

DEMOLITION

A GOOD APPROACH TO TAKE



INTRODUCTION

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DEMOLITION

THIS IS DEMOLITION!



DEMOLITION

WHAT ACTUALLY APPLIES?

WHAT SPECIFICALLY APPLIES TO DEMOLITION?

- CDM 2007
- CDM; REGULATION 29 (SPECIFICALLY)
- BS 6187:2011 CODE OF PRACTICE FOR FULL AND PARTIAL DEMOLITION
- CONTROL OF ASBESTOS REGULATIONS 2012
- INSTITUTE OF CIVIL ENGINEERS DEMOLITION PROTOCOL

NOTE:

- DEMOLITION RECOVERY INDEX CALCULATION TO SHOW THE AMOUNT OF MATERIAL TO BE RECYCLED AND HOW
- SWMP IF THE OVERALL CONTRACT VALUE IS IN EXCESS OF £300,000

REMEMBER!

THE CONSTRUCTION DESIGN MANAGEMENT
REGULATIONS (CDM) 2007 APPLY TO ALL DEMOLITION
AND DISMANTLING WORKS UNDER REGULATION 29

Managing health and safety in construction

Construction (Design and Management) Regulations 2007



REGULATION 29: (REG 19 – 2015) DEMOLITION OR DISMANTLING

- (1) THE DEMOLITION OR DISMANTLING OF A STRUCTURE, OR PART OF A STRUCTURE, SHALL BE PLANNED AND CARRIED OUT IN SUCH A MANNER AS TO PREVENT DANGER OR, WHERE IT IS NOT PRACTICABLE TO PREVENT IT, TO REDUCE DANGER TO AS LOW A LEVEL AS IS REASONABLY PRACTICABLE.
- (2) THE ARRANGEMENTS FOR CARRYING OUT SUCH DEMOLITION OR DISMANTLING SHALL BE RECORDED IN WRITING BEFORE THE DEMOLITION OR DISMANTLING WORK BEGINS.

METHOD STATEMENTS

- (2) THE ARRANGEMENTS FOR CARRYING OUT SUCH DEMOLITION OR DISMANTLING SHALL BE RECORDED IN WRITING BEFORE THE DEMOLITION OR DISMANTLING WORK BEGINS.
- THIS PARTICULAR SECTION OF THE CDM REGULATIONS INSISTS THAT ALL DEMOLITION WORKS HAVE A PLAN OF WORKS OR METHOD STATEMENT.
- DEMOLITION IS THE ONLY INDUSTRY SPECIFICALLY NAMED AS REQUIRING THIS.

DESIGNER

- UNDER THE SAME REGULATION THE PRODUCER OF A METHOD STATEMENT OR PLAN OF WORKS IS THEREFORE CONSIDERED A DESIGNER AND AS SUCH IS SUBJECT TO ALL LEGAL DUTIES AND RESPONSIBILITIES OF THE SAID ROLE

REGULATION 2

- PARAGRAPH 116; DESIGNERS THEREFORE INCLUDE:
 - (B) ANYONE WHO SPECIFIES OR ALTERS A DESIGN, OR WHO SPECIFIES THE USE OF A PARTICULAR METHOD OF WORK OR MATERIAL, SUCH AS A DESIGN MANAGER, QUANTITY SURVEYOR WHO INSISTS ON SPECIFIC MATERIAL OR A CLIENT WHO STIPULATES A PARTICULAR LAYOUT FOR A NEW BUILDING;
 - (I) THOSE DETERMINING HOW BUILDINGS AND STRUCTURES ARE ALTERED, FOR EXAMPLE DURING REFURBISHMENT, WHERE THIS HAS THE POTENTIAL FOR PARTIAL OR COMPLETE COLLAPSE.

COMPETENCE

HOW DO YOU KNOW?

COMPETENT CONTRACTORS – HOW DO YOU JUDGE?

- THE IDE MEMBERS MUST BE FULL MEMBERS (MIDE) OR FELLOWS (FIDE) AND SHOULD IDEALLY HOLD THE CSCS WHITE PROFESSIONAL PERSON CARD, IF NOT THEY SHOULD HOLD THE CSCS PLATINUM CARD.
- MANAGEMENT SHOULD INCLUDE AT LEAST ONE PERSON HOLDING THE CCDO DEMOLITION MANAGER BLACK CARD.
- ALL SITE SUPERVISORS MUST HOLD THE CCDO GOLD SUPERVISOR CARD (THIS IS SUPERIOR TO THE SSSTS COURSE).
- ALL OPERATIVES MUST HOLD A CCDO CARD (THIS MEANS THAT THEY HAVE UNDERTAKEN ANNUAL TRAINING IN ASBESTOS AWARENESS AND DEMOLITION AWARENESS).

