

SIF ID: SIF name:

This form is one of the results of the research project SafeProd supported by VINNOVA (Swedish Agency for Innovation Systems). More information about the project could be found at www.sp.se/safeprod.

A. Document issued for:

Project: **Company:** **Process:** **Plant / Site:**

B. Document source:

Risk assessment by: Organization: Date: SIF specification issued by: Organization: Date: SIF specification examined by: Organization: Date: SIF specification approved by: Organization: Date:

Comments on this form are gratefully received by
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Quoting of this report is allowed but please remember to state the source!

SIF ID:

SIF name:

C. Related documents:

Type:	Document ID:	Rev:	Comments:
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D. Document history:

Date:	Rev:	Change description:	Sign:
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SIF ID:

SIF name:

1. Functional description:

Description of hazardous event, consequences and protection:

Defined safe process state:

Operative demand:

2. Primary actions / sequence (for bringing the process to the defined safe state):**3. Secondary actions / sequence (for operational reasons):**

SIF ID:

SIF name:

4. Demand rate and Safety integrity:

Estimated demand sources:

[Est. demand rates](#)

Estimated SIF demand rate:

Used likelihood analysis method:

Low Demand, High Demand or Continuous mode of operation:

Established target SIL (Safety Integrity Level):

Used SIL-selection method:

SIF ID: _____

SIF name: _____

5. Triggering / Tripping:

Automatic triggering and triggering detection:

Yes/No?

Manual triggering:

Yes/No?

Triggering response and delay time requirements: _____

Max. response time: _____

6. Reset / Restart:

Automatic reset and reset detection:

Yes/No?

Manual reset:

Yes/No?

Reset response and delay time requirements: _____

Max. response time: _____

7. Overriding, Inhibiting and Bypassing:

Yes/No?

Description of Overriding, Inhibiting and Bypassing functions:

SIF ID:

SIF name:

8. Spurious trips and reset failures:

Maximum allowable spurious trip rate:

Estimated consequences of nuisance trips:

Maximum allowable reset failure rate:

Estimated consequences of reset failures:

9. Final elements description:

Description of output actions:

Defined fail-safe positions of final elements:

Fail-safe position
OPEN/CLOSED?

Justification of the defined fail-safe positions:

Final elements specification:

TAG-name: Equipment type: Req Actuator action:

Requirements for successful operation of final elements:

SIF ID:

SIF name:

10. Fail-safe process output description:

Digital fail-safe outputs:

Digital output description:I/O-name:

Device:

Req**1**Trip action:**ENERGIZE/
DE-ENERGIZE?**

Output circuits requirements:

11. Fail-safe process input and trip limit description:

Digital fail-safe inputs:

Digital input description:I/O-name:I/O-votingReqWork. circuit**6**

Analogue fail-safe inputs:

Analogue input description:I/O-name:I/O-votingReqTrip limit:**3**

Input circuit requirements:

SIF ID:

SIF name:

12. BPCS and other systems interface:

Digital outputs (non fail-safe):

Digital output description:I/O-name:To system:Action:

Digital inputs (non fail-safe):

Digital input description:I/O-name:From system:Action:

Other type of output interface signals:

Other type output signal description:Type:I/O-name:To system:Action:

Other type of input interface signals:

Other type input signal description:Type:I/O-name:From system:Action:

13. Requirements for proof test intervals:

Desired full proof test interval:

Full proof test possible during operation:

Yes/No?

Partial proof test possible during operation:

Yes/No?

Special proof test design requirements:

SIF ID: SIF name: **14. Relationship between process inputs and outputs:**

Logical description:

Trigging and reset:

Actuating:

15. Operator interfaces (HMI):

Panels / Buttons:

Graphics:

Generation of alarms:

Generation of events:

Alarm and event logging:

SIF ID:

SIF name:

16. Requirements for protecting the SIF from special environmental conditions:

Requirements:

17. Requirements for protecting the SIF from major accidents:

Requirements:

18. Consequential hazards (due to implementation of the SIF):

Discovered consequential hazards:

Hazards due to concurrently occurring events:

Possible risk reducing measures: