

Holds a B. Sc. in Mechanical Power Engineering and has about 24 years hands-on experience working in operation, commissioning and start-up at several Power Stations.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 07/11/1968  
Gender : Male  
Marital Status : Married  
Residence : Suez

## EDUCATION

: B. Sc. in Mechanical Power Engineering, Cairo University, 1992

## LANGUAGES

Arabic : Native Language  
English : Very Good  
Italian : Good

## COMPUTER SKILLS

: Windows, MS Office, Internet

## TRAINING COURSES AND CERTIFICATIONS

- : Low, medium, and high pressure turbines Generator, Turbine auxiliaries (TOSHIBA).
- : All boiler equipments (FOSTER WHEELER).
- : Auxiliary boiler (BABCOCK).
- : Switchyard (GIS); high voltage (ALSTOM).
- : Medium voltage (SCHNEIDER).
- : Low voltage (ABB).
- : Condensate pumps, circulating pumps, boiler feed water pumps (KSB).
- : Demineralization plant (METITO).
- : Fire fighting (Safety).
- : Fire fighting system and equipments (such as deluge valves), SICLI.
- : DCS control system ALSPA 320 (ALSTOM).
- : Natural gas station and equipments (such as slam shut off valves), GAS DE FRANCE.

- : Power plant basics and operation (EDF).
- : Desalination plant (ENTROPIE).
- : Condenser, low pressure heaters, and high pressure heaters (ALSTOM).
- : Gas turbine unit (14 KVA), TUMA-TURBOMACH.

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Mar. 2015 till now
- Employer** : Electricité De France (EDF)
- Project** : Suez Gulf Steam Power Plant (2x364MW, BOOT Project):
- The unit consists of:
    - High Capacity Boiler, Foster Wheeler (178 bar, 543 °C, 1065 t/h), Natural Circulation, Forced Draft Fan, Natural gas / heavy fuel Oil firing, 18 Burners (three levels, front and rare).
    - Steam Turbine, TOSHIBA: (2x364MW), two cylinder HP-IP and LP.
    - Electrical Generator, TOSHIBA (18KV, 460MVA) with hydrogen and water cooling system.
    - Surface Condenser, TOSHIBA, shell and tube (tube no. = 20,000).
    - Electrical Transformer, Alstom (18/220KV step up & step down).
  - Power Plant auxiliaries:
    - Wastewater treatment plants.
    - Pipe lines (GRP, ductile iron, carbon steel and Stainless steel).
    - Electro Chlorination Plant, two units, EMIT (Italy), Producing 110kg/h of Cl<sub>2</sub>, each unit composed from 4 electrolyzes (model H10.200 matching with rectifier unit, continuous dosing and shock dosing, max. sea water flow rate 93600 m<sup>3</sup>/h).
    - Demineralization Plant (METITO), two water treatment units, each one produce 50t/h).
    - Desalination Plant, WEIR ENTROPIE, Multi Effect System (MES), two units each one produce (1200t/d), steam (P=14 bar, T=280C, F=216t/d).
    - Diesel Engine for Emergency Service (980KV).
    - Gas Turbine for black start service, TUMA TURBOMACH (15MW - 6.6KV, 1500 rpm), Axial Compressors (14 stage, 11197 rpm, rp = 17:1), Combustion Chamber (annular, 21 injectors, torch ignition), Turbine (Reaction, three stages, 1200 °C).
    - Auxiliary Boiler, DEUTCH BABCOCK (two burners, 50 t/h, 17bar, 350C, Solar with Air atomizing).
    - All type of pumps (Centrifugal, mixed, axial, gear, screw, diaphragm, Plunger, Ejector) & all type of compressor (Centrifugal, reciprocating, axial, Van) & all type of Valves.
    - Natural Gas Terminal and pressure reduction stations.
    - Mazout Storage Tanks & Solar Storage Tanks.
    - Fire Fighting System (Joky pump, Electrical pump, Diesel pump, water storage tanks).
    - Cathodic Protection.
    - GIS 220KV Electrical Breakers, Alstom and SF<sub>6</sub> gas insulation.
- Job title** : Shift Charge Engineer (Shift Supervisor)
- Job Description** :
- Participating both units commissioning and start-up.
  - Shift management & Maneuvers with dispatch center and perform 220KV (GIS) locking Alstom GIS.

- Prepare and Carry out all the locking works for safety work permits PTW.
- Ensuring safe, efficient and economical running of the plant.
- Trouble shooting and preventive maintenance during the shift.
- Supervising and controlling the power plant operation (start-up, Normal operation, Shut down).
- Perform the technical analysis for the defects (risk analyses & incident reports).
- Responsible for implementing Complex performance tests (Heat Rate Test) each six months on different unit loads (25%, 50%, 75% & 100%).
- Participating in writing and supervision all the plant systems (operating procedures, alarm sheets, start-up & shutdown procedures, and standard locking sheets).
- Preparing and implementing Theoretical & Simulator Training courses (boiler master control loops, feed water control loops, HP & LP by pass control loops, and turbine control loops.....

**Dates** : From Jan. 2014 till Feb. 2015  
**Employer** : Rabigh Water and Electricity Co.  
**Project** : Petro Rabigh Refinery  
 (9 boilers Mitsubishi capacity 470 t/h, boilers connected by Ring System headers, 5 Mitsubishi turbine 120MW & plant Auxiliaries Black Start Gas Turbine GE 60MW)  
**Job title** : Shift Superintendent  
**Job Description** :
 

- Responsible about the shift management.
- Supervise the Plant Normal Operation, Start-up & Shut down.
- Supervise and review the issuance of the work permit PTW.
- Maneuvers with dispatch center and perform 110KV GIS, 33KV SIEMENS GIS) Locking & Unlocking.

