NSW GOVERNMENT | Planning

Contact: Chris Ritchie
Phone: 02 9228 6413
Fax: 02 9228 6466
Email: chris.ritchie@planning.nsw.gov.au

Our Ref: S09/01516

Mr Luke Speechley
Riad Corporation NSW
PO Box K349
HAYMARKET NSW 2008

Dear Mr Speechley

Macdonaldtown Gasworks Remediation Project
Director-General's Requirements

The Department has received your application for this project.

I have attached a copy of the Director-General's requirements for the project. These requirements have been prepared in consultation with the relevant agencies, based on the information you have provided to date. I have also attached a copy of the Government authorities' comments which form part of the DGRs.

Please note that the Director-General may alter these requirements at any time.

If your proposal is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. It is your responsibility to contact the Department of Environment, Water, Heritage and the Arts in Canberra (6274 1111 or http://www.environment.gov.au) to determine if the proposal requires an approval under the EPBC Act. If it is subsequently determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements may need to be issued.

I would appreciate it if you would contact the Department at least two weeks before you propose to submit your Environmental Assessment for the project. This will enable the Department to determine the:

- applicable fee (see Division 1A, Part 15 of the Environmental Planning and Assessment Regulation 2000); and
- number of copies (hard-copy and CD-ROM) of the Environmental Assessment that will be required for exhibition purposes.

Once it receives the Environmental Assessment, the Department will review it in consultation with the relevant agencies to determine if it adequately addresses the Director-General's requirements, and may require you to revise it prior to public exhibition.

The Department is required to make all the relevant information associated with the project publicly available on its website. Consequently, I would appreciate it if you would ensure that all

the documents you subsequently submit to the Department are in a suitable format for the web, and arrange for an electronic version of the Environmental Assessment to be hosted on a suitable website.

If you have any enquiries about these requirements, please contact Haley Rich on the above details.

Yours sincerely

27.7.10

Chris Wilson
Executive Director
Major Projects Assessment
As delegate for the Director-General

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application Number	09_0145
Project	The Macdonaldtown Gasworks Remediation Project, which includes the: • excavation of and potential treatment of some contaminated material on-site; • treatment of remaining contaminated material offsite, at a site located adjacent to the Chullora Railway Workshops; and • re-instatement of excavated areas.
Location	Remediation Site: Burren Street, Erskinville NSW 2043 - Part Lot50/ DP1001467, Sydney LGA Treatment Site: RailCorp Estate, Worth Street, Chullora NSW 2190 - Lot1/DP883526, Strathfield LGA
Proponent	Rail Corporation NSW
Date of Issue	July 2010
General Requirements	The Environmental Assessment must include: • an executive summary; • a description of the overall remediation strategy for the site, including the: – objectives of the remediation strategy; – proposed staging of the strategy; and – relationship between the various stages of the strategy; • a detailed description of the project, including the: – need for the project; – alternatives considered; – Remedial Action Plan for the project, which includes: o characterisation of the nature and extent of contaminated material; o details of the proposed remediation process, including on-site and off-site treatment methodologies and the location of the off-site treatment facility; o justification of the proposed treatment and remediation criteria; o details of proposed remediation management measures including the management of excavated material, stockpiles, wastewater and transportation; o a site validation plan; and o details of compliance with the *Contaminated Land Management Act 1997*; – final landform following remediation and the suitability of fill material; and – on-going management of the site following remediation works; – technology used for the treatment of contaminated materials and justification for why this technology was chosen; • a risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment; • a detailed assessment of the key issues specified below, and any other significant issues identified in the risk assessment (see above), which includes: – a description of the existing environment, using sufficient baseline data; – an assessment of the potential impacts of all stages of the project, including any cumulative impacts that may arise from the combined

