GROSVENOR LODGE PTY. LTD.

Holder of Works Approval: 149980
Issued: 10/11/2017
ACN: 051 838 530
Registered Address: 48 HEALEY ROAD
DANDENONG SOUTH VIC 3175
Premises Address: 435 BALNARRING ROAD
TUERONG VIC 3915
Scheduled Categories: A01 Prescribed Industrial Waste Management
A05 Landfills

Description: This proposal allows for the extension of landfill operations for the deposit of solid inert waste, asbestos (all forms), pneumatic tyres shredded into pieces less than 250mm in all directions and ceramic based fibres similar to those of asbestos.

NIAL FINEGAN
Chief Executive Officer
Delegate of the Environment Protection Authority

Issued under the Environment Protection Act 1970, Section 19B
Works Approvals

Who we are: The Environment Protection Authority ("EPA") is an independent statutory authority established under the Environment Protection Act 1970 ("the Act"). Our purpose is to protect and improve our environment by preventing harm to the environment and human health.

Why we issue works approvals: EPA is responsible for preventing or controlling pollution (including noise) and improving the quality of the environment. This responsibility includes regulating activities that may present a danger to the environment. One of the tools available to EPA is issuing works approvals for scheduled premises to prevent or minimise risk to the environment.

Section 19A of the Act requires the occupier of a “scheduled premises” to obtain works approval to construct or install plant and equipment in order to discharge, handle, treat or dispose of waste to the environment. These types of premises are defined in the Environment Protection (Scheduled Premises) Regulations 2017 ("the Regulations").

When we issue works approvals: EPA will issue a works approval when satisfied that an applicant has put in place measures to protect the environment. Works approvals allow construction of works to occur and set control measures to minimise a site’s environmental risk. EPA can amend a works approval in response to changes in standards and site activities. Works approval holders must submit reports if required by a condition of the approval.

Works Approval information and obligations

For the purposes of this works approval “You” means the works approval holder identified on the first page of this works approval at the "premises" identified on the first page and represented in Schedule 1.

If you object to any of the works approval conditions, you may have the decision reviewed by applying in writing to the Registrar, Planning and Environment Division, Victorian Civil and Administrative Tribunal ("VCAT"), 7th Floor, 55 King Street, Melbourne within 21 days of the date of issue. An application fee may be applicable when lodging an appeal with VCAT. Contact VCAT on (03) 9628 9777 for further details on fees associated with an appeal. A copy of the appeal should also be forwarded to the Manager, Development Assessments Unit, Environment Protection Authority, GPO Box 4395, Melbourne, 3001, within 7 days of lodgement of the appeal.

Interested (third) parties may also appeal against the works approval within 21 days of the date of issue. The Tribunal will notify you if such appeals are received. If an appeal is lodged, you must not go ahead with the works until the appeal is resolved.

Compliance: You must comply at all times with the Act and all policies and regulations administered by EPA. Strict penalties apply for non-compliance with any part of your works approval.

Works Approval structure

Structure: Your works approval has:
- Works conditions - setting out requirements for construction or installation;
- Schedule 1A - locality plan of your premises;
- Schedule 1B - plan of premises (provided by you).
Some types of works approvals also contain Schedule 1C - final landfill contour plan.
GENERAL CONDITIONS

Subject to the following conditions, this approval allows the construction of the following works and associated equipment - a landfill for the deposit of solid inert waste, pneumatic tyres shredded into pieces less than 250 millimetres, asbestos (all forms) (N220) and ceramic based fibres similar to asbestos (N230) as defined in EPA Publication 631, Industrial Waste Resource Guidelines, Solid Industrial Waste Hazard Categorisation and Management, dated July 2009.

The works must be constructed in accordance with the application accepted on 12 April 2017 comprising the application received on 10 April 2017 as augmented by additional information accepted on 13 September 2017, 28 September 2017, 5 October 2017 and 10 November 2017, as identified in the documents listed in in Appendix A of this Works Approval, ("the application") except that, in the event of any inconsistency arising between the application and the conditions of this approval, the conditions of this approval shall apply.