COMPETENCE

SHOULD BE JUDGED AS CDM 2007 APPENDIX 4

GOOD INDICATORS ARE:

- ✓ DEMOLITION CONTRACTOR TO BE A MEMBER OF NFDC
- ✓ MANAGEMENT TO BE MEMBERS OF INSTITUTE OF DEMOLITION ENGINEERS



COMPETENT CONTRACTORS – HOW DO YOU JUDGE?

- ALL MACHINE DRIVERS MUST HOLD THE CCDO/CPCS CARD FOR DEMOLITION PLANT AND ATTACHMENTS.
- ALL HIGH REACH MACHINE DRIVERS MUST HAVE BEEN ASSESSED AS COMPETENT FOR THE HEIGHT OF THE MACHINE THAT THEY DRIVE, THAT CAN BE UP TO 15 METRES, UP TO 30 METRES OR ALL HEIGHTS.
- TRAINING MATRIX MUST INCLUDE HOT WORKS (USE OF OXY-PROPANE CUTTING EQUIPMENT), MANUAL HANDLING, WORK AT HEIGHT, ABRASIVE WHEELS AND RECIPROCATING SAWS, PASMA TOWER SCAFFOLD, IPAF MEWPs, BEHAVIOURAL SAFETY, FIRE MARSHALL, TEMPORARY WORKS AND TRAFFIC MANAGEMENT.

DEMOLITION CARD TYPES

PRE-ENTRY REQUIREMENT:

- ✓ ASBESTOS AWARENESS & DEMOLITION SAFETY AWARENESS
- ✓ APPROPRIATE HEALTH & SAFETY TOUCH SCREEN TEST
- ✓ ANY CARD ABOVE THE TRAINEE CARD REQUIRES A LEVEL OF ASSESSMENT & TRAINING

TOP MAN



DEMOLITION CARD TYPES

PLANT OPERATOR



SUPERVISOR



DEMOLITION CARD TYPES

MANAGER



DEMOLITION ENGINEER



WHERE CAN YOU GET GUIDANCE?

- ✓ NATIONAL FEDERATION OF DEMOLITION CONTRACTORS PRODUCE GUIDANCE ON TOP DOWN DEMOLITION, HIGH REACH MACHINE DEMOLITION, USE OF CRUSHERS ON DEMOLITION SITES AND MANY MORE
- ✓ INSTITUTE OF DEMOLITION ENGINEERS ISSUE GUIDANCE ON PLANNING DEMOLITION PROJECTS AND AN INDUCTION DVD FOR DEMOLITION PROJECTS
- ✓ HSE WEBSITE HAS GUIDANCE ON DEMOLITION
- ✓ BS 6187:2011 BRITISH CODE OF PRACTICE

WHAT TO DO BEFORE DEMOLITION

- ✓ APPOINT A COMPETENT CDM-C
- ✓ CDM 2007 CORE CRITERIA FOR COMPETENCE OF CDM-C'S STATES THAT THEY SHOULD BE EXPERIENCED IN THE TYPE OF WORK AND HOLD QUALIFICATIONS THAT REFLECT THAT EXPERIENCE SUCH AS RMAPS OR MEMBERSHIP OF A PROFESSIONAL INSTITUTION
- ✓ HSE ALSO LIKE TO SEE, IN THE CASE OF DEMOLITION PROJECTS, THAT THE CDM-C HAS A DEMOLITION ENGINEER AS PART OF THE TEAM



WHAT DO WE NEED BEFORE DEMOLITION?

- ASBESTOS DEMOLITION & REFURBISHMENT SURVEY
(THIS IS A REQUIREMENT OF CDM 2007, BS 6187:2011 AND CAR 2011)
- STRUCTURAL SURVEY. HOW WAS THE BUILDING CONSTRUCTED? LOAD PATHS?
- BAT SURVEY
- SERVICE DISCONNECTIONS
- ENVIRONMENTAL SURVEY. JAPANESE KNOTWEED, GIANT HOG WEED, GREAT CRESTED NEWT
- ESTABLISH ACCESS AND EGRESS CONSTRAINTS, IF ANY



WHAT DO WE NEED TO DO BEFORE DEMOLITION?

