



## OCCASIONAL GUIDANCE NOTE



## Construction (Design and Management)

## INDUSTRY GUIDANCE

**1<sup>st</sup> Edition**

July 2017

## Foreword

The water industry maintains a large volume of infrastructure and is constantly seeking new ways to meet customer demands and expectations. As such it is the client for some of the UK's largest construction companies. It also invests a lot of time and resources in maintaining assets and infrastructure to ensure that customers receive a plentiful supply of clean and wholesome drinking water.

The Health and Safety Executive (HSE) state the aims of the Construction (Design and Management) Regulations (CDM) as being to improve health and safety by aiding sensible planning of work so that the risks involved are managed from start to finish, ensuring that the right people for the right job at the right time cooperate and coordinate with each other, that they have the right information and communicate to those who need to know; consulting and engaging with workers about the risks and how they are being managed.

It was felt that the application of the regulations was clear for capital expenditure projects within the industry but less well defined for maintenance activities that could, under some interpretations, be classed under the general heading of construction as defined by the regulations. An industry agreement as to how CDM should be applied was required.

This document, developed by health and safety professionals within the water industry and endorsed by Water UK, represents the industry perspective on the 2015 regulations and how they apply to everyday activities within our industry such as maintenance, work on third party client projects and the application in emergency situations.

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**9 August 2017**

## Introduction

The Construction (Design and Management) Regulations (CDM) have been embraced by the Water UK member organisations since its inception. The update of the regulations in 2015 brought about the opportunity for the member organisations to discuss the changes and application of the CDM Regulations in general. It was recognised by the group that the application of the regulations on the capital programme major construction projects is generally done well. However the application on the smaller operationally led work aspects was less consistent.

Three focal groups were formed to provide water industry specific guidance on the following three topics:

- Construction or maintenance – clarity around the CDM 2015 changes regarding removal of the CDM 2007 Approved Code of Practice and loss of the exemption for ‘routine maintenance’.
- CDM application on third party client projects e.g. developer, government agency, local authority led projects requiring diversions or modifications to water and wastewater assets.
- CDM application in emergency situations and the following stages e.g. responding to a burst, flood or other reactive situations.

The key point is reiterated by the working group is that controls must be proportionate to the risk involved in the construction works or project.

## Purpose

The purpose of this document is to provide consistent guidance on the water industry specific application of the CDM Regulations in situations outside of the typical capital investment projects.

# 1. Construction or Maintenance

## Introduction

The Construction (Design and Management) Regulations 2015 (CDM 2015) guidance document (L153) sets out to describe: “the law that applies to the whole construction process on all construction projects, from concept to completion;”

The CDM 2015 Regulations state that

*“construction work” means the carrying out of any building, civil engineering or engineering construction work and includes—*

*(a) the construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the use of water or an abrasive at high pressure, or the use of corrosive or toxic substances), de-commissioning, demolition or dismantling of a structure;*

*(b) the preparation for an intended structure, including site clearance, exploration, investigation (but not site survey) and excavation (but not pre-construction archaeological investigations), and the clearance or preparation of the site or structure for use or occupation at its conclusion;*

*(c) the assembly on site of prefabricated elements to form a structure or the disassembly on site of the prefabricated elements which, immediately before such disassembly, formed a structure;*

*(d) the removal of a structure, or of any product or waste resulting from demolition or dismantling of a structure, or from disassembly of prefabricated elements which immediately before such disassembly formed such a structure;*

*(e) the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services which are normally fixed within or to a structure,*

Therefore day to day ‘maintenance’ activities associated with operating water and wastewater systems, usually carried out by in-house water and wastewater operational employees, could fall under the remit of the CDM Regulations.

The regulatory change causing an impact is the loss of the CDM 2007 ACoP L144 exemption that stated:

*13 Construction work is defined in the Regulations. The following are not construction work as defined:... (b) general maintenance of fixed plant, except when this is done as part of other construction work, or it involves substantial dismantling or alteration of fixed plant which is large enough to be a structure in its own right, for example structural alteration of a large silo; complex chemical plant; power station generator or large boiler;*

The HSE has provided the following statement “where maintenance activity involved construction processes, requires construction skills and uses construction materials, it is most likely to fall within the term ‘construction work’. [CDM 2015 - Q&A Briefing \(1 pdf\) - Maintenance work - July 2015.pdf](#) General maintenance of fixed plant which mainly involves mechanical adjustments, replacing parts or lubrication is unlikely to be construction work.”<sup>1</sup> to assist in clarification.

Primarily CDM is about planning and managing construction projects which includes doing the construction work safely when on site and can also include maintenance. There is a distinction between “project” and “work” which must not be overlooked. A construction project cannot exist without it including construction work but construction work can be done without it

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<sup>1</sup> Source IOSH Magazine, March 2016, pages 49-52, CDM 2015 Maintenance Schedule article by Mary Lawrence.

being, of itself, a construction project. Therefore each “job” must be considered within a relative context to consider whether it fulfils the definition of a “project” or just a normal day to day piece of work whether it be construction, maintenance or anything else.

### Impact

The day to day operation and maintenance of water and wastewater treatment systems, networks and associated assets such as buildings, involves:

1. Routine maintenance of plant and equipment in line with manufacturer’s instructions e.g. lubricating components and like for like replacement of parts.
2. Repairing or replace defective equipment and components, which may involve the use of scaffolding, mobile elevated work platforms or cranes to facilitate access/egress to the work. In some cases bespoke engineered access solutions may be required.
3. Cleaning tanks or pipelines with high pressure water (jet washing) but which require no enabling construction works such as excavations.
4. Management of external contractors to undertake the above work.
5. Coordination of significant construction/maintenance operations with in-house project teams and external contractors, for both planned and reactive works.

Therefore strict or overly officious interpretation of CDM 2015 means that the majority of day to day operations would now fall under the regulations, meaning:

- Organisations would now have to potentially class in-house maintenance teams as ‘contractors’ and train accordingly. Most in house maintenance teams are engaged primarily to ensure the effective running of our assets, not to undertake construction work.
- Organisations will have to be competent to undertake the Principal Contractor role in-house and hold the required level of insurances.
- Some organisations will have to be competent to undertake the Principal Designer role in-house and hold the required level of insurances. The in-house operational maintenance teams do not typically hold the appropriate skills, knowledge and experience to fulfil the Principal Designer duties. The external contracting organisations used for maintenance work also tend to be small and medium enterprises that also may not hold the appropriate skills, knowledge and experience to fulfil the full Principal Designer duties.
- Construction Phase Plans will be required for all day to day activities, increasing paperwork burden on already stretched teams.
- Trade Union consultation will be required to re-define the remit of the operational workforce.

All of which does not align with the original CDM ethos of minimising bureaucracy and managing high risk construction projects.

The impact of the regulatory changes on the major capital construction projects are manageable due to the existing arrangements and competencies within the in-house and external organisations.

### Recommendation

The Water UK member organisations tend to use a common supply chain, therefore consistency of approach with external designers, contractors and Trade Unions is fundamental for efficiency and understanding.

It is not possible to detail every likely activity undertaken by our operational teams, therefore the following standard approaches are proposed as possible solutions.

Type of work	Possible approach
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<p>1. Routine maintenance of plant and equipment in line with manufacturer's instructions e.g. lubricating components and like for like replacement of parts.</p>	<ul style="list-style-type: none"> <li>• May not fall under the remit of CDM 2015</li> <li>• Work is managed under the general Health and Safety at Work Act 1974 and the Management Regulations 1999</li> <li>• Undertaken by qualified in-house teams (competence is defined by each organisation's assessment processes relevant to the tasks required)</li> <li>• Corporate procedures for risk assessment and safe systems of work followed.</li> </ul>
<p>2. Repairing defective equipment and components. May involve the use of TG20 compliant scaffolding<sup>2</sup>, work platforms or cranes to facilitate the work, but which does not require substantial alteration or dismantling of existing structures.</p> <p>No design input is required – i.e. like for like replacement of components.</p> <p>Tasks which are simple and are repetitive in nature. Require a minimal degree of advance planning, lesser degree of thought, input and involvement of different parties, minimal organisation and allocation of time and resources.</p>	<ul style="list-style-type: none"> <li>• May not fall under the remit of CDM 2015, managed under general Health and Safety at Work Act and The Working at height Regulations.</li> <li>• Undertaken by qualified in house teams potentially with support of external service provider.</li> <li>• Corporate procedures for risk assessment and safe system of work followed.</li> <li>• Corporate procedures for managing contractors/service providers followed e.g. permits, access certificates.</li> </ul>
<p>3. Cleaning tanks, pipelines or other assets with high pressure water (jet wash) but which require <u>no</u> enabling construction works such as excavations. Using standard drain/sewer/suction vehicles that operate between 0 – 275 bar (4000psi). May involve 'vactor' and /or tanker services to remove existing materials.</p>	<ul style="list-style-type: none"> <li>• May not fall under the remit of CDM 2015, managed under general Health and Safety at Work Act 1974 and the Management Regulations 1999.</li> <li>• Undertaken by qualified in house teams, potentially with support of external service provider.</li> <li>• Corporate procedures for risk assessment and safe system of work followed.</li> <li>• Corporate procedures for managing contractors/service providers followed e.g. permits.</li> </ul> <p>If high pressure jetting is being undertaken as part of a wider construction project, or using</p>

<sup>2</sup> <https://www.nasc.org.uk/tg2013/>

<p>NOTE: The Water Jetting Association Code of Practice<sup>3</sup> contains the following definitions:</p> <ul style="list-style-type: none"> <li>• High pressure jetting (WJ) includes all pressures up to 1700 bar (25,000psi or 170mpa).</li> <li>• Ultra-high pressure includes all pressures over 1700 bar (25,000psi or 170mpa)</li> </ul>	<p>corrosive or toxic chemicals, then the requirements of options 4 and 5 below are valid, i.e. the CDM Regulations apply.</p> <p>If ultra-high pressure hydro-demolition is being undertaken then then the requirements of options 4 and 5 below are valid, i.e. the CDM Regulations shall apply.</p>
<p>4. Management of external contractors to undertake repair or modification works requiring design input, i.e. not like-for-like replacements, i.e. low to medium complexity construction projects.</p>	<ul style="list-style-type: none"> <li>• Works are construction as described in the CDM 2015 regulations.</li> <li>• Application of the CDM Regulation requirements will follow the water company’s specific procedures proportionate to the nature and scale of the works.</li> <li>• Corporate procedures for risk assessment and safe system of work are followed for tasks being undertaken by the water company’s employees.</li> <li>• Corporate procedures for managing contractors/service providers are followed e.g. permits.</li> <li>• Contractor’s suitable and sufficient Construction Phase Plan, risk assessments and method statements are in place.</li> <li>• In-house team represents the Client organisation and is not classed as a ‘contractor’, unless the in-house team is specifically established to undertake construction ‘projects’, not just routine maintenance activities. If the in-house team are physically undertaking construction work as part of the project they should become a contractor working under the Principal Contractor.</li> <li>• Principal Contractor to be appointed if likely to be more than one contractor.</li> <li>• Equipment hire companies are classed as ‘suppliers’ not ‘contractors’ e.g. cranes, work platforms, tankers, unless they are formally sub-contracted to plan and manage an item of work themselves. For example the main contractor may hire a crane company to undertake a contract lift, however the main contractor is still the controlling mind planning and managing the overall task that requires the use of the crane i.e. one contractor.</li> <li>• Principal Designer to be appointed if likely to be more than one contractor. If appointment has not</li> </ul>

<sup>3</sup> Water Jetting Association, Code of Practice for the use of High pressure and Ultra High pressure water jetting equipment, 2012, ISBN: 1-874278-02-4

	<p>been made the client will undertake the duties by default.</p> <ul style="list-style-type: none"> <li>• Pre-construction information should be provided through the task specific work order, it should be proportionate to the scope of work.</li> <li>• H&amp;S File and/or relevant records e.g. as-built drawings, GIS systems, operation and maintenance manuals are produced/updated by the Principal Designer with input from the Principal Contractor and other relevant parties.</li> </ul>
<p>5. Coordination of construction/non-routine maintenance projects with in-house project management teams and external contractors, i.e.</p> <ul style="list-style-type: none"> <li>• High risk / high complexity projects – H&amp;S, environmental or operational risk</li> <li>• Specialist design required (e.g. temporary works, dam walls)</li> <li>• High level of information gathering or investigation required to ensure safe design and integrity of design</li> </ul>	<p><u>Planned projects</u> As example 4 above – full application of CDM2015 is required.</p> <p>Note: Some organisations have in-house teams with the capability of undertaking construction projects such as excavation, repair of network assets or facilities management. In which case the organisation could undertake the duties of both Principal Designer and Principal Contractor if required.</p> <p><u>Reactive projects</u> e.g. burst water main response Refer to section 3 -CDM application during emergency and reactive works</p>

Every work activity should be considered on a case by case basis as design requirements, significant hazards and interfaces with other stakeholders will affect the complexity of the construction or maintenance work. What must be reinforced is that health and safety risks are being managed on a proportionate level.

Specific examples of typical water industry activities are contained in Appendices A – Network activities, B – Process activities and C – Building maintenance.



## 2. CDM application on Third Party Client projects

### Introduction

Water companies are frequently required to undertake diversions or modifications to assets as a result of third party client led projects. Client led projects can include but are not limited to: governmental organisations, local authorities constructing new roads, structures, developers housing or shopping centres, or transportation schemes such as new motorways, tramways, railways etc.

### Impact

The CDM implications on duty holders requires significant coordination between the third party client, the water company and any other statutory undertakers that will also be affected. Several of the Water UK member organisations report varying approaches and levels of CDM awareness of the third party clients, which often leads to confusion, potential lack of compliance and an increased risk of incidents.