This approval will not take effect until any permit which is required under the Planning and Environment Act 1987 has been issued by the Responsible Planning Authority.

This works approval will expire: (a) on the issue or amendment of a licence relating to all works covered by the works approval; or (b) on the issue of written notification from EPA confirming that all works covered by the works approval are complete and that no licence or licence amendment is required to operate the works; or (c) two years from the date of issue unless the works have been commenced by that date to the satisfaction of EPA.

You must maintain a financial assurance calculated in accordance with the EPA method.

You must submit the financial assurance instalment determined by the EPA for each landfill cell prior to the addition of the cell to the licence.

WORKS CONDITIONS

Before commencing construction of the following components of the works, you must provide to EPA a report or reports with the plans and specifications of those components, including details of:

(a) for each landfill cell or leachate pond: a geotechnical stability assessment including material characteristics and specifications, with supporting evidence, demonstrating total geotechnical stability for each landfill cell or leachate pond;
(b) for each cell a veneer cap assessment, demonstrating the geotechnical stability of the cap;
(c) for each landfill cell: Stormwater and erosion control structures including calculations of...
stormwater flows to appropriately size and position the control structures;

(d) for each landfill cell gas management, a system proportionate to the predicted landfill gas generation volumes for the site which must include: 1) a landfill gas extraction system including drilled vertical gas extraction wells to apply vacuum across the depth of the waste mass, 2) vertical gas extraction wells installed between 40 to 50 metres apart, 3) equipment that thermally or biologically oxidise methane, 4) extracts landfill gas volumes from the waste sufficient to meet the gas action levels in Table 6.4 of EPA Publication 788.3 (2015), 5) detailed plans, technical specifications and a construction quality assurance (CQA Plan) ("design documents") for the landfill gas management system;

(e) for the landfill site a comprehensive groundwater investigation for the premises involving: 1) an investigation methodology which is capable of quantitatively establishing long-term undisturbed groundwater levels at the premises and across the area of proposed Cells 6A, 6B and 6C, 2) milestones for implementing the investigation and reporting to EPA 3) installation of additional groundwater monitoring bores in accordance with the investigation methodology within the area of the proposed Cells 6A, 6B and 6C, 4) implementation of a comprehensive groundwater monitoring programme which takes into account seasonal, temporal and spatial variability over a timeframe that allows for the undisturbed groundwater level to be established at the premises and in the area of proposed cells 6A, 6B and 6C, 5) calculations for the estimated volume of groundwater to be extracted from beneath Cells 6A, 6B, and 6C 6) an updated fate and transport model of the potential contaminants of concern informed by the results of the Comprehensive Groundwater Investigation, 7) determination of groundwater connectivity with the off-site surface waterway (ephemeral creek);

(f) for the groundwater protection measures of Cells 6A, 6B and 6C additional design and management measures, must be employed across the full extent of the area where a minimum 2 metres separation between waste (including lowest point of the liner of any leachate sumps) and the long term undisturbed groundwater elevation is either not achieved or not able to be verified by the EPA appointed auditor conducting the verification of the cell (or pond) design. The additional design and management measures, or their equivalent, must include a groundwater collection system comprising: 1) an integrated (anchored) HDPE geomembrane overlain by a non-woven cushion geotextile; 2) compacted clay liner and 3) groundwater collection trenches in a grid pattern installed at regular spacing; providing adequate groundwater protection as required by Waste Management Policy and verified by an EPA approved Auditor.

g) for each landfill cell or leachate pond: the plans, the technical specifications, and a construction quality assurance plan (CQA plan) ("design documents") for the construction of each landfill cell and/or the leachate pond;

(h) the “design documents” (plans, technical specifications and CQA plan) referred to in conditions WA-W1(d), (e) and (f) must comply with this Works Approval and the EPA Publication 788.3 BPEM (Siting, Design and Management of Landfills)(2015), and assessed by an EPA-appointed environmental auditor, in accordance with the procedures outlined in EPA Publication 1323.3 (Landfill Licensing Guidelines)(2016) prior to submission for EPA approval;

(i) for each landfill cell or leachate pond: the name of the environmental auditor, appointed under the Environment Protection Act 1970, engaged by you to conduct the audit required under WA_R1; and

(j) for the landfill site: designs of the environmental monitoring network infrastructure to include noise, vibration, landfill gas, odour, dust, leachate, groundwater and surface water monitoring for the premises.

