewed in order for management to evaluate where best to deploy appropriate improvement action plans and resources.



3.9 Corrective action

BADRY MEP has developed and established a procedure that details and records the corrective actions taken to eliminate the cause of non-conformities in order to prevent their recurrence. Corrective action implemented will be appropriate to the impact of the problem encountered.

3.10 Preventive action

BADRY MEP has developed and established a procedure that details and records the preventive actions taken to eliminate the cause of potential non-conformity in order to prevent their occurrence.

Preventive action implemented will be appropriate to the impact of the potential problem encountered.

(*The documented procedure established to define the controls in 3.9 & 3.10 are referenced in QAM-DPR-009 - Corrective /preventive action request*).

4.0 Project Management Responsibilities

The goals set by **BADRY MEP** executive management relevant to the success of the Project shall be effectively communicated throughout the organization and such responsibilities, authorities etc shall be defined and performance monitored on an ongoing basis.

Appropriate communication channels shall be established within the project organization including interfaces with external parties.

A summary of the responsibilities for key project functions is given in within this Section, in line with those specific project responsibilities defined with the relevant **BADRY MEP** manuals, processes, procedures, method statements etc to be implemented on the project.

4.1 Project Management Chief Engineer

- Comprehensive review of all contract documents, and the further development of project planning in line with Company and contractual requirements.
- Provide necessary leadership and resources to Construction for the effective and efficient execution of all project works.
- Ensure engineering controls are effectively established for planning, production and approval of drawings in line with approved project schedules.
- Establish material management controls for the approval, purchase and delivery of permanent materials.
- Review, approval and presentation of progress reporting to the Client.
- Oversee the establishment and reporting on the implementation of Safety and Quality Management programs.
- Promote continuous performance improvement for all project functions to enhance Client satisfaction.
- Detailed performance reporting to the Director (HO), on time, cost, quality and safety related issues.

Ensure that during the leave period of an employee, his responsibilities are properly handed over to a designated person and project staff are aware of this procedure.



4.2 Engineering

Project Coordinator (H. O.)

- Familiarization and awareness of project design drawings and specifications requirements
- Production of the project civil shop drawings through assigned drafting personnel
- Coordinate with other disciplines in the Project Engineering function to ensure compatibility of project works
- Maintain continuous coordination with construction team to ensure understanding of project's design and specification details.
- Participate in meetings with other Project disciplines, subcontractors etc and as required resolve engineering queries or issues raised.
- Collaborate in producing project progress reporting, forecasts, and as required special engineering reports.
- Coordinate / liaise with other engineering trades especially the Specialist subcontractors (MEP, Cladding, Architectural firm, etc) to resolve issues on interfaces during the Design and Construction stages.
- Perform other essential project engineering / associated duties agreed and assigned by project management.

Structural Engineer (H. O.)

- Review project structural drawings and specifications.
- Develop the structural shop drawings in accordance with the specifications, designs, and in coordination with all other specializations (i.e architectural, civil, electrical and mechanical).
- Review structure design for modification or change as and when required.
- Collaborate in preparing project studies, reports, forecasts and special engineering reports as and when requested.
- Perform other essential project structural engineering / associated duties agreed and assigned by management.

Drafting Personnel (HO & Site)

- Suitably qualified and experienced assigned personnel shall as applicable prepare CAD shop drawings for set architectural / mechanical / electrical / structural work assignments.
- Produce drawings in varying degrees of detail utilizing CAD files and maintaining uniform and professional standard of presentation utilizing approved software.
- Incorporate input given by the Architects / Engineers into the relevant drawings.
- Perform back-up procedures as per defined Company instruction.
- Record and prepare as built drawings from various project sources
- Perform all duties (related to the nature of the job) assigned by his immediate supervisor.



4.3 Supply Chain Management

Senior Executive (H. O.)