- SERVICES DISCONNECTIONS. GAS DISCONNECTION CAN NOW TAKE OVER 16 WEEKS TO ARRANGE.
- F10 ISSUED TO HSE. (IT IS THE CDM-C ON BEHALF OF THE CLIENT, WHO SHOULD SUBMIT THE F10).
- BUILDING/DEMOLITION WARRANT ISSUED TO LOCAL AUTHORITY (SECTION 80(2) IN ENGLAND) AND SECTION 81(2) RECEIVED IN REPLY.
- A DRAFT METHOD STATEMENT IS NOW REQUIRED TO BE SUBMITTED ALONG WITH THE SECTION 80(2).
- FEASIBILITY STUDY TO ENSURE THAT THE WORK CAN BE CARRIED OUT.
- CONSIDER THE DEMOLITION CODE OF PRACTICE BS 6187:2011 AS TO HOW IT WILL APPLY.



COMPETENT CONTRACTORS – HOW DO YOU JUDGE?

- EVIDENCE THAT THEY HAVE DONE THE TYPE OF WORK BEFORE.
- IF SO HOW MANY TIMES AND WHERE?
- DEMOLITION IS SPECIALIST AND COMPANIES REFLECT THAT.
- DO THEY USE NOISE MONITORING DATA AND NOISE MODELLING SOFTWARE?
- DO THEY USE VIBRATION MONITORING DATA?
- DO THEY USE DUST MONITORING DATA?
- HAVE THEY CARRIED OUT A BIODIVERSITY SURVEY AND PRODUCED AN ACTION PLAN?

METHOD STATEMENTS/PLANS OF WORK – WHAT TO LOOK FOR.

- WHO IS THE COMPETENT PERSON WRITING THE METHOD AND WHAT IS THEIR COMPETENCY AS THE PERSON WHO WRITES A DEMOLITION METHOD STATEMENT BECOMES A DESIGNER UNDER CDM 2007?
- HAS THE METHOD BEEN WRITTEN TO TAKE INTO ACCOUNT BS 6187:2011?
- DOES IT CLEARLY DEFINE THE SCOPE OF THE WORKS AND HOW THE WORK WILL BE DONE?
- ARE ALL RESOURCES IDENTIFIED?
- IS THERE A SEQUENCE CLEARLY DEFINED?
- ARE THERE SKETCHES OR PHOTOGRAPHS WITHIN THE METHOD?

METHOD STATEMENTS/PLANS OF WORK – WHAT TO LOOK FOR.

- DOES THE METHOD REFER TO SPECIFIC ELEMENTS OF THE WORK, SPECIFIC BUILDINGS OR WORK PROCESSES?
- DEMOLITION CONTRACTORS TEND TO USE CUT AND PASTE AND METHODS CAN BE TOO GENERIC, BUT REMEMBER THE METHOD IS FOR THE WORKERS AND NOT THE OFFICE STAFF SO IT NEEDS TO BE CLEAR BUT NOT TOO WORDY.
- HSE SAYS “ STATEMENTS ARE FOR THE BENEFIT OF THOSE CARRYING OUT THE WORK AND THEIR IMMEDIATE SUPERVISORS AND SHOULD NOT BE OVER COMPLICATED”.
- MAKE SURE THAT THEY USE A SEPARATE PROCEDURES DOCUMENT IF MORE THEN THREE PAGES ARE REQUIRED, FOR EXAMPLE TO LIST RULES, PPE ETC.

DEMOLITION

SOME INTERESTING METHODS USED BY TOP INTERNATIONAL CONTRACTORS

DEMOLITION TECHNIQUES

TOP DOWN FROM ITALY



DEMOLITION TECHNIQUES

TOP DOWN FROM JAPAN



DEMOLITION TECHNIQUES

BOTTOM UP FROM JAPAN

Youtube Channel: TrendsNow0987

DEMOLITION TECHNIQUES

EXPLOSIVES FROM BRAZIL



DEMOLITION

BAD PLANNING AND EXECUTION



BAD PRACTICE

- NO COMPETENT PERSON TO WRITE METHOD STATEMENTS
- POOR METHOD STATEMENTS
- UNTRAINED LABOUR
- POOR PLANNING
- POOR QUALITY MACHINES
- POOR MANAGEMENT OF ASBESTOS WORKS
- INSUFFICIENT NOISE, DUST AND VIBRATION MONITORING
- INSUFFICIENT RESOURCES



MONITORING DEMOLITION CONTRACTORS

- ✓ SITE INDUCTION AS CDM 2007 REGULATION 13 (4)
- ✓ CHECK THAT ALL PERSONS ON SITE HAVE MANDATORY TRAINING
- ✓ CHECK THAT METHOD STATEMENT IS WRITTEN BY COMPETENT PERSON AND IS ADHERED TO
- ✓ CHECK THAT THEY HAVE TESTED THE EMERGENCY PLAN
- ✓ AUDIT THE WORK AT HEIGHT PROCEDURES

THIS IS THE END OF THE
PRESENTATION...

ANY QUESTIONS?

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