

Design Close Call Supplementary Guidance

## 1. INTRODUCTION:

The following NRDD guidance is to supplement the National [Design Close Call Guidance](#) led by the Design Safety Leadership Team. The supplementary guidance that follows is to provide support for how the National Design Close Call Guidance should be interpreted in NRDD

A Design Close Call (DCC) can be raised at any time, but we should be careful to avoid a DCC being raised before completion of subsequent design related activities where the safety potential would be expected to be assessed or recognised as part of the ongoing holistic design process.

The risk of design change in this scenario is already controlled by open design log entries and by the CEM withholding design approval even though a document may have been formally checked. An example is a wiring design that includes cable specification (produced and checked but subject to IDC and not yet approved); during the development of other discipline designs, the equipment position is altered so that the specified cable would be inadequate.

This guidance does not prevent a DCC still being raised in these scenarios if it is felt that specific learning may be realised from the identified issue. However, it is expected that in practice this will be by exception as the majority of such issues either arise or be realised by the completed design processes. The DCC process should not circumvent, compromise or clutter the design assurance process.

Guidance on reporting design close calls that have an environmental and socio-economic impact can be found in [NR-IP-EN-DD-GD-263 Design Close Call \(Environment and Sustainability\)](#)

## 2. DEFINITIONS

ALARP	As Low As Reasonably Practicable
CCS	Close Call System
CDM	Construction Design and Management
CEM	Contractor's Engineering Manager
CRE	Contractor's Responsible Engineer
CSM-RA	Common Safety Method for Risk Evaluation and Assessment
DCC	Design Close Call
DRACAS	Defect Recording Analysis and Corrective Action System
DRN	Design Review Notice
FRACAS	Fault Recognition and Corrective Action System
IDC	Inter Disciplinary Check
IDR	Inter Disciplinary Review
NRDD	Network Rail Design Delivery
RM	Responsible Manager. For DCC this would normally be a Safety Forum member
TPWS	Train Protection and Warning System

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### 3. RESPONSIBILITIES

The DCC shall be recorded in line with the [Design Close Call Guidance](#), led by the Design Safety Leadership Team.

Anyone is free to report a DCC, but it is recommended that you initially confer with a respected colleague to verify opinion that a DCC has actually occurred rather than the issue being perhaps associated with emerging design production which has, reasonably, not yet reached a point where resolution would naturally occur.

The DCC must be recorded in the Design Log and Risk Log.

The DCC shall be reported using the normal close call reporting procedures, stating that it is a Design Close Call when reporting by phone, or in the Incident Behaviour/Description field of the mobile app or the Incident Detail box of the Excel format reporting form from the [Safety Central website](#)

### 4. METHOD

#### 4.1 Design Close Call Process Stages

The following table illustrates recommended process stages to re-inforce the national DCC rule (*'it [the design] must have passed undetected through a relevant design review / verification process i.e. posts formal checking/QA processes*).

Item	Recommended process stage	Raise DCC?
1	Review / feedback of approved remit / requirements / H&S File/ Asset records	Yes
2	Establish design integration arrangements	Yes
3	Produce design	No
4	Check design	No
5	Update cycle (produce/check)	No
6	CRE review	Yes
7	Stakeholder consultation/review (planned stakeholder input)	No
8	IDC (planned x-ref of discipline designs)	No
9	CEM review	Yes
10	Peer review	Yes
11	IDR	Yes
12	DRN	Yes
13	Approval (e.g. MSRP for signalling)	Yes
14	Engineering stage gate	Yes
15	Construction / Installation	Yes

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16	Testing, commissioning and entry into service	Yes
17	Maintenance feedback	Yes
18	DRACAS/FRACAS output	Yes
19	Demolition / decommissioning	Yes

**NOTE:**

- Items 3 to 5 are repetitive actions throughout the design process for all stages of all design products but are only shown once for simplicity.
- ‘Yes’ means that it *might* be appropriate to raise a close call.

**4.2 No blame culture and professional due diligence:**

This guidance re-iterates the intent to promote positive behaviours through better understanding of design issues, shared learning and best practice. DCC’s will not be used as a means to criticise and penalise individuals; the focus should be on identifying and learning from failures in process

The DCC system is not linked to any professional competency management systems’ complaints process (e.g. for signalling the IRSE licencing system includes a record of complaints procedure); these systems should run independently of each other based upon their own definitions and processes.

**4.3 Proportionate design:**

The DCC process should not deter the industry’s challenge to provide proportionate designs. However, it is important to remember that such design proposals must be robustly risk assessed in line with our obligations under CSM, CDM etc. Care must be taken that DCCs relating to such designs are legitimate and focussed.

The Design Close Call Briefing’s (from the Design Safety Leadership Team) definition of a design that may be subject of a DCC includes:

A design which harbours a latent hazard which has the potential to cause harm or injury to people or the environment. This may be the result of design assumptions or option decision which have not been adequately tested, managed or communicated

BUT, when considered to their extreme limits, most designs contain latent hazards. For example, TPWS provided in accordance with current standards will not necessarily prevent collisions. Where a latent hazard has been recognised by the designer, properly considered (including reference to legislation and standards) and its risk reduced to a level considered to be ALARP then the latent hazard isn’t a close call.

**4.4 Monitoring and review:**

Output from DCC will be reviewed locally and nationally for continuous improvement. When raising a DCC you should include details of the H&S Manager in NRDD as well as the CRE

The H&S Manager will review to determine if any immediate action is required. RM will be allocated from the Safety Forum members at the next meeting,

Every period the Safety Forum will review and discuss the latest DCC and RM will update and provide feedback if required.

Responsible Manager Tasks include the following:

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- Receive Close Calls and view them via the Close Call System
- Assess and prioritise risk
- Amend the Close Call category, risk ranking and identify lifesaving rules breach where necessary
- Investigate solutions and assign owners
- Progress and track solutions
- Collaborate/Designate action to mitigate/resolve risks locally
- Identify trends and determine the root cause
- Input feedback into the Close Call System when the Close Call is resolved
- Close out the Close Call

Further information for Responsible Manager can be found [here](#).

#### 4.4.1 Hierarchy of DCC – Categories

Each DCC will be categorised depending on the nature and safety implications:

**Not a DCC:** Raised as DCC but does not meet the requirements to become a DCC as per the definition.

**Actions:**

Responsible Manager to update CCS with the action taken and close out the DCC

RM to provide feedback to the reporter

**Low:** Design condition or situation that in the unlikely event cause harm or injury this would present low impact and/or likelihood

**Actions:**

Responsible Manager to update CCS with the action taken and close out the DCC

Example: Any design that incorporated detail of a component part of a design that is inaccurate and simply would not connect or not work due to its function, e.g. a lamp with a wrongly specified fitting is an obvious example which could never work in its intended function.

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**Medium:** Design condition or situation that in the unlikely event cause harm or injury this would present high impact and/or likelihood

**Actions:**

- 1) Responsible Manager to update CCS with the action taken and close out the DCC
- 2) RM to coordinate preparation of Shared Learning and send it to the H&S Manager for distribution and learning

Example: An incorrectly specified lamp with the correct fitting, but perhaps doesn't perform as required, either too dim or not long enough design life, or wrong type for the surrounding lens fittings.

**High:** Design condition or situation that in the unlikely event cause harm or injury this would present extreme impact and/or likelihood

**Actions:**

- 1) RM to coordinate for internal investigation with project team
- 2) RM to coordinate preparation of Shared Learning and send it to the H&S Manager for distribution and learning
- 3) Responsible Manager to update CCS with the action taken and close out the DCC

Example: Any design where the opportunity for any form of wrong side failure with a hazard rating could occur

