

THE CERTIFICATE OF ENVIRONMENTAL CLEARANCE RULES, 2001
[Rule 7(1) (a)]

Certificate No. CEC 1743/2006

THE ENVIRONMENTAL MANAGEMENT ACT, CHAPTER 35:05
[Section 36(1)]

CERTIFICATE OF ENVIRONMENTAL CLEARANCE

The Environmental Management Authority hereby certifies that-

Carisal Unlimited
(Herein after referred to as **the Applicant**) of

CLAXTON BAY

is granted a Certificate of Environmental Clearance (CEC) to carry on in the **Point Lisas/Claxton Bay**.

the undermentioned designated activities **of the CEC (Designated Activities) Order, 2001 as amended:**

Activity:

- 20(a)** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A CHEMICAL MANUFACTURING PLANT.
- 8(a)** THE CLEARING, EXCAVATION, GRADING OR LANDFILLING OF AN AREA OF MORE THAN 2 HECTARES DURING A TWO-YEAR PERIOD.
- 9** THE ESTABLISHMENT OF A PAVED AREA (INCLUSIVE OF ASSOCIATED WORKS) OF MORE THAN 4500 SQUARE METRES DURING A TWO-YEAR PERIOD.
- 18(a)** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A PLANT FOR THE MANUFACTURE OF RAW MATERIALS OR PRODUCTS USED IN CONSTRUCTION.
- 23** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A FACILITY FOR THE MINING, PROCESSING OR STORAGE OF CLAY, ANDESITE, PROCELLANITE, LIMESTONE, OIL SAND, SAND(S), GRAVEL OR OTHER NON-METALLIC MINERALS OF AREAS OF ONE HUNDRED AND FIFTY ACRES OR MORE.
- 27** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A PIPELINE OR PIPELINE SYSTEMS FOR TRANSMISSION OF PRODUCED FLUIDS, CRUDE OIL OR NATURAL GAS.



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- 33(a)** THE ESTABLISHMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A ROAD OF MORE THAN 1KM IN LENGTH.
- 33(b)** THE EXTENSION/EXPANSION (INCLUSIVE OF ASSOCIATED WORKS) OF A ROAD BY MORE THAN 1KM OR BY 35% OR MORE OF ITS LENGTH OR WIDTH.
- 36** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT OF A FACILITY FOR HANDLING, STORAGE, TREATMENT OR DISPOSAL OF HAZARDOUS SUBSTANCES.
- 38(a)** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF A FACILITY FOR THE CATCHMENT, ABSTRACTION OR TREATMENT FOR DISTRIBUTION OF POTABLE OR PROCESS WATER.
- 39** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF SURFACE IMPOUNDMENTS, DAMS OR RESERVOIRS FOR STORAGE OF WATER.
- 40(a)** THE ESTABLISHMENT, MODIFICATION, EXPANSION, DECOMMISSIONING OR ABANDONMENT (INCLUSIVE OF ASSOCIATED WORKS) OF PIPELINE DISTRIBUTION SYSTEMS FOR THE DELIVERY OF POTABLE, PROCESS WATER OR SEWAGE.
- 40(b)** THE ESTABLISHMENT, MODIFICATION OR EXPANSION (INCLUSIVE OF ASSOCIATED WORKS) OF A LAND DRAINAGE OR IRRIGATION SCHEME FOR A PARCEL OF LAND OF MORE THAN 1 HECTARE DURING A TWO-YEAR PERIOD.

The establishment of a Chlor-alkali Plant and associated infrastructure at Point Lisas.

Subject to the following terms and conditions: -

(i) General Conditions:

- (a) The Applicant** shall submit a corrected and comprehensive version of the Environmental Impact Assessment (EIA) report reflecting all adjustments/additions made as a result of the review and assessment process. This updated report should integrate the updated version of all reports submitted in support of this application for this Certificate of Environmental Clearance (**CEC1743/2006**) and shall include, but not be limited to, the following:
- i. Environmental Impact Assessment (EIA) Study for a proposed Chlor-alkali plant and associated infrastructure at Point Lisas;



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ii. **Supplementary Information submitted based on comments on the EIA from the Review Committee.**

Four hard copies and three digital copies of the updated EIA Report shall be submitted to the EMA within eight (8) weeks of the issuance of this CEC (CEC1743/2006);

