



PETROMAINT

**ALEXANDRIA PETROLEUM
MAINTENANCE CO.**

www.petromaint.net



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PETROMAINT Message..

PETROMAINT has established itself as a leader in the maintenance, revamp, construction and "after-market" service supply to our clients.

We pride ourselves on providing the industry with the highest quality workmanship while leading the market in safety and workforce planning. We are able to provide support and manpower for virtually all disciplines, therefore, we eliminate the requirement of subcontractor dependence. This provides us with a superior control element in our planning which allows Petromaint to avoid reactive management and leads to a safer, more effective project execution.

Through a properly equipped, highly qualified and well-skilled work force, **PETROMAINT** provides a large package of services and solutions to meet our customers' requirements and expectations to achieve all business objectives and plans. Additionally, **PETROMAINT** provides a highly standardized training program that develops the entry level workers and improves the technical skill set of our experienced staff to fulfill customers' demands during normal operations, emergencies & turnarounds.

The culture of **PETROMAINT** is founded in Honesty, Integrity, Reliability and Continuous Improvement. We look forward to imparting these successes to our clients, employees and community.

Vision

PETROMAINT is recognized as the most modernized and innovative maintenance, revamp and Construction Company in Egypt, the Middle East and Africa. Armed with the state of art technology, properly equipped, highly qualified and skilled manpower, PETROMAINT provides a large array of services and solutions to support its clients' to achieve business objectives and plans.

Mission

PETROMAINT is a top notch provider for world class Global Maintenance, on call maintenance, construction works, revamp projects and modification services to Oil & Gas Upstream and Downstream Facilities, Petrochemicals, Fertilizers, Cement, LNG, LPG Power Generation & Industrial plants.

PETROMAINT is committed to add value to the clients operations through seamless integration of our services with their plants to achieve production targets while complying with world class health, safety and environmental standards.

PETROMAINT SHAREHOLDERS

EGPC Shareholders	(65.7%)
Middle East for Tankage & Pipelines Co. "Midtap"	17.8%
The Petroleum Projects Technical Consultations Co. "Petrojet"	13.3%
Egypt Gas Co.	13.3%
Alexandria Petroleum Co. "APC"	7.1%
Amreya Petroleum Refining Co. "APRC"	7.1%
Egyptian Petrochemicals Co. "EPC"	7.1%
Other Shareholders	(34.3%)
BayMe (Subsidiary of Bay Ltd.U.S.A)	11.1%
El-Basharya (Private Company)	23.2%



QUALITY ASSURANCE

PETROMAINT has been assessed and certified as meeting the requirements of ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007 for the provision of high quality services for Hydrocarbons, Petrochemicals, and Industrial plants in Global Maintenance, Construction works, revamp projects and training.

PETROMAINT is committed to enhance customer satisfaction by providing the best services with the required quality to meet our customers' requirements, expectations and comply with all technical specifications, standards, statutory and regulatory requirements.



QUALITY, OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL POLICY

Alexandria Petroleum Maintenance Company (**PETROMAINT**) aims at the provision of high quality services (Projects and Global Maintenance) in order to satisfy its customers.

PETROMAINT provides safe work area inside and outside the company to ensure protection for its clients, employees, properties and operations against risk of illness and loss or damage.

PETROMAINT assures that quality, occupational health and safety and environmental protection are the responsibility of every body and strives to enhance the awareness of all its employees to make it an integral part of their performance.

Company Management shall provide all required resources to accomplish the policy objectives including qualified and trained personnel as well as protective equipment for the performance of the assigned tasks in the safe manner.

PETROMAINT implements programs for achieving the policy objectives throughout the relevant functions and levels of its organization.

PETROMAINT is committed to comply with all technical specifications, statutory and regulatory and the other requirements concerning QHSE, and assures the importance of the continual improvement of the integrated system to meet the requirements of ISO 9001/2008, OHSAS 18001/2007, ISO 14001/2004 and relevant international standards to ensure prevention of pollution and elimination of accident, harm and damage to environment, people and property.

