Good Industry Practice
Safety Co-ordinator Training

Recommended Safety Co-ordinator Training

Presentation & Guidance Notes

Important Note

- This package has been developed by a multi user group from Generators, DNOs & TLs
- Users have the responsibility to provide competent individuals to carry out their company's Grid Code responsibilities
- It is the Users responsibility to interpret this guidance to meet their own company's requirements
- This guidance is based on the Grid Code Issue 3 revision 11 of 15th July 2005

Contents

Glossary of Terms / 1

These terms are for guidance only. Where applicable, refer to the Grid Code Glossary for the definitive description

- **DOA**: Delegation of Authority. A contractual agreement between two companies that allows one Control Person to delegate control of defined equipment to the Control Person of another company for establishing safety precautions. Referred to as an Agency Agreement or Operational Arrangements.
- **DNO:** Distribution Network Operator (formerly a Regional Electricity Company in England & Wales)
- **HV:** High Voltage. Typically above a 1000 volts
- **OC8:** That part of the Grid Code defining RISSPs
- **OC8A & OC8B:** OC8A operates in England & Wales. OC8B operates in Scotland
- **PFW:** Permit for Work. A company specific safety document that controls work

Glossary of Terms / 2

These terms are for guidance only. Where applicable, refer to the Grid Code Glossary for the definitive description

- **RISSP:** Record of Inter System Safety Precautions
- **Safety Co-ordinator:** A suitably qualified and trained person, nominated by an appropriate officer of his / her employing company to be responsible for the co-ordination of safety precautions at their connection point as defined in OC8 of the Grid Code
- **Sanction:** A company specific safety document that allows testing & removal of earths
- **SRS:** Site Responsibility Schedule
- **STC:** The System Operator Transmission Code which defines arrangements with National Grid & the Scottish Transmission Owners
- **TL:** Transmission Licensee. One of, National Grid, SP Transmission Ltd or Scottish Hydro Electricity Transmission Ltd

Objectives

This presentation aims to clarify what the

Safety Co-ordinator needs to understand when:

Enacting the role of HV Safety Co-ordinator across a Generator/DNO/TL interface

Objectives

Objectives are to understand:

- The minimum standards required
- Responsibilities as Safety Co-ordinator
- Site Responsibility Schedules
- OC8 of the Grid Code and the RISSP process
- Enacting the role of Safety Co-ordinator

Objectives

When enacting this role it is important that the Safety Co-ordinator does so in a professional manner by following the correct procedures and discharging the duties in such a way as to instill confidence and respect

It is important to get it right

Objectives

Using this guidance, Companies are encouraged to set their own standards for the 'Training and Nomination of Safety Co-ordinators' within their own Safety Management Systems and Procedures

Recommended Minimum Standards

- Safety Co-ordinator duties should be recognised as a key function by all parties
- Appropriate training shall be given, and supported by the appropriate evidence
- Responsibilities are to be discharged in a responsible, professional manner

Recommended Minimum Standards

When enacting the role of Safety Co-ordinator at any User interface the responsibilities are:

1. Consulting with the appropriate Safety Co-ordinators to agree, initiate and record those actions necessary to establish and maintain safety precautions on Plant and Apparatus which is interconnected across the control boundary and the management of Proximity PFWs

2. Implementing the agreed procedure for recording inter-system safety precautions (RISSP) procedure

Boundaries

Control, Safety Rule & Ownership

Boundaries

Boundaries

Site Responsibility Schedules Define for the Assets:-

- The Owner
- The Site Manager
- Safety Rules & Safety Co-ordinator
- Operational Procedures & Control or Other Responsible Engineer
- Statutory inspections / maintenance responsibilities
- Remarks that define any exceptions

Boundaries

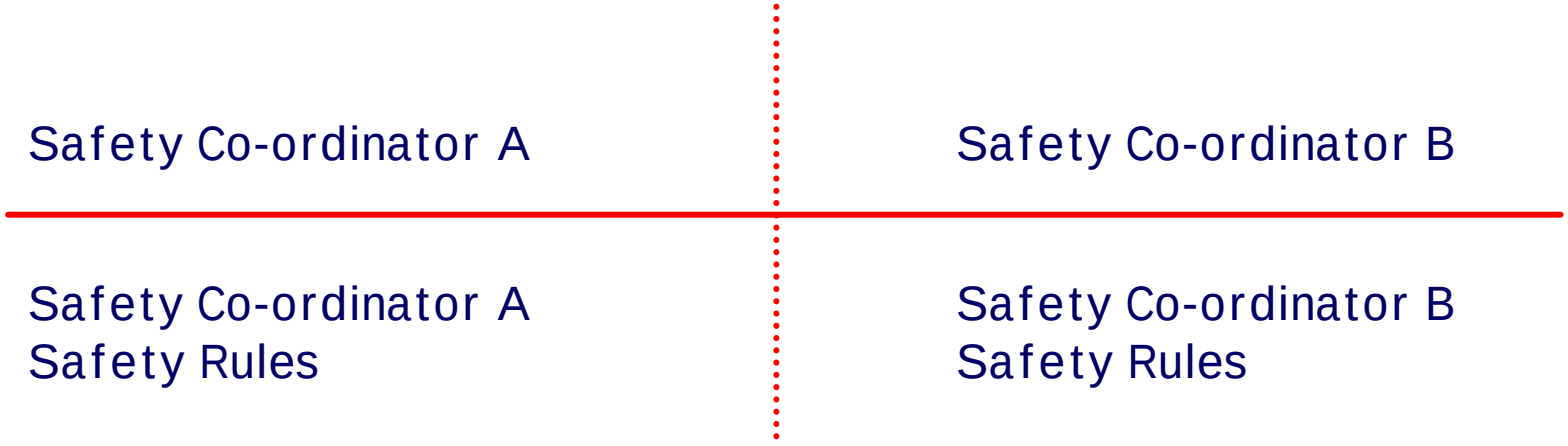
Site Responsibility Schedules

- Will define the Control Boundary
- Will define the Safety Rule Boundary
- Will define the Ownership Boundary
- Will define the Maintenance Boundary

