

ENVIRONMENTAL LICENSE  
THE CHIEF OF BINH DUONG INDUSTRIAL ZONES AUTHORITY

Pursuant to the Law on Environmental Protection dated November 17, 2020;

Pursuant to the Government Decree No. 08/2022/ND-CP dated January 10, 2022 on detailing a number of articles of the Law on Environmental Protection;

Pursuant to the Circular No. 02/2022/TT-BTNMT dated January 10, 2022 by the Minister of Natural Resources and Environment on detailing the implementation of a number of articles of the Law on Environmental Protection;

Pursuant to the Decision No. 08/2023/QĐ-UBND dated March 30, 2023 by the People's Committee of Binh Duong Province on promulgating regulations on the functions, tasks, powers and organizational structure of the Binh Duong Industrial Zones Authority,

Pursuant to the Decision No. 428/QĐ-UBND dated February 22, 2022 by the People's Committee of Binh Duong Province on authorizing appraisal and approval of the results of appraisal of the environmental impact assessment report and environmental licensing

In consideration the application attached to Document No. 75/CV-MT dated September 19, 2023 by Perfetti Van Melle (Vietnam) Co., Ltd. for application of environmental license for the project of "Production Plant of all kinds of candy with capacity of 60,000 tons/year";

At the request of the Head of Environmental Management Department,

HEREBY DECIDES THAT

Article 1: Licensing to Perfetti Van Melle (Vietnam) Co., Ltd., address at Plot N, Street 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province and No. 16, Road 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province (rented the premises from Active International Vietnam Co., Ltd.) to carry out environmental protection activities of its investment project of "Production Plant of all kinds of candy with capacity of 60,000 tons/year" with the following contents:

1. General information of the investment project:

1.1. Investment project name: "Production Plant of all kinds of candy with capacity of 60,000 tons/year".

1.2. Site of operation:

- Site 1: Lot N, Street 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province.

- Site 2: No. 16, Street 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province (rented the premises from Active International Vietnam Co., Ltd.).

1.3. Business registration certificate code of 3700698272 issued by the Business Registration Office - Department of Planning and Investment of Binh Duong Province for the first time issuance on March 22, 2006, registered for the 9th change on March 12, 2020.

1.4. Investment registration certificate project code of 3222916776 issued by Binh Duong Industrial Zones Authority for the first time issuance on March 22, 2006, certified for the 9th change on August 4, 2023.

1.5. Tax code: 3700698272.

1.6. Type of production, business and service: Manufacturing and processing all kinds of confectionery.

1.7. Scope, scale and capacity of investment project:

- Group II investment project according to the provisions of the Law on Environmental Protection and the Decree No. 08/2022/ND-CP dated January 10, 2022.

- Scope: The project shall be implemented on a total area of 32,926 m<sup>2</sup> of which:

+ Site 1: Lot N, Street 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province. Usable ground area: 29,686 m<sup>2</sup>.

+ Site 2: No. 16, Street 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province (rented the premises from Active International Vietnam Co., Ltd.). Factory area: 3,240 m<sup>2</sup>.

- Group B project (classified according to criteria prescribed by legislations of public investment).

- Scale of project items:

+ Main project items:

• Site 1: Factory: 16,560 m<sup>2</sup>, office: 1,061 m<sup>2</sup>, security booth 1: 32 m<sup>2</sup>, security booth 2: 12 m<sup>2</sup>; Green land: 5,956 m<sup>2</sup>.

• Site 2: Factory area: 3,240.

+ Environmental protection works:

- Site 1: Wastewater treatment system, regular industrial solid waste storage area, temporary hazardous waste storage area and Dusts and exhaust treatment systems
- Site 2: Waste storage area, Dusts and exhaust treatment system.
- Production capacity scale of the project: 60,000 tons of products/year, including:
  - + Candy hard candy: 15,000 tons/year.
  - + Jelly candy: 6,000 tons/year.
  - + Mentos: 16,000 tons/year.
  - + Gum: 11,000 tons/year.
  - + Chupa Chups: 12,000 tons/year.
- Production process:
  - + Gum production process: Gum and flavors (sugar, sweetener and additives) → weighing → mixing → extruding → molding and shaping → cooling → sugar coating → metal detecting → primary packaging → secondary packaging → finished product storing.
  - + Production process of Candy hard candy, Jelly candy, Mentos and Chupa Chups: Sugar, water, flavors (sugar, sweetener and additives) → weighing → filtering → decocting → molding and shaping → cooling → sugar coating → metal detecting → primary packaging → secondary packaging → finished product storing.

2. The attached contents of environmental licensing and environmental protection requirements:

- 2.1. It shall have to implement environmental protection requirements for wastewater as specified in Appendix 1 attached to this License.
- 2.2. It shall be allowed to release exhaust gases into the environment and comply with environmental protection requirements as specified in Appendix 2 attached to this License.
- 2.3. It shall have to ensure the limit values for noise and vibration and comply with environmental protection requirements as specified in Appendix 3 attached to this License.
- 2.4. It shall have to comply the requirements for waste management, prevention and response to environmental incidents as specified in Appendix 4 attached to this License.
- 2.5. It shall have to comply other requirements on environmental protection as specified in Appendix 5 attached to this License.

Article 2. Rights, obligations and responsibilities of Perfetti Van Melle (Vietnam) Company Limited:

1. To have rights and obligations as prescribed in Article 47 of the Law on Environmental Protection.
2. Perfetti Van Melle (Vietnam) Company Limited shall have to:
  - 2.1. Operate licensed contents only after completing its corresponding environmental protection works.
  - 2.2. Regularly and properly operate its waste treatment works to ensure that its post-treatment wastes shall meet environmental technical standards; its measures to minimize noise and vibration shall meet environmental protection requirements; and its waste management shall meet the provisions of legislations. Be liable to the laws for the failure of meeting permissible requirements of pollutants, noise, and vibration as prescribed by this License hereby and immediately stop discharging its wastewater, exhaust gas, generating noise, and vibration to take appropriate measures for remedies in compliant with the provisions of legislations.
  - 2.3. Correctly and fully comply with the environmental protection requirements as prescribed by this License hereby and the provisions of legislations on environmental protection.
  - 2.4. Promptly report to the environmental licensing agency and local authorities for incident/accident occurrence of its waste treatment works or other incidents inducing to environmental pollution.
  - 2.5. Promptly report to the licensing agency if, during its implementation process, there is any change different from the contents as specified in this License hereby.

