12 Draft Code of Construction Practice

Introduction

General

12.1 This draft Code of Construction Practice (CoCP) relates to the construction of the proposed FAB Link HVDC/HVAC interconnector UK converter station. It sets out the standards to be implemented throughout the construction process to uphold FAB Link Limited's duties as an interconnector licence holder under Schedule 9 of the Electricity Act 1989.

12.2 The draft CoCP is a strategic document based on available outline design information. It provides a framework of key measures for managing the potential environmental impact of constructing the project that all construction staff will be required to follow.. It covers the environmental aspects of the project's construction phase that may affect the interests of local residents, businesses, the general public and other sensitive receptors in the vicinity of the construction site.

12.3 The term 'construction' in the CoCP includes all site preparation, demolition, material delivery, excavated material disposal, waste removal and all related engineering and construction activities as defined in the planning application.

12.4 The CoCP incorporates legislative requirements, current guidance and best practice measures to define the standards of construction practice required by the client. However, compliance with this CoCP will not absolve the Contractor or subcontractor from compliance with all legislation and byelaws relating to their construction activities.

Implementation of the Code

12.5 The CoCP will be implemented during the planning and undertaking of construction works through a series of detailed method statements to be prepared by the Principal Contractor. The method statements will build on the principles and standards from the CoCP and set out how the individual construction tasks will be undertaken, the plant/equipment required, the environmental controls that will be in place and the roles and responsibilities of the construction team.

Training and Competence

12.6 All levels of site staff will have a responsibility to minimise the risks to the environment from the activities on site and steps will be taken to make them aware of these duties and the environmental requirements of the CoCP. Contractors will be required to operate induction schemes for all personnel to ensure that they are aware of their individual responsibility to comply with the CoCP.

12.7 Contractors will also be responsible for employing an appropriately qualified workforce and for identifying the training needs of their personnel.

Supervision

12.8 Sufficient suitably qualified and experienced personnel will be appointed by the Principal Contractor to supervise the main construction works. This will include professionally qualified environmental management staff, with relevant experience in the environmental disciplines included in this CoCP.

General Requirements

Approach to Construction

12.9 The project will be constructed in an environmentally sensitive manner and will meet the requirements of all relevant legislation, codes of practice and standards. The client will review the environmental performance of the main construction contractors as part of the tender selection process.

Health and Safety Principles

12.10 The client and its Principal Contractor will apply appropriate industry standards for the health, safety and welfare of its employees. It will ensure that adequate arrangements are in place for the discharge of all its duties under the Construction (Design and Management) Regulations 2015 (CDM).

Local Community Liaison

12.11 Prior to commencing main construction activities (e.g. earthworks) occupiers of premises in the vicinity of the work will be notified of the nature of the proposed works and contact details to which any enquiries should be directed.

12.12 The Principal Contractor will establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees. Any complaints that may arise will be logged, reported and addressed.

12.13 All complaints will be logged and investigated. Where required, mitigation will be implemented and the action taken will be recorded.

Working Hours

12.14 The typical working hours will be from 07:00 – 19:00 hours (Monday to Friday) and from 07:00 to 13:00 on Saturday. Construction personnel and deliveries will arrive at, and depart from the site up to one hour before and after the typical hours.

12.15 From time to time specific elements or phases of the project by their nature may require work to be undertaken outside of the typical working hours, either to meet a construction sequence or to complete specific work processes. On these occasions the Principal Contractor shall provide details of the type and nature of the works in advance to the Local Authority and take all reasonable steps to ensure that the work is not audible within the nearest residential dwelling.

12.16 By exception, and only in the case of an emergency, work may be undertaken outside of the core hours without notification to the Local Authority.

Construction Site layout and Good Housekeeping

12.17 To reduce the likelihood of either an environmental incident or nuisance occurring, the following measures will be implemented, where relevant:

- Cleanliness of working areas, treatment of perimeters and provision of adequate staff facilities;
- Secure storage of waste on site to prevent wind blow. Regular collection of waste from the site;
- Effective preventative pest and vermin control, including arrangements for disposing of food waste. If infestation occurs, the Principal Contractor will take prompt action to eliminate the infestation and prevent further occurrence;
- Prohibition of open fires, and a requirement to take measures to minimise likelihood of fires;
- Maintenance of wheel washing facilities or other containment measures;
- The layout and where possible, the location of site accommodation to avoid overlooking residential property;
- Containing and limiting visual intrusion of construction sites, where reasonably practicable;
- No discharge of site runoff to ditches, watercourses, drains, sewers or soakaways without agreement of the appropriate authority;
- Provision of maps showing sensitive areas and buffer zones where no pollutants (e.g. fuels, oils and other chemicals) are to be stored or used.