WA_W2 You must not commence construction of those parts of the works for which reports are required by condition WA_W1 until written EPA approval of those reports has been received.
Where any reports specified in condition WA_W1 and approved by EPA differ from the application, the works must be constructed in accordance with those approved reports.

You must notify EPA when the construction of the works covered by this approval has been commenced.

You must notify EPA when the construction of the works covered by this approval has been completed.

You must not commission or operate the works without written approval of EPA.

You must install:

(a) a noise abatement bund as identified in the application, which is capable of mitigating noise generated at the premises to no greater then 46dBA at the closest sensitive receptor;

(b) in respect of each new cell, leachate collection sumps, extraction and transmission pipework and extraction pumps;

(c) in respect of each new cell, a landfill gas collection system to a design approved by the EPA that includes landfill gas collection wells, transmission pipework, condensate management equipment and landfill gas combustion equipment. The landfill gas extraction & combustion capacity must match the predicted gas generation for the site, validated by site gas concentration and flow data;

(d) prior to commissioning of the next new cell, landfill gas monitoring bores along the site perimeter upgraded to meet the spacing requirements outlined in Table B.2 of EPA Publication 788.3 BPEM (Siting, Design, Management and Rehabilitation of Landfills) (2015);

(e) prior to construction of the next new cell, additional groundwater monitoring bores to assess the regional undisturbed ground water quality and level;

(f) a stormwater management network and storage ponds; and

(g) firefighting equipment including on-site water trucks that must be available on-site at all times.

During construction, unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises.

During construction, stormwater discharged from the premises must not be contaminated with waste.

All construction activities must be undertaken in accordance with EPA Publication 480 “Environmental Guidelines for Major Construction Sites” (1996).

During construction, you must undertake an environmental monitoring program that enables you and EPA to determine compliance with condition(s) WA_W15 and WA_W16.

**Reporting Conditions**
At least two months before the commencement of any commissioning, you must provide to EPA a report that include(s):

(a) in respect of each new cell, information as to the status of the site on the landfill schedule in the State-wide Waste and Resource Recovery Infrastructure Plan and the Metropolitan Waste and Resource Recovery Implementation Plan (and any future successor or replacement policy documents), this information needs to be provided with the application for a new cell approval;

(b) in respect of each new cell or leachate pond, an environmental audit report, under S53V of the EP Act on the risk of harm from its construction and confirming construction compliance in accordance with EPA approved reports as set out in condition WA_W1 above;

(c) in respect of each new cell or leachate pond, a report from a suitably qualified, experienced and independent (to the contractor who constructs the landfill cell or leachate pond) person which details liner integrity testing (leak detection survey) results for each cell and leachate pond; and

(d) in respect of each new cell, the environmental performance of the preceding cells as determined by the monitoring required in the monitoring and management plans identified in WA_R4, this information needs to be provided with the application for a new cell approval.

Before the commencement of any commissioning, you must provide, to the satisfaction of EPA, a report that includes:

(a) a Leachate Management and Monitoring Programme including but not limited to:

(i) assessment demonstrating the adequacy of the leachate system to manage cumulative leachate volumes generated throughout the full life of the landfill;

(ii) assessment demonstrating engineering and management measures will be implemented to protect surface waters from any overflow or failure in the leachate ponds;

(iii) monitoring programme detailing method and frequency for detecting leaks or failure in the leachate ponds;

(iv) clearly identified management and remediation actions which will be taken in the event surface waterbodies are impacted;

(v) installation and operation of a system to manage leachate odours;

(vi) a plan to ensure leachate ponds are operated to maintain a 500mm freeboard at all times, including the identification of alternative treatment options; and

(vii) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions.

