

ENVIRONMENTAL IMPACT ASSESSMENT REPORT
ON CONSTRUCTION PROJECTS
(For Trial Implementation)

Project Name: The Container Berth Expansion Project at Jingtang Port Area in Tangshan

Project Owner: Jingtang Port International Container Terminal Co., Ltd. (sealed)

Date of Preparation: July 26th of 2008

Printed by Ministry of Environmental Protection of the People's Republic of China

Notes for Preparation of Environmental Impact Assessment Report for Construction Projects

An Environmental Impact Assessment (EIA) Report shall be prepared by an entity qualified for conducting the work of environmental impact assessment.

1. Project Name shall refer to the name applied by the project at the time when it is established and approved, which shall in no case exceed 30 Chinese characters (and every two English semantic elements shall be deemed as one Chinese character).

2. Place of Construction shall refer to the detailed address of project location, and where a highway or a railway is involved, names of start station and end station shall be provided.

3. Industry Category shall be stated according to the Chinese national standards.

4. Total Investment Volume shall refer to the investment volume in total of the project.

5. Principal Targets for Environmental Protection shall refer to centralized residential quarters, schools, hospitals, protected cultural relics, scenic areas, water sources and ecological sensitive areas within certain radius of the project area, for which the objective, nature, size and distance from project boundary shall be set out as practical as possible.

6. Conclusion and Suggestions shall include analysis results for clean production, up-to-standard discharge and total volume control of the project; a determination on effectiveness of pollution control measures; an explanation on environmental impacts by the project, and a clear-cut conclusion on feasibility of the construction project. In addition, other proposals on reducing environmental impacts shall also be put forward.

7. Opinion for Preliminary Approval shall refer to replies from the competent authorities for the industry category concerned, and where there is no such competent authority, the Opinion for Preliminary Approval may be left blank.

8. Opinion upon Approval shall refer replies from the competent environmental protection authorities in charge of the project.

| Signatures by the Appraisers | | | |
|-------------------------------------|---|-------------|------------------|
| Name | Certificate No. | Duty | Signature |
| ZHOU Hongwei | EIA Appraiser Cert. No. B12310090900 | Principal | ZHOU Hongwei |
| WU Libin | EIA Appraiser Cert. No. B12310018 | Drafter | WU Libin |
| NIE Juliang | EIA Appraiser Cert. No. B12310040400 | Verifier | NIE Juliang |

Part I: Basic Information on the Construction Project

| | | | | | |
|-------------------------------------|---|--|--|--|--------|
| Project Name | The Container Berth Expansion Project at Jingtang Port Area in Tangshan | | | | |
| Project Owner | Jingtang Port International Container Terminal Co., Ltd. | | | | |
| Legal Representative | LU Zexiang | Contact Person | CHEN Li | | |
| Mailing Address | Jingtang Port International Container Terminal Co., Ltd. Tangshan Port Development Zone, Hebei Province | | | | |
| Cell Phone | 13011526366 | Fax | 0315-2916612 | Post Code | 063611 |
| Place of Construction | The container yard for Berths 10 and 11 at the basin of Jingtang Port in Tangshan Port Development Zone | | | | |
| Authority for Project Establishment | The Development and Reform Commission of Tangshan City | Approval No. | | | |
| Nature of Construction | New project <input type="checkbox"/> Renovation/expansion project <input checked="" type="checkbox"/> Technological transformation project <input type="checkbox"/> | Industry Category/Code | Other support activities for water transportation F5439 | | |
| Land Area | 170,000 M ² | Afforestation Area | 1,000 M ² | | |
| Total Investment Volume | RMB 351.88 million Yuan | In which, Investment on Environmental Protection | RMB 600,000 Yuan | Percentage of Investment on Environmental Protection in Total Investment | 0.2% |
| Cost for EIA | Nil | Anticipated Date of Operation | April 2009 | | |

Chapter 1: Project Content and Scale

Jingtang Port International Container Terminal Co., Ltd. (hereinafter referred to as the Company) is a Chinese-foreign joint venture invested and incorporated by Tangshan Port Investment Company, Dragados S.P.L. of Spain, and Beijing Golden State Engineering Co., Ltd. The Company now possesses Berths 10 and 11 at the east coastline of Basin 2 at Jingtang Port Area in Tangshan, with an annual throughput capacity at 200,000 twenty-foot equivalent units (TEUs). In recent years, the existing terminal handling equipment and container yard are incapable of meeting demands due to increased container transport volume at Jingtang Port Area, and the Company has therefore decided to expand its existing container yard, so as to increase the annual throughput capacity of its terminal berths to 500,000 TEUs through adding terminal handling equipment, expanding its proprietary container yard and other auxiliary facilities. According to the *2007 Catalog for Industrial Restructuring*, the processes and equipment to be applied by this project do not belong to the Restricted Categories or the Outdated Categories, and they are therefore in compliance with the industrial policies currently in force in China.

1. Existing Project

1.1 Project Profile

Located within Tangshan Port Development Zone in northeast at a place 80 kilometers away from Tangshan City, the Jingtang Port currently has 26 operating terminal berths. The Company possesses Berths 10 and 11, with a total length of coastline at 557 meters; the apron has a designed elevation of -12.5 meters, and the hydraulic structures are capable for docking by container vessels with a capacity of 35,000 dead weight tonnage; the terminal has equipped with two container bridges, while a depot with a floor space of 115,000 square meters, the business building as well as corresponding auxiliary facilities have been built at the container yard. The existing terminal operates 335 days a year, and the depot operates 350 days a year. The permanent labor force is 95 persons, out of which, the management and business staff work only during daytime, while staff at the terminal and the depot are divided into 4 groups, and work by shift once every 8 hours. There is no output capacity, process or product that needs to be phased out therein, and the existing project was passed an acceptance by the Environmental Protection Bureau of Tangshan City on July 17th of 2008.

1.2 Energy Consumption

Please refer to Table 1 below for energy consumption by the existing project.

Table 1: Energy Consumption Volumes

| S/N | Name | Unit | Consumption Volume |
|-----|-------------|----------------|--------------------|
| 1 | Diesel fuel | t/a | 387.0 |
| 2 | Electricity | kWh/a | 1,517,600 |
| 3 | Water | m ³ | 16,368 |

1.3 Auxiliary Facilities

1.3.1 Water Supply and Drainage

Water and fire water supply to the existing project is made by the Tangshan Port Development Zone, and water consumption volume by the project is at 49.6m³/d, out of which, 35m³/d are water for vessels, 7.6m³/d are for domestic use, 3m³/d are flushing water for mobile machinery, 0.5m³/d is for mechanic repair and miscellaneous purposes, and 3.5m³/d are for road sprinkling purpose.

The existing project is equipped with a rainwater and wastewater separation system, whereby rainwater is collected and discharged into the municipal rainwater pipelines through the rainwater pipeline network; while domestic sewage from the existing project in the amount of 5.6m³/d and domestic sewage from docked vessels in the amount of 6.0m³/d are discharged into Jingtang Port Wastewater Treatment Station for further treatment; and oily wastewater is in the amount of 4.6m³/d, out of which, flushing water for mobile machinery is in the amount of 2.7m³/d, wastewater from mechanic repair in the amount of 0.4m³/d and vessel sludge water is in the amount of 1.5m³/d, which are collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment (the said Branch Company is designated by Hebei Provincial Administration for Maritime Safety to take vessel residual oils, please refer to Appendixes hereto for detailed information).

Please refer to [Figure 1](#) for water balance chart of the existing project.

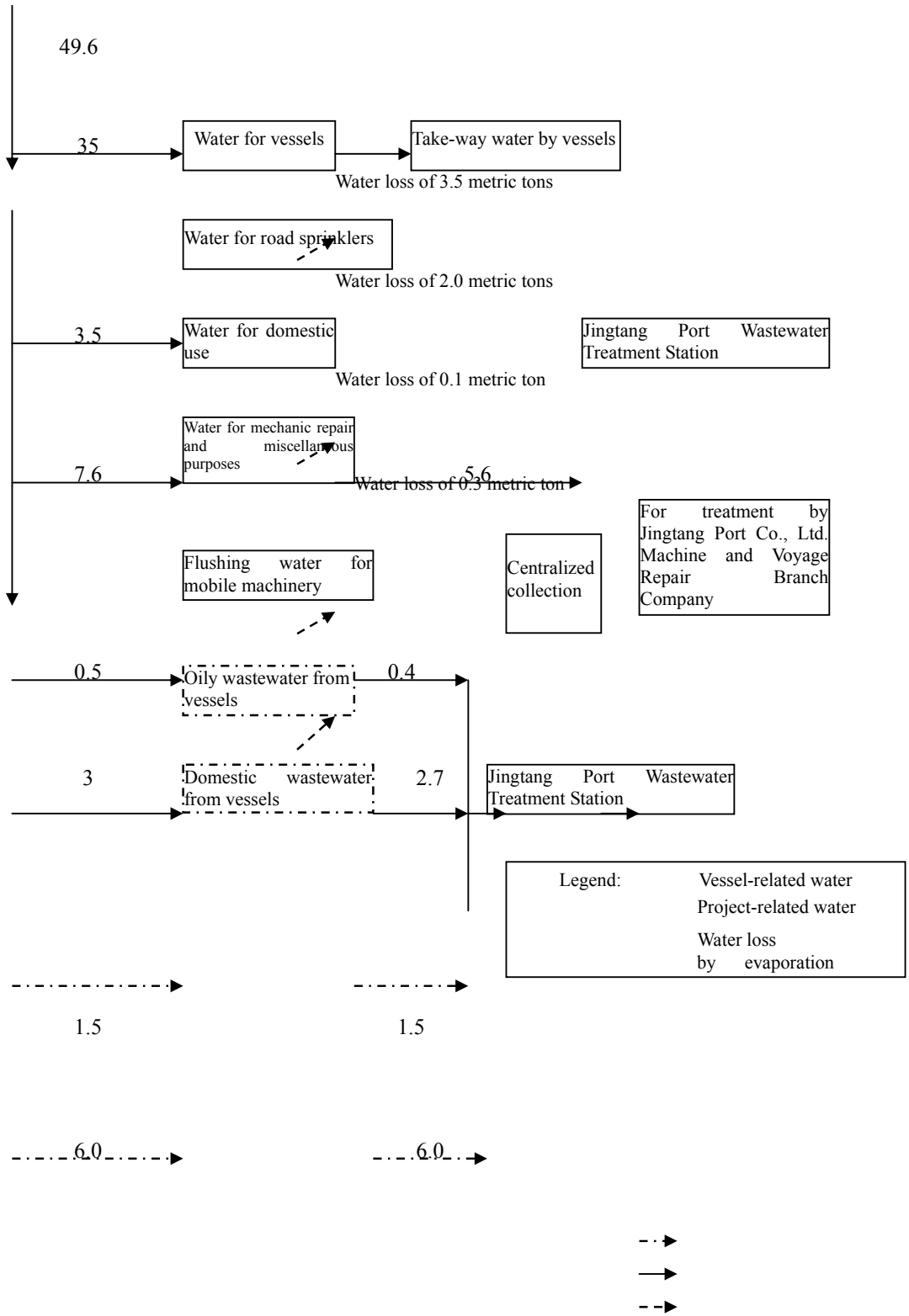


Figure 1: Water Balance Chart of the Existing Project

(Unit: m³/d)

1.3.2 Power Supply

Power supply to the existing project is provided by the Jingtang Port power grid, and the current power load is at 4,598KW. Power consumption volume by the project is at 1,517,600 kWh.

1.3.3 Heating

Heating to the existing project is provided by the Jingtang Port Area. There are three boilers at a capacity of 18t/h each for providing heating services to entities located within the Port Area.

1.4 List of Major Equipment

Please refer to Table 2 below for a list of major equipment of the existing project.

Table 2: List of Major Equipment of the Existing Project

| S/N | Name | Type | Specification | Quantity | Remarks |
|-----|-----------------------------|--------------------------|---------------|----------|----------------------------------|
| 1 | Front-handling mobile crane | DC4160-60S5K | 40T | 5 | Imported from Sweden |
| 2 | Forklift truck | ZL50G | 5T | 1 | |
| 3 | Bridge crane | Type 2000 made in Panama | 40.5T | 4 | |
| 4 | Gantry crane | MH36-10A4D | 36T | 1 | Fixed machinery within terminal |
| 5 | Forklift truck | CPCD50/80 | 5T/8T | 7 | Mobile machinery within terminal |
| 6 | Forklift truck | CPCD25/30 | 2.5T/3T | 5 | Mobile machinery within terminal |
| 7 | Electronic truck scale | SCS-150T | 150T | | Measurement instrument |

| | | | | | |
|----|--|-----------------|-----------|----|----------------------------------|
| 8 | Heavy-duty semi-trailer vehicle of Dong Feng brand | EQ4151G /4146V | 240/210HP | 4 | Mobile machinery within terminal |
| 9 | Heavy-duty semi-trailer vehicle of Steyr brand | SX41648 M351 | 290/280HP | 14 | For external transport |
| 10 | Heavy-duty semi-trailer vehicle of Dong Feng brand | EQ4163W EQ4146V | 240/210HP | 12 | For external transport |
| 11 | Heavy-duty semi-trailer vehicle of Aumann brand | BJ4171SK JA-8 | 280HP | 3 | For external transport |

1.5 Pollutant Discharge from the Existing Project

Waste Gas: waste gas from the existing project includes vehicle exhaust gas, road dust and dust from the bulk coal storage yard in an aggregate amount of 1.2 kg/h. The project has taken such measures as applying the vehicles whose exhaust gas is discharged according to relevant standards as well as intensifying equipment maintenance, so as to ensure that the exhaust gas is discharged according to relevant standards; in addition, regular sprinkling for the bulk coal storage yard, the container yard and road surface has been done, so as to reduce the amount of dusts. Therefore, the existing project poses no significant impact on neighboring environment through its discharge of waste gas.

Waste Water: the existing project generates domestic wastewater in the amount of 5.6m³/d, and domestic wastewater from vessels is in the amount of 6.0 m³/d; in which major pollutants are chemical oxygen demand (COD) at 240 mg/L, ammonia nitrogen at 25 mg/L and suspended substance (SS) at 120 mg/L, all are in compliance with the discharge standards for Grade C as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The said domestic wastewater meets quality requirements for wastewater into Jingtang Port Wastewater Treatment

Station, and is discharged into the said Wastewater Treatment Station, whose design capacity is at 250m³/d, and actual treatment volume is at 200m³/d, where the process of primary settling tank---oxidation ditch---secondary settling tank is applied, and the wastewater after treatment is discharged into the sea in compliance with the discharge standards for Grade B as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The existing project also generates flushing water for mobile machinery in the amount of 2.7m³/d, wastewater from mechanic repair in the amount of 0.4 m³/d and oily wastewater from vessels in the amount of 1.5 m³/d, in which the major pollutants are petroleum-based pollutants with their concentration at 200 mg/L, and the said waste is collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment.

Noise: noise-generating equipment within the existing project includes mainly the container bridges, container trailers, gantry crane, forklift trucks and etc., whose acoustic pressure level is at 70-95 dB (A). However, as the project adopts such measures as regular maintenance of its vehicles and repair of its equipment, noise at project boundary satisfies requirements of Category C standards as prescribed in *the Standard of Noise at boundary of Industrial Enterprises* (GB12348-90).

Solid waste: the project generates domestic waste in the amount of 15t/a, which is collected and transferred to landfill sites by the environmental hygiene authorities; vessel refuse in the amount of 17t/a is land filled by other environmental hygiene authorities, and those refuse from a vessel from an epidemic area is disposed by the hygiene quarantine authorities, other vessel refuse is to be land-filled by the environmental hygiene authorities; while waste oils from mechanic repair in the amount of 2t/a belong to waste mineral oils (Category HW08) according to *the National Catalog of Hazardous Wastes*, which is recycled and disposed by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company after collection. In a word, all solid waste generated by the existing project is handled and disposed in reasonable ways.

2. The Proposed Project

2.1 Project Name:

The Container Berth Expansion Project at Jingtang Port Area in Tangshan.

2.2 Project Owner:

Jingtang Port International Container Terminal Co., Ltd.

2.3 Nature of Project

It is an expansion project.

2.4 Total Investment

The total investment volume of the proposed project is at RMB 351.88 million Yuan, out of which RMB 600,000 Yuan is for environmental protection, accounting for 0.2% of the total investment volume.

2.5 Place of Construction

The proposed project is located at a place 300 meters to the north of Basin 1 and at the east of Berths 10 and 11 at Basin 2 at Jingtang Port in Tangshan Port Development Zone; and coordinates for its geographical center are N: 39°12' 53.4" and E: 118°59' 56.1".

2.6 Construction Scale

There is no need to expand the terminal for the proposed project, and the proposed project includes, in addition to the existing equipment and facilities, three additional container bridges, a new container yard to the east of the existing container yard with a floor space of 170,000 square meters, and corresponding auxiliary facilities such as a Business Building, a Customs Office and a Commodity Inspection Office with a total floor space of 3,000 square meters, whereby the throughput capacity of the container terminals may reach 500,000 TEUs per annum.

2.7 Construction Content

The construction contents include a proprietary container yard to the east of the existing container yard with a floor space of 170,000 square meters, and corresponding auxiliary facilities such as a Business Building, a Customs Office and a Commodity Inspection Office. For major contents of construction, please see [Table 3](#) below, and for Terminals Layout Plan, please see Drawing 3 attached hereto.

Table 3: Major Contents of Construction of the Proposed Project

| S/N | Project Element | Scope of Works |
|-----|------------------------|---|
| 1 | Main part | A container yard with a floor space of 170,000 square meters, and a Business Building with a floor space of 3,000 square meters |
| 2 | Auxiliary part | A van pool, a mobile machinery garage, a Customs Office and a Commodity Inspection Office |
| 3 | Part for environmental | A septic tank |

| | | |
|--|------------|--|
| | protection | |
|--|------------|--|

2.8 List of Major Production Equipment

Please refer to [Table 4](#) below for additional production equipment.

Table 4: Additional Production Equipment for the Proposed Project

| S/N | Name | Specification | Unit | Quantity | Remarks |
|-----|---|--|------|----------|---------|
| 1 | Container bridge | Lifting weight under the lift device shall be 41 metric tons | Set | 3 | |
| 2 | Rubber-tired electric container-handling gantry crane | The span shall be 23.47 meters, and lifting weight under the lift device shall be 41 metric tons | Set | 5 | |
| 3 | Rubber-tired container-handling gantry cranes | The span shall be 23.47 meters, and lifting weight under the lift device shall be 41 metric tons | Set | 5 | |
| 4 | Container tractor | 40' or 20'×2 | Set | 20 | To rent |
| 5 | Container trailer | 40' or 20'×2 | Set | 20 | To rent |
| 6 | Container lift truck | Lifting weight under the lift device shall be 7 metric tons | Set | 2 | |
| 7 | Forklift truck | 3t | Set | 8 | |
| 8 | Platform balance | 80t | Set | 4 | |

2.9 Major Technical Parameters

Please refer to [Table 5](#) below for technical parameters of the handling process of the proposed project.

Table 5: Major Technical Parameters of the Handling Process

| S/N | Name | Content | Remarks |
|-----|--------------------------|---|---------|
| 1 | Container traffic volume | 500,000 TEUs per annum | |
| 2 | Container type | Loaded containers shall account for 80%, whilst | |

| | | | |
|---|------------------------------------|---|--|
| | | empty containers shall account for 20% | |
| 3 | Shed occupancy ratio | 100% | |
| 4 | Average duration of containers | 7 days for loaded containers, and 10 days for empty container | |
| 5 | Way of collection and distribution | By highway transport only | |

2.10 Auxiliary Facilities

2.10.1 Water Supply and Drainage

Water and fire water supply to the proposed project is made by the Tangshan Port Development Zone, and water consumption volume by the proposed is at 58.5m³/d, out of which, 25m³/d are water for vessels, 6.4m³/d are for domestic use, 3.3m³/d are flushing water for mobile machinery, 0.7m³/d is for mechanic repair and miscellaneous purposes, and 4.5m³/d are for road and yard sprinkling purposes.

The proposed project is to be equipped with a rainwater and wastewater separation system, whereby rainwater is collected and discharged into the municipal rainwater pipelines through the rainwater pipeline network; while domestic sewage from the proposed project in the amount of 5.0m³/d and domestic sewage from docked vessels in the amount of 5.0m³/d are to be discharged into Jingtang Port Wastewater Treatment Station for further treatment; and such oily wastewater as flushing water for mobile machinery in the amount of 3m³/d, wastewater from mechanic repair in the amount of 0.6m³/d and vessel sludge water in the amount of 1.7m³/d are collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment. Please refer to [Figure 2](#) for water balance chart of the proposed project.

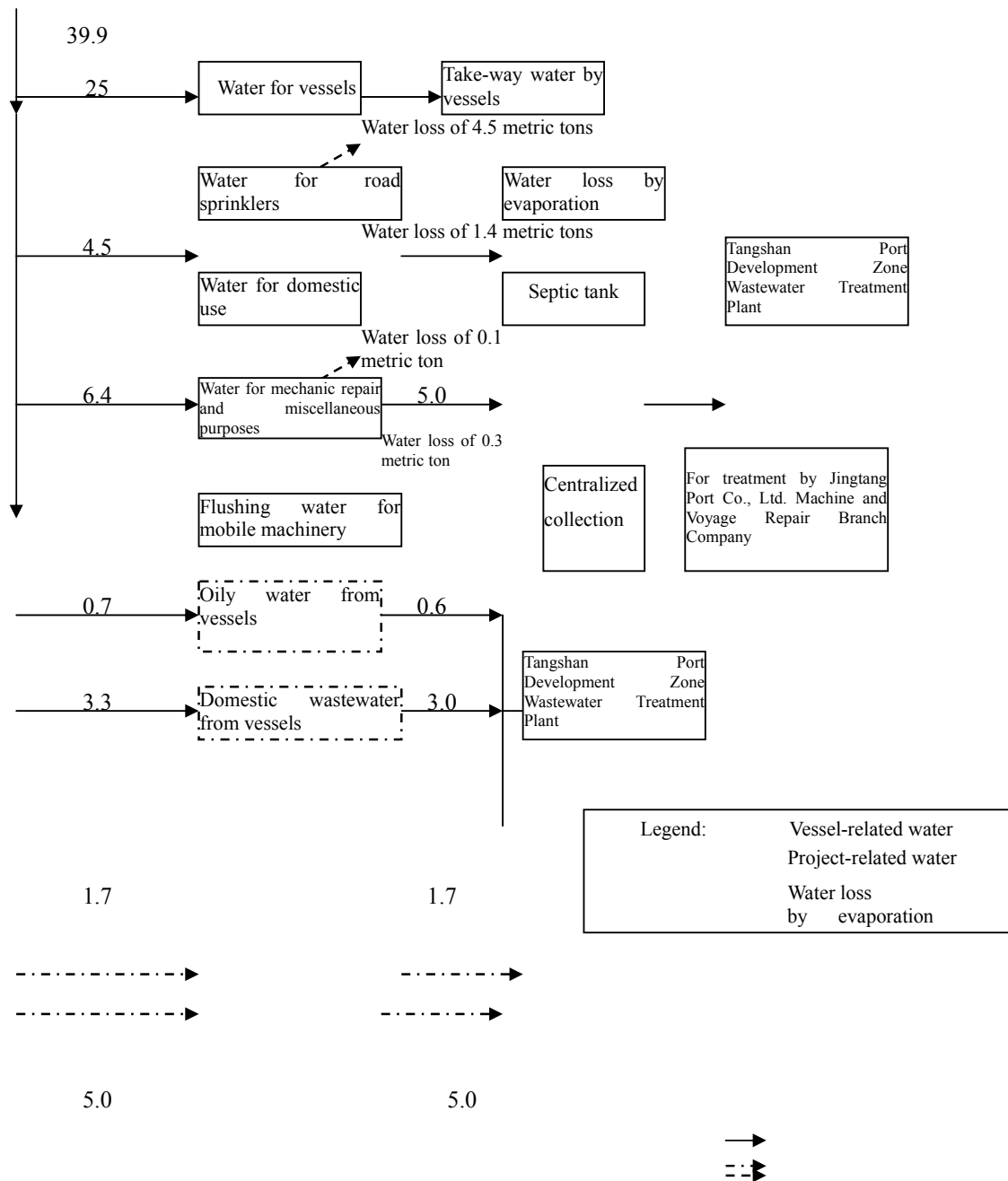


Figure 2: Water Balance Chart of the Proposed Project

(Unit: m³/d)

Upon completion of the proposed project, the overall water consumption by the whole project will reach 89.5m³/d, out of which, water for vessels will be 70 m³/d, water for domestic use will be 14 m³/d, flushing water for mobile machinery will be 6.3 m³/d, water for mechanic repair and miscellaneous purposes will be 1.2 m³/d, and

Water for road and yard sprinklers will be 8 m³/d.

The proposed project is to be equipped with a rainwater and wastewater separation system, whereby rainwater is to be collected and discharged into the municipal rainwater pipelines through the rainwater pipeline network. As for the whole project, wastewater includes domestic sewage in the amount of 10.6m³/d, and domestic sewage from docked vessels in the amount of 11m³/d; while oily wastewater will be 9.9 m³/d, out of which, flushing water for mobile machinery will be in the amount of 5.7 m³/d, wastewater from mechanic repair will be in the amount of 1.0m³/d and vessel sludge water will be in the amount of 3.2m³/d.

Please refer to [Figure 3](#) for overall water balance chart of the whole project.

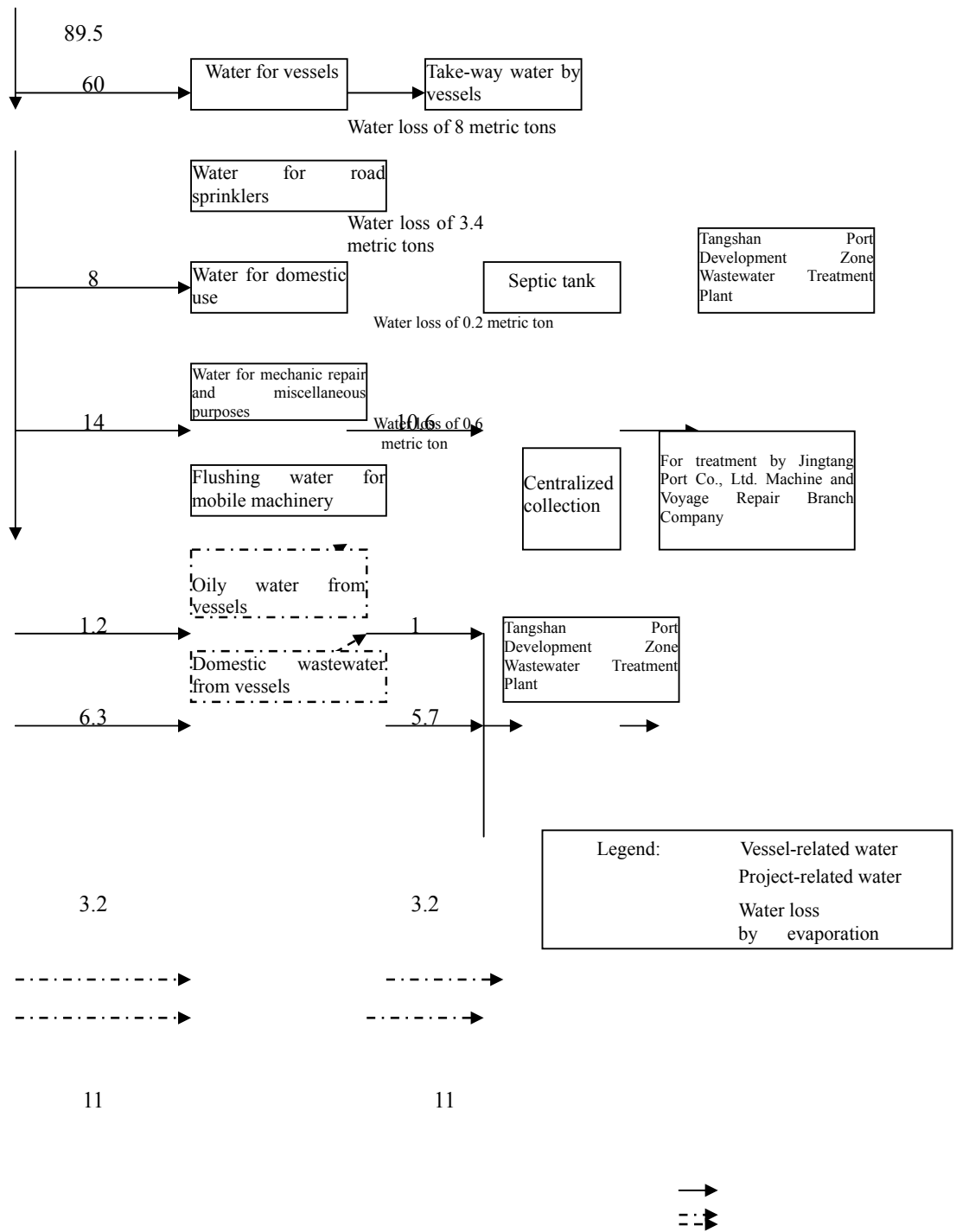


Figure 3: Overall Water Balance Chart of the Whole Project

(Unit: m³/d)

2.10.2 Power Supply

Power supply to the proposed project is to be provided by the Jingtang Port Development Zone power grid, and the electric power needs may be satisfied by three high-voltage switch cabinets connected to the existing substations 12 and 13. Power load of the whole project will be at 10,263KW, and power consumption volume by the project will be 3,372,560 kWh. Voltage grade for rubber-tired gantry cranes shall be 470V, and voltage grades for other facilities shall be 380V/220V.

2.10.3 Heating and Ventilation

Split cold/warm air conditioners will be applied to the proposed Business Building.

2.10.4 Information System Management

The proposed project will adopt an information management system integrating computer technologies, management science and contemporary communication technology, while internal information management within the container terminal will be realized through applying the electronic data interchange technologies, and based on which, electronic data interchanges with shipping agents, tally companies, container yards and regulatory authorities will also be realized.

2.10.5 Communications

Automatic telephone sets connected with the automatic telephone switching network within the port area will be installed to the new Business Building, entrance to the container terminal and other proposed projects, and there is no need to install additional dispatching telephone system, as wireless terminal equipment for additional staff may meet dispatching needs. The infrared intruder alarm peripheral devices and other monitoring facilities will be installed around the container terminal, so as to provide strong guarantees for the customs, public security and firefighting authorities as well as for emergency command. The communication cables and optical communication fibers to be installed will be connected with communication systems within the existing business office, where the generic cabling system will be applied, so as to enable transmission of voices and data.

2.10.11 Energy Consumption

Please refer to [Table 6](#) for energy consumption by the whole project.

Table 6: Energy Consumption Volumes by the Whole Project

| S/N | Name | Unit | Consumption by the Proposed Project | Consumption by the Whole Project |
|-----|-------------|----------------|-------------------------------------|----------------------------------|
| 1 | Water | m ³ | 13,167 | 29,535 |
| 2 | Electricity | kWh/a | 1,854,900 | 3,372,500 |
| 3 | Diesel fuel | t/a | 473 | 860.0 |

2.10.12 Staffing and Working Hours

The proposed project will operate 335 days a year, and the depot will operate 350 days a year. The additional labor force of 80 persons are to be recruited, out of which, the management and business staff will work only during daytime, while staff at the terminal and the depot are divided into 4 groups, and work by shift once every 8 hours.

Chapter 2: Existing Pollution and Major Environmental Problem in Connection with the Project

The existing project has passed an acceptance by the Environmental Protection Bureau of Tangshan City.

Pollutants in connection with the existing project are as follows:

Waste Gas: waste gas from the existing project includes vehicle exhaust gas, road dust and dust from the bulk coal storage yard in an aggregate amount of 1.2 kg/h. The project has taken such measures as applying the vehicles whose exhaust gas is discharged according to relevant standards as well as intensifying equipment maintenance, so as to ensure that the exhaust gas is discharged according to relevant standards; in addition, regular sprinkling for the bulk coal storage yard, the container yard and road surface has been done, so as to reduce the amount of dusts. Therefore, the existing project poses no significant impact on neighboring environment through its discharge of waste gas.

Waste Water: the existing project generates domestic wastewater in the amount of 5.6m³/d, and domestic wastewater from vessels is in the amount of 6.0 m³/d; in which major pollutants are chemical oxygen demand at 240 mg/L, ammonia nitrogen at 25 mg/L and suspended substance at 120 mg/L, all are in compliance with the discharge standards for Grade III as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The said domestic wastewater meets quality

requirements for wastewater into Jingtang Port Wastewater Treatment Station, and is discharged into the said Wastewater Treatment Station, whose design capacity is at 250m³/d, and actual treatment volume is at 200m³/d, where the process of primary settling tank---oxidation ditch---secondary settling tank is applied, and the wastewater after treatment is discharged into the sea in compliance with the discharge standards for Grade B as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The existing project also generates flushing water for mobile machinery in the amount of 2.7m³/d, wastewater from mechanic repair in the amount of 0.4 m³/d and oily wastewater from vessels in the amount of 1.5 m³/d, in which the major pollutants are petroleum-based pollutants with their concentration at 200 mg/L, and the said waste is collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment.

Noise: noise-generating equipment within the existing project includes mainly the container bridges, container trailers, gantry crane, forklift trucks and etc., whose acoustic pressure level is at 70-95 dB(A). However, as the project adopts such measures as regular maintenance of its vehicles and repair of its equipment, noise at project boundary satisfies requirements of Category III standards as prescribed in *the Standard of Noise at boundary of Industrial Enterprises* (GB12348-90).

Solid waste: the project generates domestic waste in the amount of 15t/a, which is collected and transferred to landfill sites by the environmental hygiene authorities; vessel refuse in the amount of 17t/a is land filled by other environmental hygiene authorities, and those refuse from a vessel from an epidemic area is disposed by the hygiene quarantine authorities, other vessel refuse is land-filled by the environmental hygiene authorities; while waste oils from mechanic repair in the amount of 2t/a belong to waste mineral oils (Category HW08) according to *the National Catalog of Hazardous Wastes*, which is recycled and disposed by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company after collection. In a word, all solid waste generated by the existing project is handled and disposed in reasonable ways.

Major Environmental Problem:

After treatment by Jingtang Port Wastewater Treatment Station, wastewater from the existing project is discharged into the sea in compliance with the discharge standards for Grade B as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996), however the treated wastewater still fails to comply with the discharge standards for Grade A as indicated in *the Discharge Standards of*

Pollutants for Municipal Wastewater Treatment Plants (GB 18918-2002).

Part II: Brief Information on Natural and Social Environments
At Project Location

Chapter 1: Brief Information on Natural Environment (Topography, Landforms, Geology, Climate, Meteorology, Hydrology, Vegetation, Biodiversity and Etc.)

1. Geographical Location

The Jingtang Port Area is located to the south of Wangtan Township of Leting County in Tangshan City, it faces the Bohai Bay in the south and is adjacent to the Qinhuangdao---Tangshan---Cangzhou Highway. It is 80 kilometers away from Tangshan City in the northwest, 64 nautical miles from Qinhuangdao City in the east, 70 nautical miles away from Tianjin Port in the west, and 240 kilometers away from Beijing. The Jingtang Port Area enjoys conveniences of transportation: the Tangshan---Jingtang Port Railway with its end station at the Jingtang Port Development Zone connects with the Beijing---Shanhaiguang Railway at Luanxian Station, and expressway from Tangshan City to Jingtang Port has already been completed; urban roads within the Jingtang Port Development Zone connects with three provincial highways (i.e., Tangshan---Jingtang Port Railway, Ping---Qing---Da Railway and Bohai Rim Railway) and three expressways (i.e., Beijing-Shenyang Expressway, Tangshan---Tianjin Expressway and Tangshan Loop Expressway), whereby an expressway network in the shape of O+X has been formed, and through connecting itself with the national expressway network, the time for and distance between Jingtang Port and the hinterland are shortened. The coastal expressway that is now under progress will connect Jingtang Port with Qinhuangdao City, Tangshan City, Caofeidian Port and Tianjin Port.

The proposed project is located at a place 300 meters to the north of Basin 1 and at the east of Berths 10 and 11 at Basin 2 at Jingtang Port in Tangshan Port Development Zone; and coordinates for its geographical center are N: 39°12' 53.4" and E: 118°59' 56.1". Please see Drawing 1 for geographical location, Drawing 2 for plans for Tangshan Port Development Zone and Jingtang Port, Drawing 4 for Basins and Berths at Jingtang Port, and Drawing 5 for neighborhood relationship. The proposed container yard is originally a bulk coal storage yard belonging to Tangshan Port Investment Company (of which Jingtang Port International Container Terminal Co., Ltd. is a subsidiary).

2. Topography and Landforms

The Jingtang Port Area is located at northeast of North China fault block and the Leting depression in the north of Huanghua depression, with its inner earth consisting mainly deposits formed during the Mesozoic era and the Cenozoic era. Its terrains belong to southern edge of the Yanshan fold belt and coastal plain at the northern coast of the Bohai Sea, and the plain here consists of the alluvial fan by Luanhe River and coastal plain. Jingtang Port is located at the coastal plain, and is formed by marine deposits. It has a smooth terrain with a slope of 0.5‰; the land is saline-alkali soil or mud, with an elevation at 1-4 meters above sea level.

3. Meteorology and Climate

The Jingtang Port Development Zone enjoys a semi-humid continental monsoon climate at a coastal warm temperate zone. The four seasons here are distinctive, with a long winter lasting 176 days and shorter springs and falls. Average wind velocity is at 4.8m/s, year-round primary wind direction is WSW, accounting for 9.75%; and secondary wind direction is ENE, accounting for 9.51%. Annual average sunshine hours are at 2,579.1 hours. Annual average temperature is at 10.1℃, average temperature in July is at 24.8℃ and in January at -6.5℃. Frost-free period is 177 days. Annual average precipitation over years is at 613.2 mm, with July and August having much rain. Annual average relative humidity is at 67%; and mean annual evaporation is at 1,600-1,900 mm.

4. Hydrology and Geology

The Jingtang Port Development Zone is located at coasts in northeast of Hebei Province, and it belongs to North China fault block in terms of geological structure, which is actually an ancient geological block. As the Paleozoic erathem was relatively stable, while the Mesozoic erathem and Cenozoic erathem were full of strong activities and developments, so a series of active fault zones have been formed in North China fault block since the Cenozoic era. The Leting depression is just a result of such fault movements. The deposit layers within the said depression consist mainly the Mesozoic erathem and Cenozoic erathem.

Shell structure in the project location is roughly divided into four layers, i.e., 1. The shell surface, with its thickness at 3-4.5 kilometers, is mainly deposits formed during the Mesozoic era and Cenozoic era; 2. The upper shell, with its depth at 13-21.5 kilometers and its thickness at 10-16 kilometers, is crystalline and metamorphic rocks and granite layers; 3. The middle shell, with its depth at 17.2-30.1

kilometers and its thickness at 4.2-8.6 kilometers, is a variation zone between the granite layer and beneath basaltic layer, which is an intercalary stratum; 4. The lower shell, with its depth at 24.2-46 kilometers and its thickness at 7-16 kilometers, is high-grade metamorphic rocks containing a basaltic layer or much Fe/Mg elements, and beneath is the upper mantle. The earth surface is seriously salinized, and a thick liquefied layer spreads extensively. Within the project area, rocks are in the forms of silty fine sands and sandy loams, which are typical marine-terrestrial overlying sedimentation, and their allowable bearing capacity is at 1.2-2.0 kg/cm², and basic seismic intensity is at Grade 7. In a word, hydrological and geological conditions at the project site satisfy requirements of construction engineering.

The Jingtang Port Development Zone is located at a saltwater area, ground water is at 0.6-1.6 meters beneath, which flows from northwest to southeast; as water-bearing formation is composed of fine sands, silty fine sands and contains clays, and it has poor permeability and water yield property. The shallow ground water is saltwater.

5. Surface Water

Rivers cross the Jingtang Port Development Zone from northwest to southeast, and there are two seasonal rivers (i.e., Hulin Xinhe River and Xiaohezi River) and No. 1 and No. 2 anti-flood trunk canals. With its source lies to the east of Dongliuzhuang Village and with a total length at 22.2 kilometers, Hulin Xinhe River has a designed discharge at 32.4m³/s; and with its source lies to the east of Sanliuzhuang Village and with a total length at 34.2 kilometers, Xiaohezi River has a designed discharge at 70.1m³/s;

6. Oceanography

Waters under jurisdiction of Leting County lie in the western coast at northern part of the Bohai Sea, and the coastal terrain is smooth, with its average slope not exceeding 0.25%; the terrain inclines from the coast to the sea, and bathymetric curves and coastlines are basically paralleled. With a total area of 1,807.9 square kilometers, size of those areas with their bathymetric curves at 0-5 meters is 183 square kilometers, size of those areas with their bathymetric curves at 5-10 meters is 219.4 square kilometers, and size of those areas with their bathymetric curves at 10-20 meters is 1,405.5 square kilometers.

As other rivers are mostly seasonal rivers with a short length, sea-bound stream flow in this area is made chiefly by Luanhe River. The amount of water flowing into

the sea varies sharply between years, but it concentrates in certain months of a year. As for Luanhe River, its sea-bound stream flow over years is at $36.4 \times 10^8 \text{m}^3$; however, after Panjiakou Reservoir and Daheiting Reservoir began to store water, sea-bound stream flow from Luanhe River has been reduced significantly. For decades, sand transport rate by Luanhe River is at $2010 \times 10^4 \text{m}^3$, accounting for 89.2% of total volume by Hebei Province as a whole.

The average salinity of seawater is at 32.35%, though this figure may drop by approximately 30% during rainy days in summer. The short sea is abundant in nutrient salt, which includes mainly nitrate, silicate, nitrite and sodium sulfate.

Flow field in the project area is made of rectilinear currents dominated by waves. Wave direction is SW, and the direction of ebb tides is NE; and maximum average flow speed is within 0.19-0.74m/s.

The glacial period in the project area is from the end of November to the next March, with the glacial maximum falls in January and February. Maximum width of fast ice is at 150 meters, with its thickness at 0.10-0.80 meter; and maximum flow speed of pack ice is at 0.5m/s, with its direction of movement from northeast to southwest.

Chapter 2: Brief Information on Social Environment (Socioeconomic Structure, Education, Culture, Protection of Cultural Relics and etc.)

The Jingtang Port Area is located at southern coast of Tangshan Port Development Zone, which is a provincial development zone approved by the People's Government of Hebei Province in 1993. The overall planned area of the Development Zone is 147.47 square kilometers, out of which 44 square kilometers are for planned area for short-term development. Based on its development thinking of "building the development zone by relying on the port and facilitating port development by building the development; taking infrastructure as priority for starting projects; inviting external investors and allying with internal investors; and realizing a progressive development", Tangshan Port Development Zone has made considerable progress in all aspects of construction since its establishment, with its economic strength enhanced smoothly. For the year ending on December 31st of 2007, its GDP stood at RMB 4.37 billion Yuan, a year-on-year growth by 29.9%; sales value of industrial products was at RMB 950 million Yuan, a year-on-year growth by 39.7%; and value of exported goods was at 80.04 million US dollars, an increase by 12.6%

from the 2006 figures.

In recent years, Tangshan Port Development Zone has made breakthroughs in terms of introduction of major projects. For instances, the first-phase of Wangtan Power Plant with a capacity of 4X600MW generating units invested by Datang International Power Generation Co., Ltd. was put into operation in 2006; the first-phase of zinc-coated steel plate project with a total investment of RMB 600 million Yuan funded by Tangshan Hengtong Precision Sheet Metal Company was partially put into operation in 2004, and the said production line for zinc-coated steel plates has an output capacity of 100,000 tons per year; the relocation project of Beijing Coking Plant with an annual output capacity of 3 million tons is introducing technologies from Germany, the construction schedule for the relocation project with a total investment of RMB 2.4 billion Yuan was that, the first-phase was completed in 2005, and the second-phase was put into operation in November 2007; project proposal and feasibility study report for the first-phase of the fuel alcohol project with an annual output capacity of 500,000 metric tons invested by Ark International Investment Limited of Canada and other three investors have been approved; and there is also an intent on building a steel plate project with an annual output capacity of 3 million tons. In recent months, the relevant authorities are proactively seeking for certain chemical projects to be located at the Jingtang Port, and the potential projects include, among others, the oil products terminal and liquid chemicals tank farm to be built by Sinochem International Industries Company.

There are 26 berths within the Jingtang Port Area, and the designed throughput is 12.63 million metric tons. The total length of coastline is 3,580 meters, out of which Basin No. 1 has eight operating berths with its length of coastline at 1,753 meters and its annual throughput at 6.32 million metric tons, in which container throughput is at 1 million TEUs; while the designed throughput of LPG terminal by Zhongchen Energy Storage Co., Ltd. is at 450,000 metric tons.

The Tangshan Port Development Zone possesses a complete set of auxiliary facilities, and in line with the principle of “where the project is to locate, the infrastructures shall be built”, an aggregate amount of RMB 600 million Yuan has been input into infrastructure construction projects, with which urban roads with a total length of 40 kilometers have been built and road, water supply, sewage discharge, rainwater drainage, power supply, communications and other services are provided within an area of 10 square kilometers. At present, there exists a water plant with a

daily supply capacity of 42,000 metric tons in the Development Zone, and the second phase of the said water plant with a daily supply capacity of 48,000 metric tons is now under progress. There are three substations with their voltage at 110KV, and one substation with its voltage at 220KV, and the relevant authorities have a plan to build another substation with its voltage at 110KV and an additional substation with its voltage at 220KV according to development needs. The Development Zone is equipped with a stored program control telephone switching system providing services to up to 10,000 telephone users, and a complete set of postal and telecommunication facilities, and the broadband-based internet service is available throughout the Development Zone. A network of urban truck roads and secondary trunk roads with a total length of 40 kilometers and the in shape of six north-south roads and five east-west roads has been completed. In line with the principle of separating rainwater and sewage water, the rainwater discharge system and sewage water discharge system have been completed in the urban areas, and a sewage water treatment plant with a treatment capacity of 50,000 metric tons is presently under construction. Besides, as the coal gas project is now operating, it can therefore satisfy the needs of enterprises for gas.

