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Plans of Work – purpose and core principles

1) This guidance is aimed at licensed contractors holding a full licence although ancillary licence holders may also find some parts of it useful. It is also intended to assist HSE inspectors in assessing the suitability of Plans of Work (PoWs). This guidance is in addition to ALG Memo 04/12, “Suitable and sufficient plans of work (aka method statements)” and the Licensed Contractors Guide (HSG247).

2) There are many ways to create a suitable PoW and comply with Regulation 7 of the Control of Asbestos Regulations 2012 (CAR 2012). Reg. 7 describes specific absolute requirements for PoWs, these should be met. There is more detail in the Approved Code of Practice and guidance which accompanies Reg. 7, contained in “Managing and working with asbestos” (L143).

3) A PoW should be a practical and useful document describing a safe working method for staff to follow. It should include details of the work, and the appropriate actions to control risk and prevent harm. These are the core principles which underpin this guidance.

4) It is the duty of the employer to produce a suitable PoW. It must be ready at the time of notification. This is one of the standing licence conditions. It is not acceptable to produce an outline plan at the time of notification and develop the detail as the work progresses. The work must be planned before it starts. That is not to say that changes can't be made to the written plan where that is unavoidable, but significant changes to the main parts of a PoW should be the exception rather than the rule.

5) A PoW's fitness for purpose can be measured in its use on the job, and the licensed contractor should be able to demonstrate that with thorough site checks and audits. Some companies tell HSE that their staff know how to do the work and don't need a detailed written PoW. This way of thinking misses the point. The PoW is not only there to direct and support the site team, it must also be available for others including:

- the analyst who checks the PoW in detail against their findings on site before the 4-stage clearance process;
- managers, clients and auditors;
- HSE inspectors;

so that they can check how effective it is in describing a safe method for the job and the performance of the site team. Inspectors and other regulators, especially in a strict licensing regime, will also wish to use the PoW as a tool to measure how effective a business is in managing work with asbestos. A suitable PoW should be created in consultation with the client with the aim of making it less vulnerable to unrealistic constraints or time pressures placed on the licensed contractor by the client or other parties on site.

6) There is a range of approaches to producing PoWs - from making them fully self-contained to leaving out all information that is already covered elsewhere and focussing on what is different or unusual about this job.

7) HSE inspectors have reported that PoWs are often overlong, with crucial detail lost among pages of lengthy generic descriptions. Companies tell HSE that some of the information which makes PoWs so long is put in at the request of the client. It remains HSE's position that generic information about frequently used company procedures (such as standard ways of bagging waste, standard enclosure construction materials etc) will **not** need to be in the site-specific plan. Keeping generic information out of the site-specific plan means the standard procedures on which it is based need to be available on site in a readily accessible and readable format, be that electronic or hard copy.

8) It should be possible to strike a balance between producing a PoW that is complete but manageable in length. Diagrams, photographs and flowcharts can all help make PoWs less wordy. In all cases HSE would favour plans that are user friendly, easy to read and straightforward to follow.

9) Many licensed contractors already have formats and styles which are suitable and work for them. For those who need more guidance on how to turn their planning thoughts into a suitable digital or hard copy PoW, the following checklists, prompt questions and narrative examples are designed to help. They are not exhaustive lists which cover every possible situation.

10) The checklists, prompt questions and examples below are intended as suggestions to assist with planning the work. They are grouped together as topics for consideration by those who produce PoWs. There is a brief explanation of what each topic means and intends to cover. Some of these suggestions will be relevant to a specific project, others will not. For some topics, narrative examples have been added to encourage users of this guidance to refresh how they think about PoWs.

