(26)

Environmental Protection Act 1994

Licence No. SR584

COPY

Section 45(1)

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued:

To: CSR Limited

Address: 11th Floor
Tower Life Building
301 Coronation Drive
MILTON QLD 4064

in respect of carrying out the environmentally relevant activity at the following place(s):

Lot 2 on RP131238, County of Stanley, Parish of Sahl.

located at: Russell's Road (Summerville)
PINE MOUNTAIN QLD 4305

ERA 19(b) - Extraction of rock or other material - extracting rock (other than rock mined in block or slab form for building purposes), sand (other than foundry sand), clay (other than clay used for its ceramic properties, kaolin or bentonite), gravel loam or other material (other than under a mining authority) from pits or quarries using plant or equipment having a design capacity of 5 000 tonnes or more, but less than 100 000 tonnes, per year.

in respect of carrying out the environmentally relevant activity at the following place(s):

Lot 1 on RP866821 and Lot 2 on RP866821, County of Churchill, Parish of Brassall.

located at: Russell's Road (Sapling Pocket)
PINE MOUNTAIN QLD 4305

ERA 19(b) - Extraction of rock or other material-extracting rock (other than rock mined in block or slab form for building purposes), sand (other than foundry sand), clay (other than clay used for its ceramic properties, kaolin or bentonite), gravel loam or other material (other than under a mining authority) from pits or quarries using plant or equipment having a design capacity of 5 000 tonnes or more, but less than 100 000 tonnes, per year.

in respect of carrying out the environmentally relevant activity at the following place(s):

Lot 1 on RP189078 and Lot 4 on RP189078, County of Stanley, Parish of Kholo.

located at: Kholo Road (Kholo Bridge)
KHOLO QLD 4305

ERA 19(b) - Extraction of rock or other material - extracting rock (other than rock mined in block or slab form for building purposes), sand (other than foundry sand), clay (other than clay used for its ceramic properties, kaolin or bentonite), gravel loam or other material (other than under a mining authority) from pits or quarries using plant or equipment having a design capacity of 5 000 tonnes or more, but less than 100 000 tonnes per year.

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Environmentally Relevant Activities:
19(b) -Extraction of rock or other material
21(c)- Screening etc. materials
60 - Concrete batching

in respect of carrying out the environmentally relevant activity at the following place(s):

Portion 21 on RPCC3170 and Portion 235 on RPCC3170, Parish of Mutdapilly, County of Churchill and Lot 4 on RP189078, County of Stanley, Parish of Kholo.

located at: Sugarloaf Road (Mutdapilly)
MUTDAPILLY QLD 4305

ERA 19(b) - Extraction of rock or other material - extracting rock (other than rock mined in block or slab form for building purposes), sand (other than foundry sand), clay (other than clay used for its ceramic properties, kaolin or bentonite), gravel loam or other material (other than under a mining authority) from pits or quarries using plant or equipment having a design capacity of 5 000 tonnes or more, but less than 100 000 tonnes per year.

in respect of carrying out the environmentally relevant activity at the following place(s):

Lot 28 on RP216659, Lot 2 on RP215979, Lot 1 on RP207413, Lot 2 on RP49247, Lot 1, RP58274 and Lot 2 on RP118315, County of Stanley, Parish of Chuwar.

located at: Mt Crosby Road (Tivoli)
TIVOLI QLD 4305

ERA 21(c) - Screening etc. materials - screening, washing, crushing, grinding, milling, sizing or separating material extracted from the earth (other than under a mining authority) or by dredging using plant or equipment having a design capacity of 100 000 tonnes or more per year.

ERA 60 - Concrete batching - commercially producing concrete or producing concrete products by mixing cement, sand, rock, aggregate or other similar materials in works (including mobile works) having a design production capacity of more than 100 tonnes per year.

This licence is issued subject to the conditions set out in the schedules attached to this environmental authority.

This licence takes effect from 21 August 1997.

signed sch4-Signature .....