**4.4.2 DCC Responsibilities**

**RM are accountable for closing out the DCC and keep up to date the CCS.**

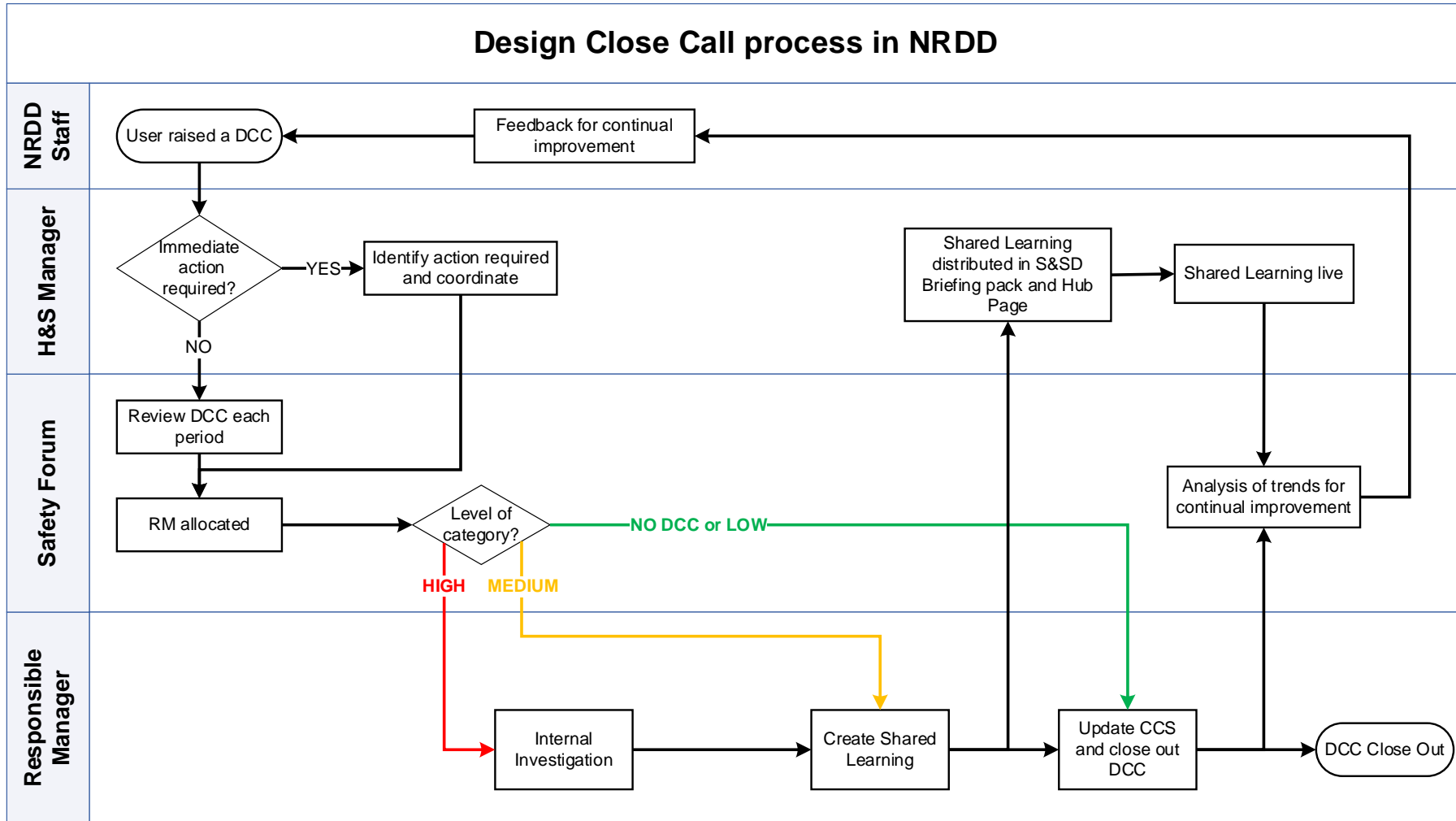
The Safety Forum will identify DCC trends and share with relevant key stakeholders for review and information

H&S Manager will provide each period the DCC dashboard.

Principal Engineers or relevant stakeholders can be invited as part of the review process.

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## 5. REFERENCE DOCUMENTS

Reference Number	Title
	<a href="#">Design Close Call Guidance</a>
<a href="#">NR-IP-EN-DD-GD-263</a>	Design Close Call (Environment & Sustainability)

## 6. ISSUE HISTORY

Version	Description	Author / Approver	Date
2.01	Section 1- added note relating to environment and socio-economic design close calls. Section 5 added link to NR-IP-EN-DD-GD-263	E. Deschamps / C. Gallego	20/08/19
2.00	Responsible Manager and Close Call System added to definitions table. Recommendation added to confer with respected colleague added to responsibilities section. Section 4.4 Monitoring and Review section added including Hierarchy of DCC showing categories of DCC. DCC in NRDD flowchart added. Note: changes not shown in red text due to the amount of changes made in this revision.	Safety Forum / C. Gallego	11/02/19
1.01	Corrected minor typos. Added Design Close Call Guidance note to reference documents. Added hyperlinks to reference documents.	I. Barry / R. Grubb	27/09/18
1.0	First issue within NRDD QMS.	I. Barry / R. Grubb	23/07/18
<i>Red text within document indicates amendments (For historic versions please contact NRDD S&amp;S Team)</i>			