Article 3. Term of License: 10 years.

(From September 29, 2023 to September 28, 2033).

Article 4. Binh Duong Industrial Zones Authority shall inspect the implementation of licensing contents and environmental protection requirements for licensed projects in accordance with the provisions of laws./.

Attn:

- Perfetti Van Melle (Vietnam) Company Limited;
- Di An City People's Committee;
- The portal of Binh Duong Industrial Zones Authority (for public post);
- Chief and Deputy chiefs of authority
- Archives

CHIEF OF AUTHORITY  
(Signed and sealed)  
NGUYEN TRUNG TIN



## Appendix 1

### THE CONTENTS OF ENVIRONMENTAL LICENSE FOR WASTEWATER DISCHARGE INTO WATER SOURCES AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR WASTEWATER COLLECTION AND TREATMENT

(Attached to Environmental License No. 51/GPMT-BQL dated September 29, 2023 by Binh Duong Industrial Zones Authority)

#### A. THE CONTENTS OF ENVIRONMENTAL LICENSE FOR WASTEWATER DISCHARGE

- It is not obliged applicant for environmental license for wastewater as prescribed in Article 39 of the Law on Environmental Protection (because wastewater after the treatment system shall be connected to the centralized wastewater collection and treatment system of Song Than 2 Industrial Park without direct discharge into the environment).

- It had a wastewater treatment service contract with Dai Nam Joint Stock Company (the owner of Song Than 2 Industrial Park infrastructure) on wastewater connection agreement according to Contract No. 40/2021/HDXLNT.ĐN-ST2 dated January 1, 2021, Appendix to renew Contract No. 40/2021/HDXLNTĐN-ST2/A1 dated December 15, 2021, Appendix to renew and amend Contract No. 40/2021/HDXLNTĐN-ST2/A2 dated January 1, 2023.

#### B. ENVIRONMENTAL PROTECTION REQUIREMENTS FOR WASTEWATER COLLECTION AND TREATMENT

1. The works, measures for wastewater collection and treatment, and automatic and continuous wastewater monitoring systems and equipment:

1.1. Wastewater collection network from generating sources:

- Site 1: Lot N, Road 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province. Usable ground area: 29,686 m<sup>2</sup>.

+ Source No. 01: Wastewater from daily activities of factory workers from toilet No. 1 with a flow of 22.3 m<sup>3</sup>/day shall be collected into the septic tank (with volume of 36 m<sup>3</sup>).

+ Source No. 02: Wastewater from daily activities of factory workers from toilet No. 2 with a flow of 22.3 m<sup>3</sup>/day shall be collected into the septic tank (with volume of 36 m<sup>3</sup>).

+ Source No. 03: Wastewater from daily activities of employees of the garbage storage area with a flow of 11.0 m<sup>3</sup>/day shall be collected into the septic tank (with volume of 18 m<sup>3</sup>).

+ Source No. 04: Wastewater from daily activities of employees of the security booth area with a flow of 11.9 m<sup>3</sup>/day shall be collected to the septic tank (with volume of 18 m<sup>3</sup>).

+ Source No. 05: Wastewater from the canteen area with a flow of 22.5 m<sup>3</sup>/day shall be collected into the oil separator tank (with volume of 3.6 m<sup>3</sup>).

+ Source No. 06: Wastewater from the production line of Candy, Chupa Chups, Mentos, gum, and Jelly candy with a flow of 66.96 m<sup>3</sup>/day.

+ Source No. 07: Wastewater from cleaning production lines of Candy, Chupa Chups, Mentos, gum, Jelly candy, washing factory floors with a flow of 135 m<sup>3</sup>/day.

+ Source No. 08: Wastewater from Chiller and cooling system with a flow of 26.64 m<sup>3</sup>/day.

+ Source No. 09: Wastewater from mixing chemicals in wastewater treatment system with a flow of 8 m<sup>3</sup>/day.

+ Source No. 10: Wastewater from RO filtration system with flow of 120 m<sup>3</sup>/day. RO system shall have capacity of 10 m<sup>3</sup>/h.

+ Number of connection points to the industrial park's wastewater collection system: 01 site

+ Coordinates of the connection point to the wastewater collection system of the industrial park: X = 12.07.187, Y = 06.08.545.

(According to Vietnamese 2000 coordinate system, longitude of 105°45' and projection zone 3<sup>0</sup>).

- Site 2: No. 16, Road 26, Song Than 2 Industrial Park, Tan Dong Hiep Ward, Di An City, Binh Duong Province (the premises rented from Active International Vietnam Company Limited)

+ Source No. 01: Wastewater from workers' daily activities with a flow of 0.36 m<sup>3</sup>/day shall be collected into the tank along with wastewater from the boiler blowdown process (with volume of 03 m<sup>3</sup>) and transferred to an authorized contractor for disposal without connection to the wastewater collection system of Song Than 2 Industrial Park.

+ Source No. 02: Wastewater from the boiler blowdown process with a flow of 2 m<sup>3</sup>/day shall be collected into the tank along with domestic wastewater (with volume of 03 m<sup>3</sup>) and transferred to an authorized

contractor for disposal without connection to the wastewater collection system of Song Than 2 Industrial Park.

1.2. Wastewater treatment works and equipment:

- Summary of wastewater treatment technology:

+ Domestic wastewater behind septic tank, kitchen wastewater behind oil separator tank (source numbers of 1, 2, 3, 4 and 5) → Collection pit → Storage tank → (\*).