The Safety Co-ordinator's Role is across the Control Boundary

Boundaries

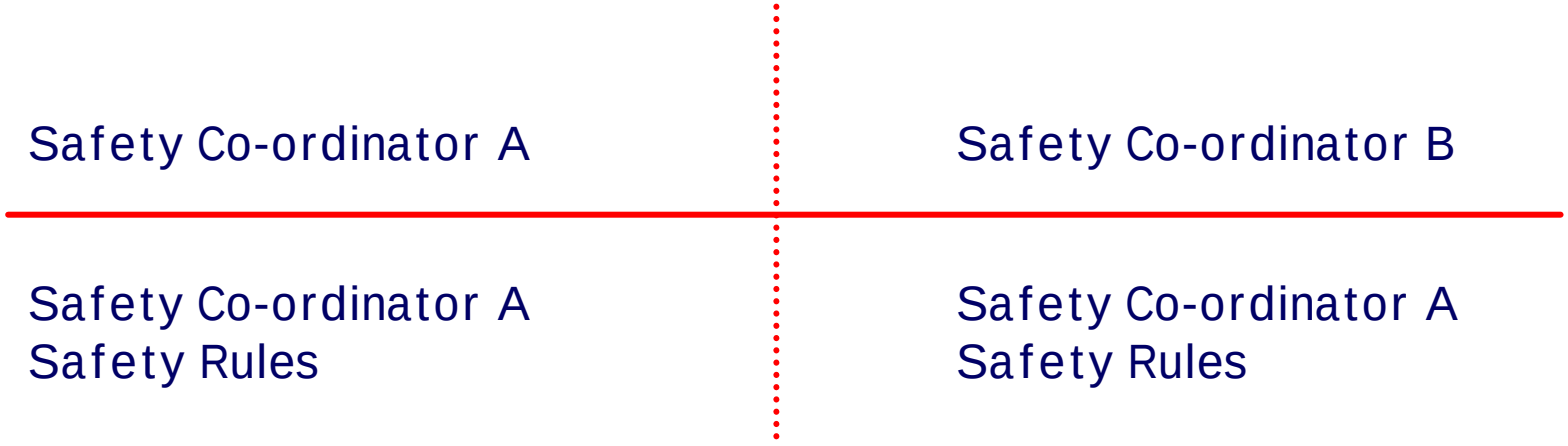
Control & Safety Rule Boundaries



The Control and Safety rule boundaries may be one and the same

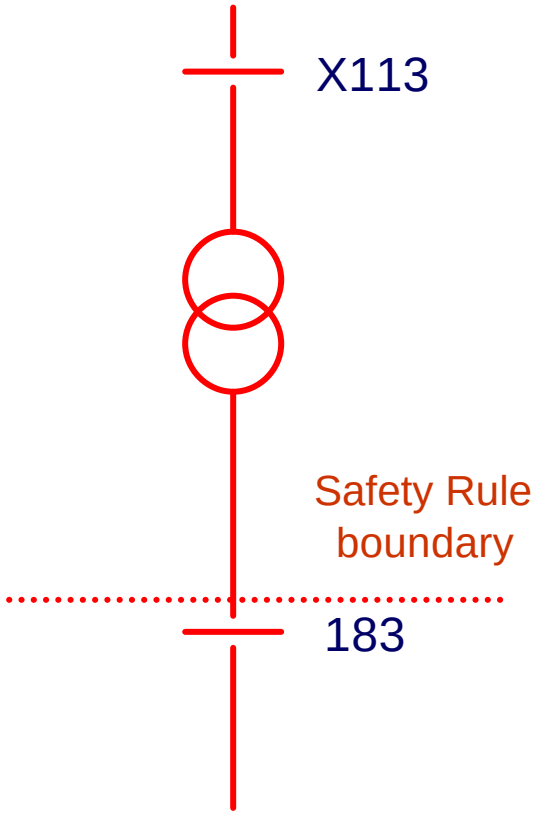
Boundaries

Control & Safety Rule Boundaries



The same safety rules may be in force both sides of the boundary

Boundaries



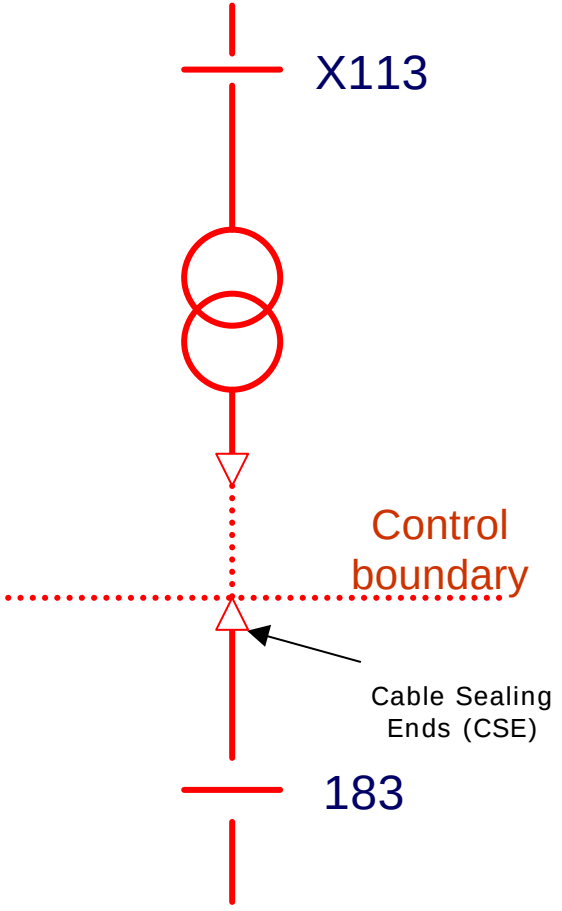
Safety Rule Boundary Example

Work required on Transformer and 183

TL is the Control person for both assets

The TL would consent to PFW on Transformer and the PFW for 183 but to the other party's safety rules

Boundaries



Complex Control Boundary Example

Work required on CSEs at the boundary

Two RISSPs & PFWs required

One PFW will be consented to by the TL

The other party will consent the second PFW

OC8 / RISSP Philosophy

Grid Code OC8

(RISSP Procedure)

OC8 / RISSP Philosophy

What is a RISSP?

Record of Inter - System Safety Precautions

- RISSP – I (Implementing RISSP)
- RISSP – R (Requesting RISSP)

OC8 / RISSP Philosophy

Purpose of OC8

- The TLs act as a intermediaries carrying power between generators and customers, certain equipment must cross control boundaries
- The Grid code OC8 specifies the method of achieving and maintaining safety when working on such equipment

OC8 / RISSP Philosophy

The Basic Principles

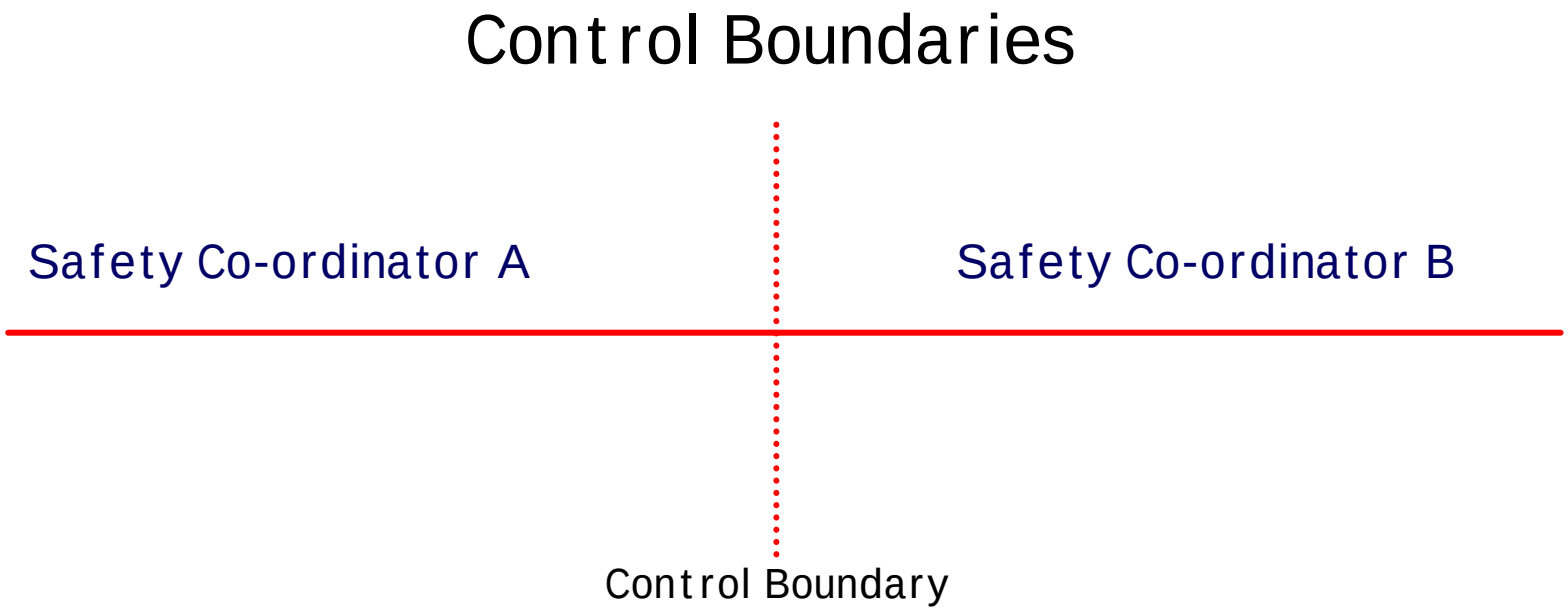
The Safety Rules each company operate specify that before work can be carried out on High Voltage Equipment it must be:

- Dead
- Isolated from the live system
- Earthed between the point of isolation and point of work
- Released for work by issue of a Safety Document