	remediation of the site and the adjacent industrial uses, taking into consideration any relevant guidelines, policies, plans and statutory provisions (see below); – a description of the measures that would be implemented to avoid, minimise, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the project, including detailed contingency plans for managing any potentially significant risks to the environment; • a statement of commitments, outlining all the proposed environmental management and monitoring measures; • a conclusion justifying the project on economic, social and environmental grounds, taking into consideration whether the project is consistent with the objects of the *Environmental Planning & Assessment Act 1979*; and • a signed statement from the author of the Environmental Assessment, certifying that the information contained within the document is neither false nor misleading.
Key Issues	• **Air Quality and Health** – including: – a quantitative assessment of potential air quality and odour impacts of the project; – an assessment of the health implications of the project (including extraction of sediments, off-site transport and treatment as well as disposal of treated material), during and following remediation, including details of human exposure scenarios and demonstration that the project will not have unacceptable acute or chronic health effects; and – details of pollution control measures for fugitive and point source emissions; • **Soil and Water** – including an assessment of the potential groundwater and surface water impacts which includes: – sediment and erosion controls during excavation and stockpiling of contaminated material, as well as the re-instatement of the site; – details of the management of "clean" and contaminated material; – stormwater management including management of "clean areas", treatment and disposal of contaminated stormwater, and management of stormwater following remediation; and – groundwater management, including measures for preventing groundwater pollution; • **Noise** – including construction/excavation, traffic and operations at the treatment facility; • **Waste** – including a classification of all potential sources of scheduled, liquid and non-liquid wastes; and quantities, storage, treatment and disposal or re-use of waste generated; • **Hazards** – a Preliminary Hazard Analysis (PHA) of the excavation of contaminated material and from the treatment facility including a detailed assessment of the potential off-site risks; • **Heritage** – including non-Aboriginal; • **Traffic** – including: – details of the traffic volumes likely to be generated during construction and operation; – an incident management strategy, including the likely toxicity level of loads transported on arterial and local roads to and from the site; and – an assessment of the predicted impacts of this traffic on the safety and capacity of the surrounding road network.
Other Issues	• **Visual -** including an assessment of the visual impact of the proposal (height, scale and lighting) on the local and regional area.
References	The environmental assessment of the key issues listed above must take into account relevant guidelines, policies, and plans. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and

	plans that may be relevant to the environmental assessment of this project.
Consultation	During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • Department of Environment, Climate Change and Water; • NSW Health; • Heritage Branch of the Department of Planning; • NSW Office of Water; • Strathfield Municipal Council; and • City of Sydney Council. The consultation process and the issues raised must be described in the Environmental Assessment.
Deemed Refusal Period	60 days

Policies, Guidelines & Plans

Aspect	Policy /Guideline/Plan
Risk	
	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
Air Quality & Health	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
	Protection of the Environment operation (Clear Air) Regulation
	Environmental Health Risk Assessment Guidelines for Assessing Human Health Risks from Environmental Hazards (Department of Health and Ageing and enHealth Council)
Soil and Waters	
Contamination	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination - Planning Guidelines SEPP 55 – Remediation of Land (DUAP and EPA)
	Contaminated Sites: Sampling Design Guidelines (NSW EPA)
	Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites (NSW EPA)
	Contaminated Sites: Guidelines for the NSW Auditor Scheme (NSW EPA)
	Contaminated Sites: Guidelines on Significant Risk of Harm from Contaminated Land and Duty to Report (NSW EPA)
	Guidelines for the Assessment and Management of Groundwater Contamination (DECC) Draft
Surface Water	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Technical Guidelines: Bunding & Spill Management (DECC)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
Noise	
	NSW Industrial Noise Policy (DECC)
	Environmental Criteria for Road Traffic Noise (NSW EPA)
	Environmental Noise Control Manual (DECC)
Waste	
	Waste Avoidance and Resource Recovery Strategy (Resource NSW)
	Waste Classification Guidelines (DECC)
Hazards & Risks	

	State Environmental Planning Policy No 33 - Hazardous and Offensive Development
	Applying SEPP 33: Hazardous And Offensive Development Application Guidelines (DUAP)
	Multi-Level Risk Assessment (DUAP)
	Hazardous Industry Planning Advisory Paper: No. 6 Guidelines for Hazard Analysis
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Visual	
	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282)

STRATHFIELD COUNCIL

65 Homebush Road, Strathfield NSW 2135
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Web www.strathfield.nsw.gov.au
ABN 52 719 940 263

20 July 2010

George Wong

Ms Haley Rich
Major Project Assessment
Department of Planning NSW
GPO Box 39
Sydney NSW 2001

Dear Ms Rich,

RE: PROPOSAL FOR THE REMEDIATION THE OLD MACDONALDTOWN GASWORKS SITE AND POTENTIAL TREATMENT OF CONTAMINATED SOILS AT A SITE IN CHULLORA, ADJACENT TO THE CHULLORA RAILWAY WORKSHOPS.