Site Lighting

12.18 Site lighting and signage will be provided to enable the safety and security of the construction site. Lighting will be at the minimum luminosity necessary and use low energy consumption fittings.

12.19 External lighting will comply with the Institution of Lighting Engineers' 'Guidance Notes for the Reduction of Obtrusive Light' (2005) and 'Reduction in Light Pollution' (2000).

12.20 Lighting will also be designed, positioned and directed so as not to unnecessarily intrude on adjacent buildings, ecological receptors and other land uses to prevent unnecessary disturbance, interference with local residents or passing motorists. This provision will apply particularly where night working is required.

Site Security

12.21 The site boundary will be secured so that the opportunity for unauthorised entry is minimised. Access to the site will be limited to specified entry points and personnel entrances/exits will be recorded for security and health and safety purposes.

Hoardings, fencing and screening

12.22 The following measures will be applied as appropriate:

- Provision and maintenance of adequate fencing and hoardings to an acceptable condition to prevent unauthorised access to the construction site; and
- Providing site information boards with out of hours contact details, 24 hour telephone number (for comments/complaints), community information and information on the works programme, at key locations.

12.23 The type of screening or fencing used will be selected to suit the location and purpose. All boundary fences/screens will be maintained in a tidy condition and fit for purpose.

12.24 All construction areas will remain securely fenced at all times during construction. All temporary screening and fencing will be removed as soon as reasonably practicable after the completion of the works.

Pollution Prevention Measures

12.25 The Principal Contractor will develop and implement appropriate measures to control the risk of pollution due to construction works. This will include a pollution incident control plan which recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution incident that may occur (e.g. a diesel spill) is minimised, controlled, reported to relevant parties and remediated.

Emergency Preparedness

12.26 The client and Principal Contractor will ensure that emergency procedures are developed for the site. The procedures will be appropriate to the anticipated hazards and the specific layout of the site. The emergency procedure will contain emergency phone numbers and the method of notifying statutory authorities. Contact numbers for the key staff of the nominated undertaker will also be included.

Fire Prevention and Control

12.27 All construction sites and associated accommodation and welfare facilities will have in place appropriate plans and management controls to prevent fires.

Management of Environmental Issues

Ecology and Nature Conservation

12.28 Mitigation measures were devised to address potential impacts on the individual important ecological receptors, although in many cases they are interlinked and likely to be of benefit to more than one species/group. The mitigation measures here refer to mitigation required both during the construction period and in the longer term during the operational phase.

Dust

12.29 Dust generated during construction would be suppressed by the use of damping using bowsers or other measures.

Drainage and Spillage Control

12.30 A temporary drainage plan would be designed and implemented to ensure that any run-off or other waters generated during construction were suitably contained and treated prior to discharge. This would prevent the deposition of water-borne solids onto designated areas (and possibly ponds) through the local field ditch system.

12.31 The ditch system was not particularly strongly defined in the area around the proposed development site, and is unlikely to be a well-defined pathway for water-borne contamination. However, it will be important to ensure that good housekeeping measures particularly relating to storage and use of fuels and other toxic substances are in place and adhered to.

12.32 An appropriate emergency plan relating to unexpected spillages, leakages or other contamination incidents would be in place, and all operatives and contractors would be briefed on the appropriate actions to take.

Hedgerows

12.33 All excavations and earthworks for the construction of the converter station would be carried out outside of the canopy area to prevent damage to mature standard trees within the hedges. Such protective strips would be fenced off to prevent accidental encroachment during the works.

Birds

12.34 Any site clearance of vegetation would avoid the bird nesting season, which runs approximately from March-August inclusive (although nesting birds and their eggs are protected at any time under the Wildlife and Countryside Act). This also includes any clearance associated with hedgerows (assumed to be limited to new access point and cable entry and exit points).

12.35 However, if the field itself is left fallow for a farming cycle prior to commencement of construction works, it would also be considered as potential bird-nesting habitats. For example, if a crop is removed from the field in September of the previous year and it is then left un-managed until April of the following year, it should not be assumed to be free of nesting birds, as such conditions may attract some species of ground-nesting birds.

12.36 Where initial site clearance within the bird nesting season cannot be avoided, it will be necessary to carry out detailed inspections by suitably experienced ecologists to ensure that no nests are present. Should active nests be encountered, suitable exclusion zones would need to be set up (advised by the ecologist on the basis of the nest location and species of bird involved).

Bats

12.37 Retention of individual trees and hedgerows (including reinstatement of existing gateways) would be of benefit to bats as these are the features currently used by all species present in the area.

12.38 If temporary works lighting and night works are required during the period March-October when bats are likely to be most active, a temporary lighting design would be developed and agreed with

the local planning authority to limit the extent of light spill onto the boundary hedges. Although lighting attracts some species of bats, it deters others, and the aim should be to maintain similar lower lighting conditions to that presently in place in an area which is somewhat over-lit already due to the presence of the Environment Agency storage compound, nearby A30 and airport runway and other facilities.

12.39 Should any of the trees identified with moderate or high potential for bat roosts require removal, either as a part of the construction works, or in the longer term, they would be assessed for the presence of bat roosts by a suitably qualified, experienced and licensed bat ecologist, prior to these works. If the tree has to be removed a licence under the CHSR would be obtained for the closure of a bat roost, should this be required. As with all wildlife mitigation licenses, a detailed mitigation method statement demonstrating how all measures outlined can be achieved would accompany any application.

Dormice

12.40 The presence of dormice is unlikely, but cannot be completely ruled out. As a precautionary measure, where the proposed development requires hedgerow removal, whether temporary or permanent, it would be carried out following a phased approach as set out in the Dormouse Conservation Handbook (Bright *et al*, TT 2006). In accordance with the guidance, upstanding vegetation (trees and shrubs) should be removed during the period November to March while dormice would be in hibernation, utilising hibernation nests located on the ground at base of trees etc. On awakening in April or May, dormice would be persuaded to move into adjacent uncleared areas which would still be within their home range (averaging 50 m), Clearance of upstanding vegetation during this period has the additional benefit that it is done during the period when birds are unlikely to be nesting.

12.41 Clearance of the ground levels (including hedgebanks) can then be undertaken in the period June-September, when any dormice present would be active and living within the hedge canopy.

12.42 Prior to each phase of clearance the area would be inspected by a suitably experienced dormouse ecologist to ensure that no dormice are present which could be injured by the clearance works. Inspections should include all basal areas prior to commencement of winter vegetation clearance to ensure no hibernation nests are present.

Badgers

12.43 Although badgers are not considered to be at risk of impacts as a result of the proposed development, measures have been included here to ensure that the status of badgers has not changed prior to commencement of the proposed development.

12.44 Badgers are dynamic and may excavate and occupy new setts within their existing territory, or occupy neighbouring territories. A pre-commencement badger survey by a suitably experienced badger surveyor would be undertaken no more than 6 months prior to commencement of construction to ensure that no new setts have been excavated in any location which would be damaged or badger using it disturbed by the works. Should any such setts be identified, an appropriate licence under the PBA should be sought from Natural England. Any such application

would need to be accompanied by a suitably robust and demonstrably deliverable mitigation scheme.

Landscape

12.45 Existing vegetation on adjacent land would be retained and protected during construction as it provides an important landscape framework for the proposed converter station.

Archaeology and Cultural Heritage

12.46 It is proposed that a programme of archaeological evaluation would be undertaken with regard to one of the linear anomalies recorded by the geophysical survey. This anomaly is on a different alignment to the existing and former field boundaries and may therefore have a different origin. The initial phase of the archaeological evaluation will be in the form of trial trenches placed to intercept the linear anomaly. Further, more detailed, investigation may be required depending on the results of the trial trenching.

12.47 The archaeological evaluation would be undertaken ahead of the commencement of construction and would be in line with a written scheme of investigation that would be agreed in advance with the archaeological advisor to the planning authority.

Transport

12.48 Traffic management measures would be adopted at various locations. These will consist of a range of measures to assist with the movement of vehicles along the local road network and to ensure road safety is not compromised.

12.49 The traffic management measures to be adopted will include the following:

- All vehicular access during construction would be taken from Long Lane with localised widening and the provision of additional passing places such that vehicles would always have clear forward visibility to the next passing place would prevent oncoming vehicles meeting between passing places and would eliminate the need for any vehicles to reverse.
- The proposed locations of the passing places are identified in the transport assessment. They will be subject to detailed design and subsequent technical checks by Highway Officers at Devon County Council.
- Two access junctions are proposed onto the northern side of Long Lane to facilitate access and egress.
- The Principal Contractor will prepare a detailed Construction Traffic Management Plan (CTMP) once the detailed design of the infrastructure is complete. The CTMP will include measures to control HGV movements and avoided the network peak periods (typically weekdays 08:00 to 09:00 and 17:00 to 18:00).
- Temporary reduced speed limits along the public highway will be discussed with Highway Officers and implemented if considered appropriate.