Chapter 3: An Introduction to Tangshan Port Development Zone Wastewater Treatment Plant

The Tangshan Port Development Zone Eastern Wastewater Treatment Plant is located at southeast of the Development Zone. With its total investment at RMB 109.49 million Yuan, the designed capacity of the said plant is 50,000 m³/d in a short run and 100,000 m³/d in a long run. As the environmental impact assessment and land requisition in connection with the plant had been done, the construction work started in March 2006, and to the date of this document, the main parts of the plant has been completed, and it was estimated that the date of its official operation may be in December of 2008.

The Tangshan Port Development Zone Eastern Wastewater Treatment Plant adopts an optimized oxidation ditch process, to which an anaerobic ditch is added before the oxidation ditch and an anoxic ditch is also added, whereby the process may have bio-denitrification and bio-diphosphatation functions. Water discharged from the said plant enters into the Bohai Sea via a anti-flood trunk canal. Please refer to Table 7 below for designed quality of effluent water from the Wastewater Treatment

Plant.

Table 7: Designed Quality of Effluent Water from the Tangshan Port Development Zone Eastern Wastewater Treatment Plant

(Unit: mg/l, except for PH value)

| Item | pH | COD | BOD ₅ | SS | Ammonia Nitrogen |
|------------------------|-----|-----|------------------|-----|------------------|
| Influent water quality | 6~9 | 400 | 160 | 200 | 35 |
| Effluent water quality | 6~9 | 100 | 30 | 30 | 25 |

Chapter 4: A Survey of Regional Pollution Sources

In recent years, Tangshan Port Development Zone has witnessed rapid growth, during which many big projects are built in the Development Zone one after another, and gradually forms different clusters: one is the industrial cluster of coal chemical industries based mainly on coal; another is the industrial cluster of fine steel based mainly on zinc-coated sheets and color-coated plates; and the last one is the industrial cluster of new chemical industries.

1. Survey Results

Please refer to Table 8 below for pollutant discharge by leading enterprises currently located within the Jingtang Port Area based on surveys.

Table 8: Survey Results on Leading Pollution Sources In Tangshan Port Development Zone

| Corporate Name | Water Pollutant (t/a) | Air Pollutant (t/a) | | Implementation of the Three Simultaneities Requirement |
|---|-----------------------|---------------------|-----------|--|
| | COD | SO ₂ | Fume/Dust | |
| Tangshan Hengtong Precision Sheet Metal Company | 98.6 | 435.8 | 71.1 | Acceptance of environmental protection facilities passed |

| | | | | |
|---|-------|---------|---------|---|
| Tangshan Jiahua Coal Chemical Industry Co., Ltd. | 95.56 | 1627.02 | 1987.51 | Acceptance of environmental protection facilities passed |
| Kailuan Clean Coal Coking Plant | 62.8 | 833 | 812 | Acceptance of environmental protection facilities postponed |
| Datang Power Plant | -- | 7820 | 3550 | Acceptance of environmental protection facilities passed |
| Tangshan Hengtong Prefabricated Pipes and Piles Plant | -- | 92.4 | 14.5 | Acceptance of environmental protection facilities passed |
| Varsal Chemicals (Tangshan) Co., Ltd. | 1.155 | 34.56 | 5.4 | Acceptance of environmental protection facilities passed |
| Salima Chemicals (Tangshan) Co., Ltd. | 1.212 | 9.183 | 1.368 | Acceptance of environmental protection facilities passed |
| The Plastic-steel Profiles Processing Plant | 0.125 | 3.78 | 0.432 | Acceptance of environmental protection facilities passed |
| The Coal Tar Oil Processing Plant of Kailuan Group | 16 | 12.6 | 1.6 | The EIA report is approved and the project is on test run |
| Tangshan Haigang Huatai Functional | | 47.16 | 8.6 | Acceptance of environmental |

| | | | | |
|---|--------|----------|---------|--|
| Ceramic Material Co., Ltd. | | | | protection facilities passed |
| Tangshan Datang Chemical Co., Ltd. | 2.71 | 47.89 | 16.4 | Acceptance of environmental protection facilities passed |
| Tangshan Huake Metallurgical Roll Co., Ltd. | 2.145 | 6.65 | 8.34 | Acceptance of environmental protection facilities passed |
| Total | 280.31 | 10970.04 | 6477.25 | |

2. Assessment Standards

The assessment is done according to standards as set out in *the Technical Requirements on Survey of Industrial Pollution Sources and Technical Rules on Archives*. Please refer to Table 9 below for the said standards.

Table 9: Assessment Standards for Pollution Sources Survey

| Air Pollutant | Assessment Standard | Water Pollutant | Assessment Standard |
|-----------------|------------------------|-----------------|---------------------|
| Fume/Dust | 0.30 mg/m ³ | COD | 10 mg/l |
| SO ₂ | 0.15 mg/m ³ | | |

3. Assessment Results

Please see Table 10 below for assessment results for air pollution sources existed in the surveyed area.

Table 10: Assessment Results on Leading Sources of Air Pollution in the Area

| Corporate Name | Equivalent Pollutant Load | | Pn | Kn | Order of Pollutant Amount |
|--|---------------------------|-----------|----------|-------|---------------------------|
| | SO ₂ | Fume/Dust | | | |
| Datang Power Plant | 52133.33 | 11833.33 | 63966.67 | 67.53 | 1 |
| Tangshan Jiahua Coal Chemical Industry Co., Ltd. | 10846.80 | 6625.03 | 17471.83 | 18.44 | 2 |
| Kailuan Clean Coal Coking Plant | 5553.33 | 2706.67 | 8260.00 | 8.72 | 3 |

| | | | | | |
|---|----------|----------|----------|------|----|
| Tangshan Hengtong Precision Sheet Metal Company | 2905.33 | 237.00 | 3142.33 | 3.32 | 4 |
| Tangshan Datang Chemical Co., Ltd. | 319.27 | 54.67 | 373.93 | 0.39 | 5 |
| Tangshan Hengtong Prefabricated Pipes and Piles Plant | 616.00 | 48.33 | 664.33 | 0.70 | 6 |
| Tangshan Haigang Huatai Functional Ceramic Material Co., Ltd. | 314.40 | 28.67 | 343.07 | 0.36 | 7 |
| Tangshan Huake Metallurgical Roll Co., Ltd. | 44.33 | 27.80 | 72.13 | 0.08 | 8 |
| Varsal Chemicals (Tangshan) Co., Ltd. | 230.40 | 18.00 | 248.40 | 0.26 | 9 |
| The Coal Tar Oil Processing Plant of Kailuan Group | 84.00 | 5.33 | 89.33 | 0.09 | 10 |
| Salima Chemicals (Tangshan) Co., Ltd. | 61.22 | 4.56 | 65.78 | 0.07 | 11 |
| The Plastic-steel Profiles Processing Plant | 25.20 | 1.44 | 26.64 | 0.03 | 12 |
| Total | 73133.62 | 21590.83 | 94724.45 | | |
| Ki (%) | 77.21 | 22.79 | | 100 | |

One may notice from [Table 10](#) that carbon dioxide is the major source of air pollution in the area, and its equivalent pollutant load accounts for 77.21% of total equivalent pollutant load for atmospheric pollution. Datang Power Plant ranks the first in terms of discharge amounts of carbon dioxide and fume/dust, and its equivalent pollutant load takes 67.53% of total equivalent pollutant load for air pollution in the assessed area.

Please refer to Table 11 below for assessment results on sources of water pollution existing in the surveyed area.

Table 11: Assessment Results on Sources of Industrial Wastewater and Pollutants

| Name of Pollution Source | COD Equivalent Pollutant Load | Pn | Kn | Ranking of Pollutant Amount |
|--|-------------------------------|---------|-------|-----------------------------|
| Tangshan Hengtong Precision Sheet Metal Company | 98.6 | 9.86 | 35.18 | 1 |
| Tangshan Jiahua Coal Chemical Industry Co., Ltd. | 95.56 | 9.556 | 34.09 | 2 |
| Kailuan Clean Coal Coking Plant | 62.8 | 6.28 | 22.40 | 3 |
| The Coal Tar Oil Processing Plant of Kailuan Group | 16 | 1.6 | 5.71 | 4 |
| Tangshan Datang Chemical Co., Ltd. | 2.71 | 0.271 | 0.97 | 5 |
| Tangshan Huake Metallurgical Roll Co., Ltd. | 2.145 | 0.2145 | 0.77 | 6 |
| Salima Chemicals (Tangshan) Co., Ltd. | 1.212 | 0.1212 | 0.43 | 7 |
| Varsal Chemicals (Tangshan) Co., Ltd. | 1.155 | 0.1155 | 0.41 | 8 |
| The Plastic-steel Profiles Processing Plant | 0.125 | 0.0125 | 0.04 | 9 |
| Total | 280.307 | 28.0307 | 100 | |

One may see from Table 11 that Tangshan Hengtong Precision Sheet Metal Company is the largest COD-discharging unit, and the second largest COD-discharging unit is Tangshan Jiahua Coal Chemical Industry Co., Ltd., and COD equivalent pollutant load by the two enterprises accounts for 69.27% of total COD

equivalent pollutant load in the assessed area.

4. Acceptance of the Three Simultaneities¹

Except for Kailuan Clean Coal Coking Plant, whose acceptance of environmental facilities is postponed, and the Coal Tar Oil Processing Plant of Kailuan Group, which is on test run, all other projects have met with the requirement of Three Simultaneities.

¹ Three Simultaneities mean that the environmental facilities must be simultaneously designed, constructed and completed with the main parts of any project.

Part III: Current Situation of Environment Quality

Chapter 1: Current Situation of Regional Environment Quality of Project Location and Major Environmental Problems (Ambient Air, Surface Water, Ground Water, Acoustic Environment, Ecological Environment and Etc.)

1. Ambient Air

According to *Monitoring Report on Present Environment at the First Phase of Crude Benzene Hydrogenation Project of Tangshan Jiahua Coal Chemical Industry Co., Ltd. with an Annual Capacity of 2X100,000 Metric Tons* (Tang Huan [Zi] No. [2008] 46), the Environment Monitoring Station of Tangshan City conducted a monitoring on Eastern Part of the Jingtang Port from May 7th through May 11th of 2008.

The monitoring results show that, daily average concentrations of PM₁₀, SO₂, and NO₂ are at 0.090~0.298 mg/Nm³, 0.04~0.057 mg/Nm³ and 0.034~0.048 mg/Nm³, and sulfur dioxide concentration and nitrogen dioxide concentration at all monitoring spots comply with Grade II Standards as indicated in *Ambient Air Quality Standard* (GB3095-1996); however daily average concentration of PM₁₀ is above the standard by 80% and 1.98 times, and that is caused by secondary fugitive dusts due to a low land vegetation rate and a high wind velocity.

2. Acoustic Environment

According to 2007 data from regular monitoring on Tangshan Port Development Zone by the Environment Monitoring Station of Tangshan City, the equivalent continuous A-weighted sound pressure level in this area does not exceed Grade III Standards as indicated in *Standard for Environmental Noise in Urban Areas* (GB3096-93), meaning that this area enjoys an excellent acoustic environment.

Chapter 2: Principal Targets for Environmental Protect (Please Identity a List of Targets and Their Protection Grades)

There are no cultural relic preservation site, scenic spot, revolutionary and historical relics, drinking water source and other environmentally sensitive areas. The nearest environmentally sensitive area from the project is the Jinyintan Bathing Beach, which is 4,500 meters away, and there is no environmentally sensitive area

within a radius of 3,000 meters.

Air: upon completion of the project, air quality at environs of the project will comply with Grade II Standards as indicated in *Ambient Air Quality Standard* (GB3095-1996).

Acoustic environment: upon completion of the project, noise at project boundary will meet requirements for Grade III Area as indicated in *Standard of Noise at boundary of Industrial Enterprises* (GB12348-90).

Part IV: Applicable Standards for Assessment

| | | | | |
|---|--|--|---|---|
| <p align="center">Standard for Environment Quality</p> | <p>1. Grade II Standards as indicated in <i>Ambient Air Quality Standard</i> (GB3095-1996) shall be applied for regional air quality.</p> <p>2. Grade III Standards as indicated in <i>Standard for Environmental Noise in Urban Areas</i> (GB3096-93), i.e., 65dB(A) at daytime and 55dB(A) at night, shall be applied for noise control.</p> | | | |
| <p align="center">Standard for Pollutant Discharge</p> | <p>1. Standards as indicated in Noise Limits for Construction Sites shall be applied for noise control during construction period, and the said noise limits are listed on <u>Table 12</u> below.</p> <p align="center">Table 12: Noise Limits for Construction Sites</p> | | | |
| | <p align="center">Construction Phase</p> | <p align="center">Leading Noise Source</p> | <p align="center">Noise Limit [dB(A)]</p> | |
| | | | <p align="center">At Daytime</p> | <p align="center">At Night</p> |
| | <p align="center">Earthwork</p> | <p align="center">Bulldozers, excavators, loaders and etc.</p> | <p align="center">75</p> | <p align="center">55</p> |
| | <p align="center">Piling</p> | <p align="center">Various piling machines</p> | <p align="center">85</p> | <p align="center">Construction prohibited</p> |
| | <p align="center">Structure engineering</p> | <p align="center">Concrete mixers, vibrators, electric saws and etc.</p> | <p align="center">70</p> | <p align="center">55</p> |
| | <p align="center">Fit-out work</p> | <p align="center">Cranes, lifters and etc.</p> | <p align="center">65</p> | <p align="center">55</p> |
| <p>2. Grade III Standards in Table 4 of <i>the Integrated Wastewater Discharge Standard</i> (GB8978-1996) shall be applied for wastewater discharge, which shall at the same time meets requirements of Tangshan Port Development Zone Wastewater Treatment Plant on influent water; nonetheless, in case that the said Wastewater Treatment Plant is yet to be operated prior to completion of this project, then Grade III Standards in Table 4 of <i>the Integrated Wastewater Discharge Standard</i> (GB8978-1996) shall be applied. Please see <u>Table 13</u> below for wastewater discharge standards.</p> <p align="center">Table 13: Wastewater Discharge Standards</p> | | | | |

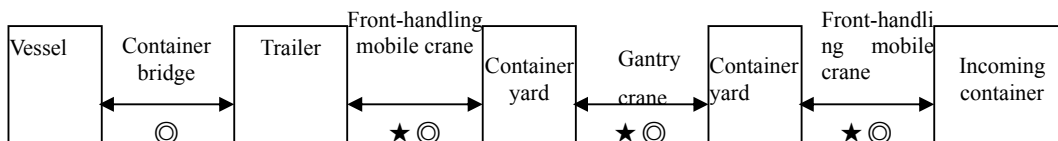
| | Item | pH | COD | BOD ₅ | SS | Ammonia Nitrogen | Petroleum-based Pollutants |
|------------------------------------|---|-----|-----|------------------|-----|------------------|----------------------------|
| | Grade III Standards in Table 4 of the Integrated Wastewater Discharge Standard | 6~9 | 500 | 300 | 400 | - | 20 |
| | Requirements of Tangshan Port Development Zone Eastern Wastewater Treatment Plant on Influent Water | 6~9 | 400 | 160 | 200 | 35 | - |
| | <p>3. Grade III Standards as indicated in <i>Standard of Noise at boundary of Industrial Enterprises</i> (GB12348-90) shall be applied for noise control at project boundary.</p> <p>4. The requirements as contained in <i>Standard for Pollution Control at Storage and Disposal Sites for General Industrial Solid Waste</i> (GB18599-2001) and <i>Standard for Pollution Control on Storage of Hazardous Waste</i> (GB18597-2001) shall be applied for solid waste.</p> | | | | | | |
| Parameter for Total Volume Control | <p>Parameters for total volume control of the proposed project are: COD at 0.792 t/a, ammonia nitrogen at 0.082 t/a and industrial solid waste at 0 t/a.</p> <p>Parameters for total volume control of the whole project are: COD at 1.711 t/a, ammonia nitrogen at 0.178 t/a and industrial solid waste at 0 t/a.</p> | | | | | | |

Part V: An Engineering Analysis on the Construction Project

Chapter 1: A Brief Account of Process Flow (by Diagram)

Container loading and unloading: upon arrival of a container vessel, the containers are loaded onto the trailers through container bridges, and are then transported to a container yard or container freight station by the trailers; upon their arrival at the container yard, the containers are piled by the front handling mobile cranes, and depiling, loading and unloading are done by gantry cranes at the container yard; loading of containers onto a vessel and unloading of containers from a vessel are opposite processes, but the same machines are applied. This project involves neither container cleaning nor container boxing/unboxing.