PETROMAINT Management periodically reviews this policy to ensure its relevance and appropriateness to the company and it is available to concerned parties and all persons working for and on behalf of the company.



1. Global Maintenance & Plant Shutdowns/Turnarounds

PETROMAINT provides:

- ▶ Preventive, Predictive, and Corrective Maintenance for all disciplines including mechanical, electrical, instrumentation, fire protection and detection, and bulk material handling facilities.
- ▶ Plant Shutdown and Turnaround Maintenance activities.
- ▶ Maintenance Management & support utilizing State-of-the-Art Computerized Maintenance Management Systems (CMMS), supervision, planning, scheduling, purchasing, inspection, materials management, industrial safety and other associated resources.
- ▶ Operation & Maintenance for HVAC systems.
- ▶ Skilled and experienced Engineers, technicians, hand tools, scaffolding, equipment and equipped maintenance workshops.
- ▶ Inspection services, condition monitoring, corrosion monitoring, vibration measurement & analysis, thermo-vision (Infra-red-scan), auxiliary systems (lube oil analysis, Intelligent Pigging for pipelines, U.T. trends, dielectric loss analysis, etc.) and other nondestructive analysis techniques.



1- REFINERIES



2- PETROCHEMICALS



3- GAS PROCESSING PLANTS



4- FERTILIZERS



Licensed Natural Gas
EgyptianLNG
Egyptian Liquefied Natural Gas





2. Turbo-machinery Support Services

PETROMAINT Turbo-machinery team has a wide range of previous experience with the manufacturers of "Solar turbines, Nouvo Pignone, Alstom Power, Dresser Rand, General Electric GE, Borsig" and has extensive experience in Turbo-machinery maintenance and overhauling.

PETROMAINT provides the following activities :

- ▲ Installation, Commissioning, and Start-up Services.
- ▲ Supply of Spare parts (new & refurbished).
- ▲ Troubleshooting and On-site Services.
- ▲ Overhauls and Maintenance services.
- ▲ Operation / Maintenance and Troubleshooting Agreements.
- ▲ Performance Testing and Analysis.
- ▲ Emissions Compliance.
- ▲ Early problem diagnosis to provide lower maintenance and operating costs.



PETROMAINT has successfully performed the following

- ▲ Overhauling works for SOLAR Gas Turbine at Abu Madi (Petrobel).
- ▲ Major inspection and overhaul works for Sulzer Gas Turbines at Abu Rudies.
- ▲ Major inspection and overhaul works for AJAX Compressor at (SUCO).
- ▲ Preventive maintenance, Predictive maintenance, and Complete Overhaul Maintenance for Ruston Gas Turbines at Abu Sannan (GPC).
- ▲ Global Maintenance for Gas Turbines, Compressors & Condensate Separation Units "Power Turbine 2 30-GGT-02" at Abu Sannan (GPC).
- ▲ Global Maintenance for Gas Turbines, Compressors & Condensate Separation Units "Booster Turbine B30-GT-01B" at Abu Sannan (GPC).
- ▲ Global Maintenance for Gas Turbines, Compressors & Condensate Separation Units "Generator Gas Turbine 02 30-GGT-02" at Abu Sannan (GPC).
- ▲ Global Maintenance for Gas Turbines, Compressors & Condensate Separation Units "Generator Gas Turbine 02" at Abu Sannan (GPC).
- ▲ Provision of skilled manpower for Gas Turbine "GE" maintenance at "ELNG"



PETROMAINT has a current contract (Annually Renewed)

The Operation, Maintenance and Troubleshooting for SOLAR Turbines and Electric Station at South Dabaa Petroleum Co.





3. New Construction Works

PETROMAINT provides services including Engineering, procurement, fabrication, installation, testing, pre-commissioning, commissioning & start-up of process plants.

Crude Oil & Gas transmission pipeline fabrication and installation has been a key activity for Petromaint, whether it is a short flow line or a main pipeline to a major dispensing terminal.