- (b) The project description and scope as well as the prevention, mitigation, and monitoring measures for the anticipated impacts presented in the application for the CEC, the Environmental Impact Statement (EIS) submitted in support of the application for this CEC (CEC1743/2006) and any other additional information provided in writing form part of the conditions of this CEC (CEC1743/2006) to which **the Applicant** shall adhere, unless modified by a listed condition;
- (c) Please note that pursuant to Rule 4(1) of the Water Pollution Rules 2001, as amended by the Water Pollution (Amendment) Rules 2006 (WPR), **the Applicant** is required to submit a source application (an application under Rule 6 to register a facility as a source of the release of a water pollutant) to the Authority at least 45 working days prior to the release of any water pollutant, as defined by Rule 3(1) of the WPR, into the environment. Examples of effluent that may contain water pollutants include (but are not limited to): stormwater; releases from settling/detention ponds; hydrostatic test water; industrial and agro- processing wastewater; facility wash-down runoff, wastewater from sewage treatment facilities; laboratory effluent, cooling tower effluent, boiler blow-down, etc;
- (d) The layout and scope of works for which this CEC (CEC1743/2006) is granted, shall be as described in the project proposal and structures shall be laid out as such, except in circumstances where:
- i. Modifications, which do not result in any increased environmental impact, and which do not affect the environmental issues surrounding the project and the nature or characteristics of the project are required by:
- The Occupational Safety and Health Agency (OSH Agency) of the Ministry of Labour & Small & Micro Enterprise Development;
 - The Water and Sewerage Authority (W.A.S.A.) of the Ministry of Public Utilities;
 - The Fire Services Division of the Ministry of National Security (Fire Services);



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- The Town and Country Planning Division of the Ministry of Planning, Housing and the Environment (TCPD); and/or
 - The Drainage Division of the Ministry of Works and Transport (Drainage Division).
- ii. **The Applicant** wishes to make a modification or modifications which would reduce the environmental impact of the project and which would not affect the environmental issues surrounding the project and the nature or characteristics, of the project.

Requests for modifications under the above circumstances must be submitted to, and approved by, the EMA prior to the start of any works;

- (e) Documents submitted to the EMA in accordance with Conditions (ii)(b) and (iii)(a) and (b) shall be reviewed and a decision shall be issued by the EMA within twenty (20) working days from the date of receipt. In the event that the EMA determines that the document is unsuitable, it will inform **the Applicant** of its reasons for the decision. **The Applicant** shall ensure that relevant site activities do not proceed until the outstanding issues are resolved and approval is received from the EMA;
- (f) In all cases of violation of any conditions stipulated in this CEC (CEC1743/2006), held by **the Applicant** and issued by the EMA, or any standards, **the Applicant** shall:
- (i) Report to the Authority, within forty-eight hours of the time **the Applicant** becomes aware of the circumstances of the non-compliance, the anticipated manner in which it may endanger human health or the environment;
 - (ii) Within five working days submit to the Authority a written report containing a description of the non-compliance, its cause and the period of non-compliance including exact dates and time, the response, clean-up and counter measures taken, as well as actions taken to prevent future occurrence;
 - (iii) If the non-compliance has not been corrected, submit a report to the Authority indicating the anticipated time that it is expected to continue; and



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- (iv) **State whether the Applicant** considers that the non-compliance was due to an emergency and the reasons for such a belief;

Persistent violation of standards/conditions may cause operations to be ceased.

(ii) **Mitigation Measures:**

PROJECT PLANNING

- (a) **The Applicant** shall designate a Community Relations Officer who will be responsible for interacting with neighbouring residents, institutions and/or businesses affected by the activities. The name and contact details of the officer shall be made available to the EMA and to residents/institutions/businesses two (2) weeks prior to the commencement of site preparation works. The officer shall be responsible for relaying information to, and receiving and addressing the concerns of, the community. **The Applicant** shall receive, address and discuss such concerns with the EMA where applicable;
- (b) Sediment-retention measures shall be implemented prior to the commencement of any earthworks to prevent any sediment from migrating off-site. **The Applicant** shall develop and implement a Sediment and Stormwater Management Plan. The measures outlined in the plan shall include, but not be limited to:
- Establishment of sediment sieves, detention basins and silt traps along drains exiting the site;
 - Establishment of berms at the boundaries of the development;
 - Maintenance of vegetative cover on the areas not being directly utilised for development;
 - Establishment of a stone-stabilised pad or temporary gravel entrance at all points of vehicular ingress and egress on the site;
 - Establishment of a wash bay area to facilitate the washing of the wheels of vehicles such as, but not limited to, trucks and other construction equipment, before exit onto the public roadway;
 - Temporary water courses, ditches, drains and ponds shall be built and maintained, so as to reduce the incidence of flooding and silt run-off before discharge into any permanent outfall or drainage system;