OC8 / RISSP Philosophy

Where safety precautions provided on one system are recorded across a control boundary, they may subsequently be used for the preparation of safety documents, subject to limitations on testing, without further reference

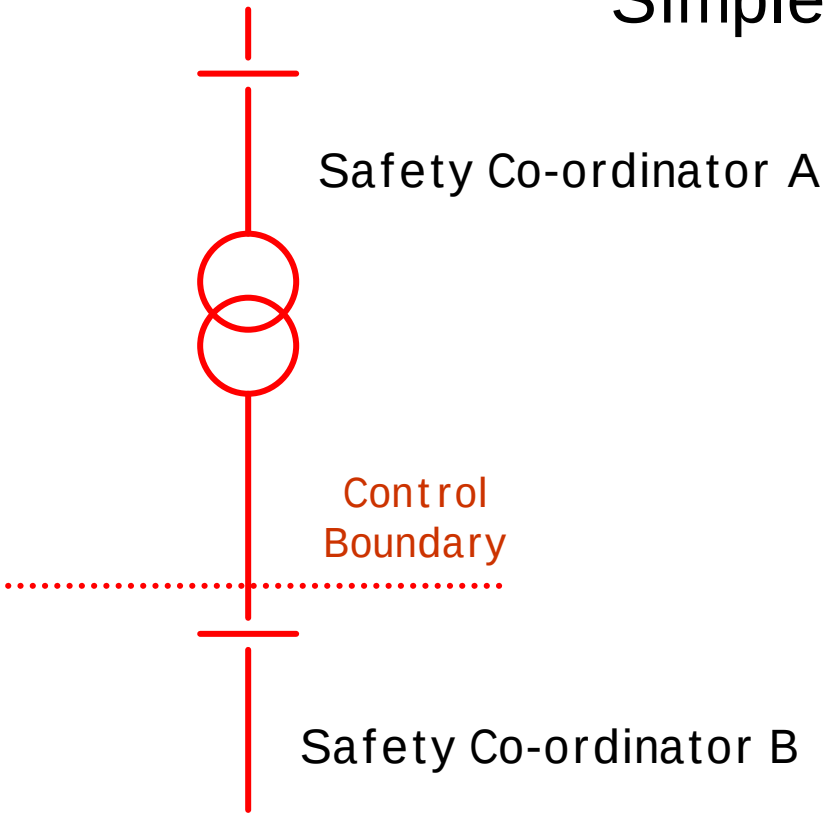
OC8 / RISSP Philosophy



There can only be two Safety Co-ordinators interfacing across a control boundary

OC8 / RISSP Philosophy

Simple example



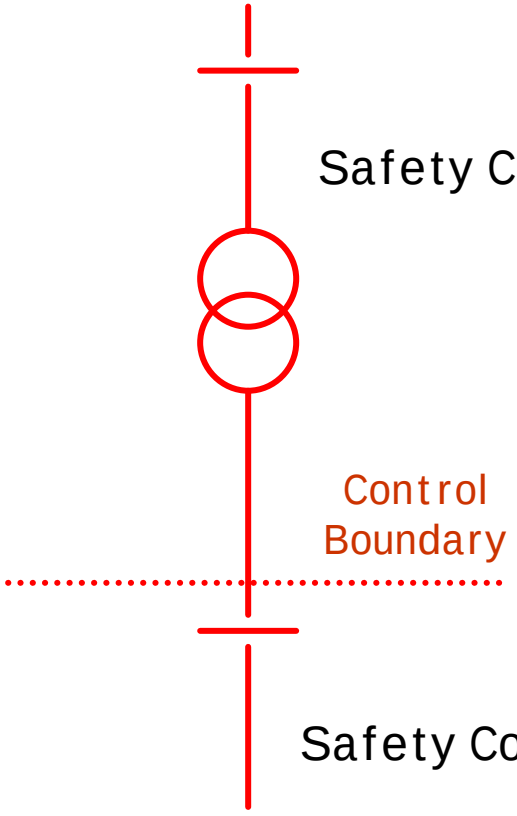
Work required on Safety Co-ordinator A Transformer

Co-ordinator A incapable of instructing all required precautions

Communication with Safety Co-ordinator B to Request safety from his system

OC8 / RISSP Philosophy

Simple example



Safety Co-ordinator A becomes the Requesting Safety Co-ordinator as defined in the Grid Code

Safety Co-ordinator B becomes the Implementing Safety Co-ordinator as defined in the Grid Code

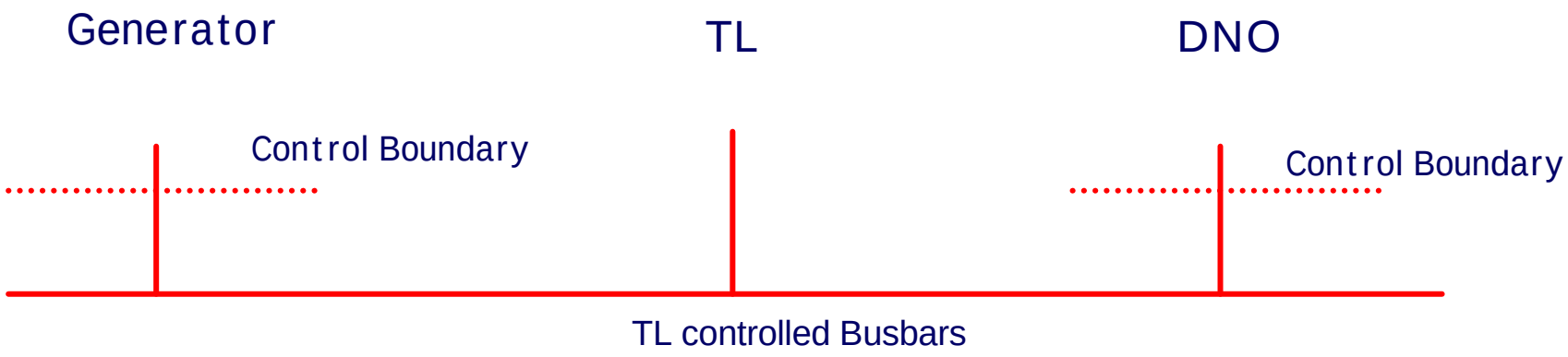
OC8 / RISSP Philosophy

Points to note

- There is no requirement for either Safety Co-ordinator to know the details of the circuit beyond the boundary
- Only the name and location of the circuit is required
- If work is required on both sides of the boundary then each Safety Coordinator enacts the role of Requester and Implementer, as they are both providing safety precautions for each other
- Each piece of HV equipment connected to the system must be under the control of someone who the Grid Code describes as a Safety Co-ordinator or other Responsible Engineer

More Complex Issues

Cascade of Precautions



Generators rarely have to Cascade RISSPs as they do not control the busbars.Ref.OC8.5.1.2

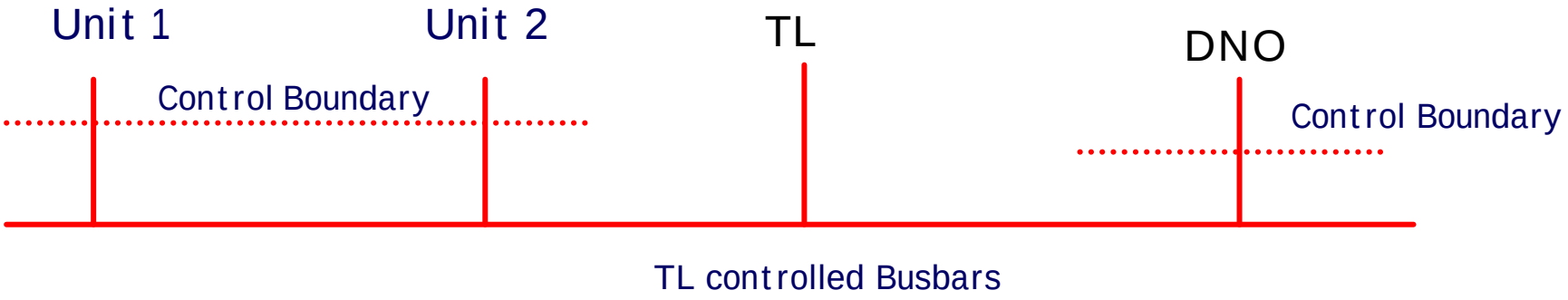
The Same Principle as in the simple example i.e. only two Safety Co-ordinators interface at any boundary point.

