# S900 Standard for Professional Remediation of Precursors, Drug Residues, and Associated Chemical Waste - Substantive Changes Document

Second Limited Public Review (January 2025). Draft shows Proposed Changes to Current Standard.

**Note to Reviewers:** *These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions). Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.*

**Definitions**

**Competent person:** one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unhygienic, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. By way of training and/or experience, a competent person is knowledgeable of applicable regulations and standards, is capable of identifying workplace hazards relating to the specific operation, and has the authority to correct them. Some standards add additional specific requirements which must be met by the competent person.

**Jobsite Hazard Analysis (JHA):** is a systematic process used to identify, evaluate, and control potential hazards associated with specific tasks or jobs at a worksite. It focuses on the step-by-step breakdown of a job or activity to pinpoint risks and develop safety measures to prevent injuries or incidents during its execution.

**Practitioner:** for the purpose of this standard, a person who demonstrates competency from training and experience to restore the ~~work~~site to be suitable for occupancy or use ~~a safe and healthy condition~~.

**Worksite Hazard Assessment (WHA):** is a systematic process used to identify, evaluate, and mitigate potential hazards present at a worksite. It focuses on site-wide risks that may affect workers, equipment, and the overall safety of operations. The analysis considers environmental, physical, and situational factors to ensure the worksite is safe and compliant with regulatory standards.

**1.3 Hazard Protection of Practitioners and Occupants**

The Hierarchy of Control are measures that eliminate or reduce the hazards and risks (e.g., engineering controls, administrative controls, and the use of Personal Protective Equipment (PPE)) ~~shall be~~ is the primary means for preventing and minimizing exposure.

**1.4 Site Inspection and Assessment**

Practitioners *shall* complete ~~JHA/JSA~~ worksite hazard analysis (WHA) to develop their scope of work and prior to issuing PPE and beginning remediation.

**1.5.1 Documentation Prior to Remediation**

Practitioners shall follow all applicable governmental regulations in their area.

**1.5.2 Remediation Plan**

Practitioners shall follow all applicable governmental regulations in their area.

**1.6.1 Documentation During Remediation**

Regarding documentation, practitioners shall follow all applicable governmental regulations in their area.

**3.5.2 Preliminary Testing or Assessment**

~~Practitioners~~ Specialized experts *should* undertake preliminary testing or assessment independent of ~~those undertaking remediation~~ the practitioner to avoid any potential conflicts of interest.

When sampling is requested or required, one or more of the following methods *should* be used:

- collection of surface wipe samples for presumptive/immunoassay analysis following the manufacturer's instructions. Presumptive/immunoassay test methods are not quantitative and *should* only be used to determine the presence or absence of contamination;
- collection of surface wipe samples for quantitative analysis, following *NIOSH 9111 Methamphetamine on Wipes by Liquid Chromatography/Mass Spectrometry*, from representative locations and laboratory analysis for drugs, as relevant to the site. Samples may also be analyzed for additional contaminants, as relevant to the situation at the site (e.g., metals, iodine, pesticides);
- collection of bulk samples (e.g., unknown powders or liquids, soil and water including wastewater in septic system) for analysis using presumptive/immunoassay analysis relevant to the drug of concern or laboratory analysis for drugs. Samples may also be analyzed for additional contaminants, as relevant to the situation at the site (e.g., metals, iodine, and pesticides). Metals may be analyzed using X-ray Fluorescence (XRF); and
- sampling of air for the purpose of characterizing the presence of Volatile Organic Compounds (VOCs) or other gases (e.g., ammonia). This may be undertaken using a Photoionization Detector (PID) (ppb level) or the sampling of air onto a sorbent tube or into evacuated canisters for laboratory analysis.

### 3.5.3 Reporting and Communication

An initial assessment or walk through ~~*may*~~ *should* include, but is not limited to the following documentation:

- information obtained from the initial hazard and risk assessment;
- address of the site inspection;
- date of the site inspection;
- information received prior to the site inspection;
- ~~initial hazard and risk assessment for the site inspection;~~
- observations and records including photographs, thermographs, and recordings;
- PPE requirements adopted for the site inspection; and
- sampling and presumptive testing.

Further information required after the initial inspection or walk through ~~should~~ may include, but not be limited to the following:

- parties in attendance at the site inspection;
- an adequate written contract with the client;
- additional information obtained at, or following the site inspection, site layout including description of building(s) construction. Presence of the following may include, but are not limited to:
  - confined spaces (e.g., crawlspace or subfloor areas);
  - basements, attics, suspended ceilings;
  - presence of sewer connections or septic tanks;
  - wall cavities;
  - elevator shafts and trash chutes;
  - electrical chases or ductwork; and
  - HVAC systems and ductwork, chimneys, exhaust shafts.
- information on adjacent properties (e.g., school, childcare facility);
- information relevant to any sampling that was conducted, including:
  - sampling location described as an offset from a fixed point (e.g., a doorway) or location marked on a floor plan.
- photograph or written description of sample location, including the type of surface sampled (e.g., tiles, coated or uncoated timber, concrete, painted plasterboard walls) and the location within the area where the sample was taken;
- sampling method. Refer to *Section 4: Levels of Contamination* for information on the specific substance;
- chain of custody documentation;

- analysis performed, including details on the laboratory used and analytical methods;
- limitations of the sampling and testing methodology employed, including but not limited to areas not sampled and the rationale for this; and factors that may influence the outcome of the test result, (e.g., prior cleaning or renovation of surfaces);
- results of the sampling, including photographs of screening tests, or copies of any laboratory analytical report(s);
- a quality control statement for the sample results;
- a conclusion confirming the presence or absence of hazards and contamination at the site, and recommendations for further testing or remediation, as required.