The Applicant shall submit for the approval of the EMA, the final Sediment Management Plan, at least one (1) month prior to the commencement of any works related to the said plan;

- (c) **The Applicant** shall provide notification one (1) week prior to the commencement of project activities to affected stakeholders, including, but not limited to, the general public, surrounding community residents and the relevant authorities. Notification shall include, but not be limited to:

- Residents of the project-affected communities shall be informed of the project at least two (2) weeks prior to the commencement of works using any combination of the following methods: (1) the printing and depositing of notification documents in residents' mailboxes, (2) use of public announcement vehicles, where applicable, (3) placing of documents at local churches, community centres, schools or shops or (4) conducting a public consultation at an appropriate time and location accessible to residents;
- Notification to community residents shall include, but not be limited to:
 - Precise location of the activity;
 - Activities to be conducted;
 - All associated logistics, including use of resources, infrastructure, scheduling and duration;
 - Possible impacts associated with activities;
 - Summarised traffic management plan;
 - Health and safety measures to be taken by the public;
 - Mitigation measures to be implemented and the relevant CEC conditions.

SITE PREPARATION AND CONSTRUCTION

- (d) All necessary safety precautions shall be taken around the project area to prevent the occurrence of accidents and ensure the safety of local residents, commuters and members of the public who frequent the area. Such safety mechanisms shall include, but not be limited to, appropriate security, signs, barriers and lighting measures;
- (e) All equipment and vehicles used that can impact negatively on air and water quality shall be regularly inspected and maintained in accordance with manufacturers' specifications to prevent the potential negative impact of emissions and discharges on the receiving environment. Vehicles shall comply with Trinidad and

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Tobago Standard (TTS) 558:2001 (Specification for motor vehicle exhaust). All records of inspection and maintenance for equipment and vehicles shall be maintained by **the Applicant** and made available to the EMA upon request. **The Applicant** shall ensure that the operators of the equipment are adequately trained in the use of all vehicles and equipment;

- (f) Tools, vehicles, machinery and equipment employed for all works shall be fitted with adequate sound-reducing mechanisms. **The Applicant** shall conduct regular inspections on all tools, vehicles, machinery and equipment to be used to ensure that noise emission control systems are properly functioning. If such systems are found to be improperly functioning, they shall be temporarily decommissioned and serviced before being reused;
- (g) All earthworks shall be done in a manner to prevent excessive erosion and siltation of nearby water courses. As far as practically possible, all site clearing and construction works shall be scheduled for the dry season or periods of minimal rainfall to prevent erosion that may cause heavily silted run-off from the site;
- (h) All suitable top soil and excavated material shall be reused as a source for back-filling, landscaping and berm construction;
- (i) **The Applicant** shall maintain a minimum setback distance of twenty metres (20m) from any natural watercourse. All vegetation within this setback distance shall be left undisturbed;
- (j) Stormwater flow channels and collection ponds installed as part of the open drainage system shall be fitted with oil/water separators. A preventative maintenance approach shall be used to ensure that the oil-water separator system is functioning optimally at all times. This shall include, but not be limited to, the following:
- Cleaning of the oil-water separator as necessary (indicated by a visible oil sheen on the water surface);
 - Strategically placed signs informing employees of proper procedures to prevent excessive oil, grease and/or lubricants entering the oil-water separator system;

A service company with trained and experienced personnel, appropriate equipment and insurance for proper treatment and disposal of such waste shall be retained to clean/pump out the oil-water separator and properly treat, recycle or dispose of the waste.



