UNDERSTANDING SIL VERIFICATION

STEP 1: DEFINE SAFETY REQUIREMENTS

Process Plant

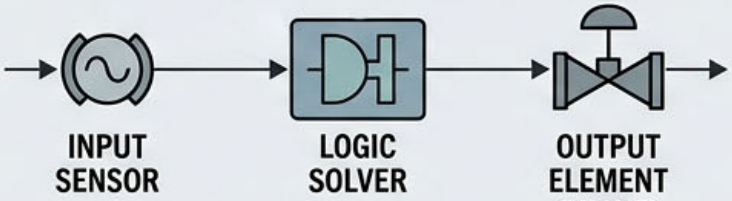
Hazard Analysis

SIL TARGET (e.g., SIL 2)
Based on risk

SIL TARGET (e.g., SIL 2)
Based on the risk

STEP 2: DESIGN & VERIFICATION

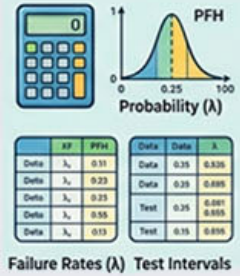
SAFETY INSTRUMENTED FUNCTION (SIF)



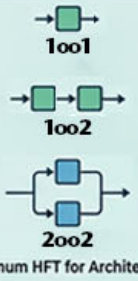
SIL TARGET

PARAMETERS TO VERIFY

1 PFDavg & PFH CALCULATION



2 HARDWARE FAULT TOLERANCE (HFT)



Minimum HFT for Architecture

3 SYSTEMATIC CAPABILITY

STEP 3: COMPARE & VALIDATE

SIL ACHIEVED

Min Selector

SIL VERIFICATION Complete

SIL ACHIEVED ≥ **SIL TARGET**

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