I refer to your email dated 24 June 2010 requesting Council's requirements for the preparation of the Environmental Assessment for the proposal to remediate the old Macdonaldtown Gasworks site, in the City of Sydney LGA; including the potential to treat contaminated soils at a site in Chullora, adjacent to the Chullora Railway workshops.

Strathfield Council has reviewed the documentation provided by the Department for the Chullora site proposal. The Environmental Assessment for the proposal should consider, but not be limited to the following information:

1. Full details and concept design of the proposed remediation facility at Chullora.
2. Details of any potential impacts on adjacent residential areas and employment areas in Chullora and how these are to be addressed.
3. Demonstrate suitability of the site for the proposed use from a planning perspective.
4. Demonstrate why remediation cannot be undertaken at Macdonaldtown or another alternative, more suitable site further away from residential development.
5. Full details on the proposed use at the Chullora site should be assessed against the following planning provisions:
    - Contaminated Land Management Act 1997
    - Environmental Planning and Assessment Act 1979
    - Protection of the Environment Operations Act 1997
    - State Environmental Planning Policy No 33 — Hazardous and Offensive Development
    - State Environmental Planning Policy No 55 — Remediation of Land
    - Threatened Species Conservation Act 1995

6. Full details of proposed measures to secure the site from unauthorized access.
7. The details and quantities of the actual materials proposed to be brought to the Chullora site and what processes are proposed to treat these materials.
8. The treatment processes proposed for the facility.
9. The scope, scale and type of equipment to be installed.
10. Details of who will manage and operate the facility.
11. Details of who will monitor and inspect the facility, and at what frequency.
12. The estimated operational timeline (lifespan) for the facility.
13. The proposed hours and days of operation.
14. Detailed environmental studies should be undertaken in order to assess the impact of the proposed use, including:
    - Environmental Management Plan.
    - Air Quality Impact Assessment.
    - Acoustic and Vibration Assessment.
    - Visual Impact Assessment.
15. The environmental safeguards that would be put into place in regard to soil contamination; waste management; air particles, noise, odour and traffic management; visual impact; dangerous goods transportation and storage; surface water and storm water management; and other environmental factors at the Chullora site including the Cooks River Catchment.
16. Outline environmental and OHS risks for the processes that involves chemical mixing/blending of soil, thermal desorption and stabilization techniques which will take place on the site.
17. The preparation of a Preliminary Hazard Analysis for the thermal desorption is required.
18. Long term Environment Management Plan including a Groundwater Management Plan has been outlined for the Macdonaldtown site but not the Chullora site.
    - The envisioned future plan for the Chullora site (once the proposed treatment of the Macdonaldtown contaminated soils is complete).
    - The proposed actions should any remediation will be required at Chullora site.
19. The proposed traffic management route, including emergency incidence response.
    - Number of vehicles and type.
    - Number of trips required.
    - At what hours are trips taken.
    - Emergency plan including who is responsible in case of vehicle collision, soil and water pollution and odour emissions during transportation?

20. The proposed treatment site is at the headwaters of Cooks River which flows through a number of municipalities including Strathfield. What safeguards are in place to prevent spills and contamination occurring in the Cooks River Catchment?

21. What type of community consultation has occurred and what are the future plans for further community consultation?

Strathfield Council trusts this information is of assistance to the Department in the preparation of the Director-General's Requirements for the Environmental Assessment of the project. Should you have any questions regarding this letter please contact George Wong, Council's Trainee Strategic Planner on 9748 9638 during normal business hours.

Yours sincerely,

DAVID HAZELDINE
MANAGER STRATEGIC PLANNING

RTA Ref: 10M1078 SYD10/00462
Contact: Iona Cameron T 8849 2525
DoP Ref: Not provided

NSW GOVERNMENT | RTA

PCU006865

Department of Planning
Received
23 JUN 2010
Scanning Room

The Director Major Projects
Department of Planning
GPO Box 39
Sydney NSW 2001

Attention: Haley Rich

BURREN ST, ERSKINEVILLE
DIRECTOR GENERAL REQUIREMENTS MACDONALDTOWN GASWORKS REMEDIATION

Dear Sir/Madam

Reference is made to the Department of Planning's correspondence of 10 June 2010 requesting the Roads and Traffic Authority (RTA) to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Director General's Environmental Assessment (EA) requirements.