### Recommendation

It is recommended that the potential CDM duty holders, led by the Third Party Client are brought together to agree the roles, responsibilities and overall management arrangements for the project as early in the project as possible.

As a member company of Water UK you should have the knowledge and confidence to take the lead if necessary and highlight to 3<sup>rd</sup> parties their roles and responsibilities under CDM. A number of arrangements are feasible, they just need to be discussed and agreed in writing with the third party Client. The diagram in Appendix D gives two possible scenarios that could be utilised.

The flowchart in Appendix E sets out the potential interfaces and information flow between the water company, the third party client and other affected organisations e.g. gas and electric companies.

### 3. CDM application during emergency and reactive works

#### Introduction

Since the introduction of the Construction Design Management Regulations 2015 (CDM) on 6<sup>th</sup> April 2015, CDM should have been applied to all new construction projects that include construction work. The utilities industry has experienced a number of scenarios where the full application of CDM may not always be practical or even possible, in particular emergency and reactive works.

The definitions within the CDM regulations are clear in terms of what constitutes construction work, which generally includes how we undertake emergency and reactive repairs. So the question in need of guidance and clarification is at what point can the CDM 2015 requirements be pragmatically implemented in an emergency situation e.g. major burst, flooding or other significant incident?

#### What is an emergency?

The dictionary definition of an emergency is *“a sudden or unforeseen crisis (usually involving danger) that requires immediate attention.”*

Within the Water Act there are a number of statements that could lead us to interpret situations as emergencies, such as flood risks to residential areas.

The Civil Contingencies Act 2004 section 1(1)(a) defines an emergency as “an event or situation which threatens serious damage to human welfare in a place in the United Kingdom”, section 1(2) adds clarification to 1(1)(a) by saying *“an event or situation threatens damage to human welfare only if it involves, causes or may cause: disruption of a supply of money, food, water, energy or fuel.”*

As a water industry we are concerned with the loss of service to our customers and or dependent facilities such as hospitals, any risk to the general public’s safety, damage to buildings or infrastructure, pollution of clean water sources, any risk to the environment or public from flooding or pollution.

Most water companies have their own interpretation of an emergency and guidance on how to manage and prioritise reaction times and resources. Numbers of population affected being a key consideration. The company may declare an emergency when confronted by an event that cannot be handled by local resource.

Notification of an emergency could come from the customer (drop in pressure, no supply) or the water company’s production team could detect a problem during routine works. Visual problems could be reported by the local authorities, Highways England or members of the general public. Irrespective of the reporting source, all reports should go to the water company’s control room. Typically the problem will be confirmed by a suitably qualified technician, only then will a repair team be deployed.

Response to asset failures or customer contacts will be classed as either genuine emergency works or non-urgent reactive works where the response can be undertaken in a more planned manner. An emergency situation will require immediate action to bring the situation under control, will generally be followed by a more planned response stage, and then potentially followed by a planned defined project/capital intervention to fully rectify the problem as illustrated below.



It is important to avoid the fallacy that during an emergency, CDM does not need to be applied. The diagram above illustrates the three phases of any emergency situation; as soon as the risk of damage to human welfare ceases, the emergency moves into the reactive phase, even if the work is urgent.

### When does an emergency cease?

At the point all identified risks have been made safe and brought under control. Assets may still be out of commission, but repairs can be made as matter of routine, i.e. alternative supplies are in place and there is no longer a threat to human welfare or the environment then it is no longer an emergency.

### Who is the Client?

Normally the client will be the water company, however there could be occasions when utility providers are working in tandem during a single emergency. Multiple client projects are recognised within CDM, in such a scenario, the clients should agree who is going to be responsible for undertaking the client's duties, alternatively they could all agree to take on the responsibilities. Nevertheless, a degree of communication and coordination will be required. In such a scenario the regulations imply the agreement should be formalised. (In real time emergencies, the emergency services will operate a starred command structure, CDM will take a back step until the situation is deemed both safe and under control) This should give the utility providers sufficient time to coordinate their activities and determine responsibilities.

### Client duties – Appointment of Principal Designer (PDs) and Principal Contractor (PCs)

It is accepted that making appointments under CDM in the event of every emergency or burst water main may be impractical for a number of reasons. That does not mean to say water companies can't make appointments. The Client can either make appointments at framework level (the most practical solution) or carry the burden of responsibility. Contractual wording could include "The framework contractor is appointed as the Principal Contractor and Principal Designer in the event of an emergency repair where more than one contractor is employed." which ensures appointments are made.

Clearly the responsibility to appoint falls upon the client, in this case the client will tend to be the water company. Competence assessments (skills, knowledge and experience) can be carried out and re-assessed on a regular basis.

If there is only one contractor undertaking the works, PC and PD appointments need not be made.

### The PD appointment.

Generally there is very little design work required for the immediate response to emergency works as parts tend to be repaired and/or replaced on a like for like basis. It is quite feasible for the client to retain the responsibilities of PD. On occasion there may be call for minor on site design work for practical reasons like temporary works for excavations, or slight changes to proposed pipework design. Such design work should be undertaken by the designers working on behalf of the PC. Design approval can be given by the client in their capacity as PD if deemed competent in the role, and if the PC hasn't also been appointed as the PD.

Note the PD can be an individual or an organisation, this includes the option described above to appoint the reactive framework contractor as the PD.

### The PC appointment

Typically during an emergency repair more than one contractor will be engaged, normally the main contractor will sub-contract elements of work. Where it is foreseeable that more than one contractor will be employed, a PC must be formally appointed.

Most water companies have listed and approved contractors or joint ventures who have been awarded contracts post a successful tendering process. The main contractor responsible for emergency repairs should be asked to accept the responsibilities of PC contractually; by signing the contract responsibilities of PC have been accepted. This action eliminates the risk of the client inadvertently taking the PC role and all the responsibilities that are associated with the appointment. Responsibilities of the PC should be made abundantly clear. Their duties could be attached to the contract terms and conditions which will offer clarification and serve as a reminder of the water supplier's expectations.

The PC would still be expected to mitigate and manage any on site risks identified during the emergency phase, therefore the client must ensure that the PC has a robust system of dynamic assessment and a means of accessing service plans. The client must be able to demonstrate that the PC's competency to manage such tasks safely have been assessed, such assessments should be evidenced. (Typically achieved during the tender process)

### Pre- Construction Information (PCI)

Initially, during an emergency the client should be in a position to supply as much information as possible about the asset and the location. This information can be transferred with the works order to the PC or it could be passed by a client representative on site.

Pre-Construction Information should be proportionate and relevant to the works being undertaken. The list of potential pre-construction below is non-exhaustive and should be complemented with specific information provided via works order:

Procurement documents e.g. work order, contract agreement, Client specific construction, technical or health and safety standards, access to as-built asset drawings or electronic GIS, other statutory undertaker's utility drawings, known local hazards, emails and other written communication.

## The Construction Phase Plan (CPP)

Preparing a construction phase plan for emergency works would be impractical. However there are a number CPP elements that could be completed on a more generic basis covering the main information associated with the contractor and the nature of works being undertaken.

A CPP template can be created by the Client or Principal Contractor. The generic elements of the CPP can be pre-populated. The site specific remainder of the CPP could be completed when on site, this could be hand written or produced electronically and sent to the client. The use of a CPP to cover all framework activities should be treated with caution, as it would not capture site specific issues.

The water company could consider exempting themselves from the requirement to submit a CPP during the immediate emergency phase of the works, on the understanding that the subsequent reactive and planned project works must be supported by a CPP. This does not exempt the contractors from having risk assessments and method statements to cover emergency deployments, including dynamic risk assessments at the site of the emergency.

## Health and Safety File.

A proportionately sized health and safety file can be submitted to the client post-emergency works by the PD or contractor, simply detailing what has been done, who did it, and what materials were used highlighting any hazards or future maintenance instructions. If there are subsequent works, initial repair details can be included in the final health and safety file if required.

## Reactive works

Reactive works excluding emergencies tend to be planned; therefore the application of CDM should apply if the reactive works constitute construction projects. Appointments can be made at framework level where more than one contractor is employed. For design and build works the Client should appoint a PD, which could be the PC or the appointment could be retained by the Client. For specialist works there may be occasion when the client appoints a consultant or consultancy to undertake the PD role.

The client should provide PCI and should expect a CPP before construction works commence and a health and safety file upon completion.

Competencies for PD and PC should have been confirmed at tender. Specialist consultants will need to be assessed based on requirement. All clients should have a process for determining competence.

## Recommendation

As an industry we would expect to have pipe bursts or leaks on a regular basis, we should not treat them all as emergencies. If a burst can be identified, controlled and repaired routinely it probably isn't an emergency and the requirements of the CDM Regulations can be applied.

It is recommended that water companies establish in house guidance reflecting the three stages of emergency, reactive and planned works. Health and safety risks must be managed proportionately in a true emergency response situation, including risk assessments and controls being in place.