- Perform detailed reviews of pre/ post tender project documentation/ quotations, budget details, drawings, bills of quantities and pre-tender quotations.
- Examine contract documents to identify material and subcontract requirements for the project.
- Review project construction schedules prepared by Planning Department in relation to Material deliverables.
- Formalize listings of potential suppliers for the different material items and subcontracted scope of works in close coordination with HO SCD.
- Review received quotations to verify they are in accordance with project specifications, shop drawings, bill of quantities and delivery schedule meets with the project construction schedule.
- Contact suppliers/ subcontractors for clarifications concerning materials for the site.
- Prepare a comparison sheet to summarize the contents of received quotations.
- Maintain the Project Material Specification Record (data base)
- Prepare submittals to the client for approval of material, subcontractors, suppliers in close coordination with HO SCD
- Provide assistance in the follow-up of material delivery to site and coordinate with the Construction Department on issues related to the Material requirements.

4.4 MEP (Mechanical Electrical and Plumbing)

MEP Coordinator

- Follow up the progress of;
 - Construction of works & compliance with construction schedule.
 - Drawings submittals & Approval thru weekly drawings status report.
 - Materials submittals & Approval thru weekly materials status report.
- Review & Study the Technical submittals & Shop drawings received from MEP sub contractor, any comments to be sent immediately to the sub contractor prior to forward the same to consultant for approval.
- Review the received daily works report from sub contractor and to compare the contents with Executed works at site.
- Review the Staff & Equipments daily report received from the sub contractor in order to check whether it is match with submitted organization chart and to be sure from available tools & equipments are enough to execute the works.
- To avoid any delay to MEP sub contractor works which will give reason to the sub contractor to claim for delay, should cover officially any delay to **BADRY MEP** works caused by sub contractor & report it to the project manager..
- Follow up the QC & inspection of executed works & received materials to site and be sure it is comply with approved technical submittal and contract specification, Also interconnection between Client / Consultant & Sub Contractor
- Review the submitted Monthly payments from the Sub Contractor prior to forward this payment to **BADRY MEP** Q.S.
- Should report directly to the project manager administratively and functionally.



4.5 Planning

Site Planning Engineer

- Study contract documents and obtain complete information necessary to develop detailed construction programs.
- Prepare detailed programs / coding structure to the level of details agreed with the Chief Engineer.
- Monitor at agreed intervals actual site progress of the works and update the master program logic to reflect any variance, **V.O** issues, changes in sequence/ method, etc.
- Participate in the preparation of the necessary programs as required (Weekly, Shortterm / periodic etc)
- Prepare various reporting and statistics as requested by the Chief Engineer.
- Ensure traceability of planning records/ programs, progress reporting is maintained and complete backed filing and indexing.
- Perform all duties (related to the nature of the job) assigned by the Chief Engineer.

4.6 Execution

Project Incharge

- Study contract documentation / specifications and obtain complete information to as necessary assist in the development of detailed construction programs and method statements.
- Examine contract documents to identify material, subcontract and supplier requirements for the project execution /specification compliance.
- Participate in meetings with other Project disciplines, subcontractors etc and as required provide input into the resolving queries /issues raised.
- Collate as-built information necessary for issue for the preparation of as-built record drawings
- Review and evaluate work methodology and sequencing and liaise with the Project Manager /Planner regarding suggested work improvements
- Prepare detailed safety planning with the assigned Safety Officer and implement, monitor and manage the overall safety program during execution.
- Coordinate with assigned subcontractors work packages ensuring **BADRY** / Client contract requirements are met (i.e. on quality, safety, program and budget).
- Hold daily internal construction coordination meetings and attend scheduled progress meetings, reporting on work performance, coordination issues, time, quality, safety, cost issues against defined /approved programs.
- Organize project work execution utilizing suitably skilled /trained personnel to carry out specific tasks in accordance with approved procedures and specification requirements, including Site Survey works.
- Ensure that Supervisory personnel are provided with the latest revisions of approved project documentation and familiar with documented process control requirements and Request For Inspection system, associated reporting
- Maintain close communication with the Materials Engineer/ Warehouse regarding material submittals /approvals, **ETA** on site and stores receipt and clearance.