R.A. (Bob) Speirs
Regional Director
Delegate of Administering Authority
Environmental Protection Act (1994)

date 22 August 1997

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Environmentally Relevant Activities:
19(b) -Extraction of rock or other material
21(c)- Screening etc. materials
60 - Concrete batching

This environmental authority consists of the following schedules -

Schedule A - General Conditions

Schedule B - Air Schedule

Schedule C - Water

Schedule D - Stormwater Management

Schedule E - Land Application

Schedule F - Noise

Schedule G - Waste Management

Schedule H - Monitoring and Reporting

Schedule I - Definitions

Schedule J - Approved Documents

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SCHEDULE A - GENERAL CONDITIONS

Maintenance of Plant and Equipment

(A1) The holder of this environmental authority must:

(i) maintain all plant and equipment in a proper and efficient condition; and
(ii) operate such plant and equipment in a proper and efficient manner.

In this condition, "plant and equipment" includes:

(i) plant and equipment used to prevent and/or minimise the likelihood of environmental harm being caused, for example dust control systems, stormwater management systems, erosion control measures;
(ii) devices and structures to contain forseeable escapes of contaminants and waste, for example bunding, pond walls;
(iv) devices and structures used to store, handle, treat and dispose of waste, for example settlement ponds;
(v) monitoring equipment and associated alarms; and
(vi) backup systems that act in the event of failure of a primary system.

Display of Environmental Authority

(A2) A copy of this environmental authority must be kept in a location readily accessible to personnel carrying out the activity.

Records

(A3) Any record or document required to be kept by a condition of this environmental authority must be kept at the licensed place for a period of at least five (5) years, except as otherwise provided, and be available for examination by an authorised person. The record retention requirements of this condition will be satisfied if any daily and weekly records are kept for a period of at least three (3) years and these records are then kept in the form of annual summaries after that period.

Alterations

(A4) No change, replacement or operation of any plant or equipment is permitted if the change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm above that expressly provided by this environmental authority.

An example of a substantial increase in the risk of environmental harm is an increase of 10% or more in the quantity of the contaminant to be released into the environment.

Calibration

(A5) All instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority must be calibrated, and appropriately operated and maintained.

Sand and Gravel Extraction

(A6) Extraction of sand and gravel must only be carried out from the sand deposits offstream from any watercourse.

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(A7) Extraction of material and associated operations must not cause any erosion of the bed or banks of any watercourse or damage any vegetation growing in or on the bed or banks of such watercourse.

(A8) There must be no extraction of material within any watercourse channel or within that distance of the top of the bank of any watercourse that would result in collapse of and/or washout of the bank of such watercourse provided that under no circumstance must that distance be less than the corresponding minimum distance for the licensed place as prescribed as in Schedule A Table 1.

Schedule A - Table 1

Licensed Place	Minimum distance between extraction and the top of the bank of any watercourse in metres
Russell's Road (Summerville) PINE MOUNTAIN QLD 4305 on Lot 2 on RP131238, County of Stanley, Parish of Sahl.	Whichever is the greater of 20 metres or that distance that corresponds to the limit of extraction delineated on diagram BR635 A4 titled "CSR - BRISBANE RIVER SAPLING POCKET & SUMMERVILLE'S LAND LOCALITY PLAN" contained the document "Operating and rehabilitation plan for CSR Sapling Pocket" dated December 1995 signed for and on behalf of CSR by Mr. Rolly Bendall on 21/12/1995.
Russell's Road (Sapling Pocket) on Lot 1 on P866821 and Lot 2 on RP866821, County of Churchill, Parish of Brassall.	Whichever is the greater of 30 metres or that distance that corresponds to the limit of extraction delineated on diagram BR635 A4 titled "CSR - BRISBANE RIVER SAPLING POCKET & SUMMERVILLE'S LAND LOCALITY PLAN" contained the document "Operating and rehabilitation plan for CSR Sapling Pocket" dated December 1995 signed for and on behalf of CSR by Mr. Rolly Bendall on 21/12/1995.
Kholo Road (Kholo Bridge) KHOLO QLD 4305 on Lot 1 on RP189078 and Lot 4 on RP189078, County of Stanley, Parish of Kholo.	20 metres

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(A9) In any case that any extraction of material takes place within forty (40) metres the top of the bank of any watercourse, that bank must as soon as practicable be re-instated with fill material in a stable manner in accordance with condition A10 and replanted with appropriate native vegetation.

Fill Material

(A10) The only material to be placed in any void or pond on the licensed place must be clean rock, clay, sand or soil (excluding any contaminated rock, clay, silt and soil).

Integrated Environmental Management System (IEMS)

(A11) The holder of this environmental authority must:

(a) develop and implement an IEMS which provides for the following functions:
- the monitoring of releases of contaminants into the environment and an environmental assessment of the releases; and
- staff training and awareness of environmental issues; and
- the conduct of environmental and energy audits; and
- waste prevention, treatment and disposal; and

(b) lodge with the administering authority on or before 1 August 1997 a brief report describing the progress in developing and implementing the IEMS; and

(c) on or before 1 September 1997, have completed and implemented the IEMS.

(A12) A copy of the IEMS must be kept at the licensed place where practical.

(A13) The holder of this environmental authority must not implement an Integrated Environmental Management System or amend an Integrated Environmental Management System where such implementation or amendment would result in a contravention of any condition of this environmental authority.

(A14) The holder of this environmental authority must submit details of any amendment of the IEMS to the administering authority with the annual return which immediately follows the enactment of any such amendment.

(A15) A copy of the IEMS must be kept at the licensed place.

Site Rehabilitation and Decommissioning Report

(A16) By 5 January 1998 or at least three (3) months prior to ceasing carrying out the environmentally relevant activities at the licensed places, whichever is the earlier, the holder of this environmental authority must prepare and submit a Site Rehabilitation and Decommissioning Report for its relevant licensed place(s) detailing practices and measures necessary to prevent or minimise environmental harm during and after the decommissioning of the environmentally relevant activities.

(A17) The Site Rehabilitation and Decommissioning Report must address at least the following matters:

(i) a rehabilitation plan for the site taking into account the final use of the land and relevant environmental considerations including but not limited to:

- the allowance for the maintenance of an adequate buffer distance between the extraction sites and any lakes or ponds incorporating measures to protect creek against erosion susceptibility;

  the proposed shaping of the final landform after rehabilitation including an assessment of the stability of all works such as buffer distances and batter slopes;

- proposed nature of materials utilised and techniques to be employed for any proposed backfilling of extracted areas such as filling, compaction, topsoiling, overburden return and any other soil amelioration leading to vegetation establishment; and

- a program and timetable for all works proposed;

(ii) prevention or minimisation of windblown dust from overburden stockpiles, remnant raw material stockpiles and rehabilitation earthworks;

(iii) prevention or treatment of the release of contaminated stormwater runoff from remnant material stockpiles and disturbed areas to the bed or banks of any watercourse;

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(iv) proposed rehabilitation measures such as irrigation, weed control, use of local native plant/seedling selections, site security and any other remedial works during the rehabilitation works; and

(v) submission of written advice to the administering authority within fourteen (14) days of completion of site rehabilitation and decommissioning works.

Rehabilitation

(A18) The holder of this environmental authority must rehabilitate the licensed place in a manner such that:

(i) suitable native species of vegetation are planted and established;
(ii) potential for erosion of the site is minimised;
(iii) the quality of stormwater released from the site is such that releases of suspended solids, turbidity and total dissolved salts are not likely to cause environmental harm;
(iv) the likelihood of environmental nuisance being caused by release of dust is minimised; and
(v) the final landform is stable and not subject to slumping.

(A19) Notwithstanding condition A16, rehabilitation of disturbed areas must take place progressively as works are staged and new areas of extraction are commenced within the licensed place.

(A20) In developing and implementing the Site Rehabilitation and Decommissioning Report, use may be made of any relevant and appropriate plans, procedures, quality assurance manuals or other relevant documents previously prepared.

End of Conditions for Schedule A

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SCHEDULE B - AIR

Dust and Particulate Emissions - General

(B1) Dust or particulate matter that will have or is likely to have an adverse effect on people living in or using the surrounding area shall not be permitted to emanate beyond the boundaries of the licensed place.

Dust Control - General

(B2) The environmentally relevant activities must be managed using all reasonable and practicable measures to minimise the release of wind blown dust to the atmosphere. Reasonable and practicable measures may include but are not limited to:

(i) restriction of vehicular movement within the licensed place to designated access routes;
(ii) minimisation of exposed surface area to that within the current areas of operation;
(iii) rehabilitation of completed areas as soon as reasonable and practicable following completion of excavation or other earthworks;
(iv) storage, processing and transfer of materials in a moist state;
(v) adoption of best industry practice environmental management for the extraction and processing of aggregates; and
(vi) use of water cart(s) to suppress dust, as necessary, on site access roads.