Please see [Figure 4](#) for process flow and pollutant discharge points of the project.



Legend: ★ Waste gas ○ Waste water ⊙ Noise ▲ Solid waste

Figure 4: Process Flow and Pollutant Discharge Points

Chapter 2: Major Polluting Processes

1. Waste Gas: waste gas includes exhaust gas emitted by fuel-powered transportation vehicles within the terminal yard, as well as yard/road dusts.

2. Noise: noise includes those by operating port machinery and transportation vehicles, and their acoustic pressure level is at 70~95dB(A) or below.

3. Wastewater: wastewater from the project includes project-related domestic sewage, domestic sewage from vessels, oily wastewater from vessels, flushing water for mobile machinery and wastewater from mechanic repair.

4. Solid Waste: solid waste includes domestic refuse, vessel refuse and waste oils from mechanic repair.

**Part VI: Generation and Expected Discharge of Leading Pollutants
From the Whole Project**

| Content Type | Discharge/ Emission Source (S/N) | Pollutant Name | Concentration and Amount before Treatment (Unit) | Concentration upon Discharge and Discharge Amount (Units) |
|--------------------|---|-----------------------------------|--|---|
| Air Pollutant | Vehicle exhaust gas | NO _x | - | - |
| | | CO | | |
| | | HC | | |
| | Road dust | TSP | | |
| Water Pollutant | Project-related domestic sewage and sewage from vessels | COD | 400 mg/L, 1.32t/a | 240 mg/L, 0.792t/a |
| | | Ammonia nitrogen | 30 mg/L, 0.1t/a | 25 mg/L, 0.082t/a |
| | | SS | 220 mg/L, 0.726t/a | 120 mg/L, 0.396t/a |
| | Flushing water for mobile machinery, oily wastewater from vessels and wastewater from mechanic repair | Petroleum-b ased pollutants | 200 mg/L | Collected and treated by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company |
| Solid Waste | Staff living quarters and office area | Domestic refuse | 30t/a | Transported to landfill sites |
| | Vessel | Domestic refuse | 35t/a | Refuse from a vessel from an epidemic area is disposed by the |

| | | | | |
|--------------------------------|---|---------------------------------|------|---|
| | | | | hygiene quarantine authorities, and other vessel refuse is to be land-filled by environmental hygiene authorities |
| | Production-related waste | Waste oils from mechanic repair | 5t/a | Collected and treated by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company |
| Noise | Major noises by this project include mainly those by operating port machinery and transportation vehicles, with their acoustic pressure levels at 70~95dB(A) or below. Through adopting low-noise equipment and strengthening maintenance and management of vehicles and facilities, noise level at project boundary may satisfy Grade III Standards as indicated in <i>Standard of Noise at Boundary of Industrial Enterprises</i> (GB12348-90). | | | |
| Other Pollutant | None. | | | |
| Major Ecological Impact: None. | | | | |

Part VII: An Analysis on Environmental Impacts

Chapter 1: A Brief Analysis of Environmental Impacts during Construction Period

Major construction elements of the proposed project include foundation treatment, construction of container yard, roads and office building, as well as other facilities for water supply and drainage, fire-fighting and lighting. The buildings are of masonry-concrete structures, roads are made of mass concrete, and yard surface is made of high-strength interlocking concrete blocks. Pollution sources during the construction period consist mainly of mechanical noise, engineering dust, engineering wastewater and construction waste. An analysis of environmental impacts during construction period for the proposed project and proposals on pollution prevention and control measures and managerial requirements may reduce negative impacts by project construction to a minimum.

1. An Analysis of Impacts on Atmospheric Environment

During the construction period, pollutions on ambient air by the proposed project include mainly dusts from surface leveling at the construction site, movements of transportation vehicles and their loading/unloading of construction materials, earthwork by construction machinery and temporary piling of spoils. Engineering dusts may increase dust content in the air at certain parts within the area, and may also be transported to neighboring areas by wind, thus affecting livelihood and working of employees of adjacent entities.

Measures to be taken during the construction period include the following: enclosure walls with a height of 2 meters or above will be built around the construction site; on-site mixing is to be done at enclosed space, cement, lime powder and other construction materials shall be stored at storage yard or tightly covered, discrete materials such as sand and soil must be covered, the building materials to be loaded, unloaded and/or handled shall be covered, closed or sprinkled, and none of them shall be thrown or spread into the air; a water ditch with its width at 3.5 meter, length at 10 meters and depth at 0.2 meter shall be made at the exit to and from the construction site, in which crushed stones with a diameter at 50 millimeters will be laid, so as to reduce the amount of earth on tires of vehicle to and from the construction site; covers will be made on materials to be transported or they will be

transported by enclosed vehicles, routes of transportation vehicles shall avoid residential quarters and other environmentally sensitive areas, and vehicle speed shall also be limited. All the above measures will help to reduce impacts of dust during construction period to its minimum.

In addition, exhaust gas from engineering machinery and transportation vehicles may increase concentration of carbon monoxide and other pollutants in the air of certain parts of the area, however that will not affect the residential quarters; furthermore, as such exhaust gas is emitted at intervals, it will completely disappear upon completion of the proposed project.

2. An Analysis of Impacts on Water Environment

Wastewater from the proposed project during construction period mainly includes cleaning water for engineering equipment and water from concrete maintenance, however their quantity is insignificant, and poses just small impacts on the environment as leading pollutants thereof are mud and sand. A simplified sedimentation tank shall be built on the construction site, through which, the engineering wastewater may be collected and settled, and then be used for site sprinkling to reduce fugitive dust.

During the construction period, on-site engineering personnel may bring about certain amount domestic wastewater, of which the main part is washing water; based on the size of engineering personnel at 70 people and amount of washing water at 40 liters per head per day, the amount of domestic wastewater is at 2.8 m³/d, and that will be discharged into the existing wastewater pipelines.

3. An Analysis of Impacts on Acoustic Environment

Noise sources during the construction period are mainly engineering machinery and vehicles, and they are featured by their intermittent nature with mobility and high noise level (which is 80~90 dB(A) from a distance of 5 meters). We have, through applying the attenuation of point source method and without taking into account of such attenuation by sound barriers or atmospheric absorptions, calculated out the geometric divergence of sound attenuation, and the formula is as follows:

$$Lr = Lr_0 - 20lg(r / r_0)$$

In which, Lr means A-weighted sound pressure level at place r away from noise source (in dB(A));

Lr_0 means A-weighted sound pressure level at place r_0 away from noise source

(in dB(A));

r means the distance between the point of estimation and noise source (in meters);

and

r_0 means the distance between the monitoring point and noise source (in meters)

Please see Table 14 below for estimated results for noises at the construction site.

Table 14: Noise Levels at Different Distances from the Noise Source

| Equipment Name | 5m | 10m | 20m | 40m | 50m | 100m | 150m | 200m |
|---------------------|----|-----|-----|-----|-----|------|------|------|
| Rubber-tired Loader | 90 | 80 | 78 | 72 | 70 | 64 | 60 | 58 |
| Winch | 85 | 79 | 73 | 67 | 65 | 59 | 55 | 53 |
| Bulldozer | 86 | 80 | 74 | 68 | 66 | 60 | 56 | 54 |
| Excavator | 84 | 78 | 72 | 66 | 64 | 58 | 54 | 52 |
| Truck | 90 | 80 | 78 | 72 | 70 | 64 | 60 | 58 |
| Electric Saw | 81 | 75 | 69 | 63 | 61 | 55 | 51 | 49 |
| Wood Planer | 81 | 75 | 69 | 63 | 61 | 55 | 51 | 49 |

One may see from Table 14 above that that noises by engineering machinery are high, and the place where engineering noise at daytime exceeds those as indicated in *Noise Limits for Construction Sites* (GB12523-90) are within a radius of 40 meters to the noise source. As there is no environmentally sensitive area in terms of acoustic environment within a radius of up to 3,000 meters, and the engineering noise is just temporary, the said noises will disappear upon completion of the proposed project.

The following measures are to be taken during construction engineering to reduce impacts on acoustic environment:

(1) Any construction engineering entity shall adopt advanced engineering equipment and technologies of low noise, and this requirement shall be a principal criterion for selecting contractors during the bidding process.

(2) Any operation by such equipment as a percussion piling machine or pneumatic hammer shall be prohibited.

(3) The working time and construction schedule must be arranged rationally, and all engineering entities shall make reasonable arrangements for working time, and engineering activities after 22:00 hours through 6:00 hours the next day shall be strictly prohibited, except as required by the proposed project.

4. An Analysis of Impact of Solid Waste

During the construction period, solid wastes will mainly be an insignificant

amount of construction refuse from the engineering process and domestic refuse after entry of engineering personnel. To avoid such environmental problems as fugitive dust due to casual piling of construction refuse, any solid waste from the engineering process must be transported to the outside storage yard for construction refuse for centralized disposal. Domestic refuse of insignificant amount by the engineering personnel will be collected by the environmental hygiene staff and conveyed to landfill site for land-filling.

In short, after taking the above-mentioned measures, solid waste from the proposed project during the construction period will not cause adverse impact on neighboring environment.

Chapter 2: An Analysis of Environmental Impacts of the Whole Project during Operation Period

1. Waste Gas

Waste gas from the project during its operation period includes road dust and vehicle exhaust gas, of which the leading pollutants are NO_x, carbon monoxide and hydrocarbons.

As roads within the project area will be cleaned and sprinkled at regular intervals to reduce fugitive dust, there will be very minor impact on ambient environment.

As heavy-load transportation vehicles and handling machines for the project are equipped with diesel engines, their fuel efficiency is relatively high; a diesel engine normally consumes less fuel than a gasoline engine by 15%, and it produces less carbon monoxide, NO_x and un-burnt hydrocarbons. In addition, the project is located at an open ground, which is favorable for diffusion, migration and dilution of polluted gas. However, to reduce impacts of exhaust gas on ambient environment, the project owner is recommended to take the following steps:

(1) To strengthen its management on internal transport. There shall be two exits to ensure smooth traffic, reduce the amount of pollutants due to repeated speed up, slow down or idle speed.

(2) To strengthen maintenance of transportation vehicles, so as to ensure a discharge of vehicle exhaust gas according to relevant standards.

(3) A transportation vehicle shall be stopped whenever it arrives at a handling site or parking space, and a run in neutral shall be prohibited.

(4) To enhance afforestation within project area, and all land available for

afforestation shall be forested so as to purify the air.

Upon taking the above measures, waste gas emission will have no significant impact on atmospheric environment.

2. Wastewater

The whole project produces wastewater from flushing mobile machinery, wastewater from mechanic repair and oily wastewater from vessels in an aggregate amount of 9.8 m³/d, where leading pollution factors are petroleum-based pollutants with their concentration at 200 mg/L; the said wastewater is collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment (the said Branch Company is designated by Hebei Provincial Administration for Maritime Safety to take vessel residual oils, please refer to Appendixes hereto for its certificate). The scope of business of the said Branch Company includes supply of fire equipment, collection of oily wastewater and etc.; its established treatment facilities for oily wastewater has a capacity of 80 t/d, and its actual running capacity at present is 40 t/d. In the Branch Company, oily wastewater is discharged after it has been treated under a pre-separation—flotation—high-efficiency separation process.

The whole project generates domestic wastewater in the amount of 21.6 m³/d, where concentration of COD, as a leading pollutant, is at 400 mg/L, while concentration of NH₃-N is at 30 mg/L. After treatment by the septic tank, COD concentration is reduced to 210 mg/L and NH₃-N concentration is reduced to 25 mg/L, both of which are in compliance with Grade III Standards in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996) and requirements of Tangshan Port Development Zone Wastewater Treatment Plant on influent water; the said wastewater is discharged into wastewater pipelines for further treatment by Tangshan Port Development Zone Wastewater Treatment Plant. Nonetheless, in case that the said Wastewater Treatment Plant is yet to be operated prior to completion of the proposed project, then Grade III Standards in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996) shall be applied, and the said water is to be discharged to the Jingtang Port Wastewater Treatment Station.

As wastewater from the project is to be discharged to Tangshan Port Development Zone Wastewater Treatment Plant for further treatment instead of into surface water body, it will exert no impact on the surface water.

3. Noise

Noises in connection with the project include noise by operating port machinery and noise by transportation vehicles, and their acoustic pressure levels are within 70~95dB(A). Please refer to Table 15 below for major noise-making equipment and their noise levels.

| S/N | Equipment | Noise Level in dB(A) | Quantity | Remarks |
|-----|-----------------------------|----------------------|----------|------------------------------|
| 1 | Container bridge | 95 | 5 | Fixed machinery |
| 2 | Container trailer | 75 | 40 | Mobile machinery within yard |
| 3 | Forklift truck | 70 | 19 | At container freight station |
| 4 | Container gantry crane | 85 | 20 | Mobile machinery within yard |
| 5 | Front-handling mobile crane | 80 | 5 | Mobile machinery within yard |
| 6 | Container reach-stacker | 75 | 2 | Mobile machinery within yard |

As the project site and its neighborhood are open and surrounded by newly-planned roads, and there is no environmentally sensitive area within a radius of 3,000 meters, therefore impact by noises generated by the project on the quality of surrounding acoustic environment is limited.

Nonetheless, to reduce impact of traffic noise on surrounding acoustic environment, the project owner is recommended to taking the following measures:

- (1) No tooting upon arrival of vehicles at the container yard.
- (2) Low-noise handling machines should be applied as practical as possible.
- (3) Loading/unloading and transportation shall be done during daytime if possible, and equipment of high noise shall not operate at night.
- (4) To strengthen afforestation within the container terminal, so as to reduce

impact of noise on ambient environment.