## Appendix A – Construction or maintenance network asset examples

The following are non-exhaustive examples that may help to explain the difference between construction projects and routine maintenance as defined in CDM 2015. Caution must be applied when determining the difference between construction projects and routine maintenance, advice from a CDM or H&S specialist should be sought. Activities should be reviewed on a case-by-case basis. The definitions below do not affect in anyway the management of H&S at work under other pieces of H&S legislation. For the avoidance of any doubt:

Business as usual activity means:

- o The employer has a duty towards employees and persons other than their employees
- o Undertaken by suitably qualified in house teams
- o Corporate procedures for risk assessment, safe systems of work and any other specific H&S legislation is followed.
- o Client MUST provide any available pre-works information
- o Contractors MUST produce relevant risk assessments and method statements
- o Contractors MUST provide post-works information at completion, including updates to any existing health and safety files.

In addition, when CDM 2015 applies

- o Client MUST provide Pre-Construction Information
- o Contractors MUST produce a Construction Phase Plan before construction work begins
- o Contractors MUST provide post-works information at completion (H&S File information)
- o PC/PD appointments made if more than one contractor is engaged
- o F10 submission if exceeding the HSE notification threshold (over 30 days with over 20 people simultaneously or over 500 person days)

Example	Construction or routine maintenance under CDM?	What do I do now?
<p><b>Restoring flow to sewer network by high pressure water jetting to remove:</b></p> <ul style="list-style-type: none"> <li>a. Soft blockages</li> <li>b. Silt (reactive cleaning)</li> <li>c. Tree roots</li> <li>d. FOG (Fats, oils and grease)</li> </ul>	<p>A sewer is classed as a structure and the use of high pressure jetting is included in the description of Construction Work, however these examples form routine maintenance of the sewer network and are not construction projects.</p> <p>CDM 2015 could apply if the routine maintenance techniques are not sufficient to clear the blockage and additional construction works are required.</p>	<ul style="list-style-type: none"> <li>• Business as usual activity as above.</li> <li>• If the works escalate CDM 2015 may apply as above.</li> </ul>

<p><b>Where unable to restore flow and prevent/minimise risk of flooding then arrange for/order:</b></p> <ol style="list-style-type: none"> <li>a. Draw off system</li> <li>b. Set up temporary over-pumping</li> </ol>	<ol style="list-style-type: none"> <li>1) The use of a pumping system to draw water out of a sewer / drain would not be classed as construction in this scenario.</li> <li>2) If temporary over-pumping was installed as part of a larger project to repair a sewer then it could be classed as construction</li> </ol>	<ol style="list-style-type: none"> <li>1) Business as usual activity as above.</li> <li>2) CDM may apply as above.</li> </ol>
<p><b>CCTV Surveys</b></p> <p>Identification of cause of a problem and locate point of excavation if required (Probe and mark).</p>	<ol style="list-style-type: none"> <li>1) Survey only would not be classed as construction.</li> <li>2) Any subsequent intrusive works such as excavation onto the pipeline could be classed as construction under CDM 2015.</li> </ol>	<ol style="list-style-type: none"> <li>1) Business as usual activity</li> <li>2) CDM 2015 may apply as above</li> </ol>
<p><b>Excavations</b></p> <ol style="list-style-type: none"> <li>a. Local dig down to replace/repair section of sewer or rising main</li> <li>b. Re-set/replace manhole frame and cover/miscellaneous ironwork</li> <li>c. Replace domestic gully</li> </ol>	<p>A sewer is classed as a structure, and any excavation works could be classed as construction.</p>	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
<p><b>In chamber/manhole works</b></p> <ol style="list-style-type: none"> <li>a. Remove debris</li> <li>b. Benching</li> <li>c. Remove p-trap</li> </ol>	<ol style="list-style-type: none"> <li>1) The removal of debris in a manhole would be classed as maintenance.</li> <li>2) Benching works and removal of a trap would be classed as construction.</li> </ol>	<ol style="list-style-type: none"> <li>1) Business as usual processes apply to debris removal</li> <li>2) Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ol>
<p><b>Sewer lining works</b></p> <ol style="list-style-type: none"> <li>a. Cured in place liner</li> <li>b. UV liner</li> </ol>	<p>These are construction projects</p>	<ul style="list-style-type: none"> <li>• CDM 2015 applies as above</li> </ul>
<p><b>Other miscellaneous work</b></p> <p>Drilling of private domestic soil stack to facilitate access where no other available</p>	<p>This would be classed as construction even though the work is on a private property as it is for the furtherance of a business.</p>	<p>Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</p>

## Appendix B – Construction or maintenance process asset examples

The following are non-exhaustive examples that may help to explain the difference between construction projects and routine maintenance as defined in CDM 2015. Caution must be applied when determining the difference between construction projects and routine maintenance, advice from a CDM or H&S specialist should be sought. Activities should be reviewed on a case-by-case basis. The definitions below do not affect in anyway the management of H&S at work under other pieces of H&S legislation. For the avoidance of any doubt:

Business as usual activity means:

- The employer has a duty towards employees and persons other than their employees
- Undertaken by suitably qualified in house teams
- Corporate procedures for risk assessment, safe system of work and any other specific H&S legislation is followed.
- Client MUST provide any available pre-works information
- Contractors MUST produce relevant risk assessments and method statements
- Contractors MUST provide post-works information at completion, including updates to any existing health and safety files.