- Strict vehicle routeing in accordance with fixed routeing plans.
- Where practical, use of local suppliers so as to minimise the distance travelled by HGVs.
- Wheel wash facilities provided at key locations to ensure mud and dust is not deposited on the public highway.
- All HGVs to be sheeted to avoid dust and the spillage of materials onto the public highway.
- Use of local compounds to minimise the distance travelled by HGVs.
- Monitoring of HGV movement and adherence with agreed measures and parameters.
- Undertaking of road condition surveys in full liaison with Highway Officers to identify any extraordinary damage caused as a result of the construction HGVs.

Air Quality

12.50 The following measures are taken from the Institute of Air Quality Management's guidance (IAQM, 2014 'Guidance on the Assessment of Dust from Demolition and Construction Sites') based on a medium dust impact risk.

Table 12.1: IAQM Mitigation Measures

Communications
▪ Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
Site Management
▪ Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. ▪ Make the complaints log available to the local authority when asked. ▪ Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.
Preparing and maintaining the site
▪ Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible. Use screening intelligently where possible – e.g. locating site offices between potentially dusty activities and the receptors. ▪ Erect solid screens or barriers around the site boundary. ▪ Avoid site runoff of water or mud. ▪ Keep site fencing, barriers and scaffolding clean.
Operations
▪ Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible. ▪ Use enclosed chutes, conveyors and covered skips, where practicable. ▪ Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. ▪ Ensure equipment is readily available on site to clean any dry spillages, and clean up

spillages as soon as reasonably practicable after the event using wet cleaning methods.
Waste management
▪ Avoid bonfires and burning of waste materials.
Medium risk measures specific to construction
▪ Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
Medium risk measures specific to trackout
▪ Use water-assisted dust sweeper(s) on the access and local roads, to remove, as soon as practicable any material tracked out of the site. This may require the sweeper being continuously in use. ▪ Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport. ▪ Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as practicable; ▪ Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site).

12.51 Further IAQM guidance (IAQM, 2012) states that the following dust monitoring is required for medium-risk sites to show that the controls are working:

"Monitoring dustfall (as mass deposition rate and/or soiling rate) at nearby receptors is also required, together with monitoring of dust flux across the site boundary (if there is a need to distinguish the contributions of the site from other sites or the general background)."

Noise and Vibration

Construction Noise Impacts

12.52 Construction works would follow Best Practicable Means (BPM) outlined in Section 72 of the Control of Pollution Act 1974 (as amended) to minimise noise and vibration impacts. These details would be submitted to and agreed in writing with EDDC prior to commencement of construction activities and following the appointment of the Principal Contractor. These are based upon the guidance contained in BS 5228:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites - Part 1: Noise' and 'Part 2: Vibration' (British Standards Institution, 2014a, 2014b):

- **Communication**: A Local Liaison Committee will be established, and occupiers of residential and business properties that are likely to be affected by the works will be notified in advance of the works. A named individual will be appointed to take primary responsibility for the day-to-day implementation of the CoCP during the construction phase and to act as the first point of contact on environmental matters for EDDC, other external bodies and the general public. Information regarding the nature and duration of the works, and named contact details for key members of staff will be displayed on a noticeboard near to the site.

- **Standard construction hours**: core working hours would be 07:00 to 19:00 hours Monday to Friday, 07:00 to 13:00 hours on Saturday and at no time on Sundays or on public or bank

holidays. In the event that noise generating works are required outside of core working hours, this would be agreed with EDDC prior to commencement of the activity. In such instances the contractor would apply to EDDC for written consent prior to work commencing by submitting either a Section 61 consent application or an agreed method statement in line with the Control of Pollution Act.

- **Access routes**: Vehicles will follow the prescribed access route to the site from the A30 Clyst Honiton junction, east along the B3182, left onto Long Lane adjacent to the entrance to Exeter Airport and along Long Lane.
- **Equipment**: Quieter alternative methods, plant and equipment will be used, where reasonably practicable.
- **Worksite**: Plant, equipment, site offices, storage areas and worksites will be positioned away from existing NSRs, where reasonably practicable.
- **Screening**: Portable acoustic enclosures/screens will be used, as required.
- **Maintenance**: All vehicles, plant and equipment will be maintained and operated in an appropriate manner, to ensure that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.

