

Grid Code Review Panel Paper
Management of Safety Keys in OC8

Paper prepared by Richard Scarth Network Operations Centre (NOC)

Introduction

1. In NGC's ongoing discussions with generators in relation to the management of the RISSP process at generator sites, best practice has been agreed as:

"To ensure that safety keys (were reasonably practicable) shall be given to the site representative of the Requesting Safety Co-ordinator, where the Implementing & Requesting Safety Co-ordinators are at the same Complex or Connection Site".

Background information

2. The issues for the generators are clear. It will be relatively easy for the generators to comply with safety keys being given to the Site Representative of the Requesting Safety Co-ordinator. The receiving of keys will give extra confidence at site that the OC8 requirements have been completed & will remain in place until the keys are returned.
3. From some Generator's discussions with the Health & Safety Executive (HSE) it is known that the HSE take the view that it is reasonably practicable for keys to be exchanged at the same Complex or Connection Site.
4. As NGC has more interfaces with the DNOs, NGC has agreed to develop the proposal for submission to the Grid Code Panel.
5. The proposed change will be welcome for NGC, as former incidents with Users could have been avoided had keys been given to a Site Representative of the Requesting Safety Co-ordinator.
6. Best practise within NGC is already defined along the proposed model.

"Reasonably Practicable" in relation to Key Safe Keys

7. It is Reasonably Practicable for Key Safe Keys to be given to the Site Representative of the Requesting Safety Co-ordinator where those Safety Precautions are at the same Complex or Connection Site as the Site Representative of the Requesting Safety Co-ordinator.
8. Examples of where it is not likely to be Reasonably Practicable to give Key Safe Keys to the Site Representative would be,
 - where the Isolation or Earthing is implemented remotely from the Connection Site or Complex ;

- there is a significant distance between the Site Representatives of the Requesting and Implementing Safety Co-ordinators. E.G. Opposite ends of feeder circuits & sites remote from each other.

Proposed Changes to The Grid Code

9. Changes are proposed in three areas of the Grid Code.
 1. In the Glossary and Definitions.
 2. Defined Terms within OC8.
 3. Implementation of Safety Precautions (Isolation and Earthing) within OC8.5.
10. The proposed changes are shown in Appendix 1.

The Way Forward

11. GCRP Members are invited:
 - Consider and discuss the issues associated with Safety Keys;
 - Consider the proposed Grid Code changes and suggest alternative text if appropriate
12. Following discussion at the GCRP, and having taken into account any comment from GCRP members, National Grid intends to initiate a wider consultation on the proposed Grid Code changes.

APPENDIX 1

1. Proposed changes to Glossary and Definitions:

Isolation The disconnection of **HV Apparatus** (as defined in OC8.1.5.2) from the remainder of the **System** in which that **HV Apparatus** is situated by either of the following:

- (a) an **Isolating Device** maintained in an isolating position. The isolating position must either be:
 - (i) maintained by immobilising and **Locking** the **Isolating Device** in the isolating position and affixing a **Caution Notice** to it. Where the **Isolating Device** is **Locked** with a **Safety Key**, the **Safety Key** must be secured in a **Key Safe** and the **Key Safe Key** must be given to the site representative of the **Requesting Safety Coordinator** where reasonably practicable or where not reasonably practicable the **Key Safe Key** must be retained in safe custody; or
 - (ii) maintained and/or secured by such other method which must be in accordance with the **Local Safety Instructions** of **NGC** or that **User**, as the case may be; or
- (b) an adequate physical separation which must be in accordance with, and maintained by, the method set out in the **Local Safety Instructions** of **NGC** or that **User**, as the case may be.

Earthing A way of providing a connection between conductors and earth by an **Earthing Device** which is either:

- (i) immobilised and **Locked** in the earthing position. Where the **Earthing Device** is **Locked** with a **Safety Key**, the **Safety Key** must be secured in a **Key Safe** and the **Key Safe Key** must be given to the site representative of the **Requesting Safety Coordinator** where reasonably practicable or where not reasonably practicable the **Key Safe Key** must be retained in safe custody; or
- (ii) maintained and/or secured in position by such other method which must be in accordance with the **Local**

Safety Instructions of **NGC** or that **User** as the case may be.

