



MEMO

TO: Scott Burrows
Manager – Contaminated Lands
Environmental Services Group | Property & Development NSW
4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150

FROM: Colin McKay
Principal Environmental Scientist
WSP Australia Pty Ltd

SUBJECT: **Unexpected Finds Protocol for the Proposed Remediation Works at 7, 9 and 11, and Foreshore Areas Fronting Numbers 5, 7, 9, 11 and 13, Nelson Parade, Hunter Hill NSW**

OUR REF: PS119565-CLM-MEM-001 RevA.docx

DATE: 14 May 2021

1. INTRODUCTION

Property & Development NSW are planning to conduct remediation of 7, 9 and 11, and foreshore areas fronting numbers 5, 7, 9, 11 and 13, Nelson Parade, Hunter Hill NSW (the site). The works are to be undertaken in accordance with a remediation action plan for the site (WSP, 2020). The site is known to have a legacy of radiological and chemical contamination as a result of industrial activities conducted on the land in the late 1800s to early 1900s. The RAP provides protocols for the assessment and management of waste soils, along with a validation methodology.

This unexpected finds protocol (UFP) has been prepared to assist in the event that material is uncovered during the works which are different to those expected on the site, as summarised in Section 4.2 of the RAP. In summary the UFP discusses the types of materials that may constitute an “unexpected find” and provides a step by step approach to ensuring that any such material is appropriately characterised and managed.

It is expected that the Principal Contractor will maintain a register of unexpected finds that will include details of the substance encountered, how it was assessed and a description of the management and disposal of the material.

2. TYPES OF UNEXPECTED FINDS

Examples of potentially contaminated materials include:

- Unusual slurries, powdery or cemented residues, crystalline substances, black micaceous material or ores;
- Fibro or other suspected asbestos containing materials;
- Fibrous materials;
- Materials with unnatural odours (e.g. fuel, tar, solvent odours);
- Unexpected man-made inclusions (e.g. industrial waste, or rubbish); and
- Materials with dark stains or unusual colours.

We recommend that earthworks are undertaken in a careful manner with spotters to quickly alert plant operators if an unexpected substance is uncovered. This will minimise the risk of contamination being spread or mixed with clean materials.

3. MANAGEMENT OF UNEXPECTED FINDS

In the event of an unexpected find occurring, work in the area should cease and a process of assessment and management be implemented. The recommended protocol is summarized as a diagram in Appendix A. Three general classes of potentially hazardous substances are described in the protocol, including:

1. radiological hazards;
2. asbestos containing substances; and
3. other chemicals of concern.

In summary the protocol requires that for any unexpected finds an assessment of each of these potential hazards is made. To that end the protocol has been prepared as a stepwise arrangement. It is expected that once an unexpected find is raised, each of these steps will be considered prior to the area being cleared for ongoing works. The steps are discussed in more details as follows.

Table 2.1: Unexpected Finds Protocol.

STEP	SUMMARY OF ACTIONS	DOCUMENTATION
Step 1: Isolate the unexpected find	The foreman should ensure work in the area ceases and that the zone where the unexpected find is present is isolated, including providing a visual barrier (hazard tape or fencing) to prevent inadvertent access	Raise the find on the UFP register. Collect photographs and descriptions of the material.
Step 2: Assess for radiation risk	ANSTO staff should assess the area for the presence of unusually elevated radiation. If found, radiological waste will need to be managed under their guidance. In addition to radiological hazards the waste should also be assessed for other hazards as follows.	Update the UFP register with the findings of the radiological assessment.
Step 3: Preliminary assessment for asbestos risk	The foreman may make a preliminary assessment of the material to assess if the concern is likely to be an asbestos risk. If in doubt proceed to Step 4 or if the main concern is due to likely chemicals, then proceed to Step 5.	Update the UFP register with the findings related to asbestos hazard.
Step 4: Assess for asbestos risk	If the material has been deemed to be a possible asbestos find, then engage an LAA or competent person to confirm this risk and if found advise on the appropriate method of management*. Note this may need to be in consultation with radiological advice from ANSTO if co-contaminated.	Update the UFP register with the findings related to asbestos hazard including reference to any waste classification and management activities.
Step 5: Preliminary assessment for other chemical risks	The foreman may make a preliminary assessment of the material to assess if the concern is related to possible other contaminants (e.g. if the soil is malodourous or contains unexpected inclusions). If in doubt proceed to Step 6 or if the main concern was due to radiological or asbestos issues and these have been resolved, then reopen the area.	Update the UFP register with the findings related to other chemical hazards.
Step 6: Assess for contamination risk.	If the material is deemed to have a potential chemical risk associated with it then engage a contamination consultant to test and advise accordingly. Note that the advice may need to be in consultation with either ANSTO and/or the LAA/competent person if there is a co-contamination risk.	Update the UFP register with the findings related to other chemical hazards including reference to any waste classification and management activities.

STEP	SUMMARY OF ACTIONS	DOCUMENTATION
Reopen area	Once all potential hazards have been assessed then consider re-opening the area in consultation with relevant consultants.	Ensure UFP item on the register is closed out and signed off as appropriate.

Note *: If the asbestos is found to be a friable source then the assessment should be made by a licenced asbestos assessor. Any asbestos removal work must be carried out by an appropriately licensed asbestos removal contractor (Class A for friable source and at least Class B for non-friable sources). In such situations, an asbestos removal control plan must also be prepared and SafeWork NSW notified of the works in accordance with the NSW Work Health and Safety Regulation, 2017. Following the removal works the competent person, or LAA (if friable) should provide a clearance certificate.

4. DOCUMENTATION

The contamination should be documented in an unexpected finds register, noting how the issue was resolved. Any records of characterisation, onsite containment, offsite disposal and/or clearance certificates should be retained.

5. CLOSURE

We trust this UFP provides a clear methodology of management of potentially contaminated substances that may be encountered during the works. If in doubt we recommend that the services of a consultant experienced in contaminated sites be engaged to provide advice.

If you have any queries regarding the content of this protocol please contact the undersigned on 0448 977 926.



Colin McKay
Principal Environmental Scientist,
Contaminated Land Management

REFERENCES

NSW EPA, 2014 *Waste Classification Guidelines, Part 1: Classifying Waste*.

NSW Work Health and Safety Regulation 2017

WSP, 2020, *Remediation Action Plan Numbers 5, 7, 9, 11, 13 and 15, and Adjoining Foreshore, Nelson Parade, Hunters Hill, NSW*



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Appendix A: Management of unexpected finds



