# **Personal Profile:**

Process Engineer with over 20 years of experience in process engineering,

Registered professional engineer in Ontario with strong front-end design capabilities,

Efficient details design communicator,

Problem solver/problem identifier /process analyst, and a “go-to” person

# **Areas of Proficiency:**

• Process Simulation (HYSYS, PROII, DesignII)

• Utility Systems

• Process Engineering Softwares (Aspen Flarenet, Hysys Dynamics, Pipeflow, and HTRI for Thermal Rating)

• Front End Activities (Conceptual Design and Simulation, Process Control Strategy Definition,

PFD/ UFD/ P&ID Development, Heat & Material Balance Tables Preparation, Equipment Sizing/Rating)

• Preparation of Relief Narratives, Relief Valves, Relief Piping, and Network Design/Rating

• Preparation of Logic and Emergency Shut Down Narratives

• Preparation of Control Narratives

• HAZOP Studies

• Preparation/Checking of Hazardous Area Classification, Line Designation Tables

• P&ID Development in Front End and Detail Design Phases

• Hydraulic Calculations (Line, Pump, Control Valve Sizing/Rating)

• Duty Specification for Miscellaneous Equipment and Items

• Technical Support to Process and Other Engineering Groups in General

• Being familiar and working with industry codes, practices and standards

# **Work History:**

**Self (Toronto, Canada) (May-13-2019 - present)** Freelance Technical Writer

**SNC Lavalin Inc. (Toronto, Canada) (2017-2019)**

**www.snclavalin.com**

**Position**: Senior Process Engineer

# Responsibilities: Preparing the PFDs, P&IDs, Heat and Mass Balance Tables for Sea Water,

# Cooling Water, Plant Air, Instrument Air, and Three Flare Systems for a

# Urea/Ammonia Plant, Calculating the Relief Loads and Required Area of

# the Relief Valves for the Ammonia Refrigerated Tank.

**Project:**  **Destiny Urea /Ammonia Project**,Perdaman, Australia

**Position**: Senior Process Engineer

# **Responsibilities**: Verifying the simulation and equipment design for the detail design phase,

# Communicating with equipment vendors (compressors, heat exchanagers

# pumps, dosing packages, special vessels, deaerator, electric heaters,

# flare, storage tank, vessel internals), Participating in HAZOP studies, and

# resolving the issues, Checking the ESD and cause &effect document, PSV

# sizing and checking in the detail design phase, Hydraulic calculation of

# critical services, Communicating with vendors of various oackages, and

# providing input to mechanical, instrumentation, and piping disciplines

**Project: Salalah Ammonia Project**,Salalah Methanol Company, Salalah, Oman

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**Freelance technical writer (Toronto, Canada) (2015-2017)**

Preparation ofnew formats for engineering documents to enhance and establishproper communication among engineering groups in EPC environment, Documentation of “Lessons Learned” on past project issues

**SNC Lavalin Inc. (Toronto, Canada) (2010-2015)**

**www.snclavalin.com**

**Position**: Senior Process Engineer, Lead Process Engineer

**Responsibilities:** Leading and participating in the required activities for the FEED and Detail design phases in a number of oil & gas projects, as well as a few mining & metallurgy, food processing, and waste conversion projects,

Participating in, scribing, and facilitatingHAZOP studies,

Activities included: Conceptual design, process simulation, dynamic simulation, hydraulic system design and evaluation, thermal rating, PFD/P&ID development, preparation of control and relief narratives, relief system network and pressure relief valves design, equipment performance rating, equipment duty specification, communication with vendors, technical support to other engineering groups, reparation of Cause & Effect Diagrams, ESD design, technical reports, and other process engineering general activities.