2. Proposed changes to OC8.1.5

"Isolation" means the disconnection of **Apparatus** from the remainder of the **System** in which that **Apparatus** is situated by either of the following:

- (a) an **Isolating Device** maintained in an isolating position. The isolating position must either be:
 - (i) maintained by immobilising and **Locking** the **Isolating Device** in the isolating position and affixing a **Caution Notice** to it. Where the **Isolating Device** is **Locked** with a **Safety Key**, the **Safety Key** must be secured in a **Key Safe** and the **Key Safe Key** must be given to the site representative of the Requesting Safety Coordinator where reasonably practicable or where not reasonably practicable the Key Safe Key must be retained in safe custody; or
 - (ii) maintained and/or secured by such other method which must be in accordance with the **Local Safety Instructions** of **NGC** or that **User**, as the case may be; or
- (b) an adequate physical separation which must be in accordance with, and maintained by, the method set out in the **Local Safety Instructions** of **NGC** or that **User**, as the case may be, and, if it is a part of that method, a **Caution Notice** must be placed at the point of separation.

"Earthing" means a way of providing a connection between conductors and earth by an **Earthing Device** which is either:

- (i) immobilised and **Locked** in the **earthing** position. Where the **Earthing Device** is **Locked** with a **Safety Key**, the **Safety Key** must be secured in a **Key Safe** and the **Key Safe Key** must be given to the site representative of the Requesting Safety Coordinator where reasonably practicable or where not reasonably practicable the Key Safe Key must be retained in safe custody; or

- (ii) maintained and/or secured in position by such other method which must be in accordance with the **Local Safety Instructions** of **NGC** or that **User** as the case may be.

3. Proposed changes to OC8.5.2.2

- OC8.5.2.2 The **Implementing Safety Co-ordinator** shall confirm to the **Requesting Safety Co-ordinator** that the agreed **Isolation** has been established, and identify the **Requesting Safety Co-ordinator's HV Apparatus** up to the **Connection Point**, for which the **Isolation** has been provided. The confirmation shall specify:
- (a) for each **Location**, the identity (by means of **HV Apparatus** name, nomenclature and numbering or position, as applicable) of each point of **Isolation**;
 - (b) whether **Isolation** has been achieved by an **Isolating Device** in the isolating position or by an adequate physical separation;
 - (c) where an **Isolating Device** has been used whether the isolating position is either :
 - (i) maintained by immobilising and **Locking** the **Isolating Device** in the isolating position and affixing a **Caution Notice** to it. Where the **Isolating Device** has been **Locked** with a **Safety Key** that the **Safety Key** has been secured in a **Key Safe** and the **Key Safe Key** will be has been given to the site representative of the Requesting Safety Coordinator where reasonably practicable or where not reasonably practicable that the Key Safe Key will be retained in safe custody; or
 - (ii) maintained and/or secured by such other method which must be in accordance with the **Local Safety Instructions** of **NGC** or that **User**, as the case may be; and
 - (d) where an adequate physical separation has been used that it will be in accordance with, and maintained by, the method set out in the **Local Safety Instructions** of **NGC** or that **User**, as the case may be, and, if it is a part of that method, that a **Caution Notice** has been placed at the point of separation.

The confirmation of **Isolation** shall be recorded in the respective **Safety Logs**.

4. Proposed changes to OC8.5.3.2.

OC8.5.3.2 The **Implementing Safety Co-ordinator** shall confirm to the **Requesting Safety Co-ordinator** that the agreed **Earthing** has been established, and identify the **Requesting Safety Co-ordinator's HV Apparatus** up to the **Connection Point**, for which the **Earthing** has been provided. The confirmation shall specify:

- (a) for each **Location**, the identity (by means of **HV Apparatus** name, nomenclature and numbering or position, as is applicable) of each point of **Earthing**; and
- (b) in respect of the **Earthing Device** used, whether it is:
 - (i) immobilised and **Locked** in the **earthing** position. Where the **Earthing Device** has been **Locked** with a **Safety Key**, that the **Safety Key** has been secured in a **Key Safe** and the **Key Safe Key** will be has been given to the site representative of the Requesting Safety Coordinator where reasonably practicable or where not reasonably practicable that the Key Safe Key will be retained in safe custody; or
 - (ii) maintained and/or secured in position by such other method which is in accordance with the **Local Safety Instructions** of **NGC** or that **User**, as the case may be.

The confirmation of **Earthing** shall be recorded in the respective **Safety Logs**.

5. Proposed change to OC8.5.5.5

OC8.5.5.5 Subject to the provisions in OC8.5.5.4, the **Implementing Safety Co-ordinator** is then free to arrange the removal of the **Safety Precautions**, the procedure to achieve that being entirely an internal matter for the party the **Implementing Safety Co-ordinator** is representing. Where a Key Safe Key has been given to a site representative of the Requesting Safety Co-ordinator, the Key Safe Key must be returned to the site representative of the Implementing Safety Co-ordinator as soon as reasonably practicable. The only situation in which any **Safety Precautions** may be removed without first cancelling the **RISSP** in accordance with OC8.5.5 or OC8.5.6 is when **Earthing** is removed in the situation envisaged in OC8.6.2(b).