Contract and scope of work

11) Here, HSE is looking for a brief but accurate overview of the key features of the job showing that it has been thought through from start to finish and that key information has been written down:

- full address and work location including the correct postcode;
- precise location (building/room), extent/quantity, type and form of asbestos to be removed;
- clear scope of work and site constraints, including any ACMs that are to be left in situ;
- start and finish date of work, work dates and site times, including for the supervisor;
- planned work method(s);
- number of site personnel engaged in the work, including persons outside the enclosures;
- names, addresses and contact details of client, principal contractor, licensed contractor's senior managers, supervisor, analyst, and other licence holder(s) involved;
- what survey information do you have, and is there a copy on site;
- what are the dimensions and weights of the largest asbestos items, be they panel products or sections of pipework;
- what does this mean for the required size of the airlock or baglock, or, exceptionally, is the wrapped waste to stay in the enclosure and be dealt with as part of the 4-stage clearance (4SC) process;
- will the weight of the pieces, such as those created by wrap & cut, require lifting equipment or manual handling equipment to remove safely;
- how much waste do you expect to generate;
- if the asbestos-containing materials (ACMs) are at height, what work at height equipment will be required so the work can be done safely and in compliance with the Work at Height Regulations 2005;
- details of the welfare provision as per Schedule 2 of the Construction (Design & Management) Regulations 2015;
- how will this job be supervised;
- how will the PoW be communicated;
- how will you liaise and communicate with the client, the Principal Contractor, other contractors or licence holders, and whose responsibility is it;
- what will senior managers' involvement be for this job;
- how will changes to the PoW be managed;
- how will communication between inside and outside the enclosure work.

Photographs can be very beneficial here.

The relationship with the analyst

12) The work of the analyst is a vital part of licensed work because it provides independent reassurance to licensed contractors, clients, regulators and the wider public that an area where work with asbestos has taken place is safe for reoccupation. Both the Management of Health and Safety at Work Regulations 1999 and the Construction (Design & Management) Regulations 2015 (CDM 2015) require all relevant parties to cooperate with each other and to coordinate their work. PoWs should reflect this. Guidance on how to comply with CDM 2015 can be found in "Managing health and safety in construction" (L153).

13) PoWs should reflect the practical arrangements for full coordination and cooperation with the analyst at all stages where an analyst is involved, and specifically during the 4-stage clearance (4SC). There should be a clear estimate in the PoW of how long the 4SC is expected to take. Further points to consider are:

- how the licensed contractor will liaise and communicate with the analyst for this job, and whose responsibility this is;
- at what job stages, dates and times will the analyst be on site;
- when (dates) will air monitoring be carried out, and by whom;
- what type of air monitoring is to be carried out on this job (for example personal monitoring, leak testing, background monitoring etc);
- for personal monitoring, which workers will be monitored, carrying out which tasks;
- sampling times for personal monitoring agreed with the analyst;
- analysis to be done by which laboratory;
- what are the final cleaning and checking arrangements in preparation for the 4SC;
- who will hand over the enclosures and transit/waste routes to the analyst;
- the handover should highlight anything left in the enclosure for later removal (eg alloy tower);
- what is the estimated time needed for the 4SC;
- safe access and/or working platforms at height is in place for analyst;
- DCU is still working.

Special characteristics of the site and its vicinity

14) Where and what a work site is and/or what is nearby can have a significant impact on the work with asbestos. This should be addressed at the planning stage and may mean additional activities need to take place to ensure effective liaison with, say, a nursing home, or good physical segregation from a busy demolition site. This in turn will impact on the emergency arrangements. Minor and major incident procedures may already be covered in the standard procedures. Consider also:

- for example, is it a school (Term time? School holidays? Community activities taking place?) a live hospital, a nursery, or is such a facility very close to the work location? Is the site a tenanted flat (Access? Liaison with landlord? Flat empty or occupied during works?);
- what are the effects of this for the job, for example for access, site hours, waste management, contact with members of the public;
- any other site features or constraints impacting on the job, and how will these be managed;
- how will the work area and waste and transit routes be segregated from visitors or staff;
- are there any external gas vents that could interfere with enclosure or air management;
- if yes, do you require a Gas Safe-registered installer to work on this;
- is scaffolding required (licensed, non-licensed), and how does this fit in with the site, will it need to be designed, and what is the access onto the scaffold;
- are there any special access arrangements for power and water supply;
- what are your emergency arrangements, taking the site's special characteristics into account;
- what are the fire precautions;
- what are the arrangements for First Aid;
- what are the muster points in an emergency, with consideration of contaminated personnel;
- what is the availability of emergency contacts, especially at night or weekends;
- if it is relevant to the job in hand, how would rescue from height or rescue from confined or difficult to access workspaces be managed.