After taking the above measures, noise level at project boundary may satisfy requirements of Grade III Standards as indicated in *Standard of Noise at Boundary of Industrial Enterprises* (GB12348-90), and that noise level will not cause significantly adverse impact on quality of acoustic environment adjacent to the project site.

4. Solid Waste

Solid wastes by the project include mainly domestic refuse, vessel refuse and waste oils from mechanic repair.

The project is to generate domestic refuse in the amount of 30 t/a, which is collected and transferred to landfill sites by the environmental hygiene authorities; vessel refuse in the amount of 35 t/a is to be land filled by other environmental hygiene authorities, and those refuse from a vessel from an epidemic area is to be disposed by the hygiene quarantine authorities, other vessel refuse is to be land-filled by the environmental hygiene authorities; while waste oils from mechanic repair in the amount of 5 t/a belong to waste mineral oils (Category HW08) according to *the National Catalog of Hazardous Wastes*, which will be recycled and disposed by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company after collection. In a word, all solid wastes to be generated by the project will be handled and disposed in reasonable ways, and they will not bring about adverse impact on the environment.

5. Pollutant Discharge Amounts before and after Completion of the Proposed Project

We have, based upon different pollution sources, calculated out pollutant discharge amounts before and after completion of the expansion project. Please see Table 16 below for detailed information.

Table 16: Pollutant Discharge Amounts before and after Completion of the Expansion Project

| Pollutant | Discharge Amount by the Existing Project | Decrease in Discharge Amount Due to New Treatment Facilities in Replacement | Discharge Amount by the Proposed Project | Total Discharge Amount upon Completion of the Expansion | Percentage Change |
|-----------|--|---|--|---|-------------------|
| | | | | | |

| | | of Old Treatment Facilities | | Project | |
|---------------------|-------|-----------------------------------|-------|---------|--------|
| COD | 0.919 | 0 | 0.792 | 1.711 | +0.792 |
| Ammonia Nitrogen | 0.096 | 0 | 0.082 | 0.178 | +0.082 |

6. Parameters for Total Volume Control

Parameters for total volume control of the proposed project are: COD at 0.792 t/a, ammonia nitrogen at 0.082 t/a and industrial solid waste at 0 t/a.

Parameters for total volume control of the whole project are: COD at 1.711 t/a, ammonia nitrogen at 0.178 t/a and industrial solid waste at 0 t/a.

**Part VIII: Pollution Prevention and Control Measures to Be Taken by the
Construction Project and Their Anticipated Results**

| Content Type | Discharge/ Emission Source (S/N) | Pollutan t Name | Prevention and Control Measure | Anticipated Result |
|---------------------|---|-------------------------|---|--|
| Air Pollutants | Vehicle exhaust gas | NOx | To use vehicles whose exhaust gas is discharged according to relevant standards, and to strengthen maintenance and repair of vehicles | - |
| | | CO | | |
| | Road dust | HC | Regular cleaning and sprinkling by environmental hygiene staff | |
| Water Pollutants | Project-related domestic sewage and sewage from vessels | COD | Septic tank | Compliance with Category III Standards in Table 4 of <i>the Integrated Wastewater Discharge Standard</i> and requirements of Tangshan Port Development Zone Eastern |
| | | Ammoni a nitrogen | | |
| | Wastewater from flushing mobile machinery, oily wastewater from vessels and wastewater from mechanic repair | SS | Collected and treated by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company | |

| | | | | |
|--------------|--|-------|---|--|
| | | | | Wastewater Treatment Plant on influent water |
| Solid Wastes | Domestic refuse | 30t/a | Collected by the environmental hygiene authorities and conveyed to landfill sites for land filling | No discharge into the external environment |
| | Vessel refuse | 35t/a | Refuse from a vessel from an epidemic area is disposed by the hygiene quarantine authorities, and other vessel refuse is to be land-filled by environmental hygiene authorities | |
| | Waste oils from mechanic repair | 5t/a | Collected and treated by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company | |
| Noises | Major noises by this project include mainly those by operating port machinery and transportation vehicles, with their acoustic pressure levels at 70~95dB(A) or below. Through adopting low-noise equipment and strengthening maintenance and management of vehicles | | | |

| | |
|---|---|
| | and facilities, noise level at project boundary may satisfy Grade III Standards as indicated in <i>Standard of Noise at Boundary of Industrial Enterprises</i> (GB12348-90) according to estimates. |
| Other Pollutants | None. |
| Ecological protection measures and their anticipated results: none. | |

Part IX: Conclusion and Suggestions

Chapter 1: Conclusion

1.1 Sketch Information on the Existing Project

1.1.1 Basic Profile of the Existing Project

Jingtang Port International Container Terminal Co., Ltd. now possesses Berths No. 10 and No. 11, with a total length of coastline at 557 meters; the apron has a designed elevation of -12.5 meters, and the hydraulic structures are capable for docking by container vessels with a capacity of 35,000 dead weight tonnage (DWT); the terminal has equipped with two container bridges, while a depot with a floor space of 115,000 square meters, the business building as well as corresponding auxiliary facilities have been built at the container yard. There is no output capacity, process or product that needs to be phased out therein, and the existing project was passed an acceptance by the Environmental Protection Bureau of Tangshan City on July 17th of 2008.

Water and fire water supply to the existing project is made by the Tangshan Port Development Zone, and water consumption volume by the project is at 49.6m³/d, out of which, 35m³/d are water for vessels, 7.6m³/d are for domestic use, 3m³/d are flushing water for mobile machinery, 0.5m³/d is for mechanic repair and miscellaneous purposes, and 3.5m³/d are for road sprinkling purpose. The existing project produces domestic sewage in the amount of 5.6m³/d and domestic sewage from docked vessels in the amount of 6m³/d, which are discharged into Jingtang Port Wastewater Treatment Station for further treatment; and oily wastewater is in the amount of 4.6m³/d, out of which, flushing water for mobile machinery is in the amount of 2.7m³/d, wastewater from mechanic repair in the amount of 0.4m³/d and vessel sludge water is in the amount of 1.5m³/d, which are collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment

Power supply to the existing project is provided by the Jingtang Port power grid. The existing terminal operates 335 days a year, and the depot operates 350 days a year. The size of labor force is currently 95 persons, out of which, the management and business staff work only during daytime, while staff at the terminal and the depot are divided into 4 groups, and work by shifts once every 8 hours.

1.1.2 Pollutant Discharge from the Existing Project

Waste Gas: waste gas from the existing project includes vehicle exhaust gas, road dust and dust from the bulk coal storage yard in an aggregate amount of 1.2 kg/h. The project has taken such measures as applying the vehicles whose exhaust gas is discharged according to relevant standards as well as intensifying equipment maintenance, so as to ensure that the exhaust gas is discharged according to relevant standards; in addition, regular sprinkling for the bulk coal storage yard, the container yard and road surface has been done, so as to reduce the amount of dusts. Therefore, the existing project poses no significant impact on neighboring environment through its discharge of waste gas.

Waste Water: the existing project generates domestic wastewater in the amount of 5.6m³/d, and domestic wastewater from vessels is in the amount of 6.0 m³/d; in which major pollutants are chemical oxygen demand at 240 mg/L, ammonia nitrogen at 25 mg/L and suspended substance at 120 mg/L, all are in compliance with the discharge standards for Grade C as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The said domestic wastewater meets quality requirements for wastewater into Jingtang Port Wastewater Treatment Station, and is discharged into the said Wastewater Treatment Station, whose design capacity is at 250m³/d, and actual treatment volume is at 200m³/d, where the process of primary settling tank---oxidation ditch---secondary settling tank is applied, and the wastewater after treatment is discharged into the sea in compliance with the discharge standards for Grade B as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996). The existing project also generates flushing water for mobile machinery in the amount of 2.7m³/d, wastewater from mechanic repair in the amount of 0.4 m³/d and oily wastewater from vessels in the amount of 1.5 m³/d, in which the major pollutants are petroleum-based pollutants with their concentration at 200 mg/L, and the said waste is collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment.

Noise: noise-generating equipment within the existing project includes mainly the container bridges, container trailers, gantry crane, forklift trucks and etc., whose acoustic pressure level is at 70-95 dB(A). However, as the project adopts such measures as regular maintenance of its vehicles and repair of its equipment, noise at project boundary satisfies requirements of Category C standards as prescribed in *the Standard of Noise at boundary of Industrial Enterprises* (GB12348-90).

Solid waste: the project generates domestic waste in the amount of 15t/a, which is collected and transferred to landfill sites by the environmental hygiene authorities; vessel refuse in the amount of 17t/a is land filled by other environmental hygiene authorities, and those refuse from a vessel from an epidemic area is disposed by the hygiene quarantine authorities, other vessel refuse is to be land-filled by the environmental hygiene authorities; while waste oils from mechanic repair in the amount of 2t/a belong to waste mineral oils (Category HW08) according to *the National Catalog of Hazardous Wastes*, which is recycled and disposed by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company after collection. In a word, all solid waste generated by the existing project is handled and disposed in reasonable ways.

1.2 Major Environmental Problems of the Existing Project

After treatment by Jingtang Port Wastewater Treatment Station, wastewater from the existing project is discharged into the sea in compliance with the discharge standards for Grade B as indicated in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996), however the treated wastewater still fails to comply with the discharge standards for Grade A as indicated in *the Discharge Standards of Pollutants for Municipal Wastewater Treatment Plants* (GB 18918-2002).

1.3 Information about the Proposed Project

1.3.1 Project Profile

Project name: the container berth expansion project at Jingtang Port area in Tangshan.

Project owner: Jingtang Port International Container Terminal Co., Ltd.

Nature of project: it is an expansion project.

Total investment: the total investment volume of the proposed project is at RMB 351.88 million Yuan, out of which RMB 600,000 Yuan is for environmental protection, accounting for 0.2% of the total investment volume.

Place of construction: the proposed project is located at a place 300 meters to the north of Basin No. 1 and at the east of Berths No. 10 and No. 11 at Basin No. 2 at Jingtang Port in Tangshan Port Development Zone; and coordinates for its geographical center are N: 39°12' 53.4" and E: 118°59' 56.1".

Construction scale: There is no need to expand the terminal for the proposed project, and the proposed project includes, in addition to the existing equipment and facilities, three additional container bridges, a new container yard to the east of the

existing container yard with a floor space of 170,000 square meters, and corresponding auxiliary facilities such as a Business Building, a Customs Office and a Commodity Inspection Office with a total floor space of 3,000 square meters, whereby the throughput capacity of the container terminals may reach 500,000 TEUs per annum.

Content of construction: the construction contents include a proprietary container yard and corresponding auxiliary facilities such as a Business Building, a Customs Office and a Commodity Inspection Office.

1.3.2 Auxiliary Facilities

1.3.2.1 Water Supply and Drainage

Water and fire water supply to the proposed project is made by the Tangshan Port Development Zone, and water consumption volume by the proposed is at $58.5\text{m}^3/\text{d}$, out of which, $25\text{m}^3/\text{d}$ are water for vessels, $6.4\text{m}^3/\text{d}$ are for domestic use, $3.3\text{m}^3/\text{d}$ are flushing water for mobile machinery, $0.7\text{m}^3/\text{d}$ is for mechanic repair and miscellaneous purposes, and $4.5\text{m}^3/\text{d}$ are for road and yard sprinkling purposes.

The proposed project is to be equipped with a rainwater and wastewater separation system, whereby rainwater is collected and discharged into the municipal rainwater pipelines through the rainwater pipeline network; while domestic sewage from the proposed project in the amount of $5.0\text{m}^3/\text{d}$ and domestic sewage from docked vessels in the amount of $5.0\text{m}^3/\text{d}$ are to be discharged into Jingtang Port Wastewater Treatment Station for further treatment; and such oily wastewater as flushing water for mobile machinery in the amount of $3\text{m}^3/\text{d}$, wastewater from mechanic repair in the amount of $0.6\text{m}^3/\text{d}$ and vessel sludge water in the amount of $1.7\text{m}^3/\text{d}$ are collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment.

1.3.2.2 Power Supply

Power supply to the proposed project is to be provided by the Jingtang Port Development Zone power grid, and the electric power needs may be satisfied by three high-voltage switch cabinets connected to the existing substations No. 12 and No. 13.

1.3.2.3 Heating

Split cold/warm air conditioners will be applied to the proposed Business Building.

1.4 A Survey of Current Environment Quality

1.4.1 Ambient Air

According to *Monitoring Report on Present Environment at the First Phase of Crude Benzene Hydrogenation Project of Tangshan Jiahua Coal Chemical Industry Co., Ltd. with an Annual Capacity of 2X100,000 Metric Tons* (Tang Huan [Zi] No. [2008] 46), the Environment Monitoring Station of Tangshan City conducted a monitoring on Eastern Part of the Jingtang Port from May 7th through May 11th of 2008.

The monitoring results show that, daily average concentrations of PM₁₀, SO₂, and NO₂ are at 0.090~0.298 mg/Nm³, 0.04~0.057 mg/Nm³ and 0.034~0.048 mg/Nm³, and sulfur dioxide concentration and nitrogen dioxide concentration at all monitoring spots comply with Grade II Standards as indicated in *Ambient Air Quality Standard* (GB3095-1996); however daily average concentration of PM₁₀ is above the standard by 80% and 1.98 times, and that is caused by secondary fugitive dusts due to a low land vegetation rate and a high wind velocity.

1.4.2 Acoustic Environment

According to 2007 data from regular monitoring on Tangshan Port Development Zone by the Environment Monitoring Station of Tangshan City, the equivalent continuous A-weighted sound pressure level in this area does not exceed Grade III Standards as indicated in *Standard for Environmental Noise in Urban Areas* (GB3096-93), meaning that this area enjoys an excellent acoustic environment.

1.5 Results of Environmental Impact Analysis

1.5.1 An Analysis of Environmental Impacts during Construction Period

During the construction period, the propose project may generate noise, waste gas, wastewater and construction refuse, and the construction engineering entities shall conduct their building activities in strict accordance with requirements of the environmental protection authorities, arrange their working hours in a reasonable way, and implement all environmental protection measures as put forward in the present EIA Report. The said environmental protection measures, upon implementations, may minimize impacts of noise, waste gas, wastewater and construction refuse during the construction period on ambient environment; those impacts are of a temporary nature and will disappear upon completion of the proposed project.

1.5.2 An Analysis of Environmental Impacts during Operation Period

1.5.2.1 An Analysis of Impacts on Atmospheric Environment

Waste gas from the project during its operation period includes road dust and

exhaust gas from fuel-powered vehicles with the container yard, of which the leading pollutants are NO_x, carbon monoxide and hydrocarbons.

As roads within the project area will be cleaned and sprinkled at regular intervals to reduce fugitive dust, there will be very minor impact on ambient environment.

As heavy-load transportation vehicles and handling machines for the project are equipped with diesel engines, their fuel efficiency is relatively high; and they produce less carbon monoxide, NO_x and un-burnt hydrocarbons. In addition, the project is located at an open ground, which is favorable for diffusion, migration and dilution of polluted gas; impacts of vehicle exhaust gas on ambient air may effectively be reduced through strengthening management on internal transport, strengthening maintenance of transportation vehicles, phasing out those vehicles that failed to comply with relevant emission standards and prohibiting a run in neutral of vehicles. Thus, exhaust gas emissions will have no material impact on atmospheric environment at neighboring areas.