+ Wastewater from production (source numbers of 6, 7, 8, 9 and 10) → collection pit → fine garbage filter → stabilization tank → grease separation tank → conditioning tank 1 → cluster of coagulation and flocculation tanks → dissolved air flotation tank → (\*\*).

(\*) + (\*\*): → conditioning tank 2 → EGSB anaerobic tank → anoxic tank + Domestic wastewater after passing through septic tank → aerobic tank → sedimentation tank → post-treatment water tank → Connected to the wastewater collection system of Song Than 2 industrial park at 01 point on Street 26.

- Design capacity: 470 m<sup>3</sup>/day (24 hours).

- Chemicals shall be used: NaOH (32%), Soda, PAC, Anionic Polymer, Cation Polymer, Urea [CO(NH<sub>2</sub>)<sub>2</sub>] (Urea Fertilizer), NP (20-20) (Buffalo Head branded Fertilizer NP-20-20).

- RO wastewater reuse filtration system:

+ Summary of treatment technology: Wastewater after treatment tank → Static mixing device → Disc filter → UF filter → UF water tank → SF → RO filtration system → RO water tank → supplying to cooling system (approx. 120 m<sup>3</sup>/day).

+ Capacity: 10 m<sup>3</sup>/h (operating time: 24 hours/day).

1.3. Automatic and continuous wastewater monitoring systems and equipment: It shall be not obliged to be installed.

1.4. Measures, works, and equipment to prevent and respond to accidents/incidents:

- The wastewater treatment systems shall have to be operated properly in compliant with the procedures; and equipment shall have to be regularly checked, serviced, maintained and backed up for replacement.

- The operators shall have to be staffed to operate the processing system, monitor and record operation logs.

- Cleaning the tanks and collecting sludge shall have to be performed periodically to avoid clogging and ensure the ability to store and treat wastewater.

- Density of biological sludge in the aerobic tank shall have to be checked regularly to ensure processing performance.

2. Trial operation plan:

2.1. Trial operation period: It shall be compliant to the provisions of Article 46 of the Law on Environmental Protection 2020 and Point b Clause 6 Article 31 of the Decree No. 08/2022/ND-CP dated January 10, 2022.

2.2. Trial operation of wastewater discharge works and equipment to be performed: Wastewater treatment system with capacity of 470 m<sup>3</sup>/24 hours.

2.2.1. Sampling sites:

- At the output of post treatment water tank of the treatment system.

- At other sites of the wastewater treatment as prescribed by the Circular No. 02/2022/TT-BTNMT dated January 10, 2022 by the Ministry of Natural Resources and Environment.

2.2.2. Pollutants and their permissible limits: Standards for receiving input wastewater of industrial zone centralized wastewater treatment station of Song Than 2 industrial park.

2.3. Sampling frequency: During trial operation of the wastewater treatment system, monitoring shall be performed as prescribed in Article 21 of Circular No. 02/2022/TT-BTNMT dated January 10, 2022 by the Ministry of Natural Resources and Environment on detailing the implementation of a number of articles of the Law on Environmental Protection.

3. Environmental protection requirements:

3.1. All wastewater of the Project shall have to be collected and treated. The connection and wastewater reception requirements of the investor in construction and business of Song Than 2 industrial park infrastructure shall have to be met and ensure no direct discharge of wastewater into the environment.

3.2. The company shall have to be fully responsible for connecting wastewater to the centralized wastewater collection and treatment system of Song Than 2 industrial park for further treatment before discharging into the environment.

3.3. The operation log books to record all information of trial operation and operations of the wastewater treatment works shall have to be available.

3.4. During the trial operation process, it shall have to seriously and fully responsibly implement the contents as specified in Clauses 7 and 8, Article 31 of Decree No. 08/2022/ND-CP dated January 10, 2022. In case of any change of trial operation plan prescribed by this Environmental License, the responsibilities as prescribed in Clause 5, Article 31 of Decree No. 08/2022/ND-CP dated January 10, 2022 shall have to be fulfilled.

3.5. Within 10 days from completion of trial operation of the waste treatment works, the project owner shall have to report on trial operation results to the Binh Duong Industrial Zones Authority as prescribed.

3.6. The resources, equipment, and chemicals shall have to be sufficient to regularly and effectively operate wastewater collection and treatment systems and works.

3.7. The company shall be liable for any failure of meeting the wastewater reception standards by the owner of Song Than 2 industrial park and shall have to immediately stop discharging wastewater to take corrective measures.

3.8. The regulations in Article 74 of Government's Decree No. 08/2022/ND-CP dated January 10, 2022 shall have to be adhered.

3.9. The regulations in Circular No. 10/2021/TT-BTNMT dated June 30, 2021 by the Minister of Natural Resources and Environment; and the Decision No. 22/2023/QĐ-UBND dated July 6, 2023 by the People's Committee of Binh Duong Province on promulgating environmental protection regulations in Binh Duong Province and other concerned legislations as prescribed shall have to be adhered.

Appendix 2

THE CONTENTS OF ENVIRONMENTAL LICENSE FOR EXHAUST GAS DISCHARGE AND ENVIRONMENTAL PROTECTION REQUIREMENTS FOR EXHAUST GAS COLLECTION AND TREATMENT

(Attached to Environmental License No. 51/GPMT-BQL dated September 29, 2023 by Binh Duong Industrial Zones Authority)