Measures to Protect Water Quality

12.53 Potential impacts to the water environment will be avoided where possible through careful consideration of location and construction techniques of the converter station. These measures are considered standard industry practice for this type of development.

Best Practice Measures

- All construction work would be undertaken in accordance with the Code of Construction Practice, and guidance including:
- Environment Agency, Pollution Prevention Guidance Note 6 (PPG6): Pollution Prevention Guidelines – Working at Construction and Demolition Sites;
- Environment Agency, Pollution Prevention Guidance Note 5 (PPG5):– Working in, near or liable to affect watercourses;
- Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors CIRIA (C650); CIRIA – SuDS Manual;
- Prevent surface water being affected during earthwork operations. No discharge to surface watercourses will occur without permission from the EA (SuDS Manual);
- Wheel washers and dust suppression measures to be used as appropriate to prevent the migration of pollutants(SuDS Manual);

- Regular cleaning of roads of any construction waste and dirt to be carried out (SuDS Manual); and
- A construction method statement to be submitted for approval by the responsible authority (SuDS Manual).

Pollution Prevention Measures

- Refuelling of machinery would be undertaken within designated areas where spillages can be easily contained. Machinery would be routinely checked to ensure it is in good working condition.
- Any tanks and associated pipe work containing substances included in List 1 of the Groundwater Directive would be double skinned and be provided with intermediate leak detection equipment.
- Provide appropriate spill kits on the construction site and laydown areas and train staff in their use.
- Inform construction workers of the location of the infilled pond and the potential for localised contamination. Provide training on the olfactory and visual signs to be aware of and the procedure to follow if contamination is suspected.
- The following specific mitigation measures for the protection of surface water during construction activates would be implemented:
- Management of construction works to comply with the necessary standards and consent conditions as identified by the EA;
- A briefing highlighting the importance of water quality, the location of watercourses and pollution prevention included within the site induction;
- Areas with prevalent run-off to be identified and drainage actively managed, e.g. through bunding and/or temporary drainage;
- Areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils and chemicals) to be bunded and carefully sited to minimise the risk of hazardous substances entering the drainage system or the local watercourses. Additionally the bunded areas will have impermeable bases to limit the potential for migration of contaminants into groundwater following any leakage/spillage. Bunds used to store fuel, oil etc. to have a 110% capacity of the volume of fuel, oil etc. to be stored;
- Disturbance to areas close to watercourses reduced to the minimum necessary for the work;
- Excavated material to be placed in such a way as to avoid any disturbance of areas near to the banks of watercourses and any spillage into the watercourses;

- Construction materials to be managed in such a way as to effectively minimise the risk posed to the aquatic environment;
- All plant machinery and vehicles to be maintained in a good condition to reduce the risk of fuel leaks;
- Drainage works to be constructed to relevant statutory guidance and approved via the Lead Local Flood Authority prior to the commencement of construction; and
- Consultation with the EA to be ongoing throughout the construction period to promote best practice and to implement proposed mitigation measures.

Agricultural Land Use and Soils

12.54 The construction process would take into account the principles of good practice in soil handling and restoration set out in the following documents, wherever possible, to reduce the possibility of damage to soil materials during the construction process:

- DEFRA (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (including Toolbox Talks); and
- MAFF (2000) Soil Handling Guides
- Important principles to be included are:
- the identification and management of the soil materials on the site;
- separate stripping of identified topsoil and subsoil resources;
- separate storage of stripped topsoil and subsoil materials;
- location of topsoil and subsoil heaps to avoid cross contamination of materials and trafficking of soil heaps by construction traffic;
- maintenance of soil heaps to reduce the potential for losses of materials during storage;
- appropriate timing of soil handling operations;
- choice of appropriate soil handling machinery; and
- careful supervision of soil handling operations on site.

12.55 A soil handling strategy would be developed by a specialist in advance of construction and implemented by a suitably experienced operative on site.

12.56 In terms of the agricultural use of the land affected by the route during construction, the following measures would be implemented during the construction period, as far as possible:

- the maintenance and reinstatement of existing water supplies and drainage systems;

- the maintenance of access routes across individual fields;
- the maintenance of wider farm access routes;
- appropriate fencing of the construction corridor, dependent upon the nature of the individual farm holding affected; and
- appropriate construction practices to be implemented to ensure that the potential risk for the spread of animal and plant diseases is reduced as far as practicable.