4. Revamping and Rehabilitation Works

PETROMAINT has the capabilities to achieve miscellaneous revamping, modification, and rehabilitation works such as but are not limited to :

- ▲ Storage tanks, Vessels, boilers, heaters, heat exchangers, coolers, structural steel, etc.
- ▲ Sandblasting, painting, coating, thermal insulation for plant equipment.
- ▲ Pipelines, manifolds and its modifications.
- ▲ Desludging and cleaning of Tanks.
- ▲ Buildings, Roads, Control Rooms, Fences, Tanks Foundation, etc.



PETROMAINT provides special projects include but are not limited to:

- ▲ Inspection & cleaning of pipelines through pigging technique.
- ▲ Sandblasting & painting using the suitable system based on the surface type and environment.
- ▲ Hot, cold and acoustic insulation activities using rock wool, polyurethane foam, and foam glass.
- ▲ The cladding with aluminum sheets, stainless steel, and Corrugated Aluminum.
- ▲ Fireproofing activities for steel structure and different vessels using fireproofing approved materials.



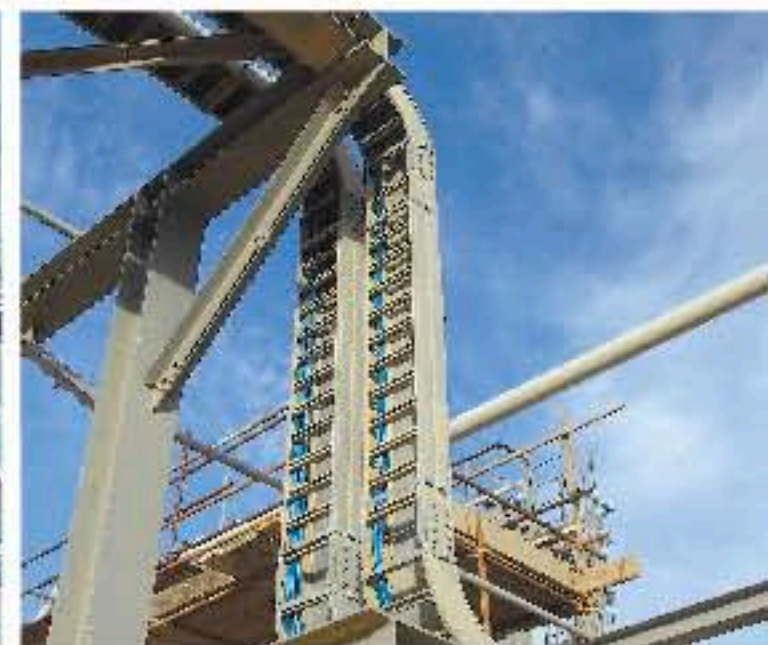


5. Electrical and Instrumentation Works

PETROMAINT's Staff of Engineers and Technicians Perform Installation and Maintenance Activities.

Electrical Scope of Services:

- ▲ Electrical Design.
- ▲ Fabrication & Installation of (Cable trays, Ladder rack, Steel frames, Conduit...etc.).
- ▲ Cable laying, Landing and Termination.
- ▲ Installation of lighting systems (Weather proof & Explosion proof).
- ▲ Supply and Installation of L.V, M.V& HV Panels (Switch gears, Switch boards, Distribution Panels).
- ▲ Erection of L.V and M.V various electrical equipment (Turbines, Generators, Motors, Transformers, UPS ...etc.).
- ▲ Cathodic protection systems (Tanks, Pipelines, Vessels, etc.) Onshore and Offshore installations.
- ▲ Electrical heat tracing system for pipelines and tanks.
- ▲ Lightening systems.
- ▲ QC & Quality documentation control.
- ▲ H-Pot test.
- ▲ Migger test.
- ▲ Commissioning, Pre- commissioning & start-up.
- ▲ Earthing systems.
- ▲ Procurement.