A. THE CONTENTS OF ENVIRONMENTAL LICENSE FOR EXHAUST GAS DISCHARGE

1. The generating sources of dusts and exhaust emissions:

- Source No. 1: Dusts generated from the gum mixing step of the Bag Filter (Center Line) Lamination system.
- Source No. 2: Dusts generated from the gum mixing step of the Bag Filter system (Mixes Room).
- Source No. 3: Dusts generated from the sugar coating and mixing step of Pelegrini square Bag Filter system (Coating2 Gum line 1).
- Source No. 4: Dusts generated from the sugar coating and mixing step of Pelegrini square Bag Filter system (Coating2 Gum line 2).
- Source No. 5: Dusts generated from the sugar coating and mixing step of the Bag Filter 7058 (round) Coating line 1 system.
- Source No. 6: Dusts generated from the sugar coating and mixing step of the Bag Filter 7059 (round) Coating line 2 system.
- Source No. 7: Dusts generated from the sugar coating and mixing step of the Bag Filter 7060 (round) Coating line 3 system.
- Source No. 8: Dusts generated from the sugar coating and mixing step of the Bag Filter 7061 (round) Coating line 4 system.
- Source No. 9: Dusts generated from the sugar coating and mixing step of the Bag Filter 7062 (round) Coating line 5 system.
- Source No. 10: Dusts generated from the sugar coating and mixing step of the Bag Filter 7063 (round) Coating line 6 system.
- Source No. 11: Dusts generated from the sugar coating and mixing step of the Bag Filter 7064 (round) Coating line 7 system.
- Source No. 12: Dusts generated from the sugar coating and mixing step of the Bag Filter 7065 (round) Coating line 8 system.
- Source No. 13: Dusts generated from the sugar coating and mixing step of the Bag Filter 7066 (round) Coating line 9 system.
- Source No. 14: Dusts generated from the sugar coating and mixing step of the Bag Filter 7067 (round) Coating line 10 system.
- Source No. 15: Dusts generated from the sugar coating and mixing step of the Bag Filter (round) Coating line 11 system.
- Source No. 16: Dusts generated from the sugar coating and mixing step of the Bag Filter (square) Coating Line 12 system.
- Source No. 17: Dusts generated from the sugar coating and mixing step of the Bag Filter (square) Coating Line system
- Source No. 18: Dusts generated from the sugar coating and mixing step of the Bag Filter (square) Coating Line 3 system.
- Source No. 19: Dusts generated from the sugar coating stage of the Bag Filter (round) chocolate line system
- Source No. 20: Dusts generated from sugar silos of Dosmat Scale Sugar Silo system.
- Source No. 21: Dusts generated from sugar silos of Gravomat Chupa Scale Sugar Silo system.
- Source No. 22: Dusts generated from sugar silo of Gravomat Candy Scale Sugar Silo system.
- Source No. 23: Dusts generated from sugar silos of AWM Mentos Scale Sugar Silo system.
- Source No. 24: Dusts generated from sugar silos of Gum Sugar Crusher Sugar Silo system
- Source No. 25: Dusts generated from sugar silos of Line Jely sugar silo system. -
- Source No. 26: Exhaust gas generated from biomass fuel boiler No. 01 with capacity of 13 tons of steam/hour.
- Source No. 27: Exhaust gas generated from boiler No. 02 burning CNG gas with capacity of 10 tons of steam/hour (Backup operation).

- Source No. 28: Exhaust gas generated from boiler No. 03 burning CNG gas with capacity of 6 tons of steam/hour (Backup operation).
  - Source No. 29: Exhaust gas generated from boiler No. 04 fuel burning CNG gas with capacity of 6 tons of steam/hour (Backup operation).
  - Source No. 30: Exhaust gas generated from the biogas collection and combustion system sourced from waste water treatment system.
  - Source No. 31: Exhaust gas generated from 2,500 KVA generator 1.
  - Source No. 32: Exhaust gas generated from 500 KVA generator 2.
  - Source No. 33: Exhaust gas generated from 500 KVA generator 1.
  - Source No. 34: Exhaust gas generated from 1,000 KVA generator 1.
2. Exhaust gas flow and discharge sites:
- 2.1. Exhaust gas discharge sites:
- Exhaust gas stream No. 01: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 01 (exhaust source No. 01), and the coordinates of exhaust gas discharge site shall be X=12.07.322; Y=06.08.426.
  - Exhaust gas stream No. 2: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 02 (exhaust source No. 02), and the coordinates of exhaust gas discharge site shall be X= 12.07.325; Y=06.08.410.
  - Exhaust gas stream No. 3: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No 03 (exhaust source No. 03), and the coordinates of exhaust gas discharge site shall be X=12.07.304; Y=06.08.463.
  - Exhaust gas stream No. 4: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No 04 (exhaust source number 04), and the coordinates of exhaust gas discharge site shall be X=12.07.315; Y=06.08.466.
  - Exhaust gas stream No. 5: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 05 (exhaust source No. 05), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.447.
  - Exhaust gas stream No. 6: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No 06 (exhaust source No. 06), and the coordinates of exhaust gas discharge site shall be X= 12.07 294; Y= 06.08.450.
  - Exhaust gas stream No. 7: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 07 (exhaust source No. 07), and the coordinates of exhaust gas discharge site shall be X= 12.07.294; Y= 06.08.453.
  - Exhaust gas stream No. 8: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 08 (exhaust source No. 08), and the coordinates of exhaust gas discharge site shall be X= 12.07.294; Y= 06.08.454.
  - Exhaust gas stream No. 9: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No 09 (exhaust source number 09), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.457.
  - Exhaust gas stream No. 10: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 10 (exhaust source No. 10), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.458.
  - Exhaust gas stream No. 11: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 11 (exhaust source No. 11), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.459.
  - Exhaust gas stream No. 12: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 12 (exhaust source number 12), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y= 06.08.460.
  - Exhaust gas stream No. 13: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 02 (exhaust source No. 13), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.461.
  - Exhaust gas stream No. 14: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 02 (exhaust source No. 14), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.462.