Dust Control - Transport Trucks

(B3) The holder of this environmental authority must take all reasonable and practicable measures necessary to prevent spillage and/or loss of particulate matter and minimise windblown dust from trucks used for transporting extracted materials from the licensed place. Reasonable and practicable measures may include but are not limited to:

(i) wetting down the load prior to transport;
(ii) having the entire load covered with a tarpaulin or similar material for the duration of transport; and
(iii) clearing of any spillage from side rails, tail gates and draw bars of trucks prior to departure from the licensed place and prior to departure from the premises to which the load has been delivered.

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Dust Control - Trafficable Areas

(B4) Trafficable areas must be maintained, at all times, in a condition which minimises the release of wind-blown or traffic-generated dust.

(B5) All sealed traffic areas must be cleaned as necessary to minimise the release of dust and particulate matter to the atmosphere.

Conveyor Belts - Tivoli Licensed Place

(B6) Effective under belt scrapers are to be installed at each transfer point and deposits scraped off are to discharge into the transfer chute and not on the ground.

(B7) Spillage of aggregate materials in the vicinity of the conveyor shall be removed at least daily, or immediately if visible dust is originating from the spillage.

(B8) Materials must be conveyed in a moist state so as to minimise the likelihood of release of dust and particulate matter to the atmosphere.

Stockpiles - General

(B9) Water sprays are to be installed and operated on the stockpiles as necessary to minimise the release of dust and particulate matter to the atmosphere.

Rehabilitation - General

(B10) Rehabilitation must be carried out in such a manner as to minimise releases of wind-blown dust and erosion to the atmosphere.

Concrete Batching Plant - Tivoli Licensed Place

Cement / Flyash Silos

(B11) An effective filter is to be in operation on the exhaust from the cement/flyash silos.

(B12) Silos with a common filter are not to be filled simultaneously.

(B13) Controls for shaking and cleaning the filter are to be located at ground level.

(B14) Quick acting shut off valves are to be in all silo fill lines and closure of the valves is to be activated automatically by the detection of a high level in the silo being filled.

(B15) A test circuit for simulating high level conditions in the silos is to be used before each bulk delivery.

(B16) Remote sensors are to be in operation to warn of any detection of a high level in the silo(s).

(B17) All collected material removed from the FFDC must be removed and disposed of in a manner that will not cause the release of contaminants to the atmosphere or to waters.

(B18) The filling of all silos must be controlled by automatic devices which prevent silos from being filled beyond their nominal capacity.

End of Conditions for Schedule B

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SCHEDULE C - WATER

Release of Contaminants to Waters

(C1) Contaminants that will or may cause environmental harm must not be directly or indirectly released from the licensed place to any waters or the bed and banks of any waters except:

(i) to a sewer as permitted or otherwise agreed from time to time by the relevant Local Government; and

(ii) as permitted under the stormwater management schedule.

End of Conditions for Schedule C

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SCHEDULE D - STORMWATER MANAGEMENT

Maintenance and Clean up

(D1) The maintenance and cleaning of vehicles and any other earthmoving equipment must be carried out in areas from where contaminants cannot be released into any waters, roadside gutter or stormwater drainage system.

(D2) Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Such spillage must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system, roadside gutter or waters.

Fuel and Chemical Storage Bunding

(D3) All liquid fuel tank storages and chemical tank storages must be bunded so that the capacity of the bund is sufficient to contain at least 100% of the largest storage tank plus 10% of the second largest tank within the bund.

(D4) All chemical drum storages and fuel drum storages must be bunded so that the capacity of the bund is sufficient to contain at least 25% of the maximum design storage volume within the bund.

(D5) All bunding must be constructed of materials which are impervious to the materials stored.

(D6) All bunding must be roofed where practicable.

(D7) The holder of this environmental authority must ensure that any stormwater captured within the bunded area is free from contaminants or wastes prior to any release to waters or to any stormwater drainage system or to any land. Where it is practicable to do so, that captured stormwater must be reused or recycled at the licensed place rather than being released.