Instrumentation Scope of Services:

- ▲ Instrumentation & Control Design.
- ▲ Procurement.
- ▲ Fabrication & Installation of (perforated cable tray, steel stands, frames, etc.).
- ▲ Installations of junction boxes.
- ▲ Laying multi-core & single – core cables.
- ▲ Junction boxes terminations.
- ▲ Calibration all type of instruments (PT, FT, TT, LT, Gauges, Control Valves).
- ▲ Mechanical & Pneumatic hook -up.
- ▲ Electrical hook-up.
- ▲ Loop checks.
- ▲ Continuity tests.
- ▲ QC & Quality documentation control.
- ▲ Pre- commissioning.
- ▲ Communication systems: CCTV systems (Analogue & IP) door access control systems, paging system, networking & data cabling, Ethernet & fiber optic networks.
- ▲ Fire & Gas alarm systems.





6. Offshore Works

PETROMAINT has extensive experience in the fabrication, maintenance, revamp, and modification of offshore facilities:

Underwater activities:

- ▲ Platform Survey.
- ▲ Major Structure Inspection and Maintenance Programs.
- ▲ Pipelines Survey.
- ▲ Installation of friction Clamps, Grouted Clamps, Fenders ...etc.
- ▲ Boat Landing Repair.
- ▲ Riser Installation & Repair.
- ▲ Rig Move Assistance.
- ▲ Underwater grouting and Free Span Correction.
- ▲ Stabilization and repair of Submersible Pipelines.

Above Water activities:

- ▲ Fabrication and Installation of Platform Deck Extensions, Offshore Facilities, Flare Bridge, Piles, Helideck & Conductor Guides.
- ▲ Scaffolding Services.
- ▲ Painting Activities.
- ▲ Complete Above Water Inspection for all structural members of a platform and provide certification from authorities such as ASB, Bureau Veritas, GL, LR, etc



Previous Experience at Offshore Sites :

- ▲ Replacement of HAVC Systems at PII & NAQ Platforms for Abu Qir Petroleum Company (Approved from GL).
- ▲ Repair works for Geisum Star Tanks for Petrogulf Company (Approved from ABS).
- ▲ Repair of Effluent line for AL-AMEL Petroleum Company.
- ▲ Repair of Antifouling System for GPC.
- ▲ Maintenance of Offshore Facilities, Operation and Maintenance of Floating Units and Mooring Services at Sumed. (Sidi Kerir & Ain Sohkna).
- ▲ Inspection Services of Pipelines using Smart Pig for Suco (Offshore Pipelines) – PPC and Wasco Companies.
- ▲ Painting and Insulation Activities at Port Said & Damietta Plants for UGDC Company.
- ▲ Painting and Insulation Activities for Rashpetco (Onshore & Offshore Facilities).
- ▲ Pipelines Hot Insulation for Ethedco (Pipping & Equipment).





7. PETROMAINT Workshops

PETROMAINT's Workshops include a team of qualified professional and well trained engineers and technicians. Included capabilities are fabrication, erection, welding, testing, sandblasting & painting of portable tanks, process skids, pipe manifolds and branches of different sizes, pressure vessels, structural steel, pipe racks and bridges, heat exchangers, equipment and piping prefabrication. Additionally, we have the capabilities of beveling and rolling of steel sheet plates up to 30 mm thickness



8. Inspection & Quality Control

PETROMAINT's employees are committed to a program of continuous quality improvement that will provide our clients with a successfully completed project that meets or exceeds all requirements.