Site Engineers

- Supervise crews of laborers in their performance of assigned work.
- Review drawings and clearly communicate technical issues to the various trades.
- Apply schedules, procedures and related work rules that meet productivity, quality and safety requirements.
- Report to Project Incharge on any problems related to the absence of manpower, materials or equipment that relate to time, cost, quality, safety etc
- Assist the Project Incharge in the preparation of construction methods, schedules and manning charts.
- Perform general functions inherent to all supervisory jobs on site operations.

4.7 Quality Control

Manager (R&D)

- Primarily responsible for the development and implementation of project quality planning throughout all project operations.
- Oversee project inspection and test planning, development and implementation.
- Scheduling and execution of project quality system assessments and audits.
- Liaison with the Clients representative on quality related topics.
- Establish QA/QC records control and retrieval system.
- Implement quality control procedures and related activities in compliance with defined requirements.
- Overall monitoring of site construction activities and QC personnel reporting on inspection and test requirements.
- Site monitoring and surveillance of subcontractors/ suppliers against detailed schedules for compliance with defined standards and specifications.
- As applicable conduct off site inspections for project associated work carried out at subcontractors / suppliers, verification of associated submittals and preparation for client submittal.
- Evaluation of the Observation / Non Conformance reporting systems and as applicable associated corrective / preventive action implementation.

Laboratory Technician

- Closely coordinate with independent laboratory to ensure all sampling and testing requirements are carried out according to the Project Specification requirements.
- Ensure system of obtaining random samples of material from suppliers and site are properly implemented.
- Apply and execute the suitable analytical test methods on different material samples obtained / tabulation of results and present reports.
- Prepare and carry scheduled tests and advise appropriate parties accordingly
- Ensure that all laboratory testing and analysis executed are in accordance with established quality and safety standards and procedures.
- Revise the stock records of laboratory chemicals and equipment; raise purchase requisitions to the superior for approval.
- Perform routine maintenance on equipment and as applicable periodic calibration of laboratory instruments and devices. Ensure that all laboratory equipment is properly operated, maintained and stored.





4.8 Contracts Administration Quantity

Surveyor

- Valuation of change orders, assessment of Subcontractors / Suppliers variation orders and claims.
- Maintain all records / correspondence pertaining to change orders, loss of expenses and delays.
- Assist Contract Administrator in preparation of reports on change orders / claims for Senior Management.
- Participate in negotiation with Client / Engineer / Subcontractor for settlement of final accounts and variation orders.
- Ensure that all executed works and materials on site are correctly valued in monthly payment applications.
- Liaise with Consultant / Supervising Engineer for timely certification of payment.
- Certify Subcontractors / Suppliers interim payments and make adjustment to the amount due to be paid by add / omit default costs arising from breaches and recover **BADRY MEP** costs as defined in subcontract agreement.
- Prepare statement of account of subcontractors / suppliers.
- Quantities take off for Procurement of permanent material.
- Submit to accounts department on monthly basis the forecast of revenue and expenditure.

4.9 Safety

Safety Engineer

- Contribute to the development and implementation of the Project Safety Plan, rules, regulations and safety training programs.
- Ensure Safety Induction to all operatives/visitors in the project is carried out prior to their deployment on site.
- Develop and maintain Safety Toolbox meetings and ensure topics undertaken are consistent with the current situations on site.
- Ensure that all safety measures are fully implemented with regards to storage and usage of materials and equipment at the various work areas.
- Consistently check the proper implementation of Safe System of work in all stages of the project execution.
- Investigate and report on incidents accidents on site.
- Maintain records of safety audits, incidents/ accidents, trend analysis, and make reports and recommendations.
- Accompany Client's safety inspectors on their periodic safety inspections of the site.
- Provide guidance to maintain site cleanliness and tidiness standards in close coordination with the site administrator.
- Monitor on-site equipment usage (mobile, heavy plant etc.) and ensure its safe and proper handling.

ABBREVIATIONS:

PQP = Project Quality Plan QMS= Quality Management System ETA = Estimated Time of Arrival

V.O. = Variation Order SIV = Store Issue Voucher





Quality policy statement

BADRY MEP firmly believes that our systemic procedures and business processes, professionally followed and well accomplished by our enthusiastic staff, clearly indicates our care and continuance in providing high levels of our quality works, customer service and customer satisfaction.

