

UNAUTHORISED ACCESS RISK CLASSIFICATION AND INSPECTION OF VULNERABLE CABLE CROSSINGS AND SUPPORT STRUCTURES.

This document is for internal and contract specific use only.

Disclaimer

NGG and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements."

PURPOSE AND SCOPE

This document provides guidance for the classification of risk for cable crossings and support structures / bridges, and should be read in conjunction with PS (T) 116 "Prevention of Unauthorised Access to Vulnerable Cable Crossings and Supporting Structures".

This guidance note addresses the issue of categorising and managing high risk cable crossings and support structures by means of a standardised approach.

PART 1 –PROCEDURAL

1 ELECTRICTY SAFETY, QUALITY AND CONTINUITY (ESQC) REGULATIONS 2002

This guidance document shall be read in conjunction with Policy Statement PS (T) 116 and is intended to ensure that National Grid complies with the ESQC regulations, Section 3(2) which states:

- a) *Generators and distributors shall—For each of their overhead lines*(cables) or part thereof and for each of their substations, assess the foreseeable risk of danger from interference, vandalism or unauthorised access, having regard to both the nature of the equipment and use of the surrounding land, and classify the degree of the risk;*
- b) *Enter details of the result of the classification of risk in a register or other permanent record kept updated for the purpose; and*
- c) *Take measures to safeguard the equipment commensurate with the nature and class of risk to which it gives rise.*

NOTE: Cable crossings and support structures / bridges would be considered as 'part thereof'.

1.1 Aspects to consider when Classifying Risk

It is essential that a reliable and accurate database is maintained which holds the records of all identified cable crossings and support structures / bridges. This database must be user friendly and allow simple access to all relevant parties.

The specific usage of land beneath National Grid cable crossings is varied and can change in a short period of time. It is extremely important that staff are observant and report any changes in land use whilst carrying out their routine maintenance/inspection duties. In Line with PS(T) 116 a Risk Assessment shall be produced for every cable crossing / support structure / bridge and any access prevention measures to include the following information:

a) Location

Exposed cable sections that are in urban areas may be expected to be more susceptible to access than those in rural locations. This means the location of the cable and its surroundings need be taken into account when completing the security risk matrix.

b) Access

How easy is it to get access to the cable from ground level or other structures? What is the size of the cable crossing (Are there other structures making it easier to climb on to)?

c) Consequence

The person completing the assessment shall consider the risks of unauthorised access to a crossing. The height of the fall shall be taken into account along with the feature e.g. river, ditch etc, below the exposed cable section.

d) Vandalism

Is there evidence of vandalism? How severe and recent is the vandalism? E.g. graffiti, rope swings, etc. Also consider potential of damage to joints or coatings as a result of vandalism

e) Existing access prevention

Is there an existing system in place? What is its condition and is it effective, i.e. is there evidence of access despite the current measure(s)?

1.2 ASSESSMENT OF RISK

The risk assessment shall be completed by a person with the appropriate knowledge and experience using work script VUNCABRA, when complete the assessment will give the crossing categorisation.

The assessment must take into account the crossing as a whole and not just the portion that crosses the obstacle. If following the risk assessment it is deemed that access prevention measures (APM's) are required they must be designed and positioned to remove the risk to members of the public who are undertaking their normal day to day activities, APM's are not designed to prevent access where there is a determined intention to do so.

1.2.1 Low Risk

Low risk crossings will have a risk score of <25, will require routine inspections at a 12 monthly frequency and are defined as a crossing which by its nature and situation has historically never been or is assessed as not being liable to interference, vandalism or unauthorised access.

1.2.2 High Risk

High Risk crossings are defined as a crossing which by its nature and situation, has historically been, or is assessed as being liable to interference, vandalism or unauthorised access. They will have a risk score of between 25 - 90 and will require routine inspections at a 6 monthly frequency.

Cable crossings and support structures / bridges are categorised as High Risk if they are:

- a) Residential area crossings – play and vandalism areas i.e. used as a means of getting somewhere, a gathering place, combustible material, graffiti, and alterations to houses/buildings which create an access point.
- b) Water crossings – evidence of leisure activities on lakes, canals or rivers i.e. fishing, sailing.
- c) Industrial crossings / support structures and / or construction work activity where it comes to the attention of the Team Leader or supervisor via a Third party enquiry or concerns identified by routine inspection. Build-up of combustible material i.e. pallet stores, oil drum storage/reclamation premises, recycling etc.

The risk categorisation of the crossing / support structure shall be reviewed at each routine inspection or as necessitated by changes or incidents in the vicinity, and the database shall be updated accordingly.

Following each inspection a report shall be generated which shall identify the risk score and any change from the previous score, if a change in score has been recorded the relevant changes shall be highlighted. If a recorded change in risk score indicates a change in risk category should be applied then a review of the changes shall be completed to quantify the perceived increase in risk prior to the change of risk rating being implemented.

1.2 Routine Inspection Procedure

The routine inspection shall be completed by a person with the appropriate knowledge or experience and shall be carried out using work script VUNCABRA.

- i) Whilst carrying out the routine inspections the person carrying out the inspection shall identify ineffective Access Prevention Measure, vandalism, signs of access taking place or changes on the crossing and captures this data in the work script.
- ii) If any defects to installed APM's are identified during the inspection a defect report (RNW) shall be raised.
- iii) For a Low risk structure, the Routine Inspection should consider if any points in Section 1.1 have potentially altered the Risk Assessment score, if this is the case, the Team Leader or supervisor should be contacted and a Risk Assessment carried out by a person with the appropriate knowledge or experience.
- iv) If the crossing risk has changed the database shall be updated giving the reason why and the recommended actions. If the level or risk is deemed to be the same then no action is required.
- v) ETAM Operations shall complete the required inspections at the required frequency and ensure all data is accurately recorded and any remedial works are completed in a timely fashion.
- vi) If bi-annual inspections are required then the relevant resource must be planned to ensure these are completed and the database is kept up to date.
- vii) If 6 inspections are completed on high risk crossings with no evidence of any ineffective Access Prevention Measure, vandalism, signs of access taking place or changes on the crossing being identified then following a review of the risk assessment the frequency of inspections can be reduced to 12 monthly. If subsequent interference is reported the inspection frequency shall be realigned to bi-annual.