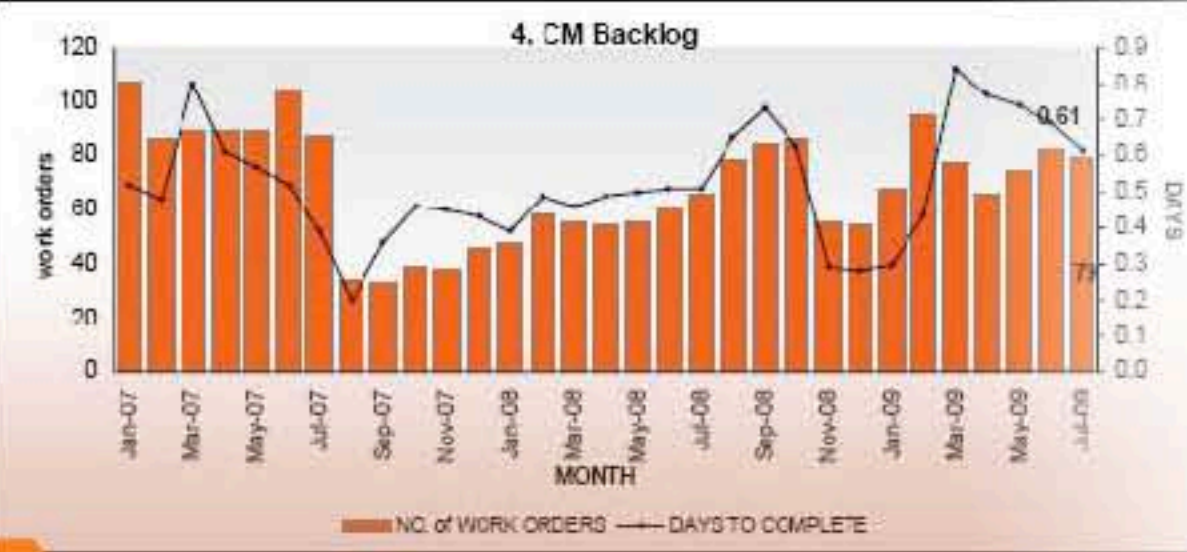
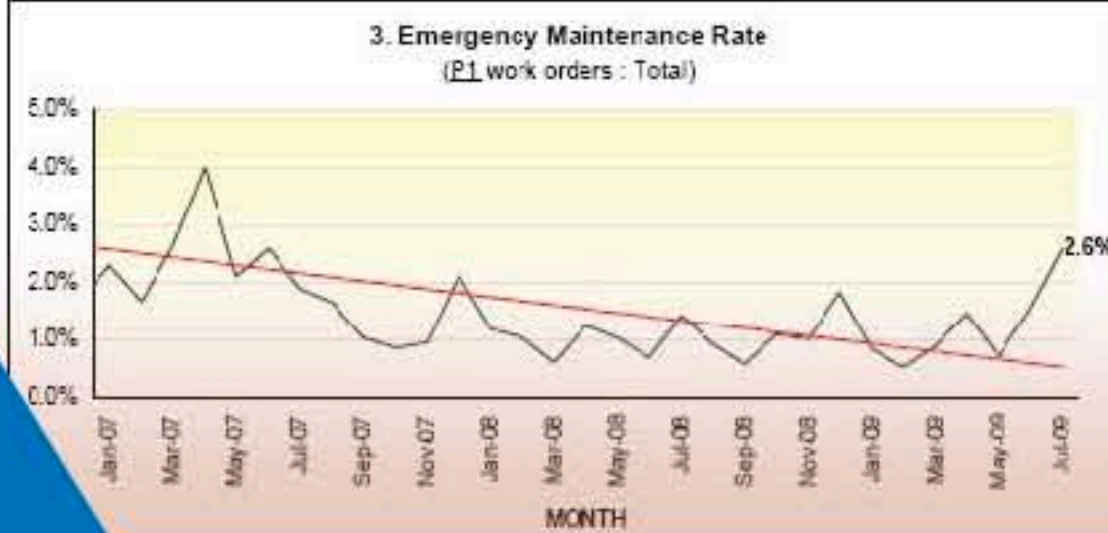
PETROMAINT's Inspection and Quality Control staff are qualified, certified engineers and inspectors who adopt nontraditional reliability based maintenance (RBM) engineering approach which encompass the following techniques:-

- ▲ Risk Based Inspection (RBI).
- ▲ Reliability Centered Maintenance (RCM).
- ▲ Key performance indicators KPI's.

PETROMAINT's Inspection and Q.C. staff has a variety of experience in different fields of engineering inspection techniques utilized in the inspection of floating roof & fixed roof tanks, pressure vessels, piping, boilers, furnaces, steel structures...etc.