- Exhaust gas stream No. 15: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 02 (exhaust source No. 15), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.465.
- Exhaust gas stream No. 16: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 16 (exhaust source No. 16), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.467.
- Exhaust gas stream No. 17: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 17 (exhaust source No. 17), and the coordinates of exhaust gas discharge site shall be X= 12.07.319; Y=06.08.520.
- Exhaust gas stream No. 18: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 18 (exhaust source No. 18), and the coordinates of exhaust gas discharge site shall be X= 12.07.317; Y=06.08.504.
- Exhaust gas stream No. 19: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No.19 (exhaust source No. 19), and the coordinates of exhaust gas discharge site shall be X= 12.07.202; Y=06.08.393.
- Exhaust gas stream No. 20: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 20 (exhaust source No. 20), and the coordinates of exhaust gas discharge site shall be X= 12.07.228; Y=06.08.414.
- Exhaust gas stream No. 21: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 21 (exhaust source No. 21), and the coordinates of exhaust gas discharge site shall be X= 12.07.232; Y=06.08.415.
- Exhaust gas stream No. 22: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 22 (exhaust source No. 22), and the coordinates of exhaust gas discharge site shall be X= 12.07.256; Y= 06.08.402.
- Exhaust gas stream No. 23: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 23 (exhaust source No. 23), and the coordinates of exhaust gas discharge site shall be X= 12.07.293; Y=06.08.414.
- Exhaust gas stream No. 24: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 24 (exhaust source No. 24), and the coordinates of exhaust gas discharge site shall be X= 12.07.301; Y= 06.08.409.
- Exhaust gas stream No. 25: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 25 (exhaust source No. 25), and the coordinates of exhaust gas discharge site shall be X= 12.07.204; Y= 06.08.384.
- Exhaust gas stream No. 26: It shall be corresponding to the exhaust pipe of exhaust gas treatment system No. 26 (exhaust source No. 26), and the coordinates of exhaust gas discharge site shall be X= 12.07.322; Y=06.08.649.
- Exhaust gas stream No. 27: It shall be corresponding to the chimney of exhaust source No. 27, and the coordinates of exhaust gas discharge site shall be X= 12.07.273; Y=06.08.373.
- Exhaust gas stream No. 28: It shall be corresponding to the chimney of exhaust source No. 28, and the coordinates of exhaust gas discharge site shall be X= 12.07.279; Y=06.08.373. -
- Exhaust gas stream No. 29: It shall be corresponding to the chimney of exhaust source No. 29, and the coordinates of exhaust gas discharge site shall be X= 12.07.284; Y=06.08.374.
- Exhaust gas stream No. 30: It shall be corresponding to the chimney of exhaust source No. 31, and the coordinates of exhaust gas discharge site shall be X= 12.07.314; Y=06.08.371.
- Exhaust gas stream No. 31: It shall be corresponding to the chimney of exhaust source No. 32, and the coordinates of exhaust gas discharge site shall be X= 12.07.312; Y=06.08.371.
- Exhaust gas stream No. 32: It shall be corresponding to the chimney of exhaust source No. 33, and the coordinates of exhaust gas discharge site shall be X= 12.07.309; Y=06.08.371.
- Exhaust gas stream No. 33: It shall be corresponding to the chimney of exhaust source No. 34, and the coordinates of exhaust gas discharge site shall be X= 12.07.305; Y=06.08.371.

(Vietnam 2000 coordinate system, longitude 105<sup>0</sup>45' and projection zone 3<sup>0</sup>).

## 2.2. Maximum flow of exhaust gas discharge:

- Exhaust gas stream No. 1: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 2: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 3: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 5: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.



- Exhaust gas stream No. 4: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 7: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 6: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 8: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 9: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 10: Maximum exhaust flow of 8,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 11: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 12: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 13: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 17: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 19: Maximum exhaust flow of 12,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 20: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 21: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 22: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 24: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 25: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 28: Maximum exhaust flow of 30,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 29: Maximum exhaust flow of 30,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 31: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 14: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 15: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 16: Maximum exhaust flow of 10,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 18: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 23: Maximum exhaust flow of 3,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 26: Maximum exhaust flow of 45,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 27: Maximum exhaust flow of 45,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 30: Maximum exhaust flow of 26,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 32: Maximum exhaust flow of 7,000 m<sup>3</sup>/hour.
- Exhaust gas stream No. 33: Maximum exhaust flow of 11,700 m<sup>3</sup>/hour.

2.2.1. Exhaust gas discharge method:

- Exhaust gas stream numbers 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24: Dusts and exhaust gases after treatment shall be discharged into the environment through exhaust pipes during operation.
- Exhaust gas streams No. 25 and 26: Dusts and exhaust gases after treatment shall be discharged into the environment through exhaust pipes during operation.
- Exhaust gas stream No. 27, 28, 29, 30, 31, 32 and 33: Exhaust gas shall be discharged through the exhaust pipes (During operation only).

2.2.2. The pollutants and their limits in exhaust gas stream shall have to meet QCVN 19:2009/BTNMT, column B,  $K_p = 0.8$ ,  $K_v = 1.0$  - National technical regulations on industrial emissions for dusts and inorganic substances, specifically as followings:

No.	Pollutants	Unit	Permissible limit	Frequency of periodic monitoring	Automatic and continuous monitoring
I	Exhaust gas stream numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25				
1	Flow	m <sup>3</sup> /h	-	Every 6 months	It is not subject to automatic and continuous monitoring of dusts and exhaust gas emissions (as prescribed in Clause 2, Article 98 of the Decree No. 08/2022/ND-CP)
2	Total dust	mg/Nm <sup>3</sup>	160		
II	Exhaust gas stream No. 26				
1	Flow	m <sup>3</sup> /h	-	Every 6 months	It is not subject to automatic and continuous monitoring of dusts and exhaust gas emissions (as prescribed in Clause 2, Article 98
2	Oxygen	%	-		
3	Pressure	kPa	-		
4	Temperature	°C	-		

5	Total dust	mg/Nm <sup>3</sup>	160	of the Decree No. 08/2022/ND-CP)
6	SO <sub>2</sub>	mg/Nm <sup>3</sup>	400	
7	NO <sub>x</sub> (calculated as NO <sub>2</sub> )	mg/Nm <sup>3</sup>	680	
8	CO	mg/Nm <sup>3</sup>	800	

The exhaust gas streams from No. 27 to No. 33 shall be not subject to periodic monitoring according to the regulations.