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All relevant records of such disposal, such as chain of custody forms and disposal/remediation certificates, shall be maintained by **the Applicant** and made available to the EMA upon request;

- (k) **The Applicant** shall ensure that cleared areas and any stockpiled aggregates are maintained in a damp condition, particularly during periods of minimal rainfall, to alleviate the impacts of dust on ambient air quality and public health, particularly to neighbouring residences. Excessive application of water shall be avoided to reduce the potential for the generation of turbid run-off. Other dust-reduction measures that should be utilised include, but are not limited to:
- Use of dust-suppressants;
 - Use of geo-textiles or other geo-membrane materials;
- (l) Materials (e.g. sands, gravels, cement, spoil, etc.) shall be transported to and from the site in vehicles that are securely covered to prevent the entrainment of particulates while in transit. Such material shall be transported in a dampened state wherever practicable;
- (m) All aggregate and other raw materials shall be stored on-site in specially designated areas. These areas shall be bermed and shall be located at a minimum of twenty metres (20m) away from any municipal drain or natural watercourse;
- (n) There shall be separate, secure, bunded facilities for the storage and dispensing of fuels and other chemicals so as to prevent the release of such chemicals to the environment through spills and accidents. Storage and dispensing areas shall be on paved, impermeable surfaces and located at a minimum of 20m away from inland surface water bodies, springs, known groundwater recharge area and groundwater wells;
- (o) **The Applicant** shall install (where necessary) appropriate pollution-control devices on all diesel generators and pumps to control the emissions from these equipment;



OPERATION

- (p) **The Applicant** shall implement an inspection and maintenance programme for all equipment, tanks, piping and associated infrastructure as well as emissions control systems in accordance with established engineering codes and standards relating to structure, quality control and fire protection as well as Health Safety and Environment (HSE) procedures and guidelines;
- (q) **The Applicant** shall install chlorine gas detectors in areas with a potential risk of chlorine leaks to allow for immediate leakage detection;
- (r) There shall be separate drainage systems for the collection of run-off from process areas and from non-process areas. An open drainage system shall be established to collect run-off from non-process areas. A closed-loop drainage system shall be established to collect runoff water from process areas, which may be contaminated. All process areas shall be bunded, as stated in **the Applicant's** EIA report, to ensure that water flows into the closed-loop drainage system and is directed towards pits designed for waste water storage. All temporary and final drainage designs shall be approved by the Drainage Division prior to commencement of site-preparation activities;
- (s) Pits constructed for the collection/handling of waste water, as stipulated in the EIA, shall include:
- A liner so that the bottom and sides of the pit have a coefficient of permeability no greater than 1×10^{-7} centimetres per second (cm/sec). Liners should be compatible with the material to be contained and of sufficient strength and thickness to maintain the integrity of the pit. Typical liners may include synthetic materials, cement/clay type or natural clays. The hydraulic conductivity of natural liners should be tested to ensure integrity;
 - Construction to a depth of typically 5m above the seasonal high water table;
 - Installation of measures (e.g. careful siting, berms) to prevent natural surface drainage from entering the pit or breaching during heavy storms;
- (t) Water sourcing for hydrotesting purposes should not adversely affect the water level or flow rate of a natural water body, and the test water withdrawal rate (or volume) should not exceed ten (10) percent of the stream flow (or volume) of the water source.

Erosion-control measures and fish-screening controls should be implemented as necessary during water withdrawals at the intake locations. Any plans to source hydrotest water from a natural water body should be approved by the Water Resources Agency;

- (u) Damaged barrels or containers shall not be used for storage and shall be collected, removed off-site and disposed of by trained and experienced personnel with the appropriate facility, equipment and insurance to handle such materials;

WASTE MANAGEMENT

- (v) **The Applicant's** waste management plan shall document the waste strategy, storage (including facilities and locations) and handling procedures for all waste, and should include a clear waste tracking mechanism to track waste consignments from the originating location to the final waste treatment and disposal location;
- (w) There shall be no burning of trash and vegetation cuttings. These shall be either removed off-site, allowed to compost onsite or reused as mulch, stakes, signposts, fences etc;
- (x) All waste and rubble generated through the removal of existing asphalt and concrete shall not be left piled on site, but shall be reused as a source for backfilling or landscaping on the site, where practicable, or disposed of at a landfill site. At no time shall construction waste or washings from premix concrete trucks be dumped or disposed of into any municipal drains or watercourses;
- (y) All non-hazardous solid waste such as paper, glass, scrap metal, plastic bottles or scrap wood generated from site preparation and decommissioning activities shall be collected, sorted and stored onsite in durable and sturdy plastic or metal containers of adequate capacity with secure covers until ready for disposal. At no time shall such waste be left open or easily accessible to vermin and stray animals, or allowed to litter the ground;
- (z) Used cloths that have come into contact with oil or hazardous products shall be stored and transported in labelled fireproof containers. These materials shall be treated as Hazardous Waste as outlined in Condition (aa);



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- (aa) All hazardous wastes [as defined by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basel Convention) and as acceded by Trinidad and Tobago in 1992] such as hydrocarbon contaminated material, tank bottoms and sludges, waste chemicals, spent lubricants, lead acid batteries, used oils etc., shall be collected as necessary, and treated and/or remediated by trained and experienced personnel with the appropriate facility, equipment and insurance to render such waste non-hazardous prior to disposal.