BADRY MEP strives to consistently providing quality engineering with the most reliable and efficient maintenance services, subject to total compliance on all its requirements, and where possible exceeds the expectations of our customers.

BADRY MEP focuses on training and development of its personnel through their flexibility and adaptability to service the overwhelmingly transforming business environment, by innovative working techniques and continuously improve the efficacy of our design and building management systems.

We will ensure that all our staff having good knowledge and understanding of our quality objectives, working towards meeting the system requirements, and committed to developing processes and promoting new ideas.

To address and achieve an ongoing progress in quality service and customer satisfaction, **BADRY MEP** will maintain, review and revise its quality objectives and targets annually.

BADRY MEP will conduct quality audits and reviews on all operational activities at least once a year, and will allocate human, financial and other resources appropriately in order to achieve targeted results.

Concurrently, **BADRY MEP** is committed with established quality management system, both administrative and operational, to work towards continuous improvement on its quality performance in accordance with the requirements of ISO 9001.

Environmental Management policy statement

BADRY MEP aims at preserving the environment for our future and provides its support to free the planet from CFCs. We will identify and better manage our environmental risks and opportunities.

BADRY MEP closely observes and works with employees, clients, suppliers and other related organizations to upgrade our enduring operational strategies and working procedures to best practice standards.

BADRY MEP prime target operationally is to eliminate our negative environmental impact by wherever possible minimizing the wastage, and prevent the usage of environmentally unfriendly products, while endeavoring to maximize our positive environmental impact and better living conditions.

We will keep up and maintain the environment around us clean and safe, and regularly monitor, raise alarm and respond to any hazardous environmental situation observed.

BADRY MEP ensures that its activities will always comply with the Government's Environment Policy, follow and maintain them in all our administrative, operational, logistics and site areas of our projects.

BADRY MEP affirms that all managerial and supervisory staff are accountable for environmental performance in their area of responsibility.



Health and Safety policy statement

BADRY MEP firmly believes in the significance of health and safe working practices of our employees, as it forms the fundamental part of the effectiveness and efficiency of our management. Furthermore, as an organization and the employer, we do acknowledge our commitment, so far as is reasonably practicable, in ensuring for the health and safety of our employees, public health and not to endanger our environment.

BADRY MEP recognizes that in our duties and responsibilities to our employees, the foremost requirement is providing and maintaining hygienic conditions, healthy environment and safe work practices. In addition,

BADRY MEP also comprehends the relationship between efficiency and safety in terms of cost control, losses, ill health and the lost time injuries due to accidents and near misses.

Every managerial and supervisory staff shall apply the organizations safety policy and all legislative provisions in their areas of control and execute all reasonably practicable measures to provide a healthy and safe working environment.

We also consider that every employee in our organization has an individual responsibility ensuring strict adherence to company's and all legislative safety requirements and it is their obligation working with the management in maintaining good standards of Health & Safety.

Furthermore, **BADRY MEP** will conduct induction program and provide training and instruction to enable employees to carry out their duties in a safe and efficient manner, and as well make all necessary devices and protective equipment issued and supervise its use as required and will involve staff on all discussions to improve Health & Safety.

BADRY MEP will ensure effective consultation and co-operation with persons of other organization where both party's works involved on the same area, where either party's operations may affect either organization's employees.

To ensure effective implementation of this policy, **BADRY MEP** will make adequate financial, human and other resources available, with a review of the policy annually and the Management systems every six months carrying out audits to ensure compliance with the Policy.

