|  |
| --- |
| Scope |
| This procedure applies to all Company projects, offices, facilities, asset and concession companies and Joint Venture (JV) projects where the Company Management System has been adopted by the JV Board. Where the Company is required to operate another party’s Management System then the requirements of the Joint Venture/Alliance Business Management System (BMS) Assessment (MSC-PR-0002) must be followed in relation to assessing the validity of third party management systems. |

|  |
| --- |
| Purpose |
| This procedure defines the controls required when the Company is involved in demolition works. The removal or dismantling of Overhead Power Transmission Towers is not currently included within this procedure.  The requirements in this procedure are considered to be our current standards and must be adopted as part of a safe system of work. However, Projects and Contracts are also encouraged to identify new methods of working as long as these are: developed through rigorous risk assessment, demonstrably improve on current standards, deliver legal compliance and are approved in accordance with the Control of HSES Derogation procedure ([HSES-PR-0004](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/BMS%20Documents/HSES/Health%20and%20Safety/Procedures/HSES-PR-0004%20Control%20of%20HSES%20Derogation.docx)). |

Procedural Requirements

|  |  |
| --- | --- |
|  | **COMPETENCIES** |
|  | The Demolition Contractor must be a member of the National Federation of Demolition Contractors. |
|  | The Demolition Supervisor must hold a Gold Card Demolition Supervisor (CCDO) qualification in addition to other mandatory supervision competencies (such as Site Managers Safety Training Scheme). |
|  | All employees and subcontractors involved in Demolition works must have a Certificate of Competence of Demolition Operatives Scheme (CCDO) card and current asbestos awareness training in accordance with the Working with Asbestos (Construction Phase) Procedure ([HSF-PR-0014](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8606)). |
|  | All plant operators involved in Demolition works must hold a blue CPCS Card pertaining to the plant they are operating:   * Category D90 Demolition Plant - Lifting Operations Only * Category D91 Demolition Plant - Pedestrian Operated * Category D92 Demolition Operations - Skid Steer Tool Carrier |
|  | **GENERAL** |
|  | The varied nature and complexity of demolition is such that a specific Risk Assessment and Work Package Plan (Method Statement) is required for each activity. All Work Package Plans will be appraised using the Demolition Subcontractor Safe System of Work Appraisal Checklist ([HSF-SF-0022a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1123)). The work may involve controlled collapse, mechanical demolition or hand down-taking in any location from a greenfield site to a city centre. Careful pre-planning, implementation of control measures and robust briefing methods are required. |
|  | **USE OF EXPLOSIVES** |
|  | Prior to submission of a tender involving demolition works, including the use of explosives, the relevant Strategic Business Unit (SBU) Director, the SBU Head of Health and Safety and the Insurance Function shall be informed and permission to proceed obtained. |
|  | A Safe System of Work for use of explosives must be produced including: |
|  | * Structural survey of the building to determine the collapse mechanism, fall direction, pre weakening requirements, explosive locations and drilling patterns, blast shielding and final collapse requirements |
|  | * Hazardous materials identification and removals |
|  | * Services investigations and removals/diversions in liaison with the relevant utility providers |
|  | * Pre-weakening of the structure in accordance with the provided calculations |
|  | * Test blasts to determine the correct explosive weights |
|  | * Blast area preparations and installations of blast shielding (protection) |
|  | * The required exclusion zone for the demolition, identifying property and persons who will be affected |
|  | * Who will need to be evacuated on the day and their security requirements |
|  | * Exclusion zone implementation and security management on the day |
|  | * Community liaison procedures |
|  | * Means of continuous liaison with the client, local authority, emergency services and utility providers monitoring requirements |
|  | * All environmental monitoring requirements |
|  | * Client, press and public viewing area management |
|  | * Safety management procedures on the day of the demolition |
|  | * Post demolition survey of demolition area and adjacent properties |
