

Remediation Action Plan Summary

Proposed Stage 2 Remedial Works, Former Gas Works Site, 26-28 Grano Street, Ararat West, Victoria

A remediation action plan (RAP) has been prepared for the Stage 2 remedial works proposed for the Ararat former gas works site. The RAP entitled *Proposed stage 2 remedial works, former gas works site, 26-28 Grano Street, Ararat, Victoria* has been reviewed by the EPA and the independent EPA accredited Auditor (pursuant to section 53V of the *Environment Protection Act 1970*).

This RAP provides a strategy and procedures for remediation of soils impacted by gas works residues and include measures necessary to protect the environment, prevent further contamination and minimise health risks to workers on the site and neighbouring properties.

The following sections detail brief summaries of the more detailed RAP for the Ararat former gas works site.

1.0 Work Methodology

Stage 2a – Set up site

Duration: 1-2 weeks

Odour Status: No odour

- community consultation;
- general site works including re-erection of fence extension and prepare new treatment pad area; and
- set up dust and odour control measures.

Stage 2b – Erection of the tent and relocation of stockpiles

Duration: 2-4 weeks

Odour Status: No to slight odours may be generated

- relocation of primary treated stockpiles that have acceptable odour (mild odour) to the new clay pad area ready for secondary treatment; and
- erection of the large tent and air extraction/treatment system within Zone A with all the necessary controls and equipment that goes with it; and
- odour and dust controls implemented to minimise impact.

Stage 2c – Secondary and primary treatment of existing stockpiles

Duration: 8-15 days (secondary treatment) and 3-5 days (primary treatment inside the tent).

Odour Status: Strong odours inside tent and no to slight odours outside tent

- primary treatment of 2 stockpiles within the tent;
- secondary treatment and/or backfilling of previously treated stockpiles outside of the tent;
- odour and dust controls implemented to minimise impact.

Stage 2d – Excavation and further primary treatment of stockpiles

Duration: 2-3 days (relocation of primary treated stockpiles) and 3-6 months for work inside the tent (at each tent location)

Odour Status: Strong odours inside the tent and slight odours outside the tent

- re-location of newly primary treated stockpiles from within the tent to the pad area outside of the tent;
- the excavation and primary treatment of approximately 5 000 to 8 000m³ of potentially odorous material from Zone A inside the tent (this will be undertaken in stages with the tent to be re-located as necessary); and
- odour and dust controls implemented to minimise impact.

Stage 2e – Further secondary treatment of stockpiles

Duration: 5-8 months

Odour Status: Slight odours may be generated

- once stage 2d is finished the tent will be dismantled and removed from the site;
- secondary treatment of material outside of the tent on treatment pad throughout the process; and
- odour and dust controls implemented to minimise impact.

Stage 2f – Excavation of non-odorous material and backfilling

Duration: 10-12 weeks

Odour status: No to slight odours may be generated

- excavation of potentially ash and coke material from Zone I and part of Zones H and A;
- offsite removal of any material that is able to be recycled (eg: steel, concrete, bricks) that has recently been excavated;
- backfilling within Zone A and Zone I as required once the levels within the treated stockpiles have reached acceptable levels;
- backfilling across the remainder of the site; and
- odour and dust controls implemented to minimise impact.

Stage 2g – Final site tidy up

Duration: 1-2 weeks

Odour Status: No odour

TABLE 1

STAGE 2 REMEDIAL WORKS TIMEFRAME

Stage	Estimated no of weeks	Inside of tent No of weeks	Outside of tent No of weeks
2a	Set up site		1-2 weeks
2b	Erection of the tent and relocation of stockpiles		2-4 weeks
2c	Secondary and primary treatment of existing stockpiles	3-5 days	8-15 days
2d	Excavation and further primary treatment of stockpiles	9-24weeks (3-6 months)	2-3 days
2e	Further secondary treatment of stockpiles		21-35 weeks (5-8 months)
2f	Excavation of non-odorous material and backfilling		10-12 weeks
2g	Final site tidy up		1-2 weeks
Total		10-25 weeks	38-58 weeks

Please Note: Proposed Stage 2 remedial works timeframe is dependent on weather, community and authorities. There may be a slight variation to the timeframe indicated above.

2.0 Tent Details

Initial excavation and primary treatment of tar impacted soils will be completed inside a tent approximately 75m long x 50 m wide x 4.5 m high at the sides (higher in the middle). The tent will be initially placed over part of Zone A where excavation work is to occur and will be moved and possibly extended as necessary during the stage 2 remedial works.

The tent will operate under negative pressure with an air management system using filters prior to release to the environment. The tent will effectively control odours and dust during the excavation and primary treatment of the PAH odorous contaminated material. This will be verified by a detailed air monitoring program to be undertaken during the project.

3.0 Environmental controls

EESI Contracting has identified potential environmental impacts associated with the SRF, these include:

- stormwater and sediment management;
- odour management; and
- dust management.

The proposed Stage 2 remedial works RAP approved by the EPA, addresses all environmental issues in compliance with best practise operation, the regulatory framework from Council, EPA and other regulative authorities.

The Stage 2 remedial works has been designed and will be operated to eliminate, to the extent practicable, emissions to the environment. To ensure that the stage 2 remedial works operates in an environmentally responsible manner, a comprehensive monitoring and inspection program will be established to achieve this objective.

4.0 Controls, Monitoring and Inspection Program

The following odour controls will be utilised during Stage 2 remedial works (controls are not limited to the following):

- Tent;
- Use organic barriers such as rice hulls, straw, saw dust, lime, mulch and/or non odourous soil will be used over odourous stockpiles. A ready supply of available material will be kept on site at all times;
- Synthetic barriers such as plastic and/or tarpaulins will be used over excavation faces or stockpiles. A ready supply of tarpaulins will be available on site;
- Odour neutralising/suppressant sprays along the perimeter fence line and in operating areas (these can be increased on an as need basis). A ready supply of this material will be available on site;
- Utilise an odour barrier foam product (RUSMAR or similar) which can be applied to stockpiles if required;
- Monitor weather conditions, wind direction and wind speed on a daily basis;
- Undertake regular odour inspections and the monitoring program; and
- If odour is still noticed, stop works until odours dissipate (if possible) and immediately re-evaluate the odour control techniques to result in continued works with minimal odour output.

The following dust controls will be utilised during Stage 2 remedial works (controls are not limited to the following):

- Tent;
- Synthetic barriers such as plastic and/or tarpaulins will be used over excavation faces or stockpiles. A ready supply of tarpaulins will be available on site;
- Limiting the surface area of each stockpile during relocation by uncovering only part of the stockpile each time;

- Use damp heavy organic barriers such as straw and/or mulch will be used over stockpiles to reduce dust potential. A ready supply of available material will be kept on site at all times;
- Utilise a soil stabilising product (Total Ground Control Crusting Agent or similar) which can be applied to stockpiles of excavation if required;
- Long term stockpiles will be revegetated with a cover crop such as barley or rye;
- Water sprays in operating areas. A ready supply of this material will be available on site;
- Monitor weather conditions, wind direction and wind speed on a daily basis;
- If dust is still observed, stop works until dust controlled and re-evaluate the dust control techniques to result in continued works with minimal dust output; and
- Undertake regular dust inspections and the monitoring program.

The monitoring and inspection program that will be established during the Stage 2 remedial works will address odour, air emissions, dust, storm water and the progress of the material undergoing treatment.

Odour monitoring

The odour monitoring that is proposed as part of the stage 2 remedial works includes the following:

- Olfactometric Screening;
- Odour Intensity Field Surveys; and
- Odour Inspections.

Air monitoring

The proposed air monitoring program for the Stage 2 remedial works will include the following and will be undertaken by independent NATA accredited air monitoring specialists:

- Area Source Monitoring;
- Ambient Air Monitoring; and
- Tent Inlet and Outlet Sampling.

Dust monitoring

The dust monitoring that is proposed as part of the stage 2 remedial works includes the following and will be undertaken by independent NATA accredited air monitoring specialist:

- Site dust deposition monitors;
- Dust Trak TSI;
- High Volume Sampling (HVS) for PM₁₀;

- High Volume Sampling (HVS) for PAHs; and
- Dust Inspections.

Storm water monitoring

A visual stormwater drain inspection will be undertaken daily.

Samples of dry weather and wet weather flow will be collected and analysed by a NATA accredited laboratory for analysis.

5.0 Community Consultation

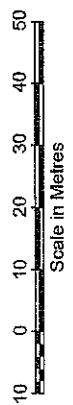
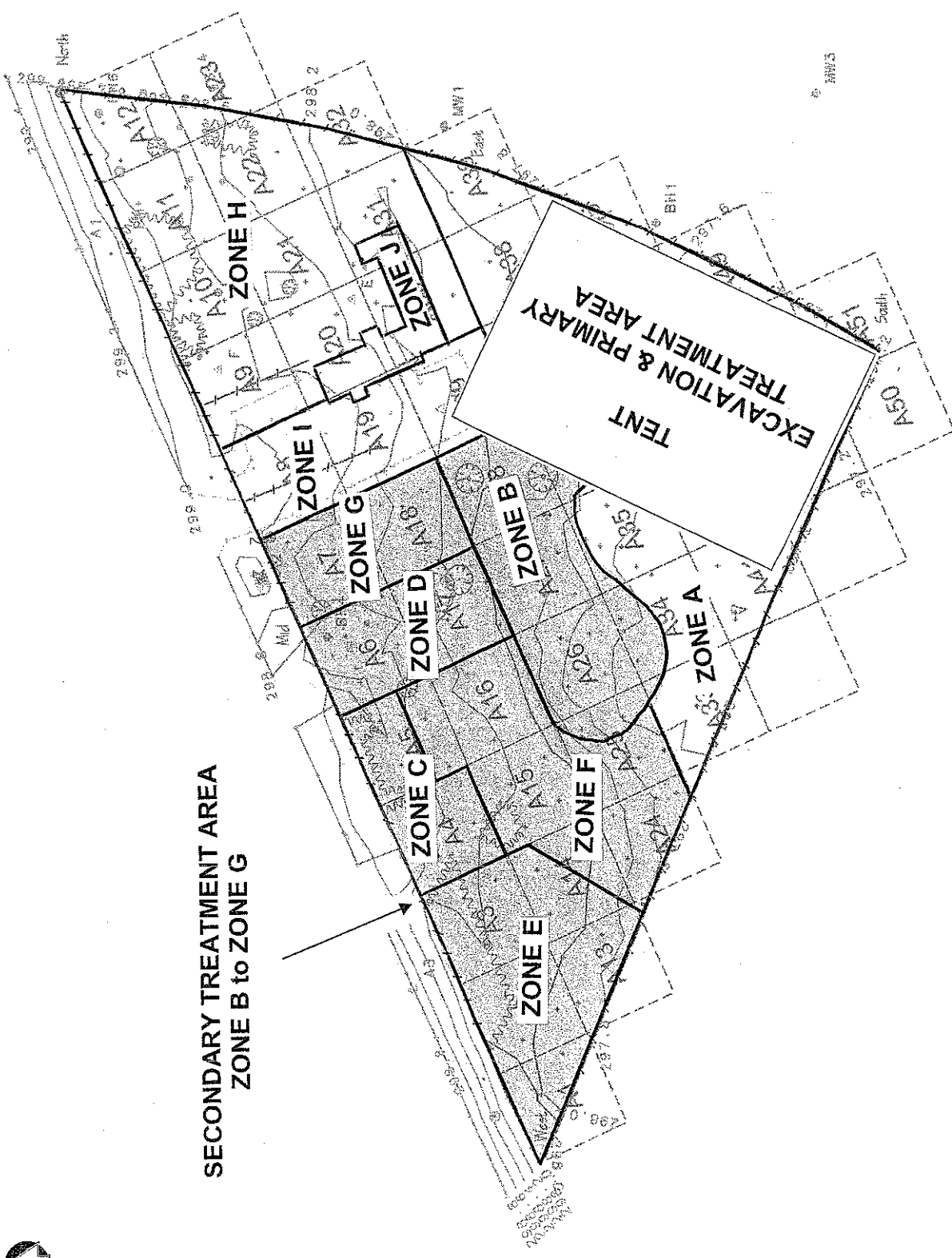
EESI Contracting Pty Ltd will be actively involved to initiate and maintain contact with immediate residents (within a 300 m radius of the site), distant residents (within a 600 m radius of the site), general Ararat community, Ararat Rural City Council representatives and EPA Victoria representatives to ensure all parties are fully informed throughout the Stage 2 remedial works.

The following actions will be undertaken to ensure that the public are kept updated:

- Door knock /Phone call / email;
- Letter drop;
- Notice board;
- Website;
- Newspaper articles; and
- 24 Hour phone number.



SECONDARY TREATMENT AREA
ZONE B to ZONE G



Client: SP AusNet	
Title: Proposed Tent Location	Project Manager: AG
Location: Former Ararat Gasworks Site	Drawn: LB
	Approved: _____
	Date: Mar.'06