The RTA would like the following issues to be included in the transport and traffic impact assessment of the proposed development:

1. The RTA requires an assessment of the likely toxicity levels of loads transported on arterial and local roads to/from the site and, consequently, the preparation of an incident management strategy.
2. A Traffic Management Plan (TMP) for all stages of the remediation process, which details vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures. The TMP shall be submitted to the Department of Planning, Council and the RTA for review.

Further enquiries on this matter can be directed to Iona Cameron on phone 8849 2525 or facsimile (02) 8849 2918.

Yours sincerely

James Hall
Senior Land Use Planner
Transport Planning, Sydney Region
21 June 2010

City of Sydney

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CITY OF SYDNEY

PCU007348

25 June 2010

Our Ref : 2010/138113

HALEY RICH
Major Project Assessment
Department of Planning NSW
23-33 Bridge Street
SYNDEY NSW 2000

Dear Madam

I refer to your email dated 10 June 2010 requesting City of Sydney's requirements for the remediation of the RailCorp property known as Macdonaldtown Gasworks and located at Burren Street Erskineville (Part Lot 50 in DP1001467). Council has considered the Major Project Application form signed 1 June 2010 and the *Preliminary Environmental Assessment*, prepared by Eco Logical Australia Pty Ltd and dated April 2010 and submit the following advice pertaining to environmental health, heritage and vegetation.

Health

Concerns are raised regarding the option to treat the contamination on-site due to the proximity of sensitive land uses (residential) in close proximity to the site and the potential for adverse environmental and health impacts that may be associated with on-site treatment of a former gasworks site. For these reasons, Council opposes any on-site treatment of contaminants for this site.

It is recommended that RailCorp ensure the following documents are prepared and reviewed by a NSW EPA accredited Site Auditor as to their suitability for the site remediation before any work is commenced:

- A Remediation Action Plan
- A Human Health Risk Assessment;
- An Environmental Management Plan, and;
- An Incident Management Plan.

Furthermore, it is recommended that, in addition to what is proposed within the Preliminary Environmental Assessment, a site specific community consultation plan be prepared and include the following:

- Formal complaint management system to respond to all complaints in a timely manner and advise complainants of outcomes;
- Establishment of protocols for resolving differences;

- Feedback from community groups and individuals;

- Consultation between the management of the organisation undertaking the remediation works and residents to resolve pre-determined arrangements to control pollution impacts; and,

- Information for nearby residents and the general public to include expected time frames for works and details of a designated contact person for site, with 24 hour contact details.

Heritage

It is noted that the site abuts the *Burren Estate Heritage Conservation Area* and contains a State Heritage listed gasworks holder. In order to mitigate any potential impacts and protect the integrity of the conservation area and heritage item, Council raise the following requirements for consideration of the future application:

- A Heritage Impact Assessment report of the work on the gasometer and other adjacent heritage structures is to be prepared. The heritage report should also address the impact on the adjacent conservation areas (CA 10 in particular). As Eveleigh Workshop precinct and the adjacent heritage conservation areas are on City of Sydney LEP heritage listings, a copy of heritage impact report and archaeological assessment report should be provided to City of Sydney Council for comments during this Part 3A application assessment stage;.

- The houses at eastern side of Burren St have heritage significance and have been recommended to add into Burren Estate Heritage Conservation Area. The proposed work should avoid any undermining or damage of the existing buildings. A mitigation plan is to be prepared and prudently implemented.

Vegetation

The mature trees flanking the Burren St entry to the site contribute to the streetscape of Burren St and amenity of local public. It is recommended that these trees be retained and properly protected during the remediation works.

The trees on the western boundary of the site and along the rear fences of houses on Burren Street should also be retained. These trees will provide a visual screen relieving the unpleasant view to the large vacant land (from the houses facing Burren St) and provide shadows on the rear courtyards of the terrace houses. They also help in reducing the wind borne dust from the gasworks land.