1.5.2.2 An Analysis of Impacts on Water Environment

Wastewater from the project includes mainly project-related domestic sewage, domestic sewage from vessels, flushing water for mobile machinery, wastewater from mechanic repair and oily wastewater from vessels.

Upon completion of the proposed project, the whole project may produce wastewater from flushing mobile machinery, wastewater from mechanic repair and oily wastewater from vessels in an aggregate amount of 9.8 m³/d, where leading pollution factors are petroleum-based pollutants with their concentration at 200 mg/L; the said wastewater is to be collected and transported to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for further treatment.

The whole project will generate domestic wastewater in the amount of 21.6 m³/d, where concentration of COD, as a leading pollutant, is at 400 mg/L, while concentration of NH₃-N is at 30 mg/L. After treatment by the septic tank, COD concentration will be reduced to 210 mg/L and NH₃-N concentration will be reduced to 25 mg/L, both will in compliance with Grade III Standards in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996) and requirements of Tangshan Port Development Zone Wastewater Treatment Plant on influent water; the said wastewater will be discharged into wastewater pipelines for further treatment by Tangshan Port Development Zone Wastewater Treatment Plant. Nonetheless, in case that the said Wastewater Treatment Plant is yet to be operated by completion of the

proposed project, then Grade III Standards in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996) shall be applied, and the said water will be discharged to the Jingtang Port Wastewater Treatment Station.

1.5.2.3 An Analysis of Impacts on Acoustic Environment

Noises in connection with the project include noise by operating port machinery and noise by transportation vehicles.

After taking such measures as adopting low-noise equipment, emphasizing maintenance and administration of vehicles and facilities, and with the effect of range attenuation, noise level at project boundary may satisfy requirements of Grade III Standards (i.e., at $\leq 65\text{dB(A)}$ during daytime and at $\leq 55\text{dB(A)}$ during night) as indicated in *Standard of Noise at Boundary of Industrial Enterprises* (GB12348-90), and that noise level will not cause substantially adverse impact on quality of acoustic environment adjacent to the project site.

1.5.2.4 An Analysis of Environmental Impacts of Solid Waste

Solid wastes by the project include mainly domestic refuse, vessel refuse and waste oils from mechanic repair.

The project is to generate domestic refuse in the amount of 30 t/a, which is collected and transferred to landfill sites by the environmental hygiene authorities; vessel refuse in the amount of 35 t/a is to be land filled by other environmental hygiene authorities, and those refuse from a vessel from an epidemic area is to be disposed by the hygiene quarantine authorities, other vessel refuse is to be land-filled by the environmental hygiene authorities; while waste oils from mechanic repair in the amount of 5 t/a belong to waste mineral oils (Category HW08) according to *the National Catalog of Hazardous Wastes*, which will be recycled and disposed by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company after collection. In a word, all solid wastes to be generated by the whole project will be handled and disposed in reasonable ways, and they will not bring about adverse impact on the environment.

1.6 Total Volume Control

Parameters for total volume control of the proposed project are: COD at 0.792 t/a, ammonia nitrogen at 0.082 t/a and industrial solid waste at 0 t/a.

Parameters for total volume control of the whole project are: COD at 1.711 t/a, ammonia nitrogen at 0.178 t/a and industrial solid waste at 0 t/a.

1.7 Feasibility of Site Selection

The proposed project is to be located at the original coal storage yard at Jingtang Port, which is at the eastside of the existing container yard in Tangshan Port Development Zone, and the project site complies with planning for the said Development Zone. There is no such environmentally sensitive areas as a nature reserve or a water source; the project itself will not cause any impact on surrounding targets for environmental protection during construction period for the proposed project or operation period for the whole project. To sum up, the project site is feasible.

1.8 Conclusion on Project Feasibility

The project meets with industrial policies of the State. As it will be located within Jingtang Port in Tangshan Port Development Zone, its project site is feasible; all pollution prevention and control measures proposed herein are reliable and effective; as effective pollution prevention and control measures will be taken during the construction period, the proposed project will just have insignificant impact on ambient environment; and the whole project will also cause insignificant impact on ambient environment during its operation period. To sum up, the construction of the proposed project is feasible from the perspective of environmental protection.

Chapter 2: Suggestions

Our suggestions towards the proposed project are as follows:

2.1 During the construction period, personnel shall be designated for managing work related with environmental protection and such designated personnel shall also be responsible for supervising implementation of various environmental protection measures, and shall resolve, in a timely manner, any environmental problem that may occur during the construction period.

2.2 A good job shall be done towards standardization of wastewater discharge outlets.

2.3 The environmental protection funds shall be earmarked for implementing pollution control measures, so as to realize discharge of any pollutant in accordance with relevant standards.

2.4 The project owner shall earnestly carry out all national and local laws, regulations and requirements on environmental protection, clearly define main duties and responsibilities of environmental protection departments of the project, establish and optimize its rules and regulations.

2.5 The project owner shall strengthen its maintenance and management of environmental protection facilities, so as to ensure their normal functioning.

Chapter 3: Environmental Protection Items for Three-Simultaneity Acceptance of Construction Project

Please refer to Table 17 below for environmental protection items for three-simultaneity acceptance of construction project.

Table 17: Environmental Protection Items for Three-Simultaneity Acceptance of Construction Project

| Item | | Environmental Protection Measure | Quantity | Acceptance Parameter | Acceptance Standard |
|-------------|-----------------------------------|---|----------|--|--|
| Waste Gas | Road dust and vehicle exhaust gas | To use vehicles whose exhaust gas is discharged according to relevant standards, and roads within the project area will be cleaned and sprinkled at regular intervals to reduce fugitive dust | | — | — |
| Waste Water | Domestic sewage | Septic tank | 1 | COD \leq 400 mg/L SS \leq 200 mg/L Ammonia nitrogen \leq 35 mg/L | Grade III Standards in Table 4 of <i>the Integrated Wastewater Discharge Standard</i> (GB8978-1996) and requirements |

| | | | | | |
|-------------|---|--|--|--|---|
| | | | | | of Tangshan Port Development Zone Wastewater Treatment Plant on influent water |
| | Flushing water for mobile machinery, wastewater from mechanic repair and oily wastewater from vessels | To be conveyed to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for treatment | | — | — |
| Noise | Operating machines and transportation vehicles | To apply low-noise equipment and to strengthen maintenance and service of vehicles and facilities | | 55dB(A) at daytime, and 65dB(A) at night | Category III Standards as prescribed in <i>the Standard of Noise at boundary of Industrial Enterprises</i> (GB12348-90) |
| Solid Waste | Domestic refuse | To be transferred to landfill sites for sanitary land-filling | | No external discharge | <i>Standard for Pollution Control at Storage and Disposal Sites for General Industrial Solid Waste</i> (GB18599-2001) |
| | Vessel refuse | Refuse from a vessel from an epidemic area is disposed by the hygiene quarantine authorities, and other refuse is land-filled by the environmental | | | |

| | | | | |
|--|---------------------------------|---|-----------------------|--|
| | | hygiene authorities | | |
| | Waste oils from mechanic repair | To be collected and treated by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company | No external discharge | Requirements of <i>Standard for Pollution Control on Storage of Hazardous Waste</i> (GB18597-2001) |

Part X: Opinions for Preliminary Approval

Official Seal

Handled by:

Date: MM DD, YYYY

**Part XI: Opinions for Examination by the Next-level Competent Administrative
Authority for Environmental Protection**

1. It is hereby agreed to Conclusion as contained in Environmental Impact Assessment Report on the Container Berth Expansion Project at Jingtang Port Area in Tangshan; the standards put forward therein are appropriate and prevention and control measures are practical.

2. Jingtang Port International Container Terminal Co., Ltd. is to invest RMB 351.88 million Yuan for the construction of the Container Berth Expansion Project at Jingtang Port Area in Tangshan, by which, additional terminal handling equipment will be installed, proprietary container yard and other auxiliary facilities will also be built, so as to increase terminal berth throughput capacity to 500,000 TEUs per annum.

3. Upon completion and operation of the project, parameters for total volume control on its pollutants shall be: COD at 0.792 t/a, and ammonia nitrogen at 0.082 t/a.

4. It is hereby agreed to submit the said Environmental Impact Assessment Report to the Department of Environmental Protection of Hebei Province for examination and approval.

Handled by: WANG Yu

The Municipal Bureau for Environmental Protection of Tangshan City
(Sealed)

August 5th of 2008

Part XII: Opinions for Approval

Ji Huan Biao No. [2008] 476

The following replied are made towards the Environmental Impact Assessment Report on the Container Berth Expansion Project at Jingtang Port Area in Tangshan based on Opinions for Examination by the Municipal Bureau for Environmental Protection of Tangshan City and Evaluation Opinions of the Environmental Impact Assessment Center of Hebei Province:

1. The Container Berth Expansion Project at Jingtang Port Area in Tangshan includes 3 additional container bridges at the existing berths, transformation of the original coal storage yard into a container yard with a floor space of 170,000 square meters as well as corresponding auxiliary facilities such as a Business Building, a Customs Office and a Commodity Inspection Office with a total floor space of 3,000 square meters. Upon the said transformation, throughput capacity of the container terminals may reach 500,000 TEUs per annum. Total investment volume of the proposed project is at RMB 351.88 million Yuan, out of which RMB 600,000 Yuan is for environmental protection, and it is expected that the proposed project is to be put into operation in April 2009. No land requisition is required for construction of the proposed project. As negative environmental impacts may be mitigated and limited upon an all-round implementation of various environmental protection measures and funds stated in the Environmental Impact Assessment Report and upon discharge of different pollutants according to relevant standards, the proposed project is therefore feasible. Hence, this Department agrees to construction of the proposed project according to construction elements set forth in the Environmental Impact Assessment Report.

2. The following jobs shall be priorities during project construction and operation management:

2.1 In order to ensure implementation of various environmental protection measures, management during the construction period shall be strengthened, strict rules and regulations shall be formulated. Hard enclosures with a height of 2 meters or above shall be made around the construction site boundary; on-site mixing shall be done at an enclosed space; shallow water mat-labs shall be made at exits to and from

the construction site; construction engineering during 22:00 hours through 6:00 hours the following day shall be strictly prohibited.

2.2 Each and every environmental protection measures as required by the Environmental Impact Assessment Report shall be implemented to the letter. Industrial wastewater shall be collected and conveyed to Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company for treatment. Domestic wastewater shall be discharged in compliance with Grade III Standards in Table 4 of *the Integrated Wastewater Discharge Standard* (GB8978-1996) and requirements of Tangshan Port Development Zone Wastewater Treatment Plant on influent water; the said domestic wastewater shall be discharged into Jingtang Port Wastewater Treatment Station before completion of Tangshan Port Development Zone Wastewater Treatment Plant, and shall be discharged into Tangshan Port Development Zone Wastewater Treatment Plant for further treatment upon its completion. The low-noise handling machines shall be applied, and noise level at project boundary shall satisfy requirements of Category III Standards as prescribed in *the Standard of Noise at boundary of Industrial Enterprises* (GB12348-90). Domestic refuse shall be collected and transferred to landfill sites by the environmental hygiene authorities; refuse from a vessel from an epidemic area shall be disposed by the hygiene quarantine authorities, and other vessel refuse shall be land-filled by the environmental hygiene authorities. As hazardous wastes, waste oils from mechanic repair shall be collected for recycling and disposal by Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company.

2.3 Total volume of pollutants to be discharged must be within the parameters for total volume control as determined by the Municipal Bureau for Environmental Protection of Tangshan City, i.e., COD at 0.792 t/a and ammonia nitrogen at 0.082 t/a. Plans for reduction in total volume shall be items for acceptance of the project.

3. The construction project must strictly abide by the Three Simultaneities rule, that is, the environmental protection measures and facilities shall be simultaneously designed, constructed and completed together with main parts of the project. Upon completion, the project owner must submit a written application for trial run to the Municipal Bureau for Environmental Protection of Tangshan City, and the project may be put into a trial run only upon consent of the said Bureau after its inspection on the completed project. The project owner shall, within three months from the trial run, make an application to this Department for acceptance, and the project may be

put into normal operation only after it is accepted by this Department. Any change to construction elements shall be reported to this Department in a timely manner. Any violation of requirements herein shall be subject to corresponding legal liabilities in relation to environmental protection.

4. The supervision and inspection on environmental protection of the project will be jointly done by this Department and the Municipal Bureau for Environmental Protection of Tangshan City.

5. Jingtang Port International Container Terminal Co., Ltd. must, within 20 working days upon its receipt of these Replies, deliver the approved Environmental Impact Assessment Report to the Municipal Bureau for Environmental Protection of Tangshan City, and shall accept supervision and inspection by the administration authorities for environmental protection at all levels according to relevant rules and regulations. In addition, the project owner shall, in accordance with requirements of *Implementation of Three Simultaneities on Environmental Protection of Construction Projects*, report to the Municipal Bureau for Environmental Protection of Tangshan City of its implementation of the Three Simultaneity requirements at regular time intervals.

Handled by: ZHAO Wenying

The Department of Environmental Protection of Hebei Province
(Sealed)

August 12th of 2008

Notes

1. The Environmental Impact Assessment Report shall be accompanied by the following attachments and drawings:

Attachment 1: Project establishment approval documents;

Attachment 2: Other administrative documents in connection with environmental impact assessment;

Drawing 1: Drawing on geographical location of the project (which shall reflect administrative divisions and water systems, identify pollutant discharge outlets as well as topography and landforms); and

Drawing 2: Project layout plan

2. In the event that this Environmental Impact Assessment Report fails to specify pollutions by the project and their environmental impacts, then specialized environmental impact assessments shall be done. The said specialized environmental impact assessments may include one or two of the following according to features of the construction project and characteristics of local environment.

1. Specialized environmental impact assessment on atmospheric environment;
2. Specialized environmental impact assessment on water environment (including surface water and ground water);
3. Specialized environmental impact assessment on ecological environment;
4. Specialized environmental impact assessment on acoustic environment;
5. Specialized environmental impact assessment on soil; or
6. Specialized assessment on environmental impacts by solid waste.

For any subject that the above specialized assessments have failed to cover, an additional specialized environmental impact assessment may be done, and any specialized environmental impact assessment shall be conducted in accordance with requirements as contained in *Technical Guidelines for Environmental Impact Assessment*.

Part XIII: Appendixes

Appendix 1: Drawing on Geographical Location of Jingtang Port

比例尺 1:150000

Scale: 1:150000

附图 1 京唐港地理位置图

Drawing 1: Geographical Location of Jingtang Port

Appendix 2: Master Planning for Tangshan Port Development Zone and Jingtang Port

项目位置

Project location

图例

Legend

Drawing 2: Master Planning for Tangshan Port Development Zone and Jingtang Port

Appendix 3: Project Layout Plan

| | |
|--------|--------------------------------|
| 业务楼 | Business Building |
| 新建库房 | Proposed storage yard |
| 进 | Entrance |
| 出 | Exit |
| 海关 | Customs Office |
| 停车场 | Parking Lot |
| 扩建重箱堆场 | Proposed loaded container yard |
| 流机库 | Mobile machinery garage |
| 停车场 | Parking lot |
| 业务楼 | Business Building |
| 10#泊位 | Berth No. 10 |
| 11#泊位 | Berth No. 11 |
| 已有重箱堆场 | Existing loaded container yard |

List of Major Constructions

| S/N | Name | Unit | Floor space | Remarks |
|-----|-------------------------|----------------|-------------|---------|
| 1 | Proposed container yard | m ² | 170,000 | |
| 2 | Business building | m ² | 3,000 | |
| 3 | Proposed storage yard | m ² | 6,000 | |
| 4 | Open enclosure walls | m ² | 1,800 | |

Legend

| |
|--------------------------------|
| Proposed loaded container yard |
| Proposed van pool |
| Proposed buildings |
| Scope of expansion project |
| |

Notes:

1. This Drawing is based on relevant drawings owned by the project owner.
2. The elevation system as applied in this Drawing is based on the minimum low water level in theory at Jingtang Port Area.
3. Size and coordinates as shown in this Drawing are in metric meters.