In addition, when CDM 2015 applies

- Client MUST provide Pre-Construction Information (proportionate to the level of risk)
- Contractors MUST produce a Construction Phase Plan before construction work begins.
- Contractors MUST provide post-works information at completion (H&S File information)
- PC/PD appointments made if more than one contractor is engaged
- F10 submission if exceeding the HSE notification threshold (over 30 days with over 20 people simultaneously or over 500 person days)

Example	Construction or routine maintenance under CDM?	What do I do now?
The replacement of an EX rated pump for ventilation unit. System was designed to have an EX rated pump this must be replaced.	If an Ex rated pump was originally specified for the ventilation system and is a like for like replacement (straight in-out operation) this would be classed as a maintenance operation and should be covered under the operation and maintenance of the asset. No design work is required.	<ul style="list-style-type: none"> <li>● Business as usual activity as above.</li> </ul>
The modification of existing gratings and hand-railing for access to a motor and aerator.	Yes, this is construction as they form part of a structure and require an element of design work to ensure they are sufficient for the task.	<ul style="list-style-type: none"> <li>● Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>



Install cover on screw pump so that people cannot use it for a walkway	Yes, this is construction. The cover will require a design and will be fixed to part of the structure.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
Put in permanent access in/near tank to make vector set up easier e.g. additional steps, walkway.	If it is steps/staircase, then it will require construction. The majority of access and egress works will fall under construction	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
Filter arm refurbishment.	<p>a) If it is just the arms that are being replaced, or replacement of a simple component then this maintenance.</p> <p>b) If whole distributor requires replacement then this is construction.</p>	<p>a) Business as usual processes apply.</p> <p>b) Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</p>
UV building - electrical unit failure	<p>a) If it is the replacement of individual parts / repairs, then it is maintenance.</p> <p>b) If major works i.e. the replacement of the whole system (or substantial part of the system) then this may be classed as construction.</p>	<p>a) Business as usual processes apply</p> <p>b) Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</p>
Refurbish the media in a filtration tank	<p>a) As long as the process does not include substantial dismantling to access the media.</p> <p>The media itself should not be classed as part of a structure.</p> <p>b) If the replacement of the media requires substantial dismantling of the structure, this may become construction but further advice will be required to determine the appropriate classification.</p>	<p>a) Business as usual processes apply</p> <p>b) Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</p>
Inlet screen replacement	If the replacement of the screen requires dismantling part of the structure, this may be construction but further advice will be required to determine the appropriate classification.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>

Gear box refurbishment Motor rewinds	Maintenance activities as it should be on a repair or maintenance schedule in the O&M for that piece of plant.	• Business as usual processes apply
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## Appendix C – Facilities/building maintenance examples

The following are non-exhaustive examples that may help to explain the difference between construction projects and routine maintenance as defined in CDM 2015. Caution must be applied when determining the difference between construction projects and routine maintenance, advice from a CDM or H&S specialist should be sought. Activities should be reviewed on a case-by-case basis. The definitions below do not affect in anyway the management of H&S at work under other pieces of H&S legislation. For the avoidance of any doubt:

Business as usual activity means:

- The employer has a duty towards employees and persons other than their employees
- Undertaken by suitably qualified in house teams
- Corporate procedures for risk assessment, safe system of work and any other specific H&S legislation is followed.
- Client MUST provide any available pre-works information
- Contractors MUST produce relevant risk assessments and method statements
- Contractors MUST provide post-works information at completion, including updates to any existing health and safety files.

