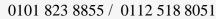
Alaa El-Din **Mohamed**

Operation & Maintenance Engineer



alaagomaa5020@gmail.com





♠ Ismailia – Egypt



https://www.linkedin.com/in/alaaeldeen-mohamed-7807a3b1/

Military Service: Completed (Oct. 2018 - Dec. 2019)

EDUCATION

Bachelor's Degree in Special Chemistry

Faculty Of Sciences, Suez Canal University

(Oct. 2013 - Jan. 2018), Ismailia

• **Grade**: Very good

GPA: 2.9

Graduation Project:

"Thiazole derivatives" with a grade (Excellent).

SKILLS

SOFT SKILLS

- Operations management.
- Research abilities.
- Knowledge of manufacturing processes.
- Quality focus.
- Reporting skills.
- Attention to details.
- Troubleshooting.
- Analytical thinking.

SUMMARY

Hard-working "Operation & Maintenance Engineer" experienced in operation for **RO**, water & wastewater plants, with the ability to identify and solve operational problems in a plant, studying system functioning, investigating complaints, assessing operational objectives, identifying operational solutions, calculating costs, determining action impact on the entire system, and implementing changes.

EXPERIENCE

O&M ENGINEER

Hassan Allam Holding – INTECH

Water and Wastewater Plants (Mar. 2022 – Present) 6th of October Potable Water Treatment Plant, Phase 3 Capacity (400.000 m³/d) (**Jun. 2022 – Present**)

Responsibilities:

- Conduct on Commissioning & Start up for water treatment plant.
- Conduct on Process Design of Wastewater Treatment Plants.
- Check and follow up all pipes flanges-pumps -flash Mixers -paddle flocculator-Lamella sheets- rapid sand filters- Air Blowers – Generators.
- Performing system updates.
- Follow up the operating condition for the plant to make troubleshooting.
- Training staff on new procedures and safty standards.
- Conducting experiments to study the effects of chemicals used in treatment process, such as
- Jar Test: to help select the proper coagulant and dose for the reduction of the turbidity value.
- Breakpoint Test: to reach the point where enough chlorine has been to a quantity of water to satisfy its disinfecting demand.
- Follow up chlorine injection system and adjust the regulator according to required Dose.
- Follow up the preparation of chemicals used in the treatment process, as Aluminum Sulfate, Alum (Al2(SO4)3 · 14 H2O).
- Conducting tests on water samples hourly to determine chemicals composition, pH level, Turbidity, free chlorine and other factors.
- Make daily and Monthly Reports about the Technical Condition of the plants.

COMPUTER SKILLS

 Excellent user of Ms-office 2016 (Word, Power Point, Excel 2016).

INTERNSHIP

Trainee Chemist Suez Oil Processing Company (SOPC),Suez

(Aug. 2016 - Sep. 2016)

Trainee Chemist

Medical Union Pharmaceuticals (MUP),Ismailia

(Jul. 2016 - Aug. 2016)

LANGUAGES

Arabic: Native

English: very good

Hurghada Waste Water Treatment Plant Capacity (90.000 m³/d)

(Mar. 2022 – Present)

Responsibilities:

- Conduct on Process Design of Wastewater Treatment Plants.
- Check and follow up all pipes flanges pumps diffusers screens Vortex Chamber Air Blowers Generators.
- Follow up the operating condition for the plant to make troubleshooting.
- Conduct on Decanter Centrifuge for sludge Dewatering.
- Conduct on slow sand Filter for Tertiary Treatment.
- Follow up chlorine injection system and adjust the regulator according to required Dose.
- Conduct on lab test such as MLSS MLVSS SVI SV30 COD BOD TSS TDS PH DO Microscopic.
- Adjust Q-RAS & Q-WAS DO F/M SRT SVI Efficiency according to result lab.

Operation Engineer

Maskoub International For Water Treatment

RO Desalination Plants - Alarish, Cement Factory (Jan. 2020 – Mar. 2022) Capacity (6000 m³/d)

Responsibilities:

- Follow up all parameters of the BWRO Plants.
- Conduct and Follow up competency Birm filters and sand filters and Calculate the filters efficiency.
- Preparation and follow up calcium hypochlorite dosing of feed and permeate water for disinfection and (caustic soda, soda ash, calcium hydroxide "hydrated lime", sodium bicarbonate) to adjust PH.
- Preparation and follow up SMBS dosing of feed water beforeCartridge Filters to make a reduction of all free chlorine.
- Conduct jar test for aluminum sulfate to determine the best dose and some chemical analysis.
- Conduct Antiscalant projection software then apply it to the plant.
- Adjust chemical dosing according to the required dose based on water analysis.
- Calculate the dosing pump deviation percent of required chemicals consumption.
- Conduct flushing for RO membranes during plant stoppage, and preservation with SMBS Solution.
- Measure the SDI for Cartridge Filters and sand Filters.
- Measure LSI for permeate water to decrease the corrosion or the scaling.
- Conduct chemical cleaning for physical fouling and chemicalfouling "scaling" & organic fouling.
- Conduct the probing test and flow test.
- Calculate recovery, salt rejection, salt passage, concentrationfactor, flux, plugging factor.
- Calculating high pressure pump hydraulic power, high pressure pump efficiency, Turbo efficiency.
- Calibration of all measuring devices "HANNA".