

# Donald Louie

## Responsible Engineer (LRE) - Industrial Staffing Services Incorporated

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Donald-Louie/b271db8d340b8f8e](https://www.indeed.com/r/Donald-Louie/b271db8d340b8f8e)

### WORK EXPERIENCE

#### Responsible Engineer (LRE)

Industrial Staffing Services Incorporated - 2013 to Present

Salem (2013 - Present)

Mr. Louie has been contracted to provide Project Engineering services to support Salem's Electrical/I&C Design Engineering Branch. In this capacity he was assigned the position of Lead Responsible Engineer (LRE) for major capital plant modification projects. This role involved a clear understanding of the project scope and conceptual design in order to develop related Request for Engineering Services (RES) to obtain Architectural Engineering (AE) services. This included technical evaluation of AE Proposals/Task Orders and equipment supplier bids as part of the job assignment. In addition his position required interfacing with various PSEG departments such as Project management, System Engineering, Operations, I&C maintenance etc. to support DCP development, equipment testing and conceptual/DCP scoping. He periodically interfaced with field installation personnel was required to support modification installation. He was responsible for DCP Owners acceptance review of AE developed DCP

Project Engineer

Instrumentation and Controls deliverables.

Mr. Louie is very familiar with Salem's DCP process and has the experience to understand the complete detailed DCP process from conception, scheduling, owner's review and closeout. His years of experience he will provide added knowledge in nuclear electrical/I&C engineering, Environmental and 1E equipment qualification, instrument loop setpoint uncertainty calculations and some experience in plant safe shutdown analysis/appendix R.

During his association with the nuclear power plant industry Mr. Louie has supported many plant outages to support installation of modifications.

Mr. Louie has eighteen years of Project Engineering experience directly related to the Nuclear Power Industry supporting modifications at multiple nuclear power plants in the northeast region of the United States.

URS

Peach Bottom - 2012 to 2013

Mr. Louie was involved with preparation Document Change Packages (DCP) on various radiation monitoring and Nuclear Instrumentation System (NIS) firmware upgrades. His role included customer interfacing at various DCP stages.

#### System Responsible Engineer

Shaw Group - 2008 to 2012

New Build) (2008 - 2012)

#### System Cost Estimates

Mr. Louie has prepared cost estimates to support the development of various AP1000 BOP systems. These cost estimates included development of detailed system scope specifications to obtaining vendor quotations for wire and concrete of a complete AP1000 power plant.

#### System Responsible Engineer

Assigned as Responsible Engineer to design and procure the secondary side chemical treatment system. Activities included design (controls and mechanical) of chemical feed skids for Feedwater, Service water, secondary side Steam Generators, Condensate , Demineralized Water and Aux Steam systems.

Mr. Louie designed chemical feed system (CFS) to incorporate latest technical developments in chemical treatment industry.

Developed chemical feed system procurement specification including interfacing with chemical feed skid vendors and supported all aspects of the procurement process through procurement award.

Generated design change packages (DCPs) for ongoing development of the Chemical Feed System.

#### Project Engineer

##### Instrumentation and Controls

Mr. Louie has developed chemical feed system requirements for interfacing disciplines (electrical, controls, piping/supports and procurement).

He was responsible for updating and maintenance of Chemical Feed System schedule and other group system schedules.

#### Savannah River MOX Project

Mr. Louie has developed Instrument index and instrument data sheets for various MOX systems. This included review of system P&IDs, and incorporation of outstanding engineering change notices (ECRs).

Reviewed safety related instrument requirements.

Intools software program was used to develop and maintain instrument index and instrument data sheets.

Mr. Louie is presently working on the AP1000 nuclear new built project. He is currently assigned to the I&C group developing and maintaining instrumentation calculations associated to the Auxiliary Steam System and Turbine Island Chemical Feed System. Previous to this he was assigned Responsible Engineer duties for the Turbine Island Chemical Feed System.

#### Sargent & Lundy

As Project Associate, Mr. Louie is responsible for preparing modification packages, installation support, and setpoint calculations.

Dominion - 2007 to 2008

Mr. Louie has been involved with developing the generic Instrument & Controls Design Specification for all Plant instrumentation at North Anna and Surry stations. This specification provides design requirements for the development of instrument specifications of new replacement instrumentation. The specification provides regulatory guidelines, industry standards and plant specific standards that are required for procurement of replacement analog instrumentation, digital instrumentation, programmable computers and various other instrumentation that required to support plant systems.

### **Project Engineer**

Salem & Hope - August 2006 to 2007

for preparation of modification packages to support facilities projects at Salem and Hope creek.

