



Environmental Protection Agency

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Operation Permit (Renewed)

Issued under the Environmental Protection Act, Cap.20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

Reference No.:	20140605-CZGSM
Fee:	<ol style="list-style-type: none">1. Medium (C2) - US\$4000 (5 years), i.e. US\$ 800 per year for Wharf.2. Medium (C2) – US\$4000 (5 years), i.e. US\$ 800 per year for Fuel Storage.3. Small (C2) – US\$875 (5 years), i.e. US\$ 175 per year for Gas Station
Total Fee:	US\$8,875 (5 years), i.e. US\$ 1775 per year
Fee paid:	US\$8,875 (August 2019 – July, 2024)
Addressee(s)	Mr. Ming Chen Managing Director China Zhonghao Inc. 139, Lindley Avenue Nandy Park East Bank Guyana.
Activity:	Operation of a Wharf, Fuel Storage and Gas Station

China Zhonghao Inc., hereinafter referred to as the “Permit Holder”, is hereby authorized in accordance with the Environmental Protection Act, Cap.20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, to operate a Gas Station, Wharf and Fuel Storage Facility located at ‘A’ Block ‘B’, Public Road, Land of Canaan, East Bank Demerara, hereinafter referred to as the “Project”, in a manner indicated in the Renewal Application submitted on March 1, 2019, and subject to the terms and conditions set forth herein and any forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, best practices, guidelines and standards relevant to this project.

This is a Renewal of the Operation Permit, Reference # 20140605-CZGSM, issued on September 25, 2014, which expired on August 31, 2019. This Operation Permit-Renewed is issued pursuant to the Environmental

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[Signature]

Protection (Authorisation) Regulations, 2000.

Terms and Conditions for Operation to be adhered to by the Permit Holder:

1.0 OPERATION OF WHARF

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes to the **Wharf** at **least 14 days prior to making the change**. The notification shall contain a **description of the proposed change in operation**. It is not necessary to make such a notification if an **application to vary** this permit has been made and the application contains a description of the proposed change. In this condition '**change in operation**' means a change in the nature or functioning, or an extension, or any additional installation, which may have consequences for the environment. Changes to operation may include but not limited to the following:
- i. Changes in construction, structure, or layout of the facility, plant or building;
 - ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility or operation; or
 - iii. Any technology used or installed at the facility from which effluent may be discharged.
- 1.2 Ensure that all operation works are conducted in accordance with the Sea Defense and Drainage & Irrigation, Laws of Guyana.
- 1.3 Ensure the facility is adequately secured to prevent unauthorized persons from entering the premises.
- 1.4 Provide a well-equipped first aid kit at work site and ensure that communication and transportation systems are in place to respond to emergencies.
- 1.5 Ensure that all access to the sea dam and reserve is kept clear and maintained in accordance with the Sea Defence Laws of Guyana.
- 1.6 Conduct periodic maintenance of the wharf. Painting, resurfacing, clearing of debris, or minor repairs, should be carried out without causing any physical disruption of the watercourse.
- 1.7 Take necessary precautions to avoid erosion, siltation and sedimentation of drains and canals during operation.
- 1.8 Maintain a vegetated buffer zone along the edge of the Demerara River in order

to provide bank stability.

2.0 OPERATION OF FUEL STORAGE

2.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in the **Fuel Storage at least fourteen (14) days before making the change**. The notification shall contain a **description of the proposed change in operation**. It is not necessary to make such a notification if an **Application to vary** this permit has been made and the Application contains a description of the proposed change. In this condition '**change in operation**' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment including but not limited to the following:

- i. Changes in construction, structure, or layout of the facility and all associated buildings.
- ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility.
- iii. Any technology used or installed at the facility from which effluent may be discharged.

2.2 Adopt and comply with the National Standard "Guidance for the Design, Construction, Modification, and Maintenance of Petrol Filling Stations" and any forthcoming code of practice/guidelines pertaining to the operation of Fuel Storage.

2.3 Utilise the land in accordance with the plan submitted to the Agency. All specifications of location, pathways, reserve and boundary lines must be adhered to, unless otherwise authorised.

2.4 Store all fuel in a cool, dry place and away from ignition sources. '**No Smoking**' signs shall be posted where fuel is handled or stored.