|  | * Post demolition meeting with client, local authority and other relevant parties |
|  | A plan detailing the arrangements for how demolition work will be carried out safely and without hazards to health shall be prepared before demolition or dismantling work begins. This applies to all demolition work regardless of size, duration, or whether or not the job is notifiable (as defined by CDM Regulations). |
|  | **OFF SITE/FUNCTIONAL INVOLVEMENT** |
|  | A Structural Engineer shall be appointed to act for the Company, to verify and validate the preconstruction information supplied by the Principal Designer/Client. |
|  | The Site Lead will, where appropriate, ensure that the Demolition Works Pre Start Planning ([HSF-SF-0022b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1124)) checklist is completed in conjunction with the HSES Function. |
|  | For high-risk demolition, the Site Lead must discuss the content of the Risk Assessment and Work Package Plan (Method Statement) with relevant Subject Matter Experts, Contractors Engineering Manager, Contractors Responsible Engineer(s), Temporary Works Function (as applicable) and HS&E Advisor and agree on the suitability of the content prior to work commencing. |
|  | **SURVEY AND ASSESSMENT** |
|  | All demolition works shall be subject to a suitable survey and assessment prior to demolition. A competent person must do a thorough structural survey and assessment before any potentially load-bearing parts of a structure are altered. |
|  | The structural survey shall consider: |
|  | * The age of the structure; |
|  | * previous use; |
|  | * type of construction; |
|  | * any nearby buildings or structures and; |
|  | * any requirement to break ground. |
|  | This information, along with historic record drawings, existing health and safety files, existing infrastructure survey, intrusive structural assessment surveys (including geotechnical surveys) and any other structural information, will be used to determine the steps required to prevent accidental collapse. |
|  | **SAFE SYSTEM OF WORK** |
|  | The Site Lead must ensure that a suitable and sufficient Risk Assessment has been carried out and the Safe System of Work, for all demolition operations, includes details of: |
|  | * The location |
|  | * The timescale of the activity |
|  | * The type of demolition |
|  | * The level of supervision (named) |
|  | * The plant and equipment |
|  | * The competence of the supervision and workforce |
|  | * The control measures to protect the workforce and other operatives |
|  | * The control measures and segregation to protect members of the public |
|  | * The sequence of events, including hold points and permit arrangements |
|  | * The traffic management arrangements |
|  | * Health hazards, including: |
|  | * the protocol for managing any asbestos identified in the R&D survey, including use of licenced asbestos contractors to remove ACMs prior to demolition |
|  | * any hazardous substances on site including supplied chemical products, lead paint, flammable materials and PCBs so as to prevent or control exposure |
|  | * biological hazards such as rat infestations, pigeon droppings, lathe and plaster and used needles |
|  | * Personal protective equipment |
|  | * Monitoring arrangements (structural monitoring including key trigger levels, adjacent infrastructure monitoring etc) |
|  | * Temporary works management |
|  | * Contingency/Emergency arrangements (including associated action plans) |
|  | Additional surveys will be needed on the presence of the following, if this information is not already known by the client/Principal Contractor: |
|  | * Asbestos (a fully intrusive Refurbishment and Demolition survey, including destructive testing) |
|  | * Existing Services (including buried services) |
|  | * Lead paint |
|  | * Polychlorinated Biphenyls (PCBs) |
|  | * Flammable Materials |
|  | * Underground structures/containers |
|  | * Horsehair lathe and plaster |
|  | This list is not exhaustive. |
|  | The safe system of work must include a Work Package Plan (Method Statement) identifying the sequence required to prevent accidental collapse of the structure. All Work Package Plans will be appraised using the Demolition Subcontractor Safe System of Work Appraisal Checklist ([HSF-SF-0022a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1123)). Additionally, in the case of demolition of major refurbishment, the plan of work must specify that all asbestos is removed before any other major work begins, where this is reasonably practicable. |