The TL requests precautions from one Safety Co-ordinator which are cascaded via an implementing RISSP to another.

If all three parties are working at the same time there will be four RISSPs in place.

More Complex Issues

Linkage of Safety Precautions **Ref. OC8.5.1.3**



When the TL are acting as an Implementing Safety Co -ordinator for work on Unit 1 they inform the Generator Safety Co-ordinator that safety can only be guaranteed if safety is maintained on his own Unit 2 Circuit.

The Generator Safety Co-ordinator may not have a Busbar diagram available

Other Considerations

- The STC now allows precautions to be cascaded through the RISSP procedure, where the former British Grid System Agreement did not allow this
- Testing Across Control Boundaries (OC8.6)
- Emergency Situations (OC8.7)
- Proximity PFW (OC8.8)
- Exchange of Keys

Other Considerations: Testing

TESTING ACROSS CONTROL BOUNDARIES

Other Considerations: Testing

Testing across Control Boundaries

Points to note:

1. **Testing across a Control Boundary is carried out under a specific safety document**
2. **The Requesting Safety Co-ordinator must inform the implementing Safety Co-ordinator when intending to test across a Control Boundary**

Other Considerations: Testing

Testing across control boundaries

3. All other Safety Documents must be cancelled and only the testing Safety Document shall be in force across the boundary

4. The intention to test across a Boundary will be recorded with the Implementing Safety Co-ordinator

5. Only one Requesting / Implementing RISSP will be in force

Other Considerations: Testing

Testing across control boundaries

6. When parties have agreed that testing can take place the holder of the testing safety document may remove the earths quoted on the RISSP

7. When testing, the safety control of the whole zone passes to the recipient of the Testing Safety Document, this overrides that specified in the Site Responsibility Schedule.

Other Considerations: Testing

Cancellation of Testing Requirements

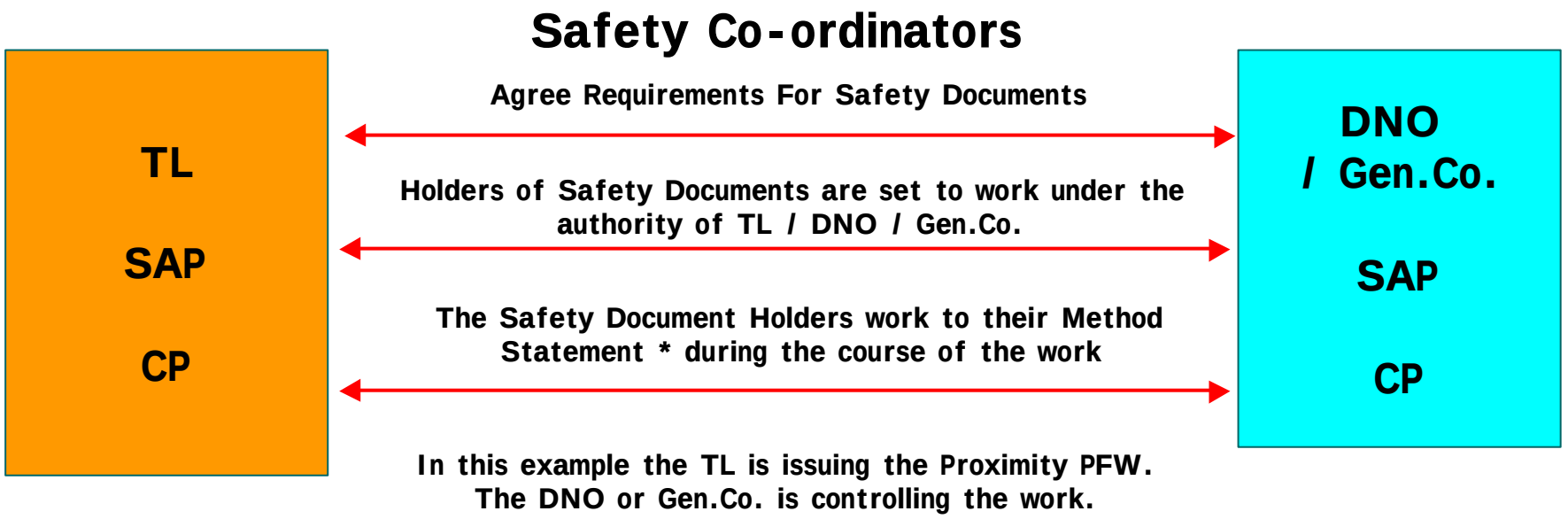
1. When testing is complete the Implementing Safety Co-ordinator will be contacted to record the cancellation of the testing requirements
2. The status of the equipment transferred during the testing shall be recorded on cancellation of the RISSP
3. When a Testing Document is cancelled with an exception which invalidates the RISSP, the RISSP will be cancelled without delay

Other Considerations: Emergencies

- Grid Code OC8.7

  Where there is an inadvertent connection between systems, this part of the Grid Code defines how the safety precautions & RISSP process will be controlled

Other Considerations: Proximity PFW Ref. OC8.8



*Under Regulation 3 of the Management of Health & Safety at Work Regulations any significant risk must be recorded

It is the responsibility of the person controlling the work to ensure the method statement is correct. This will include control measures required by the TL. whose HV equipment is being infringed.

The Proximity Permit For Work allows work defined in the method statement, but only in regard to that part of the method statement where there is proximity to the others equipment	The Method Statement for the work covers all the work. In regard to work near to the HV Equipment, that part of the Method Statement quoted on the Proximity PFW shall be followed

TL: Transmission Licensee
SAP: Senior Authorised Person, that person authorised by a company to issue safety documents
CP: Competent Person.The holder of the Proximity PFW and leader of the working party for the whole job

Other Considerations: Proximity PFW

Where a RISSP is in force for the TL to maintain the Super Grid bus bar selector isolator and the DNO controls the bus bars, the Implementing RISSP from the DNO provides adequate safety precautions for the work on the Super Grid bus bar selector isolators

A Proximity PFW is only issued where safety distances could be infringed to HV equipment not electrically connected. For example a radio mast adjacent to a circuit

Other Considerations: Key Safe Keys

Where reasonably practicable Key Safe Keys securing isolation and any earthing must be given to a site representative of the Requesting Safety Co-ordinator

RISSP Issue

THE RISSP PROCEDURE

RISSP Issue

General Requirements

Dialogue is required between Safety Co-ordinators to clarify:

- The equipment to be worked on
- The safety precautions required
- If Delegation of Authority of the Control Person Role, (DOA) is to be given or received
- This dialogue should be logged in the location Safety log
- Continuous 24 hrs. availability is a Grid Code requirement, but give as much notice as possible

RISSP Issue

Specific Requirements

- All Parties must establish and confirm that Isolations are in place.
- Only when all Isolations are confirmed can the Safety Co-ordinators agree to the application of Earths.
- Confirmation may only be received or given between the Safety Co-ordinators, not other site staff.

RISSP Issue

Specific Requirements

- Details of Isolations and Earths in place will be recorded in the HV Switching Logs
- Only when all isolations and earths (where applicable) are in place and secure can the respective RISSP forms be completed
- In the Control Person's role a key from the Key Safe securing the isolation may be retained with the Implementing RISSP if deemed Reasonably Practicable

RISSP Issue

Specific Requirements

- Safety precautions may only be cascaded to another party when they have been recorded on a Requesting RISSP
- Even when the precautions have been established under a DOA they cannot be cascaded to another party without being recorded on a RISSP

RISSP Issue

- Both types of RISSP Form carry the same information
- They are completed at the same time by both the Requesting and Implementing Safety Co-ordinators
- Follow the same protocol as a Switching Instruction.