If you require any further comment or clarification of the above recommendations, please do not hesitate to contact **Kylie-Anne Pont, Planner, on ph. (02) 9246-7757 or email kannepont@cityofsydney.nsw.gov.au.**

Yours faithfully,

JEREMY SWAN
Area Planning Manager

Our reference : DOC10/28224
Contact : Mark Hanemann (02) 9995 6863

Haley Rich
Environmental Planning Officer
Major Project Assessment
Department of Planning NSW
Room 304, 23-33 Bridge Street
Sydney NSW 2000

Dear Ms Rich,

Part 3A Major Project - Macdonaldtown Gasworks Remediation
Environmental Assessment Requirements

I refer to your request for the Department of Environment, Climate Change and Water's (DECCW) requirements for the environmental assessment (EA) for the above proposal received by DECCW on 10 June 2010.

DECCW has considered the details of the project as provided by the Department of Planning and has identified the information it requires to assess the project (see **Attachment 1**).

The proponent should ensure that the EA is sufficiently comprehensive to enable DECCW to determine the extent of the impact(s) of the proposal. In particular, the EA should address requirements of Section 45 of the *Protection of the Environment Operations Act 1997.*

DECCW considers that the key environmental issues that need to be addressed by the EA are:

1. Air quality, including dust management;
2. Impacts of the project on (or related to) contaminated land;
3. Noise and vibration impacts including community communication and liaison before and during remediation;
4. Impacts of the project on soils, including an assessment of acid sulphate soils;
5. Waste and chemical management;
6. Water quality, including surface and groundwater; and
7. Actions that will be taken to avoid or mitigate impacts or compensate for unavoidable impacts identified in 1-6 above.

Other environmental issues that need to be addressed by the EA are:

1. Impacts of the project on cultural heritage (Aboriginal and non-Aboriginal) values;

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2. Impacts of the project on flora and fauna habitats;
3. Energy efficiency and greenhouse emissions reduction; and
4. Any other broad environment protection or conservation issues of concern in the proposed project.

DECCW recommends that the remediation works be undertaken under the review of an EPA accredited Site Auditor with a view to removing any separate phase hydrocarbons (gasworks waste, e.g. free tars) on site and prevent any contaminated surface water from migrating into Alexandra Canal.

Based on the information provided to DECCW the proponent may require an environment protection licence in regard to the following:

- Contaminated soil treatment works

The proponent will need to make a separate application to DECCW to obtain this licence if project approval is granted.

In carrying out the assessment, the proponent should refer to relevant guidelines and any relevant industry codes of practice and best practice management guidelines.

The proponent should be aware that any commitments made in the EA may be formalised as approval conditions. Consequently pollution control or conservation measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

DECCW requests 3 copies of the EA for assessment. These documents should be lodged at Level 7, 79 George Street Parramatta NSW 2124. If you have any queries regarding this matter please contact Mark Hanemann on 9995 6863.

Yours sincerely

Howard 30/6/10

GISELLE HOWARD
Director Metropolitan
Environment Protection and Regulation

Encl. *Attachment 1 – DECCW EA requirements Macdonaldtown gasworks remediation*

Attachment 1 – DECCW EA requirements Macdonaldtown gasworks remediation

Environmental impacts of the project

Impacts on the following environmental issues need to be assessed, quantified and reported on:

Key Issues

- Air
- Contaminated Sites Assessment and Remediation
- Noise and Vibration
- Soils
- Waste and Chemicals
- Water

Other Issues

- Cultural heritage (Aboriginal and non-Aboriginal)
- Flora and Fauna
- Greenhouse Gas

Impacts should be assessed in accordance with relevant guidelines. Relevant sections of these guidelines are identified under each environmental impact heading below.

Mitigation and management options that are proposed to prevent, control, abate or minimise identified environmental impacts of the project and to reduce risks to human health should be described. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Licensing Requirements

On the basis of the information submitted to date, it appears the proposal is a scheduled activity (Contaminated soil treatment works) under the *Protection of the Environment Operations Act 1997* (POEO) and will therefore require an Environment Protection Licence (EPL) if approval is granted. Should project approval be granted, the proponent will need to make a separate application to DECCW for an EPL for the proposed facility prior to undertaking any on site works. Additional information is available through the *DECCW Guide to Licensing* document (www.environment.nsw.gov.au/licensing/licenceguide.htm).