2.5 Ensure that corrosion control measures are in place to prevent the corrosion of steel tanks and pipe work.

2.6 Install leak detection mechanisms. **At least two (2)** of the following measures should be taken:

1. An overflow alarm;
2. A gauging system;
3. Dipstick measurements;
4. Sensors installed on walls of tank; or
5. An electronic shut down system.

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- 2.7 Equip employees with appropriate protective gears during operation. Employees should at all times be well protected.
- 2.8 Conduct regular inspections, maintenance and repairs of the generator, and other fittings, pipes and hoses in order to detect leaks, and/ or spillage.
- 2.9 Ensure that pipelines from tanks to offset filling points and dispensing equipment are well maintained.
- 2.10 Construct and maintain an impervious secondary containment wall around the Fuel Storage tanks, creating a temporary holding area in the event of accidental spillage. The containment wall for areas with multiple tanks should have the capacity to provide at least 110% containment of the largest tank. The containment wall for areas with a solitary tank should have the capacity to provide 110% containment of the fuel tank.
- 2.11 Install a 4ft x 6ft rolled-curved loading pad on the outer section of the containment bund to contain spills when delivery trucks are unloading and containers or equipments are being filled. Loading pad must be connected to a pipe with a valve that remains closed when not in use and connected to the containment bund which is connected to the oil- water separator.

3.0 OPERATION OF GAS STATION

- 3.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in operation of the **Gas Station at least fourteen (14) days before making the change**. The notification shall contain a **description of the proposed change in operation**. It is not necessary to make such a notification if an **Application to vary** this Permit has been made and the Application contains a description of the proposed change. In this condition '**change in operation**' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment, including but not limited to the following:

- i. Changes in construction, structure, layout of the facility;
- ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility or operation; and
- iii. Any technology installed at the facility from which effluent may be discharged.

- 3.2 Adopt and comply with the National Standard "Guidance for the Design, Construction, Modification, and Maintenance of Petrol Filling Stations" and any

forthcoming code of practice/guidelines pertaining to the operation of the Service Stations.

- 3.3 Utilise the land in accordance with the plan submitted to the Agency. All specifications of location, pathways, reserve and boundary lines must be adhered to, unless otherwise authorised.
- 3.4 Maintain a sump below each fuel dispenser to capture any spillage that may occur.
- 3.5 Ensure that pipe entries under the pump sumps are sealed to prevent fuel leaks.
- 3.6 Route pipelines from tanks to offset filling points, dispensing equipment and vent pipes below the ground surface. Pipelines should not be located under buildings. Ensure free access is maintained to the pipeline system for easy maintenance.
- 3.7 Maintain an impervious secondary containment wall around fuel storage tanks, creating a temporary holding area in the event of accidental spillage. The containment wall for areas with multiple tanks should have the capacity to provide at least 110% containment of the largest tank. The containment wall for areas with solitary tanks should have the capacity to provide 110% containment of each fuel tank.
- 3.8 Maintain leak detection mechanisms. At least two (2) of the following measures should be taken:
- i. An overflow alarm;
 - ii. A gauging system;
 - iii. Dipstick measurements;
 - iv. Sensors installed on walls of tank; or
 - v. An electronic shut down system.
- 3.9 Ensure that corrosion control measures are in place to prevent the corrosion of underground steel tanks and pipe work.
- 3.10 Ensure all relevant employees are trained in good environmental management practices and of their obligations under this Permit.
- 3.11 Utilise the land in accordance with the plan submitted to the Agency. All specifications of location, pathways, reserve and boundary lines must be adhered to, unless otherwise authorised.

4.0 WATER QUALITY

- 4.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000.**

4.2 Not discharge effluent directly into the receiving waters without prior treatment. A soak-away system/sand based filter box for trade effluent should be installed before final discharge.

4.3 Ensure that discharges into the environment are in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharges into the Environment* and the *IFC Environmental, Health and Safety Guidelines* and within the allowable limits for a Gas Station AND Fuel Storage Facility:

- pH (5.0-9.0);
- Temperature < 40 °C;
- Total Suspended Solids (TSS <50 mg/L);
- Total Dissolved Solid (TDS < 250mg/L)
- Oil and Grease (< 10 mg/L); and
- Total Petroleum Hydrocarbon (TPH) <40 mg/L

4.4 Monitor the parameters listed in condition 4.3 on a bi-annual basis at the point of discharge into any waterway and submit the results to the Agency as a component of the **Annual Environmental Report required** in condition 9.4.