(D8) For any new bunding installed following the issue of this environmental authority a collection sump must be provided in the floor of the bunding to facilitate the removal of liquids. The bund floor must be graded so that the fall is towards the collection sump.

(D9) All bunding must be maintained free from gaps or cracks.

Contained Stormwater Runoff - Tivoli Licensed Place

(D10) All contaminated stormwater runoff from the stockpile(s) and the areas utilised for the operation of the stockpile(s), internal roadways and processing areas must be collected and treated in the settlement ponds.

(D11) Stormwater collected in the settlement pond(s) must be reused, as far as reasonably practicable, on the licensed place in a manner which does not harm the environment.

Description of Release From Tivoli Licensed Place

(D12) The only contaminants permitted to be released to any waters from the licensed place in the carrying out of the environmentally relevant activities is the treated stormwater from the settlement pond(s).

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Contaminated Stormwater Runoff - Release Point

(D13) Contaminants that will or may cause environmental harm must not be directly or indirectly released from any source on the licensed place to any waters at any location other than the contaminants and sources at the location listed below:

Release Point W1 - treated stormwater from the crushing and screening plant settlement pond (s) released to Sandy Creek at approximately 77.0 AMTD (as shown on aerial photograph entitled "CSR Tivoli: Environmental Monitoring Locations."

Quality Characteristics of Contaminated Stormwater Runoff Released to Waters

(D14) The quality of contaminants released to waters must comply, at the sampling point W1 specified in Schedule H, with the following quality characteristics:

(i) the pH value must not be less than 6.5 and not more than 9.0;
(ii) the concentration of Dissolved Oxygen must not be less than 4 milligrams per litre; and
(iii) the concentration of suspended solids must not exceed 50 milligrams per litre.

Settlement Ponds - General

(D15) All practical measures must be taken to prevent effluent short-circuiting in the settlement ponds.

(D16) Sediment collected in settlement ponds must be removed whenever the volume of the basin is reduced by 50 percent, or on other occasions as required by the administering authority, such as where sediments are contaminated, or where a build-up of sediments has occurred or may occur around the outlet structure.

(D17) All ponds used for the storage or treatment of contaminants must be constructed and maintained in a manner to ensure the stability of the pond(s) construction.

End of Conditions for Schedule D

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Environmentally Relevant Activities:
19(b) -Extraction of rock or other material
21(c)- Screening etc. materials
60 - Concrete batching

SCHEDULE E - LAND APPLICATION

Release of Contaminants to Land

(E1) The environmentally relevant activities must be carried out by such practicable means necessary to prevent the release or likelihood of release of contaminants to land which may cause such land to become contaminated land.

End of Conditions for Schedule E

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SCHEDULE F - NOISE

Emission of Noise

(F1) In the event of a complaint about noise that constitutes annoyance being made to the administering authority, that the administering authority considers is not frivolous or vexatious, then the emission of noise from the licensed place must not result in levels greater than those specified in Table 1 of the noise schedule.

SCHEDULE F - TABLE 1

NOISE LIMITS AT A NOISE SENSITIVE PLACE	
Period	***Noise Level at a Noise Sensitive Place Measured as the Adjusted Maximum Sound Pressure Level*** $L_{Amax\ adj,\ T}$
7 am - 6 pm	Background noise level plus 5 dB(A)
6 pm - 10 pm	Background noise level plus 5 dB(A)
10 pm - 7 am	Background noise level plus 3 dB(A)
NOISE LIMITS AT A COMMERCIAL PLACE	
Period	***Noise Level at a Commercial Place measured as the Adjusted Maximum Sound Pressure Level*** $L_{Amax\ adj,\ T}$
7 am - 6 pm	Background noise level plus 10 dB(A)
6 pm - 10 pm	Background noise level plus 10 dB(A)
10 pm - 7 am	Background noise level plus 8 dB(A)

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Ground-borne Vibration - Tivoli Licensed Place

(F2) Ground-borne vibration caused by crushing and screening operations must not exceed a peak particle velocity of five (5) millimetres per second for ground vibrations near houses and low rise residential buildings when measured at any of the affected residences at any of the monitoring points specified in schedule H.

(F3) The measurement required for condition number F2 must be undertaken at a distance of at least the longest dimension of the foundations of a noise-affected building or structure away from such building or structure, between that building or structure and the site from where the ground - borne vibration is caused.