(b) a Site Layout and Filling Sequence Plan including but not limited to:

(i) progressive rehabilitation of landfill cells and sub-cells in accordance with BPEM;

(ii) a process for an independent annual survey to be conducted for each active and filled landfill cell to ensure that the cell heights are less than the approved pre-settlement top of waste contour plan;

(iii) each landfill cell would be managed so that its final contour prior to settlement is not higher at any point than the pre-settlement top of waste and top of cap contour plan included in the licence;
(iv) delineation of all cell boundaries, performed by an appropriately licenced surveyor, detailed on a premises plan; and

(v) proposed aftercare management and monitoring programme of capped cells.

(c) a Dust Management and Monitoring Programme including but not limited to;

(i) implementation of best practice airborne particulate and dust control measures that also includes triggers for adaptive operational practices which respond to and control impact from potential dust sources on site;

(ii) air monitoring programme to assess air quality impacts and triggers reactive management practices to be implemented during dust events;

(iii) dust deposition monitoring that enables an assessment of nuisance dust impacts;

(iv) a review of the effectiveness of the particulate and dust control measures in light of the monitoring data produced from (ii) and (iii) above and the relevant standards for the control of airborne particulate and dust;

(v) a method of logging any dust complaints and any follow up actions; and

(vi) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions.

(d) an Odour Management and Monitoring Programme including but not limited to:

(i) identification of potential odour sources and receptors;

(ii) specifying the triggers, adaptive odour mitigation measures and operational procedures to manage the odour impact from potential odour sources;

(iii) comprehensive monitoring practices, including surveillance by appropriately trained personnel;

(iv) a method of logging any odour complaints and procedures for addressing the odour source if a complaint is verified, including consideration of any mitigation measures or operational changes that might be required; and

(v) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions.

(e) a Landfill Gas Management and Monitoring Programme including but not limited to:

(i) detailed LFG management and monitoring network designs, including the number and location of existing and proposed landfill gas monitoring bores. The landfill gas perimeter monitoring bore spacings must meet the recommended spacings in Table B.2 of BPEM.

(ii) the sequencing for the design and installation of the landfill gas management system in each cell;

(iii) the sequencing for the design and installation any gas engines, gas flare or ancillary equipment sufficient to maintain ongoing compliance with the gas action levels in Table 6.4 of EPA publication 788.3;

(iv) measures to control LFG odour;

(v) a programme of inspection and maintenance of landfill gas extraction, combustion and monitoring infrastructure including provision of standby equipment; and
(vi) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions.

(f) a Groundwater Management and Monitoring Programme including but not limited to:

(i) completion of a groundwater bore network performance audit to assess its adequacy and undertaking any remedial actions as required;

(ii) detailed groundwater management and monitoring network design including the number and location of existing and proposed monitoring bores;

(iii) updated groundwater monitoring programme including quarterly gauging of groundwater levels across all groundwater monitoring bores, frequency of groundwater sampling and all physical and chemical parameters to be tested;

(iv) proposed analytical suite for testing extracted groundwater quality and trigger levels which determine management methods;

(v) a proposal for measures to adequately manage extracted groundwater at the premises or identify options for off-site management;

(vi) enable the determination of the long-term undisturbed groundwater quality and depth; and;

(vii) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions.

(g) a Surface Water Management and Monitoring Programme including but not limited to;

(i) completion of a stormwater management network performance audit to assess its adequacy and undertaking of any remedial actions as required;

(ii) detailed designs of the stormwater management network including detail on the location and extent of protection measures to beneficial uses;

(iii) the establishment of existing water quality, employing a methodology approved by EPA, within the off-site surface water bodies to the north (ephemeral creek), west (two dams) and south (one dam) of the premises. A copy of surface water quality results is to be provided to the relevant owners of surface water bodies;

(iv) development of an ongoing inspection and maintenance schedule for all drainage assets, erosion control facilities and potential sources of contamination;

(v) a sampling plan and methods consistent with those in EPA publication IWRG701;

(vi) sampling of water at retention points prior to discharge to the environment;

(vii) routine testing of surface water and stormwater for, but not limited to, the following physio-chemical parameters: total phosphorus and nitrogen, turbidity, electrical conductivity, pH, and dissolved oxygen with occasional testing for heavy metals and indicators of leachate. The sampling frequency and reporting is to be agreed with EPA as are the action levels for each parameter; and