KEY ISSUES

Air

The EA should include a detailed air quality impact assessment (AQIA). The AQIA should address the following matters:

1. Assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human heath and amenity.
2. Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
    a. proposal location;
    b. characteristics of the receiving environment; and
    c. type and quantity of pollutants emitted.

3. Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:
    a. meteorology and climate;
    b. topography;
    c. surrounding land-use; receptors; and
    d. ambient air quality.
4. Include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided.
5. Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.
6. Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.
7. Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005) http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf.
8. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations (POEO) Act (1997)* and the *POEO (Clean Air) Regulation (2002).*
9. Detail emission control techniques/practices that will be employed by the proposal.
10. Assess and report on the risk of dust emissions during project construction and the measures to prevent emissions from the project premises, including how real time monitoring of local meteorological conditions might be used as:
    a. an indicator of the risk of dust emissions from the project premises; and
    b. the trigger for implementing dust control measures, including the cessation of certain work during unfavourable meteorological conditions.

Contaminated Sites Assessment and Remediation

The EA should:

1. Include an assessment of the contaminated site that is conducted in accordance with the guidelines made or approved under section 105 of the *Contaminated Land Management Act 1997*, for example: *Guidelines for Consultants Reporting on Contaminated Sites (DECCW, 2000), Guidelines for the NSW Site Auditor Scheme - 2nd edition (DECCW, 2006), Sampling Design Guidelines (DECCW, 1995), National Environment Protection (Assessment of Site Contamination) Measure 1999.*
2. Provide the details on how the site contamination will be remediated and/or managed so that the site is, or can be, made suitable for the proposed use.
3. Specify whether or not a site auditor, accredited under the *Contaminated Land Management Act 1997*, has been or will be engaged to issue a site audit statement to certify on the suitability of the current or proposed uses.

DECCW recommends that the remediation works be undertaken under the review of an EPA accredited Site Auditor with a view to removing any separate phase hydrocarbons (gasworks waste, e.g. free tars) on site and prevent any contaminated surface water from migrating into Alexandra Canal.

All reports should be prepared in accordance with the *Guidelines for Consultants Reporting on Contaminated Sites* (DECCW, 2000).

Noise and Vibration

The EA should include a comprehensive assessment of the predicted noise and vibration impacts during both the construction and operational phases of the project in accordance with relevant NSW Government and DECCW policies and guidance, and an assessment of all feasible and reasonable noise and vibration mitigation measures.

The assessment of noise and vibration should:

1. Identify the source, nature and scope of noise and vibration impacts.
2. Assess the predicted operational noise and vibration impacts on noise sensitive receivers.
3. Identify the project duration, normal operational hours and parts of the project likely to involve significant periods of 'out of hours' (i.e. not during normal operation hours) work, especially any evening and night-time work.
4. Identify the location of all proposed areas likely to involve 'out of hours' work and support activities, including bulk material storage compounds and site access gates and assess, quantify and report on the predicted noise impacts on surrounding noise sensitive receivers, particularly in respect of:
    a. material and equipment deliveries;
    b. waste and spoil removal or transfer.
5. Assess, quantify and report on predicted night-time noise impacts using both LA10 (15 minute) and LA1 (1 minute) noise descriptors. The predicted night-time noise impacts should be reported using both tabular format and noise contour overlaid on orthophoto maps to clearly identify the extent of noise impacts on noise sensitive receivers within the noise catchments of road overbridges and other parts of the project likely to involve significant periods of night work.
6. Identify feasible and reasonable noise and vibration mitigation measures including consideration of respite periods/ curfew times for works involving high noise or vibration impacts.
7. Assess the effectiveness and reliability of proposed noise and vibration impact mitigation measures and the nature and scope of any residual impacts.
8. Include commitments to noise and vibration monitoring and to the preparation and implementation of a community consultation and notification process for the project including for 'out of hours' works.

Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes.* http://www.environment.nsw.gov.au/noise/industrial.htm

Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline* (DECC, 2009). http://www.environment.nsw.gov.au/noise/constructnoise.htm.

Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). http://www.environment.nsw.gov.au/noise/vibrationguide.htm.

Noise from increased road traffic resulting from the operation of the premises on public roads should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999). http://www.environment.nsw.gov.au/noise/traffic.htm

Soils

The EA should include:

1. An assessment of potential impacts on soil and land resources, guided by *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:
    a. Soil erosion and sediment transport - in accordance with *Managing urban stormwater: soils and construction,* vol. 1 (Landcom 2004) and vol. 2 (DECCW 2008); and
    b. Urban and regional salinity – guidance given in *Site Investigations for Urban Salinity* (DLWC, 2002).
2. A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Acid Sulfate Soils

If the proposed development (or part thereof) is located on land marked Class 1, 2, 3 or 4 on the relevant Acid Sulfate Soil Planning Map, or within 500 metres of adjacent Class 2, 3 or 4 land that is below 5 metres Australian Height Datum (AHD), the EA should:

1. Assess the potential impacts of the development on acid sulphate soils in accordance with the relevant guidelines in the *Acid Sulfate Soils Manual* (Stone *et al.* 1998) and the *Acid Sulfate Soils Laboratory Methods Guidelines* (Ahern *et al.* 2004).
2. Describe mitigation and management options that will be used to prevent, control, abate or minimise potential impacts from the disturbance of acid sulphate soils associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Waste and Chemicals

The EA should include:

1. Details of the quantity and type of liquid and/or non-liquid waste(s) generated, handled, processed or disposed of at the premises. Waste must be classified according to DECCW's *Waste Classification Guidelines 2008.*
2. Details of liquid waste and non-liquid waste management at the facility, including:
    a. the transportation, assessment and handling of waste arriving at or generated at the site;
    b. any stockpiling of wastes or recovered materials at the site;
    c. any waste processing related to the project, including reuse, recycling, reprocessing or treatment both on and off site;
    d. the method for disposing of all wastes or recovered materials generated by the project;
    e. the emissions arising from the handling, storage, processing and reprocessing of waste from the project; and

f. the proposed controls for managing the environmental impacts of these activities.

3. Details of procedures for the assessment, handling, storage, transport and disposal of all **hazardous waste** used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
4. Details of intended (or potential) end uses for material generated by the project.
5. Details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
6. An assessment of waste and resource management options for the project in the context of:
    a. avoidance of unnecessary resource consumption; and
    b. resource recovery (including reuse, reprocessing, recycling and energy recovery).

Water

Background Conditions

The EA should:

1. Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.
2. Provide an outline of baseline groundwater information, including, for example, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment.
3. State the Water Quality Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters (http://www.environment.nsw.gov.au/ieo/index.htm). Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.
4. State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) Guidelines for Fresh and Marine Water Quality (http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality).
5. State any locally specific objectives, criteria or targets which have been endorsed by the NSW Government.

Impact Assessment

6. Describe the nature and degree of impact that any proposed discharges will have on the receiving environment.
7. Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to:
    a. protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
    b. contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.
8. Assess impacts on groundwater and groundwater dependent ecosystems.
9. Describe how stormwater will be managed both during and after the project.

Monitoring

10. Describe how predicted impacts will be monitored and assessed over time.

Water Conservation

11. The EA should identify, quantify, assess and report on options to minimise water consumption including an analysis of potential stormwater collection, storage and re-use options.

OTHER ISSUES

Cultural heritage (Aboriginal and non-Aboriginal)

The EA should include a comprehensive assessment of the potential impacts of the construction and operational phases of the project on sites and places of aboriginal and non-aboriginal cultural heritage, including areas of archaeological potential.

The EA should:

1. Identify the nature and extent of impacts on cultural heritage values across the project area.
2. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
3. If items of Aboriginal cultural heritage are identified, clearly demonstrate and document that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

Flora and Fauna

The EA should include an assessment of the potential impacts of the project on areas of potential value as habitat for native fauna.