4.5 Ensure that the drainage system is kept free-flowing and free of debris and vegetation to prevent stagnation of water and reduce the potential of flooding. Regular cleaning of the drainage network and the immediate environment must be conducted.

4.6 Maintain oil-water separators on site, through which all effluent must pass before final discharge point of drains influenced by the fuel tank containment areas or refueling areas through which all effluent must pass before final discharge. Recovered oily sludge should be disposed of in accordance with conditions identified under the Hazardous Waste management section.

4.7 Maintain an interceptor drain, which must be adequately sloped to collect storm flow and ensure that the drainage at the site is kept free flowing and free of debris .Regular cleaning of the drainage network must be maintained.

4.8 Avoid soil and water contamination from fuel, grease, waste oils and other petroleum products. Store all oils, fuel, paints and chemicals in a designated area, 10 m away from watercourses on an impervious base to minimize adverse impacts to the environment in the event of spillage.

4.9 Conduct equipment refueling and maintenance on an impervious base to prevent fuel spills/leaks. Oil spills should be cleaned-up by the best practicable means, to prevent runoff into the waterways.

4.10 Ensure that the discharging of fuel from ships/vessels to the fuel storage tanks is

done under strict guidance and that the shut-off mechanism is activated in the event of a spill.

- 4.11 Establish a maintenance schedule for the bund walls to ensure that they are functioning effectively.
- 4.12 Ensure that an emergency spill cleanup kit is maintained on site for response to potential spills. Kits should contain absorbent materials, drain seals and other appropriate tools for clean up. Oil spills should be cleaned-up by the best practicable means, to prevent runoff into the waterways.

5.0 AIR QUALITY & NOISE MANAGEMENT

- 5.1 Adhere to the provisions of the **Environmental Protection (Air Quality) Regulations 2000** and the **Environmental Protection (Noise Management) Regulations, 2000**.

- 5.2 Comply with the Guyana National Bureau of Standards (GNBS) *Guidelines for Noise Emissions into the Environment*. Sound levels from noise-making devices should not exceed the limits below, at a distance of 15 metres (50 ft) from the source or property boundary, whichever is closer.

Commercial Limits: **80 dB** [Day-time (06:00 h -18:00 h)]
65dB [Night-time (18:00 h - 06:00 h)]

- 5.3 Ensure all sound-making devices, such as generators, are suitably enclosed within structures made with materials of good insulation properties (e.g. hollow concrete blocks, insulation boards, solid clay bricks, etc.) and equipped with silencers or mufflers to reduce the noise level.
- 5.4 Ensure that the exhaust stacks of the generator are at least 2 meters, above the generator room, to minimise adverse fumes/soot impacts to contiguous areas.
- 5.5 Ensure no recreational activities are conducted on site (i.e. bar-b-ques, limes, public gatherings, etc.).
- 5.6 Continue to operate and service all mechanical equipment in accordance with manufacturer's specifications at all times. Additionally, ensure that mechanical equipment is regularly maintained and work at their optimal levels to minimise atmospheric emissions.

5.7 Respond to equipment malfunction or **inefficiencies** which may result in visible emissions to air, in the event of malfunction leading to abnormal emissions the operator shall:

- investigate and undertake remedial action **immediately**;
- adjust the process or activity to minimise those emissions; and
- record the events and actions taken.

5.8 Ensure all significant noise-producing equipment are placed on foundation properly designed to ensure effective damping of vibrations. Additionally, ensure adequate equipment maintenance is provided, and obsolete tools and equipment are replaced.

5.9 Implement a vapor recovery system for the offloading of bulk fuel, on site. Measures to reduce loading off loading emissions include selection of alternate loading methods and application of vapor recovery equipment.

6.0 WASTE MANAGEMENT

6.1 In accordance to the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site; covered garbage receptacles must be placed at strategic locations at the facility. Waste must be collected and disposed of at an approved waste disposal facility.