(viii) auditing of the programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions;

(h) a Noise Management and Monitoring Programme including but not limited to:
(i) assessment of the current operational noise levels at sensitive receptors using a methodology and frequency agreed by EPA;

(ii) an assessment of operational methods and equipment being to assess the adequacy of methods used to minimise the noise emitted as far as practicable and undertaking any remedial actions as required;

(iii) a monitoring programme for assessment of the noise from construction and operation of the landfill, and effectiveness of the noise abatement (including barriers) being applied;

(iv) a method of logging any noise complaints and any follow up actions;

(v) milestones to be used for updating and submitting any amendments to the monitoring, assessments and noise abatement methods required by the noise management programme. The noise monitoring data from operation and cell construction is to be used to confirm the assumptions in modelling and identification of any amendments to the programme and required noise abatement for subsequent cells; and

(vi) auditing of the monitoring programme (by an EPA appointed auditor) including auditing of the implementation of management and mitigation actions;

(i) a Vibration Management and Monitoring Programme including but not limited to:

(i) assessment of the expected vibration levels resulting from earth moving activities performed at the site;

(ii) monitoring regime for assessing vibration at sensitive receptors with clear triggers for implementing mitigation measures to preventing impact from vibration;

(iii) no construction equipment or construction vehicles to be stored or used over the off-site watermain;

(iv) blasting is not permitted within 20m of the water main;

(v) the footprint of the proposed perimeter bund along the northern title boundary should be set back a minimum of 10 metres from the property boundary to provide a suitable buffer to the nearest water main (15m overall) and adjacent reinforced concrete main (25m overall); and

(vi) clear methods for limiting vibration from any earth moving activities along the northern boundary of the premises to not exceed 2mm/s peak particle velocity, as measured at the nearest water main.

Each of the above plans must be approved by the Authority prior to the commissioning of each new cell. Each approved plan must be implemented to the satisfaction of the Authority. Plans which have previously been approved by the Authority may be reviewed by the Authority prior to commissioning of each new cell, and updated plans must be submitted to the satisfaction of the Authority if required.
Before relying on the information in this map, users should carefully evaluate its accuracy, currency, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances.
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Appendix A – List of Application Documents

1. Rockleigh Landfill Extension, Works Approval Application. Prepared for Grosvenor Lodge Pty Ltd (Report Number 121011_001_R_Rev12_WAA), dated 7 April 2017, prepared by Mackenzie Environmental Pty Ltd, supported by:
   - Appendix A: EPA WAA Guideline Table of Contents
   - Appendix B: EPA Company Legal Entity Form
   - Appendix C: EPA Supporting Information Form
   - Appendix D: ASIC Company Search
   - Appendix E: Extract from MWRG Implementation Plan
   - Appendix F: EPA Licence 45248
   - Appendix G: Hydrogeological Assessment
   - Appendix H: Surface Water Buffer Management Plan
   - Appendix I: Ramsar and Nationally Important Wetland Map
   - Appendix J: Biosis Flora and Fauna Assessment Report
   - Appendix K: Marine National Parks Map
   - Appendix L: State Game Reserves Map
   - Appendix M: Water Supply Protection Area Map
   - Appendix N: HELP Model Simulation Results
   - Appendix O: Mornington Rainfall Records
   - Appendix P: Leachate Water Balance
   - Appendix Q: Stormwater Management Plan
   - Appendix R: Marshall Day Acoustic Assessment Report
   - Appendix S: Rehabilitation Plan

2. Rockleigh Landfill Works Approval Application – Section 22 Notice Response (Report Number 151011_010_L_Rev1_Section 22 Notice 1 Revised Response), dated 13th September 2017, prepared by Mackenzie Environmental Pty Ltd.


4. Rockleigh Landfill Works Approval Application – Response to Third Section 22(1) Notice, Dated 28th September 2017 (Report Number 151011_012_L_Rev0_Section 22 Notice 3 Response), dated 5th October 2017, prepared by Mackenzie Environmental Pty Ltd.