

# **Process Hazard Analysis**

#### AREAS OF EXPERTISE

HAZID Planning & Execution
HAZOP Planning & Execution
LOPA Planning & Execution
SIL Determination & Verification

#### CONTACT

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> Sargent & Lundy is one of the longest standing and most experienced full-service architect engineering firms in the world. Founded in 1891, the firm is a global leader in power and energy with expertise in grid modernization, renewable energy, energy storage, nuclear power, and fossil fuels. Sargent & Lundy delivers comprehensive project services from consulting, design, and implementation to construction management, commissioning, and operations/maintenance - with an emphasis on quality and safety. The firm serves public and private sector clients in the power and energy, oil & gas, industrial, and government sectors.

Our engineers are experienced in conducting Hazard Identification (HAZID), Hazard and Operability (HAZOP), Layer of Protection Analysis (LOPA), and Safety Integrity Level (SIL) analyses for the power, process, and oil & gas industries. Our personnel have worked and trained as design engineers as well as hazard and risk engineers, making them uniquely qualified to assist you in comprehensive, meaningful, and beneficial analyses.

## **Complete HAZOP Services**

- Planning and scoping
- Facilitation and recordkeeping
- Reporting

### **Complete LOPA Services**

- Evaluation of hazards and risks via LOPA
- Design of Safety Instrumented System (SIS)
- Analysis of SIS to verify SIL is achieved

# Why Clients Choose Sargent & Lundy

We know how energy systems work because we design them and provide complete operations, maintenance, and plant engineering services for them. Our comprehensive experience with power, industrial, oil & gas, and energy systems design provides for a thorough understanding of the systems evaluated within process hazard and risk analyses.

## We offer clients:

- Proven service with verifiable quality
- A long history of meeting and exceeding client's needs and expectations
- Unmatched technical depth using a multidisciplinary engineering approach with full access to technical specialists (e.g., mechanical, electrical, I&C, process)
- Immediate response to client requests and issues
- Assistance with resolving recommendations