**Projects: ZADCO,** ZIRKU Facilities Capacity Enhancement - Flare System Upgrade Project, ZIRKU Island, UAE

**VALE Canada Limited,** Clean AER Project, Sudbury, Ontario, Canada

**Suncor,** Isomax Unit Cost Cutting Study, Montreal Refinery, Canada

**ADCO,** CO2 Injection Pipeline Project, Phase 2, UAE

**Minera Panama S.A.,** Mina De Corbe Panama Project Phase 2, Panama

**Meta Nickel-Kobalt A.S.,** Gordes Nickel Project, Phase 2, Turkey

**Lassonde Beverages Canada,** Blow Molder HP Compressor Cooling System Study, Toronto & Rougmont, Canada

**Plasco Energy Group Inc.,** Waste Conversion Plant Conceptual study, Red Deer(AB), Ottawa(ON), Canada

**MOL Pakistan Oil & Gas Co.,** Makori Gas Processing Facility Conceptual Design, BV Karak District, Pakistan

**HAZOP/HAZID Facilitator for below projects:**

**Pembina,** LPG Truck Loading Facility, Sarnia, Ontario, Canada

**BHP,** Young Potash Plot Plan HAZID, Saskatchewan, Canada

**Scribing and Preparation of HAZOP Report for below projects:**

**Lanxess,** C4 Splitter Modification, Sarnia, Ontario, Canada

**Lanxess,** RTO (Regenerative Thermal Oxidizer) Addition, Sarnia, Ontario, Canada

**Lanxess,** WWT (Waste Water Treatment), Sarnia, Ontario, Canada

**Bantrel Co. (Bechtel Corp. Affiliate, Toronto, Canada) (2002-2009)**

**www.bantrel.com**

**Position**: Senior Process Engineer, Lead Process Engineer

**Responsibilities:** Starting as an intermediate leveland growing into a senior process engineer, I assumed several types of responsibilities, including: Conceptual design, process simulation, PFD/P&ID development, hydraulic design, equipment sizing, preparation of control and relief narratives, thermal rating, relief system network and pressure safety valves design, HAZOP/SIL studies, technical support to other engineering groups, preparation of technical reports and documents, and in general conducting and leading the FEED and Detail design phases activities.

**Projects: Petro-Canada,** Horizon (Montreal Coker) Project, Delayed Coker Unit FEED/Detail Design, Montreal, Canada

**Reliance,** JERP Project, Naphtha Unifiner, CCR Platformer, KERO Hydrotreater, Coker Naphtha Unifiner Units, Jamnegar, India

***Sunoco****, 210 Crude Unit Up-grade Conceptual Study and FEED Project, Philadelphia,* USA

**Imperial Oil (assignment at ExxonMobil Engineering Services Canada) (2003- 2005)** FCCU Creep Project, Dartmouth Refinery, Nova Scotia, Canada

FCCU Creep Project, Sarnia Refinery, Ontario, Canada

Alky Unit Creep Project, Nanticoke Refinery, Ontario, Canada

**Suncor Energy Inc**., Genesis Project, DHT (Diesel Hydrotreater Unit) Sarnia, Ontario, Canada

**Sunoco**, Relief System Validation Study, Marcus Hook & Philadelphia Refineries, USA

**Petro-Canada**, Crude Reconfiguration Project, Montreal, Quebec, Canada

**OIEC (Oil, Industries, Engineering, and Construction Co.), Tehran, Iran (1990-2002)**

**www.oiecgroup.com**

**Position:** Process Engineer

**Responsibilities:** Starting as a junior and growing into an intermediate level process engineer, I was responsible for a number for different activities on several projects. Activities included: Conceptual design, process simulation, hydraulic calculations (pipe sizing, pump and control valve sizing), pressure safety valve sizing, equipment design (vessel, distillation tower, heat exchanger), PFD and P&ID development, preparing Heat and Mass Balance Tables, Line List, Cause & Effect Tables, and Hazardous Area Classification Tables.

Process activities in the majority of projects were supervised by international joint ventures, such as JGC (Japan), SnamProjetti and TPL (Italy), John Brown (UK), and training opportunities on the job were part of the program.

**Projects:** **National Iranian Gas Company**, Bidboland Gas Treatment Conceptual Design, Bidboland, Iran

**National Iranian Petrochemical Company**, AmirKabir Petrochemical Complex Detail Design, Mahshahr, Iran

**National Iranian Oil Company**, Tehran Refinery Crude Unit Revamp Study, Tehran, Iran

**National Iranian Gas Company**, South Pars Gas Treating Refinery Basic Design (FEED Phase), Persian Gulf, Iran

**National Iranian Gas Company**, Khangiran Gas Sweetening Plant Expansion, Khangiran, Iran

**National Iranian Gas Company**, NGL 1200 & NGL1300 Projects Refinery Basic Design (FEED Phase), Gachsaran & Bibihakimeh, Khouzestan, Iran

**National Iranian Gas Company**, Sarkhoon Gas Sweetening & NGL Stabilization, Iran

**Poly Acryl Company**, Poly Acryl Air Pollution Control Project, Isfahan, Iran

**National Iranian Oil Company**, Bandar Tahery Refinery, Assalouyeh, Iran

**National Iranian Oil Company**, Bandar Abbas Refinery Detail Design, Bandar Abbas, Iran

**NIOC (National Iranian Oil Company)- Tehran Refinery Research Centre (1988-1990)**

**www.nioc.ir**

**Position:** Researcher and Trainee in Tehran Refinery

**Responsibilities:** Research on the distillation columns design and their internal, learning about the refinery process and utility unit operations

# **Education:**

# M.Sc., Chemical Engineering, Sharif University of Technology, Tehran, Iran, 1997

B.Sc., Chemical Engineering, Sharif University of Technology, Tehran, Iran, 1988

**(References available upon request)**