PETROMAINT Provides Inspection and Quality Control procedures and Reports applying to all applicable international standards codes: (API, ASME, AWS, NACE...).





9. Technical Support Services:

CMMS/EAMS Works

PETROMAINT offers a full range of engineering for CMMS and EAMS needs and specializes in the implementation, training, consultancy and support of these systems.

PETROMAINT's scope of services in this field covers the following:

- ▲ Software Selection, Provision and Implementation.
- ▲ Hardware Provision and Installation.
- ▲ Optimization of Business Processes.
- ▲ Maintenance Engineering Implementation.
- ▲ Procurement and Inventory Systems Automation.
- ▲ Integration with other Business Applications (ERP, Document Management System, Condition Monitoring, Project Management, etc.)
- ▲ Software Applications and Maintenance Strategy Training Services.
- ▲ Technical Support and Ongoing Services.

PETROMAINT CMMS / EAMS capabilities:

- ▲ Information Technology (Software Developers, Database Administration Hardware and Networks Engineering).
- ▲ Maintenance Engineering (Maintenance Engineers for Implementation and Operation).
- ▲ Information Systems (EAMS integrated with ERP such as Oracle Applications).
- ▲ Software Tools.
- ▲ Libraries of Maintenance Work Procedures.
- ▲ Practical and Specific Maintenance Experience.
- ▲ CMMS/EAMS Successful Implementations in different Oil and Gas Plants.
- ▲ Technical Support Agreements.
- ▲ Co-operation with Software Vendors.

PETROMAINT is a leader in the provision of software and engineering implementation of CMMS/EAMS for ELNG, AMOC, ANRPC, Petromaint head office, Midwater, MOPCO, DAPETCO, Propylene and Polypropylene, GPC (Abu Sannan), Amreya.

PETROMAINT provides RBI software and implementation for WASCO fields including engineering implementation of CMMS, providing RBI software and implementation including CMMS implementation of Port Fouad field inspection plans and procedures for onshore assets





Engineering Design & Drafting

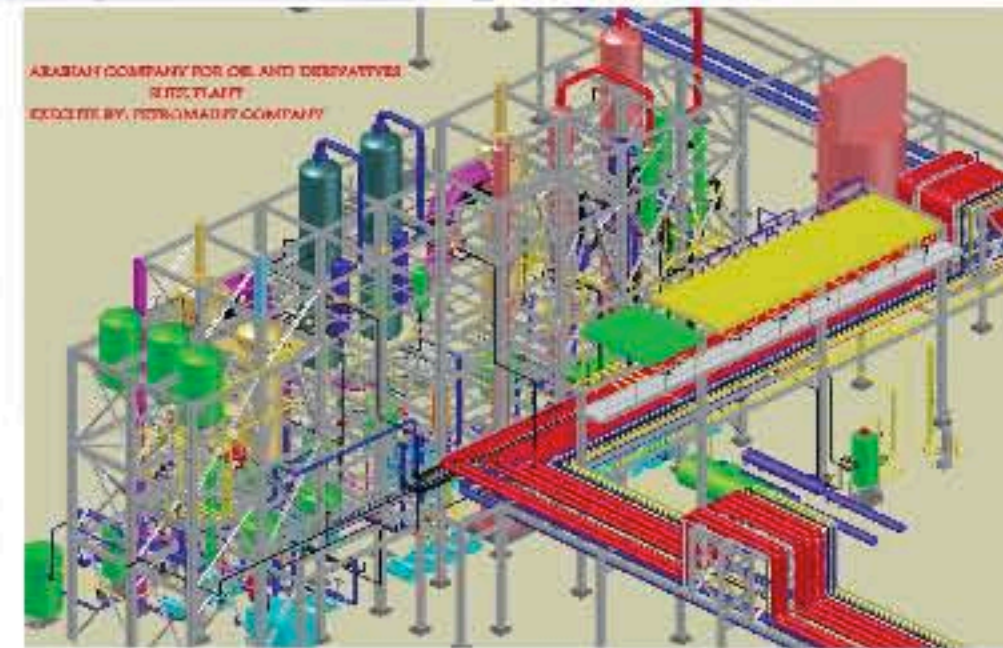
PETROMAINT's Engineering Office Sector includes a team of highly skilled and experienced engineers and draftsmen in different fields of engineering with highly qualifications in modern engineering techniques.