Our statement of general policy is:

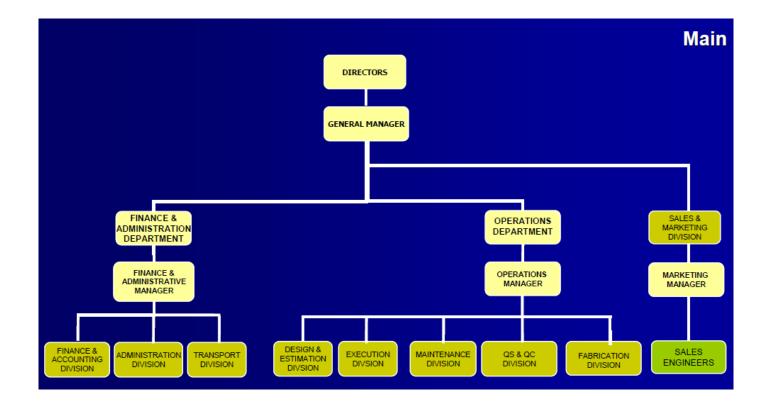
- to provide adequate control of the health and safety risks arising from our work activities;
- to consult with our employees on matters affecting their health and safety;
- to provide and maintain safe plant and equipment;
- to ensure safe handling and use of substances;
- to provide information, instruction and supervision for employees;
- to ensure all employees are competent to do their tasks, and to give them adequate training;
- to prevent accidents and cases of work-related ill health;
- to maintain safe and healthy working conditions; and
- to review and revise this policy as necessary at regular intervals.

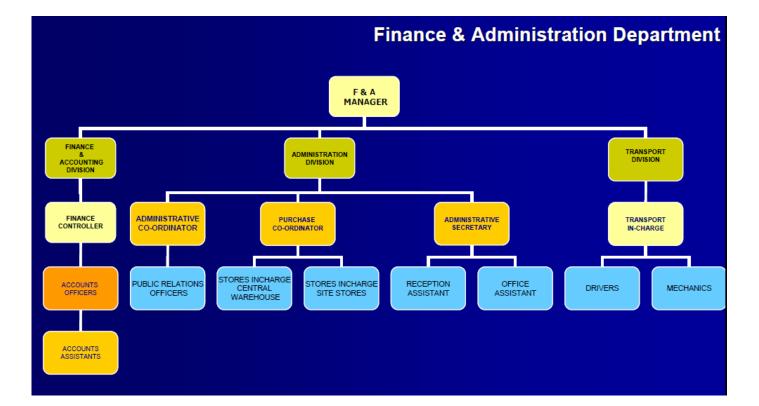
All employees have to:

- co-operate with supervisors and managers on health and safety matters;
- not interfere with anything provided to safeguard their health and safety;
- take reasonable care of their own health and safety; and
- report all health and safety concerns to an appropriate person