Partially used hazardous chemicals shall be properly secured in their original containers, where practical, and returned to the suppliers for proper recycling or disposal. All relevant records, such as chain of custody forms and disposal/remediation certificates, shall be maintained by **the Applicant** and made available for review by the EMA upon request;

- (bb) Waste chemicals shall be stored and disposed of as prescribed in the Material Safety Data Sheets (MSDS) for these chemicals;
- (cc) All sanitary effluent generated during the site preparation and construction phases of this activity shall be collected weekly by a contractor with the ability to manage such waste. **The Applicant** shall ensure that securely anchored portable toilets are made available to persons working on this project where stationary toilets are not available for use. At no time shall produced effluent be discharged into surface drains or natural watercourses.

(iii) Monitoring and Reporting:

AIR QUALITY

SOURCE EMISSIONS TESTING

- (a) **The Applicant** shall develop and submit to the EMA for review and approval, as prescribed by Condition (i)(e) a detailed Source Emissions Testing Plan at least one (1) month prior to the commencement of operations. This Plan shall demonstrate and verify, to the satisfaction of the EMA, the Emission Inventory submitted in support of this application (**CEC1743/2006**).

The Source Emissions Testing Plan shall be designed to measure emission rates from all substantive sources, and contain a description of the test methods and the Quality Assurance/Quality Control Procedures to be used in the testing.



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These shall be United States Environmental Protection Agency (USEPA) methods or equivalent, subject to approval by the EMA. The source emission testing is to be conducted twice per year, once in the first quarter and once in the third quarter of the year.

The reports shall include, at the minimum, the emission rates and concentrations of the pollutants in the emissions, the exhaust gas velocity, the exhaust gas temperature, moisture content, as well as a full physical description of the emissions sources, including location, base elevation, stack height and internal stack diameter at the exit. The reports shall also include a description of the test methods and the Quality Assurance/Quality Control Procedures to be used in the testing. These shall be USEPA methods or equivalent, subject to approval by the EMA.

AMBIENT AIR QUALITY

- (b) **The Applicant** shall develop and submit to the EMA for review and approval, as prescribed by Condition (i)(e), a detailed Ambient Air Quality Monitoring Plan, at least six months (6) months prior to the commencement of operations. The Plan shall be designed to measure ambient air concentrations and meteorological conditions (including, but not limited to, wind speed, wind direction, ambient temperature and relative humidity) at three (3) locations near the facility (one upwind and two downwind), for 6 months prior to the start of operation and continuously thereafter. The Plan shall contain a description of the test methods and the Quality Assurance/Quality Control Procedures to be used in the monitoring. These shall be USEPA methods or equivalent, subject to approval by the EMA.

A report on Ambient Air Quality Monitoring shall be submitted to the EMA for review and approval on a quarterly basis. The report shall include, at a minimum, operational capacity of the plant, concentrations and other associated statistics at each of the monitoring locations. The measured concentrations shall comply with the following:



Compound	Maximum Permissible Limit ($\mu\text{g}/\text{m}^3$)	Averaging Time
Cl	300	30 minutes
*NO ₂	200	1 hour
Hydrogen Chloride	100	30 minutes
Sulphuric acid	100	30 minutes
TSP	150	24 hours
PM ₁₀	75	24 hours
CO	100,000	15 minutes ¹
	60,000	30 minutes ²
	30,000	1 hour ³
	10,000	8 hours ⁴
SO ₂	500	10 minutes ⁵
	125	24 hours ⁶

¹A 15-minute mean is a mean calculated every 15 minutes. The 15-minute mean for a particular substance at a particular location for a particular 15 minute period is the mean of the levels recorded, at a frequency of not less than once every 10 seconds for that substance at that location during that 15 minute period.

²A 30-minute mean is a mean calculated every 30 minutes. The 30-minute mean for a particular substance at a particular location for a particular 30 minute period is the mean of the levels recorded, at a frequency of not less than once every 10 seconds for that substance at that location during that 30 minute period.