**3.6 Development of Remediation or Work Plan**

The remediation or work plan *should* be prepared by a ~~qualified~~ competent person, experienced and trained in remediation of properties impacted by precursors, drug residues, and associated chemical waste.

**4.2.2 Job Hazard Analysis (JHA)/Risk Management**

A JHA is the breaking down of a job into its component steps and then evaluating each step, looking for hazards. Each hazard is then corrected, or a method of worker protection is identified. Additional requirements for worker training, certification, and authorization may also be identified for the process or job. The final product is a written document, a standard of safe operation for a particular job. The JHA focuses on the relationship between the practitioner, the task, the tools, and the work environment. After uncontrolled hazards are identified, practitioners *shall* follow all applicable governmental regulations to eliminate or reduce them according to the Hierarchy of Controls. On moderate to high-risk projects there *should* be an on-going job hazard analysis performed by a competent person till the job is finished.

**4.2.1 Initial Hazard Assessment and PPE Selection**

Before any initial entry to the site, the ~~lead~~ practitioner *shall* assess the workplace to determine if hazards are present or are likely to be present and establish the exposure level. Refer to *Section 4.3: Exposure Levels*. This necessitates the use of the hierarchy of controls. If such hazards are present, or likely to be present, the practitioner *shall* select the appropriate PPE and other appropriate measures that will protect from the hazards identified. Depending on each situation, the practitioner may need to consult with a specialized expert.

The ~~lead~~ practitioner *shall* communicate and document the selection decisions to each affected practitioner; and each practitioner *shall* be properly trained in the use of appropriate PPE and don appropriate PPE prior to entry.

**4.3.3 Exposure Level 2 (EL2): Moderate Risk**

PPE in EL2 conditions *should* include~~, at minimum~~ the following full body protection:

- full face respirator with ~~HEPA or organic vapor acid gas~~ appropriate cartridge;
- triple layer gloving:
  - inner nitrile glove;
  - second layer of nitrile attached to the suit; and
  - cut and puncture resistant outer glove[1];
- disposable liquid resistant protective suit[2]; and
- rubber safety boot which provides chemical resistant, slip resistant, steel toe and steel shank[3].

**4.3.5 Exposure Level 4 (EL4): Extreme Risk**

[1] *ANSI/ISEA 105-2016 Classification and Testing of Hand Protection for Needlestick and Puncture as well as Cut Resistant*

[2] *ANSI/ISEA 103–2010 Classification and Performance Requirements for Chemical Protective Clothing*

[3] *OSHA 1910.136A, ASTM F2413-05 Standard, AS/NZS 2210 Occupational Protective Footwear*

Due to the risk of cross-contamination, homes, apartments, condominiums, hotel rooms, or other shared spaces *should* not be sectioned. The entire shared space *should* be considered contaminated until tests determine otherwise.

### 5.8.1 Training Recommendations

~~Practitioner trainer shall include the following, if it required by applicable governmental regulations:~~ It is recommended that practitioner training include, but not be limited to the following:

- OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training;
- Workplace Hazardous Materials Information System (WHMIS);
- First Aid Training;
- Bloodborne Pathogens (BBP) Training;
- Confined Space Training;
- Respirator and PPE Training; and
- IICRC Health and Safety Technician (HST), or equivalent

### 12.5 Cleaning Methods

| | | **Porosity of Materials/Contents** | | | |
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| | | **Very Porous:** textiles, cardboard, paper (e.g., clothing, curtains, sheets, carpets, rugs, soft toys, books). | **Bulky Porous:** mattresses, lounges, upholstered chairs | **Semi-Porous:** timber/wood items (unfinished and varnished/polished), some stone materials, some plastics including polyurethane, polyethylene (including blinds) | **Non-Porous:** glass, metal (including cutlery), glazed ceramics, polished stone |
| **Exposure Levels** | **EL 1** | Fabrics: clean with washing or dry-cleaning. Paper: can be kept as required by the owner. | Clean to remove staining and odor. Dispose of items where odor cannot be removed. | Clean surfaces with a cleaning agent and restore any damaged surfaces. | Clean exposed surfaces with a cleaning agent. |
| | **E** | Fabrics: wash 3 times or dry-clean. Paper: dispose unless of high value to the owner. | Remove and dispose of high value items *should* be cleaned and tested prior to reuse. | Remove and dispose of high value items *should* be cleaned and tested prior to reuse. | Clean or neutralize and remove with appropriate methods. |
| | **EL 3** | Double wrap and dispose of, unless of high value to the owner, where cleaning may be attempted with extreme care. | Double wrap and dispose of all items. | Double wrap and dispose of. | ~~Cleaned or neutralize and remove with appropriate methods, noting the high level of hazard.~~ Preservation or disposal should be under the direction of a specialized expert. |
| | **EL 4** | Double wrap and dispose of all items. | Double wrap and dispose of all items. | Double wrap and dispose of. | ~~Clean or neutralize and remove with appropriate methods noting the extreme level of hazard during cleaning. If~~ |

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| | | | | | ~~cleaning cannot be undertaken or is not successful, the items *should* be wrapped and disposed of.~~ Preservation or disposal should be under the direction of a specialized expert. |

## 9.2 Cleaning Equipment and Tools

Equipment and tools *should* be moved to the decontamination area to be cleaned ~~and disinfected.~~

## 9.3 Disposal of Tools and Consumables

All tools, materials, and consumables used on the jobsite that are not cleanable or restorable *shall* be processed~~, double-bagged,~~ and disposed of in accordance with all applicable jobsite requirements and governmental regulations.

References

*Clandestine Amphetamine-Derived Drug Laboratories: Remediation Guidelines for Residential Settings.* National Collaboration Centre for Environmental Health.