|  | In addition to the design and method of temporary supports the safe system of work will consider: |
|  | * establishing exclusion zones, clearly marked and with barriers or hoardings |
|  | * covered walkways |
|  | * using specialist equipment |
|  | * reinforcing machine cabs (Falling Object Protection Systems – FOPS) |
|  | **SUPERVISION AND MONITORING** |
|  | Management will ensure that the activity is properly supervised and that monitoring arrangements are in place which ensure that the safe system of work is being implemented and is effective. A Pre-Start Subcontractors Meeting will be held with the Demolition Contractor, the Demolition Supervisor and other relevant parties, prior to works commencing ([HSES-TF-0010c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7997)). |
|  | A full time Demolition Supervisor must be employed and based on the project to oversee and manage all demolition activities on site. The Demolition Supervisor will be in attendance when work is carried out. Works must stop if the Demolition Supervisor is not in attendance. |
|  | Monitoring of the structure will be detailed within the Work Package Plan, along with the key trigger levels and associated actions, which have been determined by the Designer. |

| Abbreviations / Definitions | |
| --- | --- |
| **SITE LEAD** | The senior person on site responsible for the Health, Safety and Wellbeing of all employees, subcontractors and third parties on site or affected by our works. |
| **DEMOLITION** | The deliberate pulling down, destruction or taking apart of a building or a significant part of, a structure.  Construction operations involving the removal of non-structural elements such as cladding, roof tiles and similar materials are not considered to be demolition or dismantling. |
| **HIGH RISK DEMOLITION WORKS** | ‘High risk demolition work’ means demolition work that:   * involves a risk of a person falling more than three metres; or * involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure; or * involves, or is likely to involve, the disturbance of asbestos; or * involves structural alterations or repairs that require temporary support to prevent collapse; or * is carried out in a tunnel; or * involves the use of explosives; or * is carried out on or near pressurised gas distribution mains or piping; or * is carried out on or near chemical, fuel or refrigerant lines; or * is carried out on or near energised electrical installations or services; or * is carried out in an area that may have a contaminated or flammable atmosphere; or * is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians; or * is carried out in or near water or other liquid that involves a risk of drowning; or involves diving work. |
| **REASONABLY PRACTICABLE** | Balancing the level of risk against the measures needed to control the real risk in terms of money, time or trouble. However, you do not need to take action if it would be grossly disproportionate to the level of risk. |
| **RED TEXT** | Not yet available, use current BMS for relevant document. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| INPUTS | | | | | |
| **Reference** | **Type** | | **Title** | | |
| MSC-PR-0002 | Procedure | | Joint Venture/Alliance Business Management System (BMS) Assessment | | |
| [HSF-PR-0014](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8606) | Procedure | | Working with Asbestos (Construction Phase) | | |
| [HSES-PR-0004](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/BMS%20Documents/HSES/Health%20and%20Safety/Procedures/HSES-PR-0004%20Control%20of%20HSES%20Derogation.docx) | Procedure | | HSES Derogation | | |
| External | Legislation | | [Construction (Design and Management) Regulations 2015](http://www.legislation.gov.uk/uksi/2015/51/contents/made) | | |
| External | GE700 | | [CITB Construction Site Safety Manual GE700 Demolition Section](https://home360.balfourbeatty.com/bbcsuk/home/ToolsResources/Pages/IHS.aspx) | | |
| External | Website | | [National Federation of Demolition Contractors](http://demolition-nfdc.com/) | | |
| OuTPUTS | | | | | |
| **Reference No.** | | **Document Title** | | **Retention Period** | **Responsibility** |
| [HSES-TF-0010c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7997) | | Pre-Start Meeting Minutes | | 6/12 years | Site Lead |
| [HSF-SF-0022a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1123) | | Demolition Subcontractor Safe System of Work Appraisal Checklist | | 6/12 years | Site Lead |
| [HSF-SF-0022b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1124) | | Demolition Works Pre-Start Planning Checklist | | 6/12 years | Site Lead |