6.2 At all times utilize the best practical means of handling, storing and disposing of all waste materials.

6.3 Promote proper solid waste management and disposal practices at your facility. In particular, dispose of waste at the nearest designated waste management site or employ the services of an approved waste disposal provider. Place covered garbage receptacles at strategic locations around the operation.

6.4 Maintain a septic system on site at all times. The septic tank should not be located within 1.5m of a building or property boundary and should be accessible for cleaning and de-sludging. Any modification to the Septic tanks must be in accordance with the Guyana National Bureau of Standards (GNBS) *Code of Practice for the Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems*.



7.0 FUEL, WASTE OIL AND HAZARDOUS WASTE\ MATERIAL MANAGEMENT

7.1 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management) Regulations 2000.

7.2 Prepare and submit to the Agency no later than **forty-five (45)** days after the end of the operating year, a report relating to the activities for the previous year (please see attached form). The report shall include:

- a) the name, location and type of facility;
- b) types and quantities (in metric units) of hazardous waste generated;
- c) manner of storage, use, any applied treatment standards/methods and disposal of these substances;
- d) data concerning off-site shipments of waste, i.e. local disposal facility utilised, country to which hazardous waste is shipped, purpose of shipment and amount of waste shipped;
- e) a summary of any accidents that may have occurred and any action taken;
- f) any waste minimisation efforts undertaken by your facility for hazardous material/waste; and
- g) Any other matter the Agency may require.

7.3 In the event that waste oil (recovered from oil-water separator or from servicing of generators) is stored on site, it should be stored in a covered, banded area to minimise adverse impacts to the environment in the event of spillage. The banded area must be labeled and able to provide containment for the maximum volume of waste oil on site.

7.4 Dispose of all waste oil in accordance with the Environmental Protection Agency's, *Environmental Guidelines on the 'Removal, Treatment and Disposal of Oily Sludge', 2011* (attached) or reuse waste oil as lubricant for chainsaw or other equipment\machinery.

7.5 Ensure that oil\fuel contaminated absorbent materials are appropriately stored and disposed; these material must be double wrapped in heavy duty garbage bags and disposed of at an approved waste disposal facility. Hazardous contaminated absorbent pads can be disposed of by an authorised Hazardous Waste Disposal company.

7.6 Refrain from draining fuel or lubricants including waste oils of any quantity from equipment onto the ground or into waterways. Submit a Clean-up plan detailing the location of all materials stored on site and notification and clean-up measure for each site of operation in the event of a spill. **This clean-up plan must be updated annually.**



7.7 Ensure that a spill containment kit is on site and easily accessible at the Wharf, Fuel Storage and Gas Station at all times; which contains absorbent material, drain seals, disposal containers and absorbent spilt pads, etc.

7.8 Submit to the Agency a notification and Clean-up Plan for the facility in the event of a spill. Clean-up Plan must include details of the location of all materials stored on site as well as notification and clean-up measures for each area of the operation in the event of a spill. This clean-up plan must be updated annually.

8.0 ENVIRONMENTAL EMERGENCY RESPONSE

8.1 Provide adequate fire protection measures. All firefighting equipment such as fire extinguishers and sand buckets should serviced regularly and placed at conspicuous locations onsite, in accordance with guidelines established by the Guyana Fire Service.

8.2 Maintain a supply of oil-absorbent materials such as absorbent pads, sand, etc at the site for the clean-up of spills.

8.3 Ensure that appropriate clean-up equipment such as spill trays, oil spill clean-up recover pump, oil spill dispersant spray system or sorbent pads are readily accessible to respond to any spills that may occur onsite.

8.4 Submit to the Agency within **three (3) months** of receipt of the Permit, an **update Emergency Preparedness Plan for review and approval**. This Plan must be communicated to staff and contractor of the facility and shall include:

- i. Accident Prevention Procedures;
- ii. First Person Response;
- iii. Notification Procedures;
- iv. Location of clean-up equipment;
- v. An analysis of potential accidents and response, and;
- vi. Materials safety data sheet for all materials which could be spilled.