³An hourly mean is a mean calculated every hour. The hourly mean for a particular substance at a particular location for a particular hour is the mean of the levels recorded, at a frequency of not less than once every 10 seconds for that substance at that location during that hour.

⁴A running 8-hour mean is a mean calculated on an hourly basis yielding one running 8 hour mean per hour. The running 8-hour mean for a particular substance at a particular location for a particular hour is the mean of the hourly means for that substance at that location for that hour and the preceding 7 hours.

⁵A 10-minute mean is a mean calculated every 10 minutes. The 10-minute mean for a particular substance at a particular location for a particular 10 minute period is the mean of the levels recorded, at a frequency of not less than once every 10 seconds for that substance at that location during that 10 minute period.

⁶The 24 hour mean for a particular substance at a particular location for a particular 24 hour period is the level at which that substance is recorded as being present in the air at that location on the basis of a continuous sample taken throughout the period.

* Oxides of Nitrogen (NO_x) must be included in the report.

WASTEWATER MONITORING

- (c) Hydrostatic test water quality should be monitored before use and discharge, and shall be treated to meet the discharge limits prescribed in the Second Schedule of the WPR;
- (d) Water discharge during cleaning pig runs and pre-test water should be collected in holding tanks and should be discharged only after water-quality testing to ensure that it meets discharge criteria established in the Second Schedule of the WPR;
- (e) During operation of the facility, **the Applicant** shall ensure that all effluent is discharged in accordance with the permissible levels prescribed in the Second Schedule of the WPR;
 - (i) Where the discharge is continuous, the outfall point from the activity shall be monitored as follows:
 - For the first month of operations, samples shall be taken at the point of outfall once every week and analysed for the substances/parameters listed below.

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- a. pH and Temperature,
- b. Total Petroleum Hydrocarbons (TPH)
- c. Phenolic Compounds,
- d. Total Suspended Solids (TSS),
- e. Chemical Oxygen Demand (COD),
- f. Chloride,
- g. Total Chromium,
- h. Cadmium,
- i. Lead,
- j. Zinc,
- k. Nickel,
- l. Mercury,
- m. Arsenic,
- n. Copper,
- o. Dissolved Iron

- After the first month, samples should be taken once every three (3) months thereafter. Wherever possible, samples should be taken at the same time of day and at the same point of outfall as above;

- (ii) For intermittent discharges (including seasonal discharges and pond drain-down events), one sample that is representative of the discharge event should be taken at the point of outfall and analysed for the substances/parameters listed above.

A report on Water Quality Monitoring shall be submitted to the EMA on a quarterly basis. The report shall include, at a minimum, operational capacity of the plant, concentrations and other associated statistics at each of the monitoring locations;

- (f) Samples shall be taken in triplicate and flow rate measurements shall be recorded at the time of sampling for analysis. Note that meeting the levels of the Second Schedule for the applicable Receiving Environment does NOT obviate the need to source register under the WPR;

GENERAL

- (g) All sampling and analysis shall be in accordance with Good Laboratory Practices (GLP). Samples shall be taken by qualified personnel. Samples may also be taken and analysed at any time upon the request of the Authority. These procedures shall conform to internationally acceptable methodologies and standard operating procedures.



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Laboratories shall be certified to perform the necessary functions and shall engage in quality assurance procedures with the keeping of appropriate records. These records shall be made available for review to the EMA upon request;

(h) **The Applicant** shall be liable for adverse incidents arising out of the project. **The Applicant** shall have appropriate measures in place and shall respond immediately to all incidents/spills/emergencies arising out of the project. The EMA and other relevant authorities shall be notified, within twenty four (24) hours of the discovery of spills in excess of one (1) barrel. Any contaminated soil shall be removed and remediated at an appropriate location;

(i) Within ten (10) calendar days of an incident, spill and/or emergency, a report shall be submitted to the EMA stating the following:

- Nature and cause of the incident;
- Effects of the incident, including environmental impacts, losses, casualties, description and costs of damages;
- Corrective measures (to be) taken to alleviate the situation;
- An estimate as to when the situation shall be (or of when it was) completely resolved;
- Steps to be taken to reduce the probability or completely prevent a recurrence.