### **Project Engineer**

NuStart Energy - 2006 to August 2006

2006 - August 2006)

Mr. Louie developed technical sections of the generic Request for Quote (RFP) for NuStart Energy a consortium for new nuclear energy development. He was directly involved with preparation of the Human Factors Engineering, section 18 for the procurement of the Westinghouse AP-1000 and General Electric ESBWS generation of new nuclear power plants. This section specifies the Regulatory guidelines, associated industrial standards and Utility

Project Engineer

Instrumentation and Controls

Requirements Document (URD) items that are required for Human Factors Engineering compliance. Requirements for implementation of Human Factors Engineering in the Control Room, Emergency Support Facilities and all sections of the plant were specified. A complete management structure, functional analysis and verification process was specified. He also provided review support for RFP Instrument & Controls and Electrical sections.

Salem & Hope - 2005 to 2006

Mr. Louie provided Instrument & Controls engineering support for radiation monitoring, SAC and various other modification packages. In addition, he was involved with preparation of fire protection combustible loading analysis for various areas of the plant.

### **Mr. Louie provided Project Management services**

Indian Point Energy Center - 2000 to 2004

for Reactor Coolant system RTD replacement, Plant Computer multiplexing of Main Generator thermocouples and various facility projects. In addition, he supported Unit 2 refueling bridge modifications with field engineering during outage installation, and facilitated project closure of all modification package documentation.

United Engineers & Constructors - 1992 to 2000

Mr. Louie was responsible for the dispositioning of Non-Conformance Reports (NCR) and Equivalent Change Request (ECR). This work involved assessment of the plant/system conditions and determines if the non-conformance will impact the plant/system operability. In addition, he evaluated, approved and replaced instrumentation for various safety-related and non-safety related plant/system applications. Mr. Louie's responsibilities also involve the replacement of analog instruments to digital upgrades (HPCI and RCIC Flow Controllers), electromagnetic interference mapping/testing of various plant locations and instrument drift

analysis using a custom computer program to support a 24-month fuel cycle study.

Salem Plant - November 1991 to January 1992

His responsibilities involved designing and estimating plant/system upgrades.

### **Project Engineer**

Savannah River Site - November 1988 to October 1991

Project - Reactors K, L and P (11/1988 to 10/1991)

Mr. Louie designed (partial) and was responsible for development of Safety-Related Level and Temperature Monitoring (related to the Cooling Water of the Reactor Tank), implemented on the reactor vessels (three reactors) at Savannah River Site.

Mr. Louie was responsible for Reactor Tank Instrumentation and the following procedures:

- **Quality Inspection Plans:** This document involved establishing quality assurance criteria for inspection of subject systems.
- **Design Process Hazards Report:** This document involved evaluation of all possible hazards and consequences that may result from failure of the subject systems.

Project Engineer

Instrumentation and Controls

- **Equipment Specifications:** These specifications involved equipment criteria, testing, seismic qualification, environmental qualification and vendor document evaluation.
- **Construction Drawings:** The responsibilities entailed supervision, review and comments, interface and coordination between disciplines and client, resolution of in-house and client comments, issuance and final "as-designed" drawings.
- **Cost and Manpower Estimates:** This involved estimating labor and equipment cost with required manpower to produce overall deliverables and closeout the Project.

Mr. Louie designed and was responsible for the Instrumentation and Controls effort related to the "Reactor Fast Shutdown System" project as follows:

- **Conceptual Design:** This involved development of preliminary design concepts for the primary shutdown system of the nuclear reactor in the event of a loss of cooling water accident.
- **Mr. Louie designed and was responsible for the Instrumentation and Controls (safety-related) effort related to the "Improved Reactor Confinement System" project as follows:**
  - This document described in detail the requirements to implement modifications to the reactor cooling water basin water level instrumentation, process room spray instrumentation and confinement door seal instrumentation for the subject project for three reactors (K, L and P) at the Savannah River Site.
  - **Specifications:** Mr. Louie was responsible for the writing of the following safety-related (Class 1E) instrument specifications:

- Complete metal fabrication and wiring of the control room panel for the Process Room Spray System
- Panel inserts for various Central Control Room panels
- Power supplies, bar graph indicators and miscellaneous lights for the Central Control Room application.
- Pneumatic solenoid valves
- Transmitters (4-20 mA) for airflow and water level sensing

Project Engineer  
Instrumentation and Controls

Susquehanna Station, Units 1 & 2

Mr. Louie performed replacement item equivalent evaluations for I&C related components. His responsibilities included evaluation for electronic/mechanical/seismic specifications of new electronic devices and their compatibilities as replacement items with existing plant equipment.

## EDUCATION

### **B.S. in Electronic Physics**

LaSalle University - Philadelphia, PA

## ADDITIONAL INFORMATION

### EXPERTISE

- Nuclear Project Engineer (Lead Engineer)
- Westinghouse AP1000 system design
- Development of Nuclear Modifications Packages
- Nuclear Digital/analog testing and control systems/equipment
- Engineering design of electronic systems and equipment