(F4) The ground vibration transducer [or array] must be attached to a mass of at least 30 kg to ensure good coupling with the ground where the ground - borne vibration site and measurement site cannot be shown to be on the same underlying strata. The mass shall be buried so that its upper most surface is at the same level as the ground surface.

(F5) The ground vibration transducer [or array] must be placed at least the greatest dimension of the foundations of the building or structure away from such building or structure between the building or structure and the site of the ground - borne vibration.

End of Conditions for Schedule F

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SCHEDULE G - WASTE MANAGEMENT

General

(G1) Procedures must be implemented to ensure that wastes are minimised, recycled, stored, handled and transferred in a proper and efficient manner and that any disposal of waste (excepting any release of waste provided for by a condition of this environmental authority) is to a facility appropriate to accept such waste.

(G2) The holder of this environmental authority must not:

(i) burn waste at or on the licensed place; or
(ii) allow waste to burn or be burnt at or on the licensed place; or
(iii) remove waste from the licensed place and burn such waste elsewhere.

(G3) Records of trade waste agreements must be made available to an authorised person for inspection on request

Regulated Waste

(G4) Where regulated waste is removed from the licensed place (other than by a release as permitted under another schedule of this environmental authority), the holder of this environmental authority must monitor and record the following:

(a) the date, quantity and type of waste removed;
(b) name of the waste transporter and or disposal operator that removed the waste; and
(c) the intended treatment and/or disposal destination of the waste.

(Note: Records of documents maintained in compliance with a waste tracking system established under the *Environmental Protection Act 1994* or any other law for regulated waste will be deemed to satisfy this condition.)

(G5) Regulated waste must not be sent for disposal at any facility without the written approval of the person operating that facility.

(G6) Procedures must be implemented to ensure that the disposal of wastes generated in carrying out the environmentally relevant activities is to an appropriate facility that accepts such wastes, except as specifically provided for under the conditions of this environmental authority.

End of Conditions for Schedule G

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SCHEDULE H - MONITORING AND REPORTING

Complaint Recording

(H1) All complaints received by the holder of this environmental authority relating to releases of contaminants from operations at the licensed place must be recorded and kept in a log book with the following details:

(i) time, date and nature of complaint;
(ii) type of communication (telephone, letter, personal etc.);
(iii) name, contact address and contact telephone number of complainant (Note: if the complainant does not wish to be identified then "Not identified" is to be recorded);
(iv) response and investigation undertaken as a result of the complaint;
(v) name of person responsible for investigating complaint; and
(vi) action taken as a result of the complaint investigation and signature of responsible person.

Noise Monitoring

(H2) For the purposes of investigating a complaint of noise annoyance in conjunction with schedule F - noise of this environmental authority, the measurement of noise levels from the environmentally relevant activities must be undertaken for at least the following descriptors, characteristics and conditions:

(i) $L_{Amax\ adj.\ T}$;
(ii) $L_{Abg,\ T}$ (or $L_{A90,\ T}$);
(iii) $L_{AN,\ T}$ (where N equals statistical levels of 1, 10, 50, 90 and 99);
(iv) Max $L_{pA\ T}$;
(v) $L_{Aeq,\ T}$;
(vi) the level and frequency of occurrence of impulsive or tonal noise;
(vii) atmospheric conditions including temperature, relative humidity and wind speed and direction;
(viii) effects due to extraneous factors such as traffic noise;
(ix) peak particle velocity (for ground vibration monitoring only); and
(x) location, date and time of recording.

(H3) Noise monitoring must be undertaken to investigate any complaint of noise annoyance upon receipt of complaint or upon a written request from the administering authority to carry out such monitoring.

Noise Monitoring - Tivoli Licensed Place

(H4) For the purpose of checking compliance with condition F1 of the Noise Schedule F, monitoring and recording of noise from the environmentally relevant activities must be undertaken to investigate any complaint(s) of noise at the monitoring point(s) described as:

(i) V1- Hayes House, as marked on sketch entitled "CSR Tivoli - Environmental Monitoring Locations" in Schedule J, provided that that monitoring point is relevant to the complaint being investigated; and

(ii) If the monitoring point described in H4(i) above is not relevant to the complaint(s) being investigated, at a location or locations relevant to that complaint(s) in accordance with condition H6.