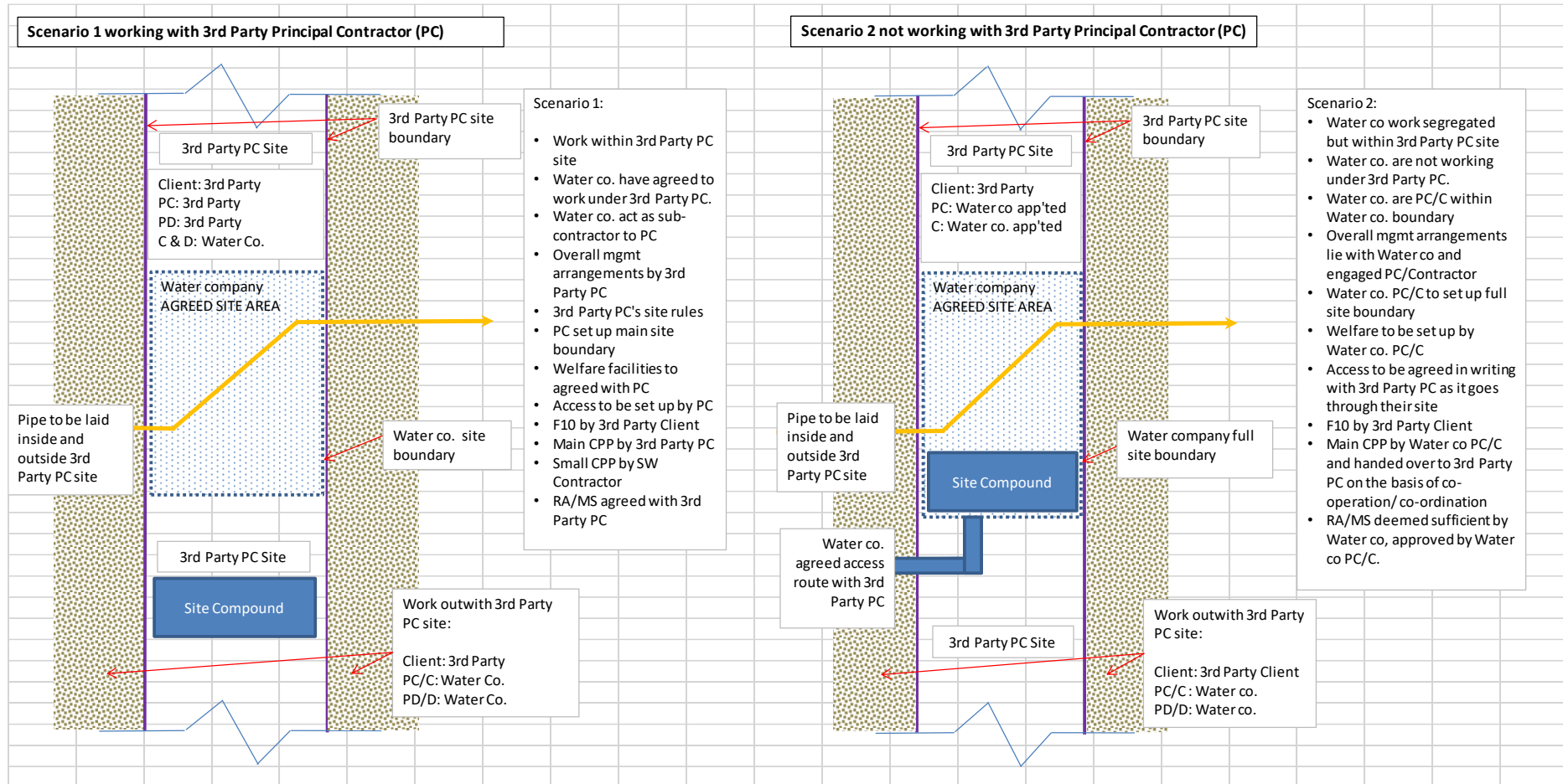
In addition, when CDM 2015 applies

- Client MUST provide Pre-Construction Information (proportionate to the level of risk)
- Contractors MUST produce a Construction Phase Plan before construction work begins
- Contractors MUST provide post-works information at completion (H&S File information)
- PC/PD appointments made if more than one contractor is engaged
- F10 submission if exceeding the HSE notification threshold (over 30 days with over 20 people simultaneously or over 500 person days)

Example	Construction or routine maintenance under CDM?	What do I do now?
Routine gutter cleaning (by hand or using standard jet wash equipment <4000 psi)	Not construction work	<ul style="list-style-type: none"> <li>• Business as usual processes apply</li> </ul>
Outdoor / yard improvements e.g. surfacing works, barrier installation, white lining.	Works are construction but scale can vary significantly.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
Roof repairs	Works are construction and the roof is a structure	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>

Damaged wall	Works are construction but scale can vary significantly.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
Glazing work	Works are construction but scale can vary significantly.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>
Boiler replacement	Works are construction but scale can vary significantly.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> <li>•</li> </ul>
Office renovations/remodelling (over and above moving lightweight partitions and furniture)	Works are construction but scale can vary significantly.	<ul style="list-style-type: none"> <li>• Works are construction – water company’s procedures to be applied dependant on nature and scale of works.</li> </ul>

## Appendix D –Third party client scenario examples



# Appendix E – Interface and information flow on Third Party Client projects