RISSP Cancellation

When safety precautions are no longer required, (i.e. all work complete on the Requesting side of the boundary and any Safety documents cancelled), the Requesting Safety Co-ordinator will contact the Implementing Safety Co-ordinator to effect cancellation of the RISSP

- Each party then co-ordinates the removal of safety precautions (earths followed by isolation) and then return to service of the circuit

RISSP Examples

OC8A

The RISSP-R Form Requesting Safety Co-ordinators Record. Front View

OC8A - APPENDIX A

[**NGET**] [_____ **CONTROL CENTRE/SITE**]

RECORD OF INTER-SYSTEM **SAFETY PRECAUTIONS** (RISSP-R)
(**Requesting Safety Co-ordinator's** Record)

RISSP NUMBER

PART 1

1.1 **HV APPARATUS** IDENTIFICATION

Safety Precautions have been established by the **Implementing Safety Co-ordinator** (or by another **User** on that **User's System** connected to the **Implementing Safety Co-ordinator's System**) to achieve (in so far as it is possible from that side of the **Connection Point**) **Safety From The System** on the following **HV Apparatus** on the **Requesting Safety Co-ordinator's System**: [State identity - name(s) and, where applicable, identification of the **HV** circuit(s) up to the **Connection Point**]:

_____

_____

Further **Safety precautions** required on the **Requesting Safety Co-ordinator's System** as notified by the **Implementing Safety Co-ordinator**.

_____

1.2 **SAFETY PRECAUTIONS** ESTABLISHED

(a) **ISOLATION**

[State the **Location(s)** at which **Isolation** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location,** identify each point of **Isolation**. For each point of **Isolation**, state the means by which the **Isolation** has been achieved, and whether, immobilised and **Locked**, **Caution Notice** affixed, other safety procedures applied, as appropriate.]

_____

_____

_____

(b) **EARTHING**

[State the **Location(s)** at which **Earthing** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location**, identify each point of **Earthing**. For each point of **Earthing**, state the means by which **Earthing** has been achieved, and whether, immobilised and **Locked**, other safety procedures applied, as appropriate].

_____

_____

_____

1.3 ISSUE

I have received confirmation from _____ (name of **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** identified in paragraph 1.2 have been established and that instructions will not be issued at his location for their removal until this **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

PART 2

2.1 CANCELLATION

I have confirmed to _____ (name of the **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** set out in paragraph 1.2 are no longer required and accordingly the **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

RISSP Examples

OC8A

The RISSP-I Form Implementing Safety Co-ordinator's Record.

Front view

OC8A - APPENDIX B

[**NGET**] [_____ **CONTROL CENTRE/SITE**]

RECORD OF INTER-SYSTEM **SAFETY PRECAUTIONS** (RISSP-I)
(**Implementing Safety Co-ordinator**'s Record)

PART 1 **RISSP** NUMBER

1.1 **HV APPARATUS** IDENTIFICATION

Safety Precautions have been established by the **Implementing Safety Co-ordinator** (or by another **User** on that **User's System** connected to the **Implementing Safety Co-ordinator's System**) to achieve (in so far as it is possible from that side of the **Connection Point**) **Safety From The System** on the following **HV Apparatus** on the **Requesting Safety Co-ordinator's System**: [State identity - name(s) and, where applicable, identification of the **HV** circuit(s) up to the **Connection Point**]:

_____

_____

Recording of notification given to the **Requesting Safety Co-ordinator** concerning further **Safety Precautions** required on the **Requesting Safety Co-ordinator's System**.

1.2 **SAFETY PRECAUTIONS** ESTABLISHED

(a) **ISOLATION**

[State the **Location(s)** at which **Isolation** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location,** identify each point of **Isolation**. For each point of **Isolation**, state the means by which the **Isolation** has been achieved, and whether, immobilised and **Locked**, **Caution Notice** affixed, other safety procedures applied, as appropriate.]

_____

_____

_____

(b) **EARTHING**

[State the **Location(s)** at which **Earthing** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location**, identify each point of **Earthing**. For each point of **Earthing**, state the means by which **Earthing** has been achieved, and whether, immobilised and **Locked**, other safety procedures applied, as appropriate].

_____

_____

_____

1.3 ISSUE

I have confirmed to _____ (name of **Requesting Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** identified in paragraph 1.2 have been established and that instructions will not be issued at my location for their removal until this **RISSP** is cancelled.

Signed .....(**Implementing Safety Co-ordinator**)

at .....(time) on ..... (Date)

PART 2

2.1 CANCELLATION

I have received confirmation from _____ (name of the **Requesting Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** set out in paragraph 1.2 are no longer required and accordingly the **RISSP** is cancelled.

Signed .....(**Implementing Safety Co-ordinator**)

at .....(time) on ..... (Date)

(Note: This form to be of a different colour from RISSP-R)

RISSP Examples: OC8A

The Location Name

The RISSP number as quoted by the Requesting Safety Co-ordinator

Identification of the HV Apparatus to be worked on and circuits up to the connection point, agreed by both Safety Co-ordinators

Details of apparatus that in the opinion of the Implementing Safety Co-ordinator should be included in the Safety Precautions taken and reported to the Requesting Safety Co-ordinator

OC8A - APPENDIX A

[**NGET**] [_____ **CONTROL CENTRE/SITE**]

RECORD OF INTER-SYSTEM **SAFETY PRECAUTIONS** (RISSP-R)
(**Requesting Safety Co-ordinator's** Record)

RISSP NUMBER

PART 1

1.1 **HV APPARATUS** IDENTIFICATION

the **Connection Point**) **Safety From The System** on the following **HV Apparatus** on the **Requesting Safety Co-ordinator's System**: [State identity - name(s) and, where applicable, identification of the **HV** circuit(s) up to the **Connection Point**]:

_____

_____

Further **Safety precautions** required on the **Requesting Safety Co-ordinator's System** as notified by the **Implementing Safety Co-ordinator**.

_____

1.2 **SAFETY PRECAUTIONS** ESTABLISHED.

(a) **ISOLATION**

[State the **Location(s)** at which **Isolation** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location,** identify each point of **Isolation**. For each point of **Isolation**, state the means by which the **Isolation** has been achieved, and whether, immobilised and **Locked**, **Caution Notice** affixed, other safety procedures applied, as appropriate.]

_____

_____

_____

(b) **EARTHING**

[State the **Location(s)** at which **Earthing** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location**, identify each point of **Earthing**. For each point of **Earthing**, state the means by which **Earthing** has been achieved, and whether, immobilised and **Locked**, other safety procedures applied, as appropriate].

_____

_____

_____

1.3 ISSUE

I have received confirmation from _____ (name of **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** identified in paragraph 1.2 have been established and that instructions will not be issued at his location for their removal until this **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

PART 2

2.1 CANCELLATION

I have confirmed to _____ (name of the **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** set out in paragraph 1.2 are no longer required and accordingly the **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

RISSP Examples: OC8A

Details of Safety Precautions established and secured by the Implementing Safety Co-ordinator

It is the Implementing Safety Co-ordinator's responsibility to state the precautions held

Details of Earths applied & confirmed as above

The Implementing Safety Coordinator states the earths applied for the Requesting Safety Cc-ordinator's benefit

OC8A - APPENDIX B

[**NGET**] [_____ **CONTROL CENTRE/SITE**]

RECORD OF INTER-SYSTEM **SAFETY PRECAUTIONS** (RISSP-I)
(Implementing Safety Co-ordinator's Record)

PART 1 **RISSP** NUMBER

1.1 **HV APPARATUS** IDENTIFICATION

Safety Precautions have been established by the **Implementing Safety Co-ordinator** (or by another **User** on that **User's**

Recording of notification given to the **Requesting Safety Co-ordinator** concerning further **Safety Precautions** required on the **Requesting Safety Co-ordinator's System**.

1.2 **SAFETY PRECAUTIONS** ESTABLISHED

(a) **ISOLATION**

[State the **Location(s)** at which **Isolation** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location,** identify each point of **Isolation**. For each point of **Isolation**, state the means by which the **Isolation** has been achieved, and whether, immobilised and **Locked**, **Caution Notice** affixed, other safety procedures applied, as appropriate.]