#### B. ENVIRONMENTAL PROTECTION REQUIREMENTS FOR EXHAUST GAS COLLECTION AND TREATMENT:

##### 1. Works and measures for collecting and treating exhaust gases:

1.1. Exhaust gas collection network to transfer dusts and exhaust gases from generating sources to the dust and exhaust gases treatment system shall be included as followings:

- Source No. 1: Dusts generated from the gum mixing step of the Bag Filter (Center Line) Lamination system shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground. (waste stream No. 1).
- Source No. 2: Dusts generated from the gum mixing step of the Bag Filter system (Mixes Room) shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 2).
- Source No. 3: Dusts generated from the sugar coating and mixing step of square Pelegrini Bag Filter system (Coating2 Gum line 1) shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 3).
- Source No. 4: Dusts generated from the sugar coating and mixing step of the Pelegrini Bag Filter (Coating 2 Gum line 2) system shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 4).
- Source No. 5: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7058 Coating line 1 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 5).
- Source No. 6: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7059 Coating line 2 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 6).
- Source No. 7: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7060 Coating line 3 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 7).
- Source No. 8: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7061 Coating line 4 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 8).
- Source No. 9: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7062 Coating line 5 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 9).
- Source No. 10: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7063 Coating line 6 system shall be collected by an exhaust fan with a capacity of 8,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 10).
- Source No. 11: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7064 Coating line 7 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 11).
- Source No. 12: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7065 Coating line 8 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 12).
- Source No. 13: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7066 Coating line 9 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 13).
- Source No. 14: Dusts generated from the sugar coating and mixing step of (round) Bag Filter 7067 Coating line 10 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged

through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 14).

- Source No. 15: Dusts generated from the sugar coating and mixing step of (round) Bag Filter Coating line 11 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 15).
- Source No. 16: Dusts generated from the sugar coating and mixing step of (square) Bag Filter Coating Line 12 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 16).
- Source No. 17: Dusts generated from the sugar coating and mixing step of (square) Bag Filter Coating Line system shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 17).
- Source No. 18: Dusts generated from the sugar coating and mixing step of (square) Bag Filter Coating Line 3 system shall be collected by an exhaust fan with a capacity of 10,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from ground (waste stream No. 18).
- Source No. 19: Dusts generated from the sugar coating process of (round) Chocolate Line Bag Filter system shall be collected by an exhaust fan with a capacity of 12,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground. (waste stream No. 19).
- Source No. 20: Dusts generated from the sugar silos of Dosmat Scale Sugar Silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 20).
- Source No. 21: Dusts generated from sugar silos of Gravomat Chupa Scale Sugar Silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 21).
- Source No. 22: Dusts generated from sugar silos of Gravomat Candy Scale Sugar Silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 22).
- Source No. 23: Dusts generated from sugar silos of AWM Mentos Scale Sugar Silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 23).
- Source No. 24: Dusts generated from sugar silos of Sugar Gum Grinder Sugar Silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 24).
- Source No. 25: Dusts generated from the sugar silo of the Line Jely sugar silo system shall be collected by an exhaust fan with a capacity of 3,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with dimensions of 450x450mm and 4 meters high from the ground (waste stream No. 25).
- Source No. 26: Exhaust gas generated from biomass-burning boiler No. 01 with a capacity of 13 tons of steam/hour/boiler shall be collected by an exhaust fan with a capacity of 45,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 900mm and a height of 21.4 meters from the ground (waste stream No. 26).
- Source No. 27: Exhaust gas generated from boiler No. 02 fueled by CNG gas with a capacity of 10 tons of steam/hour shall be collected by an exhaust fan with a capacity of 45,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 900mm and a height of 20 meters from the ground (waste stream No. 27).
- Source No. 28: Exhaust gas generated from boiler No. 03 fueled by CNG gas with a capacity of 6 tons of steam/hour shall be collected by an exhaust fan with a capacity of 30,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 900mm and a height of 20 meters from the ground (waste stream No. 28).
- Source No. 29: Exhaust gas generated from boiler No. 04 fueled by CNG gas with a capacity of 6 tons of steam/hour shall be collected by an exhaust fan with a capacity of 30,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 900mm and a height of 20 meters from the ground (waste stream No. 29).
- Source No. 30: Emissions from the biogas collection and combustion system from the wastewater treatment system shall be collected and burned at the gas exchange tower.
- Source No. 31: Exhaust gas generated from a 2,500 KVA generator shall be collected by an exhaust fan with a capacity of 26,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 200mm diameter and a height of 6 meters from the ground (Exhaust gas stream No. 30).
- Source No. 32: Exhaust gas generated from 500 KVA generator 2 shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 200mm diameter and a height of 6 meters from the ground (Exhaust gas stream No. 31).

- Source No. 33: Exhaust gas generated from a 500 KVA generator shall be collected by an exhaust fan with a capacity of 7,000 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 200mm diameter and a height of 6 meters from the ground (Exhaust gas stream No. 32).

- Source No. 34: Exhaust gas generated from a 1,000 KVA generator shall be collected by an exhaust fan with a capacity of 11,700 m<sup>3</sup>/hour and discharged through an exhaust pipe with a diameter of 200mm diameter and a height of 6 meters from the ground (Exhaust gas stream No. 33).

1.2. Works and equipment for dust and exhaust gases treatment:

1.2.1. Waste dust treatment system No. 01 (corresponding to source No. 1):

- Technological process: Dusts and Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney.

- Design capacity: 7,000 m<sup>3</sup>/hour.

- Number of system: 01.

- Specifications of the system

+ Exhaust fan: capacity of 7.5kw.

+ Cloth bag filter device: quantity of 60 bags, diameter of 123mm and length of 1560mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free.

1.2.2. Waste dust treatment system No. 02 (corresponding to source No. 2):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney.

- Design capacity: 7,000 m<sup>3</sup>/hour.

- Number of systems: 01

- Specifications of the system:

+ Exhaust fan: capacity of 7.5kw.

+ Cloth bag filter device: quantity of 60 bags, diameter of 123mm and length of 1560mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free.

1.2.3. Waste dust treatment system No. 03 (corresponding to source No. 3):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 7,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 7.5kw.