**Dates** : From Jun. 2007 till Dec. 2013  
**Employer** : EDF (Electricity De France)  
**Project** : Suez Gulf Steam Power Plant (2x364MW)  
**Job title** : Deputy Operation Manager (Shift Charge Eng. & Performance Eng.)  
**Job Description** :
 

- Participating in both units commissioning, several systems punch list preparing, boiler first firing, and turbine first rolling both units start-up till commercial operation (COD) date start.
- Studying the detailed power plant logic diagrams and implementing several correction modifications for the Auxiliaries, Boiler & Turbine logic.
- Manage the operation team & providing help and advice to the Shift Charge Eng. to enable them to optimize the power plant operation activities.
- Organizing the interface activities with the maintenance teams to agree about the implemented work requests and technical risk assessments.
- Responsible for implementing both the Power Purchase Agreement (PPA) & Fuel Supply Agreement (FSA) and manage the relationship with the Off-taker.
- Shift management & Maneuvers with dispatch center and perform 220KV (GIS) locking.
- Prepare and carry out all the locking works for safety work permits.
- Audit and review to agree each issued Permit to Work (PTW).

- Thermal power plant operation professional (Boiler, Steam Turbine, Gas turbine, Combined cycle & Auxiliaries) Start-up, Shut down and transient operation.
- Responsible for implementing Complex performance tests (Heat Rate Test) each six months on different unit loads (25%, 50%, 75% & 100%).
- Calculating the complex Heat rate daily (hour/hour) & monthly.
- Calculating the power plant weekly update report which includes, (Availability, Reliability, power generation, mazout consumption) week to date, month to date & year to date.
- Preparing and achieving the monthly power plant Energy & Natural gas Invoices.
- Supervising the writing of the operation procedures, alarm sheet, periodic tests.
- Checking the implementation of the operation procedures.
- Providing the technical information of the units for the reporting assistance.
- Organizing the simulator training regarding the program.
- Attending the daily the safety work permit management meeting.
- Prepare the technical risk assessment for implementation of the critical work requests.
- Controlling the efficiency of the units through the "on line performances monitoring".
- Responsible for implementing both units Heat Rate Test each six months on different unit loads.
- Under the sub-delegation of the Operation Manager, I am in charge of the quality assurance in the department both in technical aspects and documentary.

**Dates** : From Sep. 2001 till Jun. 2007

**Employer** : EDF (Electricity De France)

**Project** : Suez Gulf Steam Power Plant (2x364MW):

- Each unit consists of:
  - FOSTER WHEELER boiler: 1200 t/h, 174bar / 540 °C, natural circulation, natural gas / heavy fuel oil firing.
  - TOSHIBA turbine: 2x364MW, DEHC control system, two cylinders Hp-IP and LP, 18KV generator with hydrogen and stator water-cooling system.
  - ALSTOM DCS: ALSPA 320.
- Power Plant auxiliaries:
  - One black start gas turbine (12MW - Solar fuel oil - 1500 rpm) - auxiliary boiler (50 t/h - 17bar - 350 °C) - Two Desalination plants - Demineralization Plant - chlorination plant - Diesel Engine for Emergency Service - GIS 220KV switchyard (ALSTOM SF6 gas insulation) - all type of Compressors, Pumps, Valves - Transformers.

**Job title** : Shift Charge Engineer (Shift Supervisor)

**Job Description** :

- Participating both units commissioning and start-up.
- Shift management & maneuvers with dispatch center and perform 220KV (GIS) locking.
- Prepare and carry out all the locking works for safety work permits.
- Ensuring safe, efficient and economical running of the plant.

- Troubleshooting and preventive maintenance during the shift.
- Supervising and controlling the power plant operation (start-up, Normal operation, Shut down).
- Perform the technical analysis for the defects (risk analyses & incident reports).
- Participating in writing and supervision all the plant systems (operating procedures, alarm sheets, start-up & shutdown procedures, and standard locking sheets).
- Preparing and implementing theoretical training courses (boiler master control loops, feed water control loops, HP & LP by pass control loops, and turbine control loops.....
- Preparing and implementing practical training courses (start-up, shutdown, boiler & turbine control loops) for all operators on a simulator.

**Dates** : From 1999 till 2001  
**Employer** : Egyptian Electricity Holding Co.  
**Project** : West Cairo Power Station (2x320MW)  
**Job title** : Turbine Maintenance Engineer  
**Job Description** :

- Working as a Maintenance Engineer in turbine department: performing maintenance.
- Activities on multistage feed water pumps, hydraulic couplings, several types of valves, mechanical seals, actuators, air compressors, ....

**Dates** : From 1993 till 1999  
**Employer** : Egyptian Electricity Holding Co.  
**Project** : South Cairo Power Station (180MW) Combined Cycle:  
The unit consists of:

- One industrial gas turbine (single shaft) 120MW GE MS 9001 with control system SPEED TRONIC MARK 4
- One steam turbine GE 60MW SPEED TRONIC MARK 5
- One heat recovery steam generator VOGT HRSG 220 T/H
- DCS control system "WESTING HOUSE WPDF"

**Job title** : Control Room Operator (Shift Supervisor)  
**Job Description** :

- Working as Control Room Operator and after 4 years became Shift Supervisor.
- Assisting the GE Start-up Engineers during start-up and commissioning period.
- Perform start-up, shut down, and monitoring the unit parameters during normal operation.
- Perform the equipments locking & electrical locking.
- Preparing the plant start-up, shut down, System line up procedure & Periodical test procedure.