8.5 Submit to the Agency a notification and **Clean-up Plan** for the facility in the event of a spill. Clean-up Plan must include details of the location of all materials stored on site as well as notification and clean-up measures for each area of the operation in the event of a spill. This clean-up plan must be updated annually.

9.0 COMPLIANCE, MONITORING AND REPORTING

9.1 Notify the Environmental Protection Agency within **24 hours** of the occurrence of any environmental emergencies (e.g. oil spills, hazardous materials/wastes,



chemicals, etc.).

- 9.2 Make all employees, and third parties under your direction, aware of the conditions of the Permit and provide training on good environmental practices.
- 9.3 Obtain approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.
- 9.4 Submit **Annual Reports** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **March 31** of each year.
- 9.5 Comply with any lawful directions given by the EPA from time-to-time in furtherance of the implementation of any international or other obligation for the environmental protection of Guyana.
- 9.6 Notify the Agency in writing of any change of name or ownership of the Permit Holder's facility within **thirty (30) days** after the change occurs.
- 9.7 Notify the Agency within **twenty one (21) days** in event of death, bankruptcy, liquidation or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.

10.0 INSTITUTIONAL RESPONSIBILITIES/LIABILITIES

- 10.1 The EPA reserves the right to conduct regular inspections of the Permit Holder's operation as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 10.2 The EPA reserves the right to review and/or amend the conditions and fees attached to this Permit, which also includes the review and/or amendment of Permit Fees in consideration of any changes in fee structure as determined by the Agency for projects of this nature.
- 10.3 The Permit Holder shall, at all times, allow entry to the Permitted facility to any Officer designated by the EPA for the purposes of conducting inspections or any other legitimate business of the Agency. Pursuant to s.38 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, it is an offence to assault, obstruct or hinder an authorized person in the execution of his/her duty under the said Act or its Regulations and the Permit Holder shall be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.

- 10.4 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 10.5 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project. (Part V, s. 19(3)(e)) EP Act Cap. 20:05.
- 10.6 The Permit Holder shall be liable of any gross negligence or willful misconduct caused by the Permit Holder, his Servants and / or Agents, to the environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, contaminant fluids, oil or lubricants from the Wharf, Fuel Storage and Gas Station.
- 10.7 Should the Permit Holder contravene or is likely to contravene any condition of this Permit, the Agency (EPA) may serve him an enforcement notice in accordance with s. 26 of the EP Act Cap. 20:05.
- 10.8 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose serious threat to natural resources or serious pollution of the Environment or any damage to public health, issue to the Permit Holder a Prohibition Notice Order to immediately cease the offending activity. S 27 EP Act, Cap. 20:05.
- 10.9 The Permit Holder is obligated to ensure that the Wharf, Fuel Storage and Gas Station are permitted by other relevant authorities.
- 10.10 This **Operation Permit (Renewed)** is effective for the period stipulated herein; **August 2019 to July 2024**
- 10.11 This **Operation Permit (Renewed)** shall remain valid until **July 31, 2019** unless otherwise cancelled, suspended, amended, modified or varied in accordance with the provisions of this Permit or the Environmental Protection Act, Cap 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 10.12 This Permit must be renewed by submitting a completed Application Form for Renewal of Environmental Authorisation to the Agency at least six months before this Permit expires, that is, no later than **February 29, 2024**.
- 10.13 Any late submission of renewal application (s) after the specified date as stated above, shall require the Permit Holder to pay, in addition to renewal fee, a **late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of two thousand dollars (\$2000.00) per day for every day late**, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.




10.14 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to penalties prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental (Amendment) Act, 2005, and the Environmental (Authorisations) Regulations, 2000, including civil penalties and injunctive relief.

ENVIRONMENTAL PROTECTION AGENCY

109462

for

Dr Vincent Adams

Executive Director

Signature of Vincent Adams

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on behalf of the Environmental Protection Agency

Date 2019.08.22

I hereby accept the above Terms and Conditions upon which this Operation Permit is granted and agree to abide by the Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, the Environmental Protection (Authorizations) Regulations, 2000, and any forthcoming regulations and standards made under this Act.

NAME	MINOT CHEN
DESIGNATION	managing director
DATE	3.9.2019
SIGNATURE	<div><div>Signature of Minot Chen</div><div>109462</div></div>

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