

13 SITE MANAGEMENT PLAN DURING REMEDIATION WORKS

13.1 Risk Management

Risk management involves managing scenarios to achieve an appropriate balance between realising opportunities for gains while minimising losses. The management of risks is an integral part of good management, and benefits are maximised by applying the risk management process from the outset. The main elements of the risk management process, as detailed in AS/NZS 4360.2004 *Risk Management* (Standards Australia and Standards New Zealand, 2005) are as follows:

- Communicate and consult with external stakeholders at each stage of the risk management process;
- Establish the context – establish the criteria against which risk will be evaluated should be established and structure of analysis defined;
- Identify risks;
- Analyse risks – determine consequence and probability and hence the level of risk;
- Evaluate risks against pre-established criteria and consider benefits and adverse outcomes;
- Treat risks – develop and implement specific cost-effective strategies and action plans for increasing the potential benefits and reducing the potential costs; and
- Monitor and review effectiveness of risk management process and effectiveness of treatment measures to ensure continuous improvement.

Risk is not just interpreted in terms of hazards or negative impacts, but is concerned with risk as exposure to the consequences of uncertainty, or potential deviations from what is planned or expected. Additional to the standard construction and earthworks site risks the contractor should consider addressing the following potential risks as a minimum, during the proposed remediation:

- Compliance with State/Federal legislation (subject to advice from an appropriate legal advisor);
- Occupational exposure;
- Environmental contamination;
- Public exposure;
- Community concern and public fallout;
- Unintentional import of contaminated fill;
- Further site remediation; and
- Ongoing liability for land use.

13.2 Community Consultation

Community consultation can be an essential factor to be addressed prior to the commencement of the remediation. The Remediation Contractor will inform landowners/residents located adjacent to the site about the remedial works.

Communication and complaints received for the site will be reported to the client. All communications and complaints will be assessed and an appropriate response, corrective and/or preventative action implemented (as necessary).

A communication and complaints register will be operated on site to ensure that concerns of local residences and businesses are recorded and addressed.

13.3 Restricted Access

The site must be nominated as a construction area and as such the site needs to be securely fenced to prevent public access. Access must be restricted to authorised staff and contractors who have appropriate personal protective equipment, induction and training.

13.4 Hours of Work

The remediation works should be conducted between the hours of 7AM to 5PM Monday to Friday and 8AM to 1PM on Saturdays, if required. No work should be conducted on Sundays, public holidays or outside the hours specified above.

13.5 Vehicle Decontamination

Loading of contaminated soils to trucks must be carried out in the designated remediation areas in order to prevent cross contamination. The loads on all trucks are to be sealed appropriately prior to transportation of the waste to the containment cells along designated routes.

Excavators and associated attachments need to be decontaminated in the wash down area prior to moving into potentially clean or remediated areas. The wash down area should be lined with geofabric or a similar material, such that the accumulated sediment can be removed and disposed of to the containment cell as contaminated sediment after the final decontamination.

13.6 Dust

Dust may be generated during excavation. Works must comply with the requirements listed in Schedule B(9) of the NEPM (1999), NSW WorkCover and the NSW EPA. Dust control measures, such as dampening the soil and covering stockpiles, are to be in place to ensure dust levels are kept to a minimum. Air monitoring at the site perimeter and the remediation areas should be conducted each day.

Dust barriers including shade cloth may be required to be erected along the site boundaries to minimise potential for offsite migration of dust.

13.7 Noise

Some noise may be generated during excavation activities when using machinery such as trucks and excavators. These activities will be short term but may impact on the neighbouring residential properties, though unlikely given the size of the site. The contractor should keep noise levels to a minimum and levels should not exceed limits indicated in AS 2436 1981. Noise monitoring to current NSW EPA Guidelines should be undertaken if warranted. The contractor is to comply with the statutory requirements regarding noise and the works on site will be restricted to normal working hours.

13.8 Surface Water and Seepage Management

Given that the site slopes generally towards the centre of the site, offsite contamination due to surface water flow is deemed unlikely. Care should be taken to manage hazards associated with erosion, landslip, subsidence and land stability due to the site's landscape characteristics. Surface run-off control measures including silt fencing material and/or straw bales need to be installed at the site. Such measures may require to be installed in remediated and validated areas, or potentially clean areas, to prevent recontamination through surface water flow over friable asbestos contaminated areas.

All contaminated stockpiles are to be covered with plastic sheeting to prevent off-site migration and mobilisation of asbestos to air and water. Any additional drainage control works are to be constructed should such needs arise.

The remediation contractor should establish appropriate sediment and erosion control measures prior to the commencement of remediation activities. The measures should be reviewed by SLR Consulting for adequacy.

13.9 Groundwater management

It is not anticipated that groundwater will be intersected across the site during asbestos remedial works.

13.10 Traffic

Movement of excavation equipment and trucks to and from the site is to be strictly controlled, restricted to a minimum and only take place during normal working hours. The remediation works is unlikely to significantly increase traffic flow to and from the site.

Vehicular traffic within the site should be limited to designated corridors only during remediation and validation works, to prevent cross contamination of remediated areas. The designated corridors for traffic during various stages of the remediation works will be determined by WEM and Lipman together with the remediation contractors.

13.11 Erosion Protection

The topsoil observed at the site may be prone, when exposed, to the effects of erosion during extended or severe periods of inclemency. The asbestos contamination, particularly friable asbestos, presents an additional risk to the surrounding environment. Consequently, it is recommended that construction works are, where possible, planned to avoid such weather periods and are conducted in a single continuous operation to ensure there are no extended periods of soil exposure.

The remediation contractor should implement appropriate sediment and erosion control measures prior to the commencement of remediation activities. The measures should be reviewed by SLR Consulting for adequacy.

13.12 Duties of the Onsite Environmental Consultant

At least one SLR Consulting occupational hygienist or an environmental scientist will be present on site full time to observe the remediation works. The duties of the on-site environmental scientist/hygienist include:

- ensure adherence to the Remediation Action Plan;
- monitor the excavation of contaminated material undertaken at the site;
- ensure environmental compliance of contractors;
- inspection of the integrity of the operational phase site management controls placed around the site;
- immediately report actual or potential non-compliances to the client's representative (NIX), who will report those to appropriate regulatory bodies if required;
- note weather conditions, approximate temperature, direction and velocity of the wind, and rainfall at the commencement of work, at about midday and at the end of the day;
- conduct visual inspections for asbestos clearance;
- collect samples for validation or other purposes;

- maintain a site diary which will record the following information:
 - date
 - weather conditions
 - details of materials excavated during the remediation works
 - details of areas remediated
 - details of actions taken if unexpected materials are encountered
 - details of accidents, near misses or incidents, which may have resulted in injury, and the actions taken to prevent their recurrence
 - details of environmental issues, which may result in environmental incidents and measures taken to correct them
 - details of visitors to the site or other matters relating to environmental or health issues.