(iv) Other terms and conditions:

(a) **The Applicant** shall develop and participate in education and awareness programmes to keep users of the areas in the vicinity of the project informed and updated of risks and educate them about procedures to deal with possible emergencies;

(b) All chemicals used during the project shall be subject to the approval of the MEEI;

(c) Any aggregate material to be used during this project shall be obtained from a source approved by (MEEI);

(d) **The Applicant** shall coordinate its activities with all other entities that own/operate other pipelines, infrastructure, utilities or facilities that can be affected by the project's activities;



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- (e) Pursuant to the Noise Pollution Control Rules, 2001, if construction activities occur outside the hours of 7:00 a.m. and 7:00 p.m. from Monday to Saturday and noise levels exceed the standards specified in the Noise Pollution Rules, 2001, **the Applicant** shall apply for, and obtain, a Noise Variation from the EMA before proceeding with site activities;

During the operational phase and for construction activities conducted on Sundays and Public Holidays, **The Applicant** shall ensure its activities comply with the specified standards prescribed in the Noise Pollution Control Rules, 2001 for industrial areas;

- (f) **The Applicant** shall be liable for all adverse incidents or emergencies arising out of its project's activities. **The Applicant** shall implement its Emergency Response Plan (ERP) for the project in consultation with the OSH Agency and shall ensure that the capability to implement the ERP is provided for at the facility during the project. The ERP shall be maintained by **the Applicant** and shall be available and readily accessible at the facility. The ERP shall be made available to the EMA upon request;

- (g) Conditions of this CEC (**CEC1743/2006**), the contents of subsidiary plans (e.g. Emergency Response Plan, Spill Contingency Plan, Waste Management Plan and monitoring plans), including Material Safety Data Sheets (MSDS) and all other attachments submitted in support of the application for this project shall be translated to Field Monitoring Checklists for individual components of this project and held by persons who hold relevant positions of responsibility/ authority on the field, at all times. These checklists shall be used to ensure adherence to all environmental requirements of this CEC (**CEC1743/2006**) for all phases of this activity. Such checklists and attachments shall be lodged on the site together with the CEC for the duration of the works and shall be made available to officers from any monitoring regulatory body (e.g. OSH Agency, EMA) upon request;

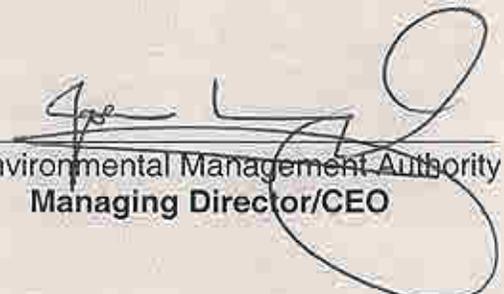
- (h) **The Applicant** shall ensure that all written reports or notifications submitted to the EMA shall include the CEC number (**CEC1743/2006**) in the title or cover letter of the document. Such reports/notifications shall be addressed to the **Office of the Assistant Manager - Environmental Assessment Unit, Environmental Management Authority, #8 Elizabeth Street, St. Clair, Port of Spain;**



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- (i) **The Applicant** shall designate a contact officer who will be responsible for communicating with the EMA in respect of this CEC (CEC 1743/2006). The name and contact number of the said person shall be submitted to the EMA prior to the commencement of the activity;
- (j) **The Applicant** shall make arrangements for an inspector duly appointed under the Environmental Management Act Chapter 35:05 to gain access to vessels/facilities associated with the proposed activity at any reasonable time;

Date of issue 17th March 1989


Environmental Management Authority
Managing Director/CEO

PLEASE NOTE

1. Under section 81(5)(f) of the Environmental Management Act Chapter 35:05, an appeal may be made to the Environmental Commission against the grant of a Certificate of Environmental Clearance with conditions.
2. The issue of this Certificate does not affect the requirement to obtain the approval of any other entity required under a written law prior to proceeding with the activity.
3. No authority is granted by this Approval to enable the CEC Holder to conduct the subject activity on lands which are not in the control or ownership of the CEC Holder.
4. This Certificate shall cease to have any validity, force or effect if the activity for which the Certificate was granted for does not commence within three years from the date of issue.
5. The activity described in this Certificate cannot be changed in any way that would result in a new adverse environmental effect not covered in this Certificate.
6. The Certificate holder must inform the EMA of any new or relevant information related to this activity regarding adverse environmental effects.
7. A copy of the Certificate must be placed in public view at the site of the activity for which it is issued.