



Mr.Napol Hengbumrung

**Contact detail**

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**Education**

2008 - 2012 Bachelor's Degree ,Faculty of Engineering, Chulalongkorn University,  
Mechanical Engineering Department ( GPAX of 3.08 )

2002 - 2008 High School Certificate, Bodindecha (sing singhaseni) 2 School, Bangkok (GPAX of 3.97)

**Experienced**

**Sep'17- Present: Project Engineer** at Rayong Engineering & Plant Service Co., Ltd.

(Service for– Rayong Olefins Co., Ltd./ROC & Maptaput Olefins Co., Ltd/MOC)(SCG Chemicals)

- Cooperate with purchasing team to develop contractor consignment in to unit rate price.
  - Piping engineering design, Civil structure calculation, Hydraulic calculation, etc.
- Revamp Recycle Furnace H-120R / Increase performance of furnace (value 160MB)
  - Role : Construction Manager : manage all construction work ,solve unexpected problem
  - Develop ITB RFQ for construction works
  - Develop shop drawing , Job method statements , Job safety analysis
  - Follow up engineering and procurement schedule that effects to construction period
  - Develop document transmittal standard to communicate with vendors and customer
- SALSA Project : Convert olefin's waste to raw materials for paper factory.(value 140MB)
  - Role : Project Manager : responsibility for Engineering – Procurement – Construction
  - Control engineering team to design with engineering standard and meet customer requirement
  - Control procurement schedule – coordinate with custom clearance team
  - Develop ITB , RFQ for construction works
- TK-1600 Unplugged line flare solution : install pipeline about 500m for operating solution within 2 weeks (value 13.2MB)

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**Mar'15 – Aug'17: Mechanical Maintenance Engineer** at Rayong Engineering & Plant Service Co., Ltd.

(Service for Maptaput Tank Terminal Co., Ltd./ MTT)

- Propane tank (Double wall tank) shutdown work
  - Repair internal insulation failure from gap of structure in old design
  - Upgrade external coating for prevent algae by using Poly-siloxane coating)
  - Improve corrosion preventing and monitoring at annular seal by using corrosion inhibitors
  - Manage all valves overhaul works
- Upgrade sea water pipeline from CS-Coating to FRP pipe (corrosion improvement, cost saving)
  - Engineering design concept
  - Project feasibility study
- Improve maintenance standard - Work Instruction, Overhaul PM-CM check sheet both rotating and static equipment.
- Repair flare stack from corrosion problem at site (Finite element – civil structure confirmation)

- Plan schedule and job method statement to repair flare stack while flare operated.
- Prevent wall-lose of Loading arms by welding repair joint style 80 ,coating with belzona products
  - Study for new joint style 80 of loading arms with various brands (FMC,SVT,JLA)
  - Feasibility study for new loading arms replacements
- Cooling towers maintenance & Improvements
  - Replace new fill pack to enhance energy saving
  - Design & Install new drive shaft of cooling fans for vibrations absorbent
  - Improve cooling tower performance following ASME PTC30 by new FRP fan blades design( Energy saving 30% while performance increase about 20%)
- Overhaul diesel engines of fire pumps
  - Improve engines to meet NFPA20,NFPA25 standards
- Overhaul Vertical Turbine Pump about 20 units (VS1 , VS6 – centrifugal pump)
  - Develop contactors consignments for overhaul machine in unit rate price.
  - Upgrade column pipe of fire sea-water pump from CS-Coating to FRP (Fiber-Reinforced-Plastic) to prevent corrosion problems
  - Solving chronic problem of vertical submerge cryogenic pump. (Saving about 20MB from opportunity lose )
    - Verify design of VRU system ( pump contaminate from mis-design VRU system)
    - Apply new technology of vibration monitoring to improve sensibility of cryogenic pump vibrations
  - Improve mechanical seal system of cryogenic centrifugal pump to API plan53B
- Overhaul screw compressors and reciprocating compressors
  - Review spare parts required and utilize local spare parts with better performance
  - Solve mechanical seal problems of screw compressors (High viscosity oil when compressor in rest state) by install heater for heat oil when start compressor
- Review spare part of all equipment in MTT with Reliability Center Spare part program (RCS)
  - Maximize reliability of equipment while minimize spare parts valued in stock.
  - Consignments with contractors to keep our required spare parts at their store.
  - Utilize SAP system for matching , common spare parts to similar equipments
- Budget year plan for maintenance all rotating equipment.
- Manage maintenance work of rotating equipment in MTT(Pump, Compressor, Mechanical seal )
- PSI & PHA committee ( Review HAZOP with operation team) (one of PSM steering )
- Emergency response committee ( one of PSM steering )

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**July'12 – Mar'15 : Reliability Improvement Engineer at SMPC. (Joint venture of Mitsui and SCG )**

Role

- Cross Transfer Project (Pneumatic conveying system) (Finished Jul'13)
  - Piping design ( Isometric drawing , surge analysis , pneumatic conveying design)
  - Study new concept of 3 ways valve ( replace diverter valve ,old design ,with 2 knife gate valve, new design which save cost around 3MB )
  - Pipe rack constructions ( including platform for maintenance)

- Increase reliability of CTA plant by providing optional in operations.
- Equipment Problem solving
  - Screw feeder crack (3PM-403) ( Screw feeder for PTA raw materials)
    - Claim warranty by send back screw to DAEGA- Korea (export /import/ custom clearance)
    - Was dispatched to KOREA (DAEGA) for witness , investigate problems , improve solutions) as SMPC representative
    - PT , RT , Replica tests ,Hardness check ,Ferrite number checking
    - Design WPS for repair austenitic stainless steels procedures follow API582
    - Post Weld Heat treatments for stress relieve and remove carbide (CrC)
  - TT-400 (CTA Silo Tank) line plugged from mis-design process ( install temporary water scrub for cure bad smells for CTA ) and provide solution by install acetic acid inline scrub along pipe line. ( Double Scrubber project)
- Safety committee of company (Leader of activity Ex. Safety Promotion Day on 2014 )
  - Safety Promotion for meet KPI of factory
  - Establish Safety VDO awards for promote and using media to gain awards from SCG chemicals ( Most participants)

Jun'11 – Sep '11 : Trainee at TEAM Group of Companies Co.,LTD (Biomass Energy,Gasification).

- Learning Thai regulations & raw for permission of new power plants especially in biomass energy

### **Personality**

Hard-working, fast learner , good leadership skills, ambitious and enjoy working under pressure

### **Skills**

Computer skills: Autocad,Revit ,Google Sketchup ,Acrobat ,Premiere Pro,MS-Office(Excel,Project)

Language skills: Thai(Native language) ,English(TOEIC : 865, TOEFL :84 , GMAT 560)

### **Certificated**

2018 : Project Management in Practice by Council of Engineers

2017 : Professional Microsoft Excel & Project 2013 by IVERSON

2016 : Pump & Mechanical Seal principle by Flowserve

2013 : License for Professional Practice : Associate Mechanical Engineer by Council of Engineers

### **Extra – curriculums**

- 2011 - Senior project ;The effect of Reynolds number and blade number on performance curve of the centrifugal blood pump.This project is proposed to study performance curve of blood pump.
- 2010 - Activity staff for Slum club Camp (teaching basic subjects for primary school students)
- 2009 - Head Activity staff for welcoming activity for a group of freshmen
- Staff of 8<sup>th</sup> Fun Feung Camp held by Engineering Student's Academic Club of Chulalongkorn University (teaching physics for the high school students).

### **Reference**

Mr.Sommai Sirilertsombat, Managing director, SMPC , +6681-910-1273, Sommais@scg.com