The EA should:

1. Assess and report on the likely direct and indirect impacts of the project (including impacts of design options, construction works and operation) on threatened species and their habitat and on endangered ecological communities. This should include a consideration of the potential impacts of acid sulphate soils disturbance and changes to local ground levels and stormwater/ groundwater flow patterns.
2. Describe mitigation and management measures proposed to be used to prevent, control, abate or minimise identified conservation impacts associated with the project, including an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

Greenhouse Gas

The EA should:

1. Include a comprehensive assessment of the project's predicted greenhouse gas emissions. Emissions should be reported broken down by:
    a. Direct emissions (scope 1 as defined by the Greenhouse Gas Protocol – see reference below);
    b. Indirect emissions from electricity (scope 2), and
    c. Upstream and downstream emissions (scope 3).

2. Discuss how the project would satisfy the objectives of the *NSW Greenhouse Plan* and *Action for Air: The NSW Government's 25-Year Air Quality Management Plan.*

3. The proponent should evaluate and report on the feasibility of measures to reduce greenhouse gas emissions associated with the project. This could include a consideration of energy efficiency opportunities or undertaking an energy use audit for the site.

Guidance Material

- The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute http://www.ghgprotocol.org/standards/corporate-standard
- National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest release), http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx
- National Greenhouse and Energy Reporting System, Technical Guidelines (latest release) http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/tools-resources.aspx
- National Carbon Accounting Toolbox http://www.climatechange.gov.au/government/initiatives/ncat.aspx
- Australian Greenhouse Emissions Information System (AGEIS) http://ageis.climatechange.gov.au/

Office of Water

Haley Rich
Department of Planning
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Contact: Janne Grose
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16 June 2010

Our ref: ER21080
Your ref:

Dear Ms Rich

Major Project – Macdonaldtown Gasworks Remediation – Director General Requirements – City of Sydney and Bankstown City local government areas

I refer to your email of 10 June 2010 requesting key issues and assessment requirements from the NSW Office of Water (NOW) for the above proposal.

The NOW's key issues and assessment are in relation to groundwater. Specific comment is outlined in Attachment A.

Contact Details:

If you require further information please contact Janne Grose on (02) 4729 8262 at the Penrith office.

Yours sincerely

Janne Grose

for Mark Mignanelli
Manager
Major Projects and Assessment
NSW Office of Water
Newcastle

NSW GOVERNMENT

Office of Water

ATTACHMENT A

Specific Comments from the DECCW (Office of Water)

Major Project – Macdonaldtown Gasworks Remediation

Director-General's Environmental Assessment Requirements

Relevant Legislation

The NSW Office of Water (NOW) is responsible for administering the Water Act 1912 and the Water Management Act 2000 (WMA) which manage and regulate the use of surface water and groundwater resources. The Environmental Assessment (EA) is required to take into account the objectives and regulatory requirements of these Acts, as applicable.

Relevant Policies

The EA is required to take into account the following NSW Government policies, as applicable:

- NSW Groundwater Policy Framework Document - General
- NSW Groundwater Quantity Management Policy
- NSW Groundwater Quality Protection Policy

Groundwater

The NOW notes that Table 3 in the Preliminary Environmental Assessment (Section 7, page 18) lists as an extreme risk the contamination of the clean aquifer during the installation of groundwater monitoring wells. The NOW is responsible for the management of the groundwater resources. The proposal needs to protect groundwater resources in accordance with NSW State groundwater policy, enhance groundwater quality and protect groundwater dependent ecosystems (GDEs).

The EA should identify groundwater issues and potential degradation to the groundwater source and provide the following details:

- the predicted highest groundwater table at the site.
- any works likely to intercept, connect with or infiltrate the groundwater sources.
- any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- a description of the flow directions and rates and physical and chemical characteristics of the groundwater source.
- the predicted impacts of any final landform on the groundwater regime.

- the existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- an assessment of the quality of the groundwater for the local groundwater catchment
- an assessment of groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- measures for preventing groundwater pollution so that remediation is not required
- the cumulative impacts of the proposal on groundwater.
- protective measures for any groundwater dependent ecosystems (GDEs).
- proposed methods of the disposal of waste water and approval from the relevant authority.
- the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- any proposed monitoring programs, including water levels and quality data
- reporting procedures for any monitoring program including mechanism for transfer of information.
- an assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- description of the remedial measures or contingency plans proposed.
- any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Licensing

If the proposal is likely to intercept or use groundwater, the need for a water license under Part 5 of the Water Act 1912 should be addressed in the EA.

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from NOW prior to their installation.