+ Cloth bag filter device: quantity of 60 bags, diameter of 123mm and length of 1560mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.4. Waste dust treatment system No. 04 (corresponding to source No. 4):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 7,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 7.5kw.

+ Cloth bag filter device: quantity of 160 bags and diameter of 123mm and length of 1560mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.5. Waste dust treatment system No. 05 (corresponding to source No. 5):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 8,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 11kw.

+ Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm. -

- Chemicals and materials to be used: chemical-free

1.2.6. Waste dust treatment system No. 06 (corresponding to source No. 6):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 8,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 11kw.
  - + Cloth bag filter device: quantity of 84 bags and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.7. Waste dust treatment system No. 07 (corresponding to source No. 7):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 8,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 11kw.
  - + Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.8. Waste dust treatment system No. 08 (corresponding to source No. 8):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 8,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 11kw.
  - + Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.9. Waste dust treatment system No. 09 (corresponding to source No. 9):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 8,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 11kw.
  - + Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.10. Waste dust treatment system No. 10 (corresponding to source No. 10):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney.
- Design capacity: 8,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 11kw.
  - + Cloth bag filter device: quantity of 84 bags and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.11. Waste dust treatment system No. 11 (corresponding to source No. 11):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 10,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:
  - + Exhaust fan: capacity of 15kw.
  - + Cloth bag filter device: quantity of 84 bags and diameter of 123mm and length of 2140 mm.
  - + Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.12. Waste dust treatment system No. 12 (corresponding to source No. 12):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.13. Waste dust treatment system No. 13 (corresponding to source No. 13):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.14. Waste dust treatment system No. 14 (corresponding to source No. 14):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.15. Waste dust treatment system No. 15 (corresponding to source No. 15):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 84 bags, and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.16. Waste dust treatment system No. 16 (corresponding to source No. 16):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 84 bags and diameter of 123mm and length of 2140 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.17. Waste dust treatment system No. 17 (corresponding to source No. 17):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 7,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 7.5kw.

+ Cloth bag filter device: quantity of 54 bags and diameter of 123mm and length of 1560mm.



+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.18. Waste dust treatment system No. 18 (corresponding to source No. 18):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 10,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 15kw.

+ Cloth bag filter device: quantity of 180 bags and diameter of 123mm and length of 1560mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.19. Waste dust treatment system No. 19 (corresponding to source No. 19):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 12,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity 18kw.

+ Cloth bag filter device: quantity of 84 bags and diameter of 123mm and length of 2500 mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.20. Waste dust treatment system No. 20 (corresponding to source No. 20):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney.

- Design capacity: 3,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 2.2kw.

+ Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.21. Waste dust treatment system No. 21 (corresponding to source No. 21):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

- Design capacity: 3,000 m<sup>3</sup>/hour.

- Number of systems: 01.

- Specifications of the system:

+ Exhaust fan: capacity of 2.2kw.

+ Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.22. Exhaust dust treatment system No. 22 (corresponding to source No. 22):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney

+ Exhaust fan: capacity of 2.2kw.

+ Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.

+ Chimney: 4m high and dimensions of 450mm x 450mm.

- Chemicals and materials to be used: chemical-free

1.2.26. Boiler exhaust gas collection and treatment system No. 01 (corresponding to source No. 26):

Technological process: Exhaust gases → Multi-level Cyclone → Cloth bag dust filter → Exhaust fan →

Backup dust settling tank → Exhaust chimney.

- Boiler capacity: 13 tons/hour.

- Number of systems: 01.

- Specifications of the system:

+ Multi-level cyclones: number of 64 small cyclones with diameter of 168mm and 266mm for each.

+ Cloth bag filter device: quantity of 360 bags and dimensions of Ø 168\*3,000mm.

- + Exhaust fan: flow rate of 45,000 m<sup>3</sup>/hour.
  - + Chimney: 21.4 meters high and diameter of 900mm.
  - Chemicals and materials to be used: chemical-free
- 1.2.27. Boiler exhaust gas collection and emission system No. 02 (corresponding to source No. 27):

- Technological process: Exhaust gases → exhaust fan → Exhaust chimney.
- Boiler capacity: 10 tons/hour.
- Quantity: 01.
- Specifications of the system:

- + Exhaust fan: capacity of 60 Hp and flow of 45,000 m<sup>3</sup>/hour.
- + Chimney: 20 meters high and diameter of 900mm.
- Chemicals and materials to be used: chemical-free

1.2.28. Boiler exhaust gas collection and emission system No. 03 (corresponding to source No. 28)

- Technological process: Exhaust gases → exhaust fan → Exhaust chimney.
- Boiler capacity: 6 tons/hour.
- Quantity: 01.
- Specifications of the system:

- + Exhaust fan: capacity of 30 Hp and flow of 30,000 m<sup>3</sup>/hour.
- Design capacity: 3,000 m<sup>3</sup>/hour.
- Number of systems: 01.

- Specifications of the system:

- + Exhaust fan: capacity of 2.2kw.
- + Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.
- + Chimney: 4 meters high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.23. Waste dust treatment system No. 23 (corresponding to source No. 23):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 3,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:

- + Exhaust fan: capacity of 2.2kw.
- + Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.
- + Chimney: 4 meters high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.24. Waste dust treatment system No. 24 (corresponding to source No. 24):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 3,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:

- + Exhaust fan: capacity of 2.2kw.
- + Cloth bag filter device: quantity of 20 bags and dimensions of 50\*470\*1140mm.
- + Chimney: 4 meters high and dimensions of 450mm x 450mm.
- Chemicals and materials to be used: chemical-free

1.2.25. Waste dust treatment system No. 25 (corresponding to source No. 25):

- Technological process: Exhaust gases → suction hoods → cloth bag filter device → exhaust chimney
- Design capacity: 3,000 m<sup>3</sup>/hour.
- Number of systems: 01.
- Specifications of the system:

- + Chimney: 20 meters high and dimensions of 900mm.
- Chemicals and materials to be used: chemical-free

1.2.29. Boiler exhaust gas collection and emission system No. 04 (corresponding to source No. 29):

- Technological process: Exhaust gases → exhaust fan → Exhaust chimney.
- Boiler capacity: 6 tons/hour.
- Quantity: 01.