(b) **EARTHING**

[State the **Location(s)** at which **Earthing** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location**, identify each point of **Earthing**. For each point of **Earthing**, state the means by which **Earthing** has been achieved, and whether, immobilised and **Locked**, other safety procedures applied, as appropriate].

1.3 ISSUE

I have confirmed to _____ (name of **Requesting Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** identified in paragraph 1.2 have been established and that instructions will not be issued at my location for their removal until this **RISSP** is cancelled.

Signed .....(**Implementing Safety Co-ordinator**)

at .....(time) on ..... (Date)

PART 2

2.1 CANCELLATION

I have received confirmation from _____ (name of the **Requesting Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** set out in paragraph 1.2 are no longer required and accordingly the **RISSP** is cancelled.

Signed .....(**Implementing Safety Co-ordinator**)

at .....(time) on ..... (Date)

(Note: This form to be of a different colour from RISSP-R)

RISSP Examples: OC8A

Both Requesting and Implementing Safety Co-ordinators shall complete and sign part 1.3 of the RISSP-R and RISSP-I forms respectively.

Once signed no alterations are permitted The RISSP can only be cancelled

When safety precautions are no longer required, (i.e. all work complete and any Safety documents Cancelled), the Requesting Safety Co-ordinator will contact the Implementing Safety Coordinator to effect cancellation of the RISSP

OC8A - APPENDIX A

[**NGET**] [_____ **CONTROL CENTRE/SITE**]

RECORD OF INTER-SYSTEM **SAFETY PRECAUTIONS** (RISSP-R)
(**Requesting Safety Co-ordinator's** Record)

RISSP NUMBER

PART 1

1.1 **HV APPARATUS** IDENTIFICATION

the **Connection Point**) **Safety From The System** on the following **HV Apparatus** on the **Requesting Safety Co-ordinator's System**: [State identity - name(s) and, where applicable, identification of the **HV** circuit(s) up to the **Connection Point**]:

_____

_____

Further **Safety precautions** required on the **Requesting Safety Co-ordinator's System** as notified by the **Implementing Safety Co-ordinator**.

_____

1.2 **SAFETY PRECAUTIONS** ESTABLISHED

(a) **ISOLATION**

[State the **Location(s)** at which **Isolation** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location,** identify each point of **Isolation**. For each point of **Isolation**, state the means by which the **Isolation** has been achieved, and whether, immobilised and **Locked**, **Caution Notice** affixed, other safety procedures applied, as appropriate.]

_____

_____

_____

(b) **EARTHING**

[State the **Location(s)** at which **Earthing** has been established (whether on the **Implementing Safety Co-ordinator's System** or on the **System** of another **User** connected to the **Implementing Safety Co-ordinator's System**). For each **Location**, identify each point of **Earthing**. For each point of **Earthing**, state the means by which **Earthing** has been achieved, and whether, immobilised and **Locked**, other safety procedures applied, as appropriate].

_____

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_____

1.3 ISSUE

I have received confirmation from _____ (name of **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** identified in paragraph 1.2 have been established and that instructions will not be issued at his location for their removal until this **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

PART 2

2.1 CANCELLATION

I have confirmed to _____ (name of the **Implementing Safety Co-ordinator**) at _____ (location) that the **Safety Precautions** set out in paragraph 1.2 are no longer required and accordingly the **RISSP** is cancelled.

Signed .....(**Requesting Safety Co-ordinator**)

at .....(time) on ..... (Date)

Version 2.0

RISSP Examples: OC8B

OC8 B

The RISSP-R FORM

Requesting Safety

Co-ordinator's Record.

Front view

OC8B - APPENDIX A

RECORD OF INTER-SYSTEM SAFETY PRECAUTIONS (RISSP-R)
(Requesting Safety Co-ordinator's Record)

RISSP NUMBER _____

Part 1

1.1 CIRCUIT IDENTIFICATION

Safety Precautions have been established by the Implementing Safety Co-ordinator to achieve Safety From The System on the following HV Apparatus:

_____

_____

_____

_____

_____

_____

1.2 SAFETY PRECAUTIONS ESTABLISHED

(a) ISOLATION

State the Locations(s) at which Isolation has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Isolation. For each point of Isolation state, the means by which the Isolation has been achieved, and whether, immobilised and Locked, Caution Notice affixed, other Safety Precautions applied, as appropriate.

_____

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RISSP Examples: OC8B

The RISSP-R FORM

Requesting Safety

Co-ordinator's Record.

Rear View

OC8B - APPENDIX A

(b) EARTHING

State the Locations(s) at which Earthing has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Earthing. For each point of Earthing state, the means by which the Earthing has been achieved, and whether, immobilised and Locked, other Safety Precautions applied, as appropriate.

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1.3 ISSUE

I have received confirmation from _____ (name of Implementing Safety Co-ordinator) at _____ (Location) that the Safety Precautions identified in paragraph 1.2 have been established and that instructions will not be issued at his Location for their removal until this RISSP is cancelled.

Signed ..... (Requesting Safety Co-ordinator)

at ..... (time) on ..... (date)

PART 2

2.1 CANCELLATION

I have confirmed to _____ (name of the Implementing Safety Co-ordinator) at _____ (Location) that the Safety Precautions set out in paragraph 1.2 are no longer required and accordingly the RISSP is cancelled.

Signed ..... (Requesting Safety Co-ordinator)

at ..... (time) on ..... (date)

RISSP Examples: OC8B

The RISSP-I FORM

Requesting Safety

Co-ordinator's Record.

Front view

OC8B - APPENDIX B

RECORD OF INTER-SYSTEM SAFETY PRECAUTIONS (RISSP-I)
(Implementing Safety Co-ordinator's Record)

RISSP NUMBER _____

PART 1

1.1 CIRCUIT IDENTIFICATION

Safety Precautions have been established by the Implementing Safety Co-ordinator to achieve Safety From The System on the following HV Apparatus:

_____

_____

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_____

1.2 SAFETY PRECAUTIONS ESTABLISHED

(a) ISOLATION

State the Location(s) at which isolation has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Isolation. For each point of Isolation state, the means by which the Isolation has been achieved, and whether, immobilised and Locked, Caution Notice affixed, other Safety Precautions applied, as appropriate.

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RISSP Examples: OC8B

The RISSP-I FORM

Requesting Safety

Co-ordinator's Record.

Rear view

(b) EARTHING

State the Location(s) at which Earthing has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Earthing. For each point of Earthing state, the means by which the Earthing has been achieved, and whether, immobilised and Locked, other Safety Precautions applied, as appropriate.

_____

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1.3 ISSUE

I confirmed to _____ (name of Requesting Safety Co-ordinator) at _____ (Location) that the Safety Precautions identified in paragraph 1.2 have been established and that instructions will not be issued at my Location for their removal until this RISSP is cancelled.

Signed ..... (Implementing Safety Co-ordinator)

at ..... (time) on ..... (date)

PART 2

2.1 CANCELLATION

I have received confirmation from _____ (name of the Requesting Safety Co-ordinator) at _____ (Location) that the Safety Precautions set out in paragraph 1.2 are no longer required and accordingly the RISSP is cancelled.