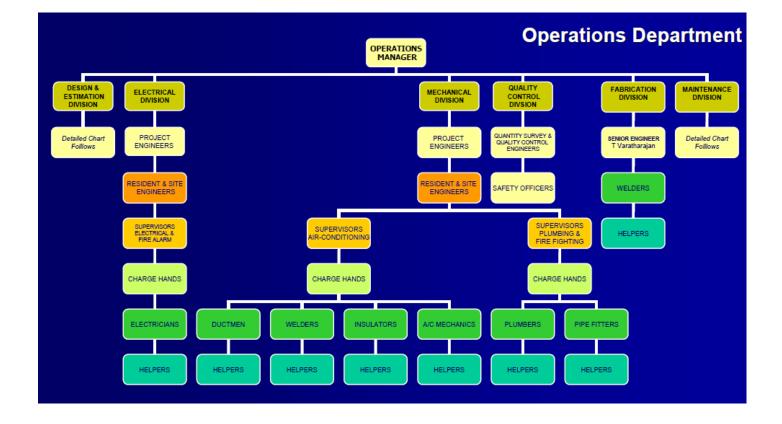
ORGANIZATION CHARTS

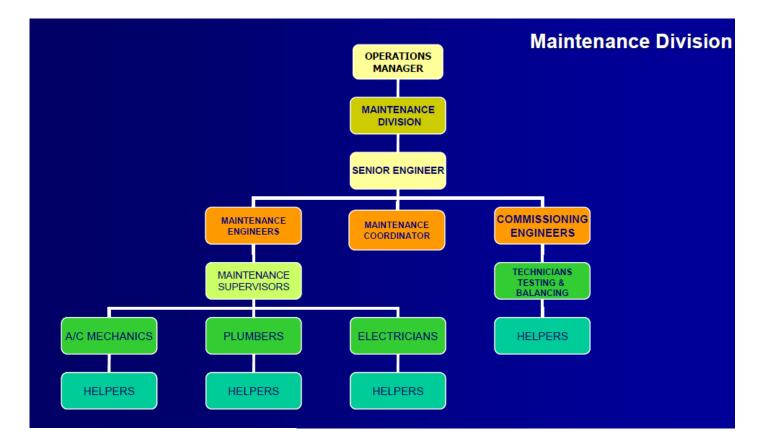






ORGANIZATION CHARTS





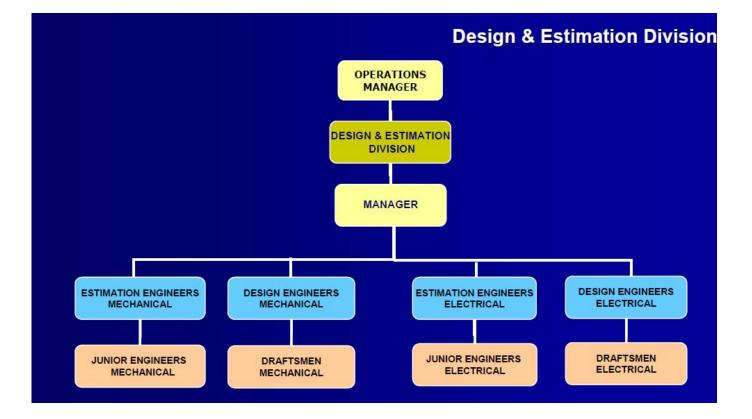
BADRY MEP CO.

Company Pre-Qualification Document

Page 26



ORGANIZATION CHARTS



SI No.	DESIGNATION	No. of Personnel	SI No.	DESIGNATION	No. of Personnel
1	MANAGERS	6	16	PLUMBERS & PIPE FITTERS	15
2	ACCOUNTS & ADMINISTRATION STAFF	10	17	GAS CUTTERS	5
3	SENIOR & MECHANICAL ENGINEERS	12	18	DRIVERS	9
4	SENIOR & ELECTRICAL ENGINEERS	5	19	ASSISTANTS & HELPERS	60
5	DRAFTSMEN	5	20	REGULAR DUCTING SUBCONTRACTORS	39
6	SUPERVISORS	12	21	REGULAR INSULATION SUBCONTRACTORS	25
7	CHARGE HANDS	15	22	REGULAR CLADDING SUBCONTRACTORS	15
8	AIRCONDITIONING TECHNICIANS	11	23		
9	WELDERS	10	24		
10	FABRICATORS	5	25		
11	GRINDERS	4	26		
12	PAINTERS	2	27		
13	DUCTMEN	14	28		
14	INSULATORS	15	29		
15	ELECTRICIANS	25	30	TOTAL	319



KEY PERSONNEL

Position	Name	Years of Experience
General Manager CEO / President	Mr. El-Badry Ismaeil	30 Years
Finance & Administrative Administration Manager	Ms. Hanaa El-Badry	15 Years
Operation & Projects Administration Manager	Eng. Hany El-Badry	15 Years
Sales & Marketing Administration Manager	Ms. Nora El-Badry	12 Years
Finance Controller Administrative Coordinator Purchase Coordinator Administrative Secretary	Ms. Eman Khalaf Mr. Mohamed El-Badry Ms. Gehad Salah Ms. Jasmine Radwan	10 Years 08 Years 08 Years 06 Years
Design & Estimation Department Manager	Eng. Amre Sheriff	10 Years
Quality Control Department Manager	Eng. Mohamed Khalil	10 Years
Electrical & Communication Department Manager	Eng. Yassein Abd El-Gwad	15 Years
Mechanical & Industrial Department Manager	Eng. Amer Ezat	15 Years
Fabrication & Workshops Department Manager	Mr. Yasser El-Badry	20 Years
Maintenance & Services Department Manager	Eng. Ahmad Abd El-Rheum	20 Years
Planning & Budget Division Manager	Eng. Hany Ibraheim	12 Years
Automation & Control Division Manager	Eng. Mahmoud Azzam	12 Years
Commissioning & Start-Up Division Manager	Eng. Mohamed El-Gamal	12 Years