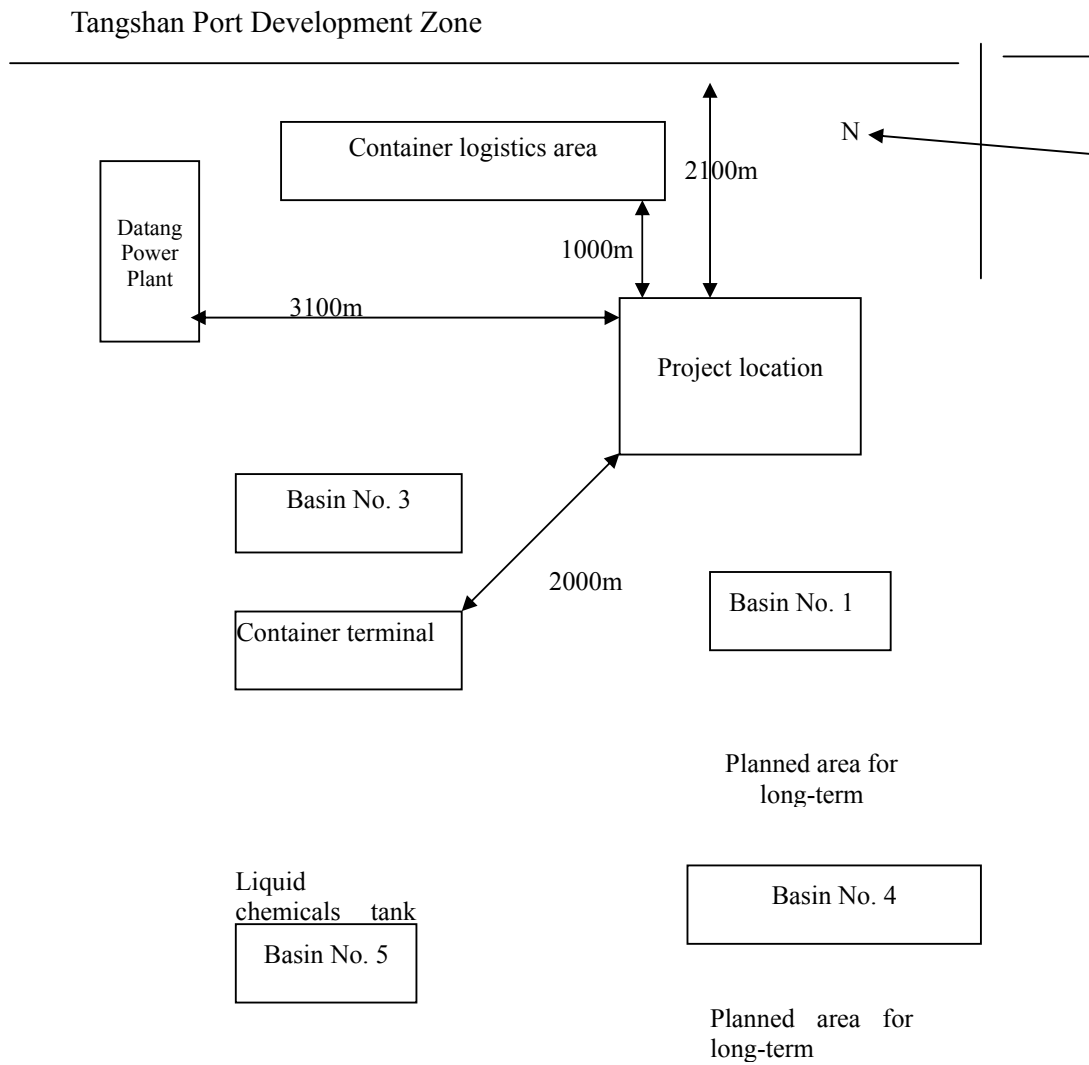
Drawing 3 : Project Layout Plan

Appendix 4: Sketch Drawing on Terminal Berths at Jingtang Port

| | |
|-------|--------------------|
| 集装箱港区 | Container terminal |
| 第一港池 | Basin No. 1 |
| 第二港池 | Basin No. 2 |
| 第三港池 | Basin No. 3 |
| 第四港池 | Basin No. 4 |
| 第五港池 | Basin No. 5 |
| 拟建项目 | Proposed project |
| 集装箱港区 | Container terminal |
| 液化港区 | LGP terminal |

Drawing 4: Terminal Berths at Jingtang Port

Appendix 5: Drawing on Neighborhood Relationship



Drawing 5: Neighborhood Relationship

Appendix 6:

**Form for Consulting Opinions on Environmental Protection Approval of
Construction Projects**

No.:

| | | | | |
|---|--|---|--|-----------------------------|
| For Use by the Project Owner only | Project name | The Container Berth Expansion Project at Jingtang Port Area in Tangshan | | |
| | Basic information | Production scale or output capacity | Terminal throughput capacity at 500,000 TEUs per annum | |
| | | Total investment | RMB 351.88 million Yuan | |
| | Project site | Container yard for Berths No. 10 and No. 11 of Basin No. 2 at Jingtang Port in Tangshan Port Development Zone | | |
| | Distance from the construction site of the proposed project to the nearest environmentally sensitive area (in metric meters) | | | |
| | Way for approval | By approval <input type="checkbox"/> By verification <input checked="" type="checkbox"/> By registration <input type="checkbox"/> | | |
| | Level of verification or registration | National <input type="checkbox"/> Provincial <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> County (country-level city or district) <input type="checkbox"/> | | |
| | Technical assessment by experts | Required <input checked="" type="checkbox"/> Not required <input type="checkbox"/> | | |
| | Legal representative | LU Zexiang | Contact person and | CHEN Li Tel: 03152913080 |

| | | | | |
|--|---|---|--|-------------------|
| | | | telephone number | Cell: 13011526366 |
| For Use by the Environmental Protection Authority only | Approving authority for environmental protection | National <input type="checkbox"/> | Provincial <input type="checkbox"/> | |
| | Type of EIA document | Municipal <input checked="" type="checkbox"/> | County (country-level city or district) <input type="checkbox"/> | |
| | Documents required for approval: <ol style="list-style-type: none"> 1. EIA document on the construction project in 8 counterparts for printout and in duplicate for electronic version. 2. One copy of the approval document for Project Proposal (in case it is a project subject to approval procedures) or registration permit (in case it is a project subject to filing procedures); 3. Technical evaluation opinions on the EIA document; 4. Opinions for examination by the next-level competent administrative authority for environmental protection; and 5. Any other document as required by relevant law, rules and regulations. | | | |
| Remarks | <ol style="list-style-type: none"> 1. The project owner shall be held liable for authenticity of the submitted materials; 2. A project subject to verification procedures shall produce preliminary consulting opinions of the authorities in charge of investment approval; and 3. This Form is for reference purposes during the preliminary environmental impact assessment. | | | |
| | | | | |

Handled by: ZHANG Dapeng (Signed)

June 5th of 2008

Appendix 7:

Agreement on Acceptance and Treatment of Oily Wastewater and Vessel Refuse

Party A: Jingtang Port International Container Terminal Co., Ltd.

Party B: Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company

Party A and Party B, with a view to fully exploiting their respective advantages, based on the principles of resource sharing and mutual benefit and upon amicable consultations, have decided to enter into this Agreement, so as to do a better job in accepting and treating all kinds of oily wastewater and vessel refuse to be generated during operations of Jingtang Port International Container Terminal Co., Ltd..

1. Party B shall be responsible for collecting and treating any and all oily wastewater and vessel refuse to be generated by Party A, and the said collection and treatment shall comply with national and provincial requirements on environmental protections, and shall not cause any environmental pollution in whatever form.

2. As the oily wastewater treated by Party B is provided by Party A, Party B shall appropriately compensate Party A in line with the recycled value thereof.

3. Any matter that the Agreement has failed to provide for or due to an occurrence of force majeure event and/or material policy change shall be resolved by the parties through consultations.

4. An explanation of Party B's treatment facilities (including processes).

5. An explanation of Party B's treatment capacity (where designed treatment capacity and actual treatment capacity at present shall be stated).

Party A: Jingtang Port International Container Terminal Co., Ltd.

(Sealed)

Party B: Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company

(Sealed)

March 25th of 2008

Appendix 8:

Registration Certificate for Vessel Residual Oils Accepting Entity

Registration No.: Tang Hai Shi-03

Entity Name: Jingtang Port Co., Ltd. Machine and Voyage Repair Branch Company

Legal Representative: CAO Yimin

Credit Rating: Grade B

Validity: until December 31st of 2007

Authority: The Maritime Safety Bureau of Tangshan City

(Sealed)

Appendix 9:

Certificate

This is to agree that wastewater from Jingtang Port Area of Tangshan may be conveyed to wastewater pipelines within Tangshan Port Development Zone, and be discharged after treatment by relevant wastewater treatment plants.

The Development and Reform Bureau of Tangshan Port Development Zone of Hebei
Province
(Sealed)

September 4th of 2007

Appendix 10:

Deed of Appointment

Hebei Qizheng Environmental Science Co., Ltd.:

This is to appoint your company for conducting environmental impact assessment on **the Container Berth Expansion Project at Jingtang Port Area in Tangshan**, and it is hoped that your company may complete the preparation of an EIA report on the said project in a timely manner. Work requirements, responsibilities, consideration and other matters shall be otherwise prescribed in a separate contract.

The Commissioning Party: Jingtang Port International Container Terminal Co., Ltd.

(Sealed)

Date of Appointment: June 6th of 2008

Appendix 11:

Registration Form for Environmental Protection Approval of Construction Projects

Applicant: Hebei Qizheng Environmental Science Co., Ltd.

Filled by:

Checked by:

| | | | | | | | | | | | | | | | |
|---|---------------------------------------|--|----------|-------------------|--------------|---|--|-----------------|---|----------|-------------------------------|---------------|--|-------|--|
| Project Profile | Project name | The Container Berth Expansion Project at Jingtang Port Area in Tangshan | | | | Project location | Jingtang Port Area at Tangshan Port Development Zone | | | | | | | | |
| | Construction elements and scale | Construction of a proprietary container yard with a floor space of 170,000 square meters, and addition of corresponding auxiliary facilities | | | | Nature of construction | <input type="checkbox"/> New project <input checked="" type="checkbox"/> Renovation/expansion project <input type="checkbox"/> Technological transformation project | | | | | | | | |
| | Industry category | F5439: other support activities for water transportation | | | | EIA management category | <input type="checkbox"/> By preparing EIA report <input checked="" type="checkbox"/> By preparing EIA report form <input type="checkbox"/> By submitting EIA registration form | | | | | | | | |
| | Total investment (in RMB 10,000 Yuan) | 35188 | | | | Investment on environmental Protection (in RMB 10,000 Yuan) | 60 | | Percentage in total investment (%) | 0.2 | | | | | |
| Project Owner | Owner name | Jingtang Port International Container Terminal Co., Ltd. | | Contact telephone | 0315-2916617 | | Entity appointed for EIA | Entity name | Hebei Qizheng Environmental Science Co., Ltd. | | Contact telephone | 0311-83033192 | | | |
| | Mailing address | Jingtang Port International Container Terminal Co., Ltd. at Tangshan Port Development Zone of Hebei Province | | Post code | 063611 | | | Mailing address | 67 Yuhua West Road, Shijiazhuang City | | Post code | 050051 | | | |
| | Legal representative | LU Zexiang | | Contact person | CHEN Li | | | Certificate No. | Guo Huan Ping Yi No. 1231 | | EIA cost (in RMB 10,000 Yuan) | | | | |
| Environmental Situation at Project Location | Environment quality rating | Ambient air | Grade II | Surface water | | Ground water | | Ambient noise | Grade III | Seawater | | Soil | | Other | |
| | Environmental sensitivity | | | | | | | | | | | | | | |

| Up-to-standard Discharge of Pollutants and Total Volume Control (Detailed Information Shall Be Provide for an Industrial Construction Project) | Existing project (including completed project and project in progress) | | | | Subject project (including proposed project or readjusted project) | | | | | | Whole project (including completed project, project in progress and proposed project or readjusted project) | | | | | |
|--|--|---|---|--------------------------------------|--|--|--|-------------------------------|---|---|---|--|--|--|---|---|
| | Leading pollutant and their discharge amounts | Actual discharge density or concentration (1) | Actual discharge density or concentration (2) | Actual discharge amount in total (3) | Approval discharge amount in total (4) | Anticipated discharge density or concentration (5) | Permitted discharge density or concentration (6) | Actually generated amount (7) | Decrease in discharge amount by the subject project (8) | Anticipated discharge amount in total (9) | Approved discharge amount in total (10) | Decrease in discharge amount due to new treatment facilities in replacement of old ones (11) | Decrease in discharge amount of the subject project by regional balancing (12) | Anticipated discharge amount in total (13) | Approved discharge amount in total (14) | Increase or decrease in discharge amount (15) |
| Wastewater | — | — | | | — | — | 0.7095 | | | | | | | | | |
| COD* | 240 | 50 | 0.919 | | 240 | 400 | 1.32 | 0.528 | 0.792 | | 0 | | | 1.711 | | +0.792 |
| Ammonia nitrogen* | 25 | 5 | 0.096 | | 25 | — | 0.1 | 0.018 | 0.082 | | 0 | | | 0.178 | | +0.082 |
| Petroleum-based pollutants | | | | | | | | | | | | | | | | |
| Waste gas | — | — | | | — | — | | | | | | | | | | |
| Sulfur dioxide | | | | | | | | | | | | | | | | |
| Fume* | | | | | | | | | | | | | | | | |
| Industrial dust | | | | | | | | | | | | | | | | |
| NOx | | | | | | | | | | | | | | | | |
| Industrial solid waste* | | | | | | | 0.007 | 0.007 | 0 | 0 | | | | | | |
| Other particular pollutants in connection with the | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|--|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | project | | | | | | | | | | | | | | | | | | |
|--|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. As for increase/decrease in discharge amount, (+) shall mean an increase, while (-) shall mean a decrease;
2. Item (12) shall mean decrease in discharge amount specially made to this project through *regional balancing* within the project area;
3. Item (9) shall equal to (7)-(8), Item (15) shall equal to (11)-(12), and Item (13) shall equal to (3)-(11)+(9);
4. Measurement units as applied in the above Registration Form are as follows:

Wastewater discharge amount is in 10,000 metric tons per annum;

Waste gas emission amount is in 10,000 standard cubic meters;

Discharge amount of industrial solid waste is in 10,000 metric tons per annum;

Discharge density of water pollutants is in mg/L;

Discharge concentration of air pollutants is in mg/M³;

Discharge amount of water pollutants is in metric tons per annum (t/d); and

Discharge amount of air pollutants is in metric tons per annum (t/d).