Signed ..... (Implementing Safety Co-ordinator)

at ..... (time) on ..... (date)

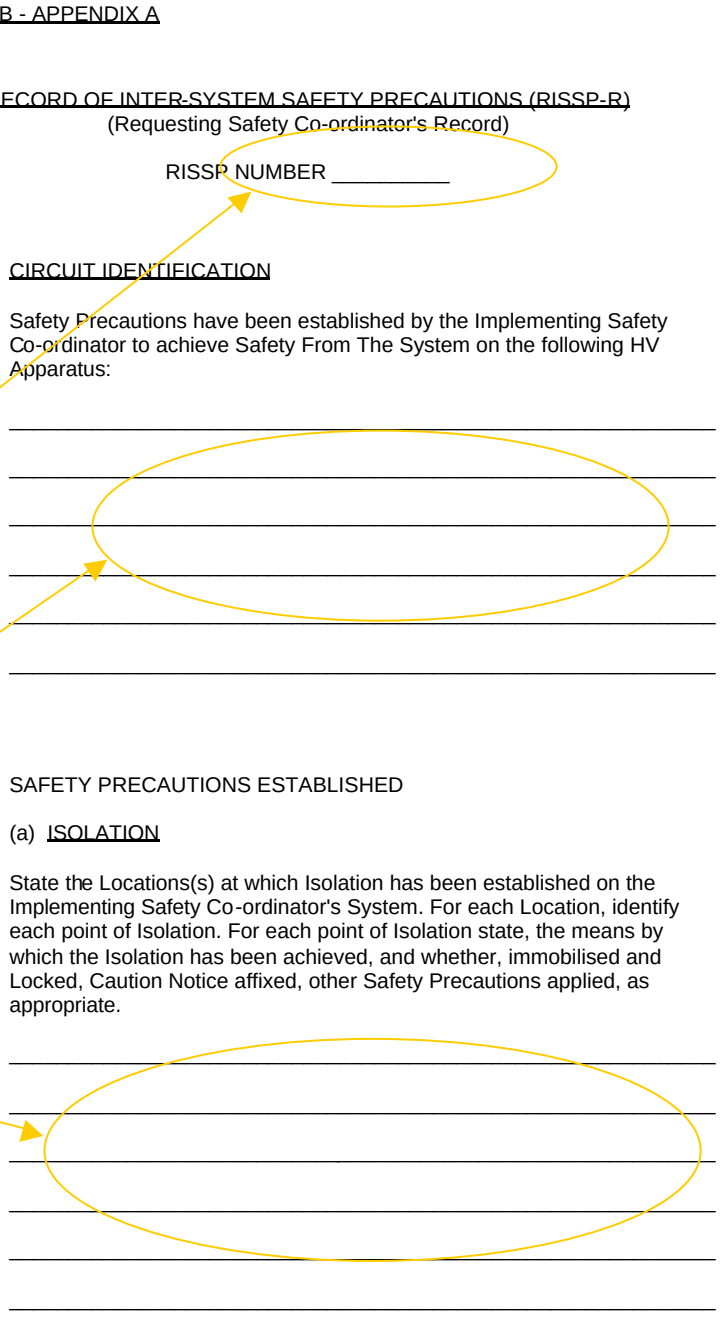
(Note: This form to be of a different colour from RISSP-R.)

RISSP Examples: OC8B

The RISSP number as quoted by the Requesting Safety Co-Ordinator

Identification of the HV Apparatus to be worked on and circuits up to the connection point, agreed by both Safety Co-ordinators

Details of apparatus that in the opinion of the Implementing Safety Co-ordinator should be included in the Safety Precautions taken and reported to the requesting Safety Co-ordinator



OC8B - APPENDIX A

RECORD OF INTER-SYSTEM SAFETY PRECAUTIONS (RISSP-R)
(Requesting Safety Co-ordinator's Record)

RISSP NUMBER _____

1.1 CIRCUIT IDENTIFICATION

Safety Precautions have been established by the Implementing Safety Co-ordinator to achieve Safety From The System on the following HV Apparatus:

_____
_____
_____
_____
_____
_____

1.2 SAFETY PRECAUTIONS ESTABLISHED

(a) ISOLATION

State the Locations(s) at which Isolation has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Isolation. For each point of Isolation state, the means by which the Isolation has been achieved, and whether, immobilised and Locked, Caution Notice affixed, other Safety Precautions applied, as appropriate.

_____
_____
_____
_____
_____
_____

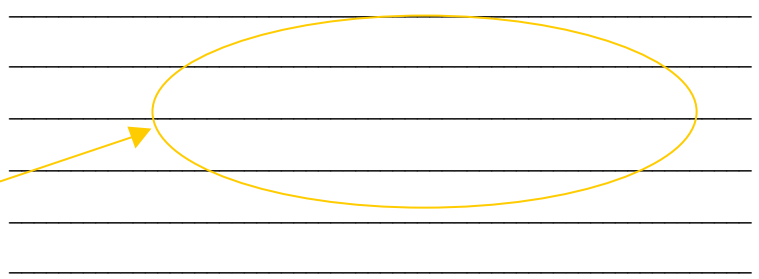
RISSP Examples: OC8B

Details of Earths applied and confirmed as above

The Implementing Safety Co-ordinator states the earths applied for the Requesting Safety Co-ordinator's benefit

(b) EARTHING

State the Location(s) at which Earthing has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Earthing. For each point of Earthing state, the means by which the Earthing has been achieved, and whether, immobilised and Locked, other Safety Precautions applied, as appropriate.



1.3 ISSUE

I confirmed to _____ (name of Requesting Safety Co-ordinator) at _____ (Location) that the Safety Precautions identified in paragraph 1.2 have been established and that instructions will not be issued at my Location for their removal until this RISSP is cancelled.

Signed ..... (Implementing Safety Co-ordinator)

at ..... (time) on ..... (date)

PART 2

2.1 CANCELLATION

I have received confirmation from _____ (name of the Requesting Safety Co-ordinator) at _____ (Location) that the Safety Precautions set out in paragraph 1.2 are no longer required and accordingly the RISSP is cancelled.

Signed ..... (Implementing Safety Co-ordinator)

at ..... (time) on ..... (date)

(Note: This form to be of a different colour from RISSP-R.)

RISSP Examples: OC8B

Both Requesting and Implementing Safety Co-ordinators shall complete and sign part 1.3 of the RISSP-R and RISSP-I forms respectively

Once signed no alterations are permitted The RISSP can only be cancelled

When safety precautions are no longer required, (i.e. all work complete and any Safety documents Cancelled), the Requesting Safety Co-ordinator will contact the Implementing Safety Co-ordinator to effect cancellation of the RISSP

OC8B - APPENDIX A

(b) EARTHING

State the Locations(s) at which Earthing has been established on the Implementing Safety Co-ordinator's System. For each Location, identify each point of Earthing. For each point of Earthing state, the means by which the Earthing has been achieved, and whether, immobilised and Locked, other Safety Precautions applied, as appropriate.

_____

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1.3 ISSUE

I have received confirmation from _____ (name of Implementing Safety Co-ordinator) at _____ (Location) that the Safety Precautions identified in paragraph 1.2 have been established and that instructions will not be issued at his Location for their removal until this RISSP is cancelled.

Signed ..... (Requesting Safety Co-ordinator)

at ..... (time) on ..... (date)

PART 2

2.1 CANCELLATION

I have confirmed to _____ (name of the Implementing Safety Co-ordinator) at _____ (Location) that the Safety Precautions set out in paragraph 1.2 are no longer required and accordingly the RISSP is cancelled.

Signed ..... (Requesting Safety Co-ordinator)

at ..... (time) on ..... (date)

Case Studies

Make case studies site specific

Case Study 1

You are the Safety Co-ordinator and the TL require to work on Main Busbar 2

Generators 1 & 2 and their associated switches are owned by your company up to the busbar connections

Discuss the procedure, the precautions required and describe

Case Studies

Case Study 2

You are the Safety Co-ordinator and you require to work on X496

Generators 3 & 4 and their associated switches are owned by another company up to the busbar connections

Discuss the procedure, the precautions required and describe

Learning Points

When Things go wrong !!