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Monitoring - Ground Borne Vibration Tivoli Licensed Place

(H5) For the purpose of checking compliance with condition F2 of the Noise Schedule F, monitoring and recording of peak particle velocity from crushing and screening plants must be undertaken to investigate any complaint(s) of ground borne vibration at the monitoring point(s) described as:

(i) V1- Hayes House, as marked on sketch entitled "CSR Tivoli - Environmental Monitoring Locations" in Schedule J, provided that that monitoring point is relevant to the complaint being investigated; and

(ii) If the monitoring point described in H5(i) above is not relevant to the complaint(s) being investigated, at a location or locations relevant to that complaint(s) in accordance with condition F5.

Quality Assurance - Noise (Complaint Monitoring)

(H6) The method of measurement and reporting of noise levels must comply with the Department of Environment and Heritage Noise Measurement Manual, Second Edition, March 1995, or more recent additions or supplements to that document as become available.

(H7) The measurement and reporting of noise levels must be undertaken by a person or body possessing appropriate experience and qualifications to perform the required measurements.

Records

(H8) Records must be kept of the results of all monitoring of noise levels (including ground vibration levels) and other information required to be recorded in conjunction with such monitoring for a period of at least five (5) years.

Ambient Particulate Monitoring

Tivoli Licensed Place

(H9) The holder of this environmental authority must conduct a monitoring program of particulate in ambient air.

(H10) Sampling must be performed at locations D7, D8, D9 and D10 as marked on aerial photograph entitled "CSR Tivoli - Environmental Monitoring Locations" in schedule J.

(H11) Analysis of the obtained samples must be made not less than quarterly for the following:

(i) total water insoluble dust in milligrams; and
(ii) dust fallout in milligrams/square metre/day.

(H12) The samples must be collected in accordance with the requirements of Australian Standard AS 3580.10.1 - 1991 for Ambient Air - Particulate Matter.

(H13) Records must be kept of the results of all monitoring of particulates in the ambient air for a period of at least three (3) years.

Monitoring of Contaminant Releases to Waters - Tivoli Licensed Place

(H14) The holder of this environmental authority is responsible for the making of determinations of the quality of the contaminants released for the quality characteristics specified in schedule H - Table 1.

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Schedule H - Table 1

QUALITY CHARACTERISTIC DETERMINATION	SAMPLING POINTS	FREQUENCY
pH.	W1	Quarterly
Dissolved Oxygen (mg/L)	W1	Quarterly
Suspended Solids (mg/L)	W1	Quarterly

Sampling Point Details for Monitoring Contaminant Releases to Waters

(H15) Determinations of the quality of contaminants released to waters to check conformity with the release quality characteristics specified in condition D14 of this environmental authority must be undertaken at the sampling point described as:

Sampling Point W1 - Overflow from the final settlement pond as marked on aerial photograph in schedule J entitled "CSR Tivoli - Environmental Monitoring Locations" in schedule J.

Quality Assurance

(H16) All determinations of the quality of contaminants released to waters must be made in accordance with methods prescribed in the Department of Environment and Heritage Water Quality Sampling Manual, 2nd Edition, February 1995, or more recent additions or supplements to that document as such become available.

(H17) All determinations of the quality of contaminants released must be performed by a person or body possessing appropriate experience and qualifications to perform the required measurements.

(H18) Records must be kept of the results of all monitoring of water quality for a period of at least three (3) years.

Exception Reporting

(H19) The holder of this environmental authority must notify the administering authority in writing of any monitoring result which indicates an exceedance of any licence limit within 28 days of completion of analysis.

Report submission

(H20) The holder of this environmental authority must ensure that the results of all monitoring performed in accordance with this environmental authority for the period covered by the return are submitted with the annual return.

Notification of Emergencies and Incidents

(H21) Where the holder of this environmental authority has not given notification to the administering authority under Section 37 of the Environmental Protection Act, as soon as practicable after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with the conditions of this environmental authority, the holder of this environmental authority must notify the administering authority of the release by telephone or facsimile.