Carrying out designs of Piping Modeling and Layouts, Layout Optimization, Selection of Piping Material, Stress Analysis, Supports Design, Piping (General Agreement), Onshore Piping and providing bill of materials and quantities using the most recent softwares as (AutoCAD Plant 3D, CEASER II and Navis works).

Developing Mechanical Designs for Pressure Vessels, Tanks, Rotating Equipment, Heat Exchanger, Isolation Measures and Valve and Piping specifications by the aid of (PV Elite and ITS) softwares.

Hydraulic Analysis for steady state flow assurance, Surge Analysis, Pipeline sizing and Pump selection is carried out using KYPIPE and KYPIPE Surge softwares.

Structural and Civil work held professionally for Structural Optimization, RC and Steel Structure Analysis and Design, Pipe Racks and Foundations Design using the most leading softwares as SAP 2000, SAFE, ETABS, STAAD, ROBOT and CSI COLUMNS. Architecture, Mechanical and Civil detailed and shop drawings as well as asbuilt drawings are executed by highly qualified draftsmen utilizing AutoCAD, Tekla Structures, RIVET and AutoCAD Plant 3D.



ARABIAN COMPANY FOR OIL AND DERIVATIVES
DESIGNED BY
EXECUTED BY PETROMAINT COMPANY



Manpower/ Equipment / Material Supply

PETROMAINT focused on meeting all aspects of the clients' requirements via the provision of skilled manpower, heavy equipment, material, spare parts and associated services.

PETROMAINT has a vast experience in providing material and spare parts from local and foreign suppliers on cost plus basis to Oil & Gas Upstream and Downstream Facilities, Petrochemicals, Fertilizers, Cement, LNG, LPG, Power Generation, and Industrial Plants.

Such material & spare parts include but are not limited to:

- ▲ Spare Parts for Gas Turbines, Gas Engines, Compressors, Gas Compression Station Package, Gas Generation Package, Pumps, HVAC fans.....etc.
- ▲ Steel Plates, Structural Steel, Pipes, Valves, Fittings, Paints, Insulation Material.
- ▲ Cables Network, Lighting Poles, Junction Box, Lighting Fixture, Panels, Conduits, Cable Trays, Transformers, Generators.....etc.
- ▲ Instrument Package for Process Area, Instruments for Tanks, Vessels, Radar Gauges, Fire Detection & Alarm System.



10. Training

PETROMAINT's Training Center was established in 1998 as a business center providing professional training programs to our customers as well as Petromaint's staff in response to the needs of our business and customers. Our target is to develop and enhance the competency of our staff and customers' personnel to add significant value to their organization.

PETROMAINT's Training Center provides training courses oriented to all disciplines of maintenance, inspection, painting, cost estimating and control, safety, project management, finance, administration, quality and computer applications.

PETROMAINT training staff pays particular attention to the selection of our professional, certified technical instructors in order to insure that the highest level of education is provided with the latest technology available.

The training programs have been prepared for Petromaint staff and other petroleum sector technical staff, in addition to areas outside Egypt (Sudan, Yemen, UAE, etc.)

Activities of Our Training Courses include but are not limited to:

- ▲ Management Courses.
- ▲ Inspection Courses.
- ▲ Mechanical Courses.
- ▲ Instrument Courses.
- ▲ Laboratory Courses.
- ▲ Gas Production and Processing Courses.
- ▲ Health, Safety and Environment Courses.
- ▲ Reservoir Engineering Courses.
- ▲ Drilling Courses.
- ▲ Wire Line Courses.
- ▲ Offshore Courses.
- ▲ Telecommunication Courses.
- ▲ Piping Courses.





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