


Instrument Earthing Philosophy

CO₂ Capture Facility

Kårstø, Norway

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INSTRUMENT EARTHING PHILOSOPHY

1.0 PURPOSE

The purpose of this document is to outline the contractor's intended instrument earthing philosophy.

2.0 REFERENCES

1. 10112936-FI-B-CON-0281 Rev 03; Exhibit E3.1 – Earth Principle, PE, IE & IS
2. 10112936-FI-B-CON-0282 Rev 03; Exhibit E3.2 – Earth Principle Bonding and Earthing
3. 10112936-FI-B-CON-0101 Rev 04; Exhibit E5.1 Electrical Specifications, General Requirements
4. 10112936-FI-B-CON-0108 Rev 03; Exhibit E5.8 Electrical Specifications, Earthing and Lightning Protection, EMC Requirements

3.0 DESIGN BASIS

The contractor's instrument earthing will be designed per the requirements in the reference documents. The instrument earthing (IE) system will consist of individual termination bars (separated from the protective earth (PE) earthing bar and cabinet enclosures) in the control cabinets. The IE grounding system will be separated from the PE system by a minimum 1 meter at their reference points. Intrinsically safe (IS) grounding bars will be provided as separate bars and will be connected to the IE bar but will be isolated from PE earthing system and the control cabinet enclosure. Cable screen going to the field instruments will be left floating and insulated at the field end. The screen shall be electrically continuous from the field equipment through to the connection to the IE (or IS) bar in the control cabinet.