Site diagram or drawing

15) The diagram should be helpful to site teams in setting up the job in the way the plan writer wants. Drawings do not legally have to be to scale but it should be clearly shown what the main dimensions on and around the work site are.

16) The minimum drawing content is listed below but it is good practice and recommended to show further elements, for example water and power supply, the NPU venting route, and emergency muster points. A single diagram may not be enough to show everything which needs to be communicated to the site team, especially for large sites and/or longer or complex jobs. It may be more user friendly to have an overview diagram showing the main elements plus further detail drawings breaking the job down into manageable portions, be that by enclosure, by area, or by project phase, for example. This is another area of the PoW where photographs can add value. The checklist below covers the basic elements the drawing is always expected to show:

- the enclosure(s) or work area(s);
- rooms or areas adjacent to the enclosure or work areas;
- location of viewing panels/CCTV;
- location of NPU(s);
- location of airlock;
- location of baglock;
- H-class vacuum cleaners (H-vacs);
- location of the decontamination unit (DCU);
- location of the skip;
- transit route, including its length;
- waste route, including its length.

A suggested equipment checklist is at the end of this document.

What Good Looks Like: the timeline

17) HSE inspectors have reported that despite their length PoWs often do not contain a clear description of the correct logical sequence in which site teams are expected to carry out the work safely from start to finish. This logical work sequence is what is meant by 'timeline.' It may be a word used for the first time in PoW guidance but it is not a new requirement. If done well the timeline could form the heart of the PoW. Very important elements should be made to stand out in some way. Hold points, in other words, confirmed activities without which work cannot start or move on to the next stage can easily be inserted at those important points in the timeline.

18) While the generic aspects of the planned removal work, for example the removal of nailed-on AIB ceiling tiles, may already be covered in standard procedures, if the removal is to be from three different areas, for example, the site-specific timeline should make it clear whether there will be one enclosure at a time, or three running in parallel, or some other logical sequence, for instance if the work in one area depends on that in another.

19) The timeline is expected to provide assurance that the plan writer has properly planned each activity or phase of the job, including:

- how many workers will be required to safely carry out particular parts of the job;
- how the asbestos and non-asbestos risks will be controlled; and
- how the work will be coordinated with other parties on site.

For example, if a large NPU needs to go onto the 7th lift of an external scaffold, the plan should clearly explain what lifting equipment will be provided, how it will be used, by whom, and whether any manual handling is required, including how many operatives are needed for this.

20) If multiple teams are involved, there should be sufficient detail in the written plan to help everyone understand their role.

21) If done well, the significant findings of the suitable and sufficient risk assessments could be integrated into this section of the PoW.

22) For jobs lasting more than a day, and particularly for longer, more complex jobs, scheduling information is expected as part of the timeline, in other words, the plan writer's sensible breakdown of what is supposed to be happening each day, including how much removal work the team is expected to get done. For example, for a regulator or manager assessing progress at site against the PoW, it should be possible to tell whether the work is on schedule, behind schedule or way ahead of schedule. This in turn might support conclusions on the quality of the time estimate for the job and/or the speed of work by the site crew and whether the work can have been done with optimal control of fibre release.