The following slides show details of actual near misses involving Safety Co-ordination across the Control Boundaries

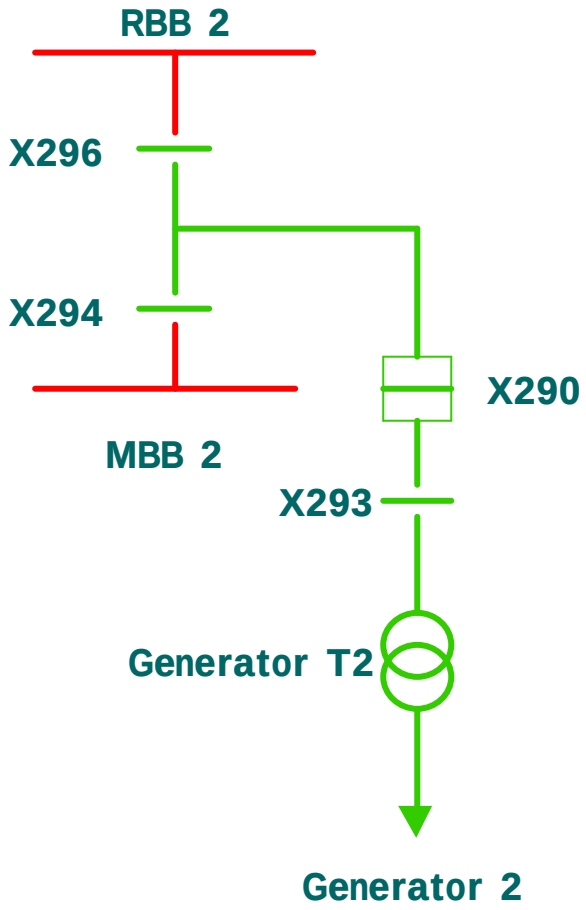
Learning Points

Control Interfaces

- In the past evidence suggests that the management of safety across control boundaries is problematic
- Past incident reports have emphasised this point
- Communication problems seem to be evident
- Lack of commonality between companies seems to be an issue

Learning Points

400kv Substation Near Miss 1



TL Controlled

GEN Controlled

- **All equipment subject to TL safety rules**
- **Work to be carried out by TL on Power Station controlled isolator X296**
- **RISSP requested by Power Station to hold precautions on Reserve Busbar 2**
- **RISSP cancelled prematurely with Power Station safety documents still in place**

Learning Points

400kv Substation Near Miss 1

The Generator Safety Co-ordinator was at fault.

Before cancelling the RISSP, acknowledgement of the completion of the work on X296 should have been confirmed

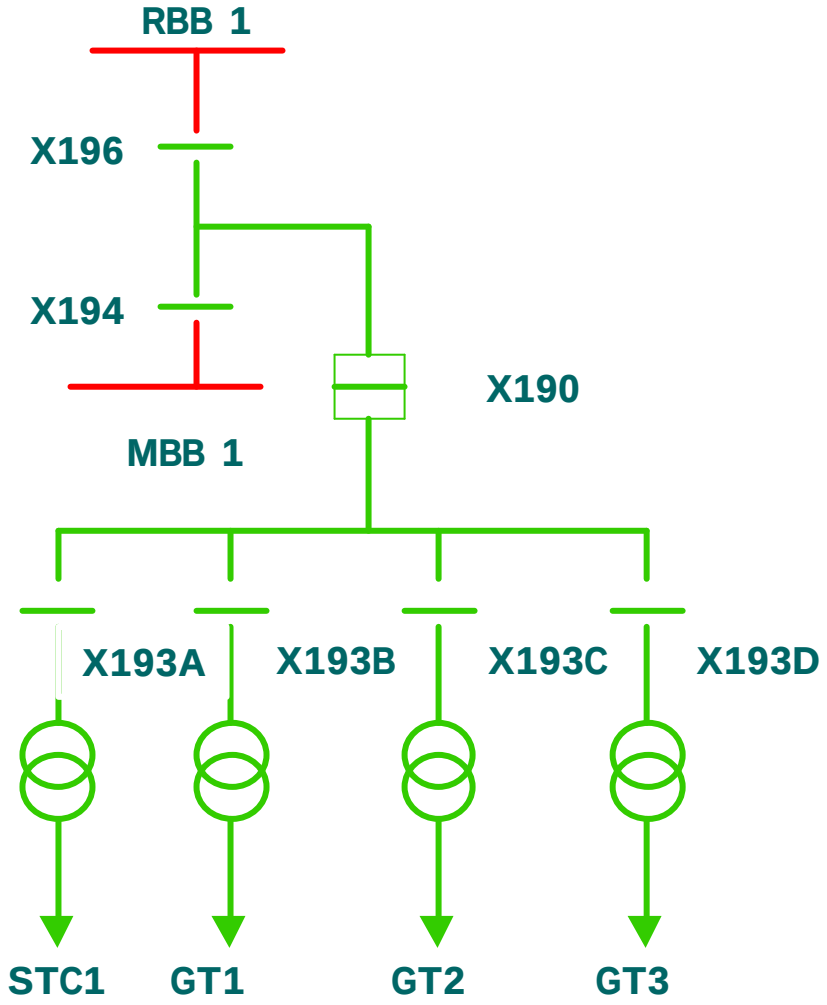
Learning Points

400kv Substation Near Miss 2

TL Controlled

GEN Controlled

- **Work required on X196 and X190 under TL Safety Rules**
- **Three TL requesting RISSPs cancelled because of either inadequate isolation or description of isolation**
- **Fourth RISSP correct**
- **Implementing TL RISSP cancelled and re-issued due to earthing requirements.**
- **Whole process took close to four hours**



Learning Points

400kv Substation Near Miss 2

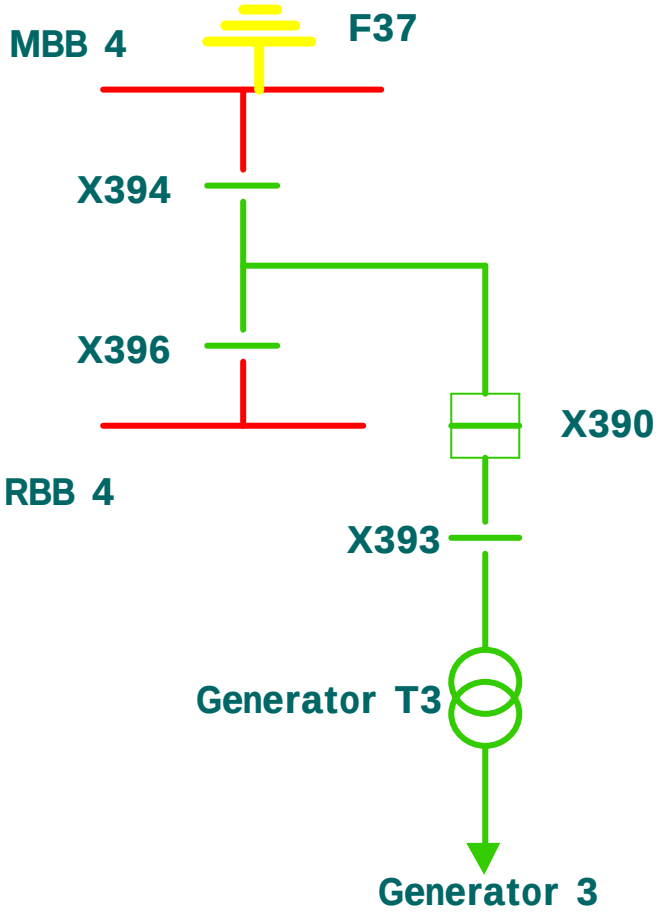
On this occasion both Safety Co-ordinators demonstrated inadequacies in their approach

The preamble should have clarified the extent of the work and what actions were required to provide the necessary safety precautions

The trial and error approach, until the correct RISSP is achieved, is unacceptable

Learning Points

400kv Substation Near Miss 3



TL Controlled

GEN Controlled

- **A RISSP quoting MBB 4 isolation and Fixed Earth Device F37 was implemented by TL for work on X394**
- **Prior to the cancellation of the RISSP Fixed Earth Device F37 had been removed**
- **The Fixed Earth Device had been removed by the TL SAP under an instruction issued by the station**
- **The TL SAP had led the Safety Co-ordinator into this course of action**

Learning Points

400kv Substation Near Miss 3

This example clearly demonstrates what should not happen

The Safety Co-ordinator should be the key decision maker under these circumstances, and have a full understanding of the procedures and protocol

The SAP should not be taking the lead and directing the actions of the Safety Co-ordinator

Pause to fully understand issues before proceeding

End of Course Questionnaire

END