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(H22) Where the holder of this environmental authority has not given notification to the administering authority under Section 37 of the Environmental Protection Act, the notification of emergencies or incidents as required by condition number **H21** must include but not be limited to the following:

(a) The holder of the environmental authority;
(b) the location of the emergency or incident;
(c) the number of the environmental authority;
(d) the name and telephone number of the designated contact person;
(e) the time of the release;
(f) the time the holder of the environmental authority became aware of the release;
(g) the suspected cause of the release;
(h) the environmental harm and or environmental nuisance caused, threatened, or to be caused by the release; and
(i) actions taken to prevent further any release and mitigate any environmental harm and or environmental nuisance caused by the release.

(H23) Where the holder of this environmental authority has not given notification to the administering authority under Section 37 of the Environmental Protection Act, not more than 14 days following the initial notification of an emergency or incident, the holder of the environmental authority must provide written advice of the information supplied in accordance with condition number **H22** in addition to:

(a) proposed actions to prevent a recurrence of the emergency or incident; and
(b) outcomes of actions taken at the time to prevent or minimise environmental harm; and
(c) the results of any environmental monitoring performed.

(H24) The written notification required by condition number H23 above must include:

(i) the full analysis results; and
(ii) details of investigation or corrective actions taken; and
(iii) any subsequent analysis.

End of Conditions for Schedule H

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sch4-Signature

SCHEDULE I - DEFINITIONS

For the purposes of this environmental authority the following definitions apply:

(I1) "Act" means the *Environmental Protection Act 1994.*

(I2) "administering authority" means the Department of Environment or its successor.

(I3) "aggregates" means rock of any size including overburden, sand and/or soil.

(I4) "land" in the "land schedule" of this environmental authority means land excluding waters and the atmosphere.

(I5) "noise" includes vibration of any frequency, whether emitted through air or another medium.

(I6) "$L_{Amax\ adj,\ T}$ " means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over a time period of not less than 15 minutes, using Fast response.

(I7) "background noise level" means either -

$L_{A90,\ T}$ being the A-weighted sound pressure level exceeded for 90 percent of the time period of not less than 15 minutes, using Fast response, or

$L_{Abg,\ T}$ being the arithmetic average of the minimum readings measured in the absence of the noise under investigation during a representative time period of not less than 15 minutes, using Fast response.

(I8) "Max$L_{pA\ T}$" means the absolute maximum instantaneous A-weighted sound pressure level measured over a time period of not less than 15 minutes, using Fast response.

(I9) "noise sensitive place" means -

(a) a dwelling, mobile home or caravan park, residential marina or other residential premises; or
(b a motel, hotel or hostel; or
(c) a kindergarten, school university or other educational institution: or
(d) a medical centre or hospital ;or
(e) a protected area; or
(f) a park or gardens.

(I10) "commercial place" means a place used as an office or for business or commercial purposes.

(I11) "protected area" means -

(a) a protected area under the *Nature Conservation Act 1992*; and/or
(b) a marine park under the *Marine Parks Act 1982*; and/or
(c) a World Heritage Area.

(I12) "annoyance". In determining what constitutes "annoyance" regard must be had to Australian Standard 1055.2 - 1989 Acoustics - Description and Measurement of Environmental Noise Part 2 Application to specific situations.

(I13) "mg/L" means milligrams per litre.

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(I14) "maximum" means that the measured value of the quality characteristic or contaminant must not be greater than the release limit stated.

(I15) "minimum" means that the measured value of the quality characteristic or contaminant must not be less than the release limit stated.

(I16) "range" means that the measured value of the quality characteristic or contaminant must not be less than the higher release limit stated nor lower than the lower release limit stated.

(I17) "annoyance". In determining what constitutes" annoyance", regard must be had to Australian Standard 1055.2 - 1989 Acoustics - Description and Measurement of Environmental Noise Part 2 Application to specific situations.

(I18) "AMTD" means Adopted Middle Thread Distance as per the Queensland Water Resources Commission publication entitled "Atlas of AMTD Maps, January 1984."

End of Conditions for Schedule I

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Schedule J - APPROVED DOCUMENTS

For the purposes of this environmental authority the following stated document is approved document:

(1) aerial photograph entitled "CSR Tivoli - Environmental Monitoring Locations."

(2) CSR Tivoli Extractive Industries Environmental Monitoring Location Descriptions.

End of Conditions for Schedule J

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