Control Measures

23) Control measures could be presented as a standalone chapter, or they could be worked into the timeline. Some of them could be presented in the site drawing. Some of them may already be covered in the standard procedures in which case there is no need to repeat them unless something more specific needs to be said about them here. In all cases control measures will be underpinned by the assessment of risks of exposure to asbestos required by CAR 2012, and other risks as required by the Management of Health and Safety at Work Regulations 1999. Consider the following:

- details of expected exposure levels;
- construction of enclosure(s);
- location(s) and dimensions of enclosure(s);
- volume of enclosure(s);
- location and dimensions of airlock and baglock;
- if no baglock, why not;
- 1mx1mx2m are minimum dimensions for air/baglocks – is there room to make them bigger;
- if any part of the airlocks is below the minimum of 1mx1mx2m, which needs to be justified, can the other dimensions be increased to compensate;
- details and locations of viewing panels or CCTV;
- warning notices/signage;
- method of smoke testing, witnessing and recording;
- enclosure integrity checks;
- specification and siting of NPUs;
- air management in the enclosure: 1000m³/hr for enclosures of <120m³, or number of air changes per hour for enclosures >120m³;
- use of flap deflection, airflow readings and, if needed, details of additional means of air inlet;
- ducting (length), bends and other decrements for airflow performance;
- details of planned action with enclosure changes, such as on opening voids;
- impact of weather on enclosure if it is outdoors;
- actual fibre and dust suppression methods used on this job;
- H-vacs and what they will be used for, for example shadow vacuuming;
- Respiratory Protective Equipment (RPE), including type and specification of respirator;
- other Personal Protective Equipment (PPE);
- decontamination of workers - from enclosure via airlocks through the DCU;
- DCU siting and drainage point;
- earthing arrangements on this job;
- is the DCU directly connected - alternatively, explain why it is not;
- checks, examination and maintenance of the control measures (as the case may be) and any associated record keeping;
- does any part of the waste and transit routes need to be covered;
- if the waste or transit route is very long, can transport be arranged;
- services and their isolation, and if relevant, their de-energisation and purging (gas, electricity, hot pipes etc) and who is responsible for these, including handover and any documentation;
- the impact of services on proposed work methods;
- how are confined spaces in the meaning of the Confined Spaces Regulations 1997 managed, or any other restricted or difficult to access work spaces, such as service ducts;
- arrangements for very cold and very hot temperatures, especially in the enclosure (for example, risk of heat stress);

- if generators are in use, are they sited outdoors and well away from any air intake points of the enclosure and of other equipment, such as the DCU?
- working at height, including equipment selection;
- any fragile surfaces involved;
- manual handling and how this will be minimised or controlled, such as of waste, heavy equipment, and, where relevant, up/down scaffolding or staircases;
- where equipment weight is important for plans to avoid or minimise manual handling, for example for NPUs, this information should be captured;
- arrangements for bagging, storage, handling, transport, uplift and disposal of waste
- segregated compartment in van for carrying small waste amounts - what is the condition and cleanability of this- no tools or equipment to be in the compartment with the waste bags;
- will there be temporary waste bag storage, if so why, where, and how will area be cleaned;
- any other control measures as determined by the site-specific risk assessments.

Equipment and materials

24) A list along the lines suggested below could double as a load list but it needs to reflect the specific job in hand. The bullet points below are not intended to be a complete list - more or fewer items may be required for the job. It is important to include enough information to make the list useful, for example just listing a 'stepladder' or 'tower scaffold' is not clear enough– the plan writer should specify how many treads the ladder should have, or what size and width of tower scaffold, working platform height etc are needed for the job, so that the right equipment is hired or the site crew load enough components.

- DCU – number, type, specification;
- RPE and PPE – number, type, specification;
- NPUs and H-type vacuum cleaners – number, type, specification;
- roving heads;
- exhaust ducting;
- enclosure, airlock and baglock materials and tools;
- smoke generator;
- CCTV, or viewing panels – number;
- fibre suppression equipment – number, type, specification;
- wet injection system – type, specification;
- decontamination equipment for the airlock;
- DCU/shower supplies (e.g. soap, nailbrush);
- barriers or fencing, tape and signage;
- cutting tools;
- other hand tools;
- sufficient quantities of waste bags, 1000-gauge (or equivalent) polythene, adhesive tape and other consumables;
- lighting;
- access and work at height equipment;
- LPG for the DCU, fuel for generator;
- other job-specific specialist equipment;
- any other equipment needed for the job.

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