Page 28



Some of the Current & Accomplished Projects

S.N	JOB TITLE/DESCRIPTION	CLIENT	CONTRACTOR/ CONSULTANT	YEAR
1	Main Administrative Building Electrical Network Upgrade M.V – L.V – Substation - Earth – Lightning – Diesel Generator – Fire Alarm & Fire Fighting	Egyptian Contracting Company "Mokhtar Ibraheim"	Main Contractor / HASO – EGYPT Consultant / Engineering Consultancy Center, Faculty Of Engineering, Cairo University	2010
2	New Residential Area, Embaba Airport Land, 60 Building Tower Electrical & Telecommunication Works	Al-Nasr Contracting Company "Hassan Allam" Ministry of Housing	Main Contractor / HASO – EGYPT Consultant / Crown Home	2010
3	Natural Gas Compressors Project MEP Works, Panels, Control, Plumb, Piping, Electrical Cabling	Pico Petroleum Services Agiba Gas Company	Main Contractor / HASO – EGYPT Consultant / Agiba Engineering Dept.	2010
4	Boiler Room Construction, Arrangements MEP Works, Civil Works	Novoteal Hotel, Cairo Airport – Achti Co.	Main Contractor / HASO – EGYPT Consultant / Eng Wafik Naroz	2010
	Cement Bags Factory Construction MEP Works - Electrical Network M.V – L.V – Substation - Earth – Lightning – Diesel Generator – Fire Alarm & Fire Fighting, HVAC	NPP – National Papers Products Co, Lafarge	Main Contractor / BADRY MEP Consultant / KEM Consult Eng. Tarek El-Mawy Eng. M. Haleim	2010
6	Al-Rehab Sporting Club, Rehab City, New Cairo Sporting Halls, Mall HVAC	Tatweer Co. Talat Mostafa Group	Main Contractor / HASO – EGYPT Consultant / Tatweer Eng. Office	2009
7	Alex Sea Port Upgrade Lighting Upgrade, High Masts	Al-Nasr Contracting Company "Hassan Allam" Alex International Port	Main Contractor / HASO – EGYPT Consultant / Alex Port – Eng. Dept	2009
8	Cleopatra Hotel Construction MEP Works, Electrical, Mechanical HVAC, Fire Fighting	Al-Shafey Contracting Sales Taxes Authority	Main Contractor / BADRY MEP Consultant / Inter Consult Dr. Ali Raafat	2009
9	Al-Hussein Public Hospital, Fire Fighting Network	Al-Hussein Hospital Azhar University	Main Contractor / HASO – EGYPT Consultant / Azhar Unv, Eng. Dept	2008
10	American University, New Campus – HVAC, Ducting Works	Khrafi National MEP Company	Main Contractor / HASO - EGYPT Consultant / Shaker	2007







ISO QUALITY CERTIFICATION



Certification made simple[™]

Certificate of Accreditation

Presented to

Badry Group

(ISO Certified Company)

Management Standard Certifications:

OHSAS 18001:2007 Health & Safety Management Systems

Legal Status: Certificate ID: **Registration Term:** Certificate valid from: 3rd March 2011 Certificate valid to: Main SIC Code:

PJSC AE-11-1001033 10 years (Subject to Annual Audit) 2nd March 2012 4521 Scope of Certification: Construction & Electromechanical





ISO QUALITY CERTIFICATION



Certification made simple™

Certificate of Accreditation

Presented to

Badry Group

(ISO Certified Company)

Management Standard Certifications:

ISO 14001:2004 Environmental Management Systems

Legal Status: Certificate ID: Registration Term: Certificate valid from: 3rd March 2011 Certificate valid to: Main SIC Code:

PJSC AE-11-1001035 10 years (Subject to Annual Audit) 2nd March 2012 4521 Scope of Certification: Construction & Electromechanical