- Specifications of the system:
  - + Exhaust fan: capacity of 30 Hp and flow of 30,000 m<sup>3</sup>/hour.
  - + Chimney: 20 meters high and dimensions of 900mm.
  - Chemicals and materials to be used: chemical-free
- 1.2.30. The exhaust gas collection and combustion system from the wastewater treatment system (corresponding to source No. 30):
- Technological process: Exhaust gases → collection pipeline → moisture separator → air exchange tower → natural dispersion.
  - Quantity: 01.
  - Specifications of the system:
  - + Open type combustion tower, SUS304 material with height of 3.5m including: body, flashback arrestors, support legs and connection pipes.
  - + Moisture separator: SUS304 material and dimensions of D = 300mm x H = 500mm.
  - + Pressure safety device: SUS304 material and dimensions of D = 200mm x H = 800mm
  - Chemicals and materials to be used: chemical-free
- 1.2.31. The exhaust gas and emission collection system of generator 01 (corresponding to source No. 31):
- Technological process: Exhaust gases → exhaust fan → Exhaust chimney.
  - Generator capacity: 2,500 KVA.
  - Quantity: 01.
  - Specifications of the system:
  - + Exhaust fan: flow of 26,000 m<sup>3</sup>/hour.
  - + Chimney: 6 meters high and diameter 200mm.
  - Chemicals and materials to be used: chemical-free
- 1.2.32. The exhaust gas and emission collection system of generator 02 (corresponding to source No. 32):
- Technological process: Exhaust gases → exhaust fan → Exhaust chimney
  - Generator capacity: 500 KVA.
  - Quantity: 01.
  - Specifications of the system:
  - + Exhaust fan: flow of 7,000 m<sup>3</sup>/hour.
  - + Chimney: 6 meters high and diameter of 150mm.
  - Chemicals and materials to be used: chemical-free
- 1.2.33. The exhaust gas and emission collection system of generator 03 (corresponding to source No. 33):
- Technological process: Exhaust gas → exhaust fan → Exhaust
  - Generator capacity: 500 KVA.
  - Quantity: 01.
  - Specifications of the system:
  - + Exhaust fan: flow of 7,000 m<sup>3</sup>/hour.
  - + Chimney: 6 meters high and diameter of 150mm.
  - Chemicals and materials to be used: chemical-free
- 1.2.34. The exhaust gas and emission collection system of generator 04 (corresponding to source No. 34):
- Technological process: Exhaust gases → exhaust fan → Exhaust chimney.
  - Generator capacity: 1,000 KVA.
  - Quantity: 01.
  - Specifications of the system:
  - + Exhaust fan: flow of 11,700 m<sup>3</sup>/hour.
  - + Chimney: 6 meters high and diameter of 200mm.
  - Chemicals and materials to be used: chemical-free
- 1.3. Automatic and continuous wastewater monitoring systems and equipment: It shall be not obliged to be installed.
- 1.4. Measures, works, and equipment to prevent and respond to accidents/incidents:
- They shall have to comply with design requirements and technical procedures for operating and maintaining the dust and exhaust gas treatment system.
  - The operators shall have to be trained to master operating procedures and be capable to repair and remedy the problems in case of accident/incident occurrence.

- If the exhaust gas treatment system has a problem or the exhaust quality does not meet the requirements specified in Section 2.2.2, Part A of this Appendix hereby, then the exhaust gas discharge into the environment shall have to be stopped immediately to implement remedial and treatment measures.
- Annually, equipment and machinery of the exhaust gas treatment system shall have to be inspected, serviced and maintained to ensure their stable operation.
- The plan to promptly handle the problems of the system shall have to be available such as:
  - + Backup equipment for the processing system shall have to be always available.
  - + The equipment incidents/accidents shall have to be quickly fixed and backup devices and equipment shall have to be operated while troubleshooting.
  - + The dust and exhaust gas treatment system shall have to be monitored regularly to promptly detect incidents/accidents.
  - + In case of problems with works or exhaust gas treatment equipment and their operations must be temporarily suspended for replacement or repair, or in cases of prolonged incidents, the authorized persons shall be reported to reduce the load or stop operation of the facilities and engines to check and fix.

## 2. Trial operation plan:

2.1. Trial operation period: It shall be compliant to the provisions of Article 46 of the Law on Environmental Protection 2020, Point b, Clause 6, Article 31 of Decree No. 08/2022/ND-CP dated January 10, 2022 and Clause 5, Article 21 of the Circular No. 02/2022/TT-BTNMT dated January 10, 2022.

2.2. Trial operation of exhaust gas discharge works and equipment to be performed:

- Dust treatment system No. 01: Dust treatment system of the gum mixing step of Bag Filter (Center Line) Lamination system with capacity of 7,000 m<sup>3</sup>/hour (Exhaust gas stream No. 01).
- Dust treatment system No. 02: Dust treatment system of the gum mixing step of Bag Filter system (Mixes Room) with capacity of 7,000 m<sup>3</sup>/hour (Exhaust gas stream No. 02).
- Dust treatment system No. 03: Dust treatment system of sugar coating and mixing step of square Pelegrini Bag Filter (Coating2 Gum line 1) system with capacity of 7,000 m<sup>3</sup>/hour (Exhaust gas stream No. 03).
- Dust treatment system No. 04: Dust treatment system of sugar coating and mixing step of Pelegrini Bag Filter (Coating 2 Gum line 2) system with capacity of 7,000 m<sup>3</sup>/hour (Exhaust gas stream No. 04).
- Dust treatment system No. 05: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7058 Coating line 1 system capacity (Exhaust gas stream No. 05).
- Dust treatment system No. 06: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7059 Coating line 2 system with capacity of 8,000 m<sup>3</sup>/hour (Exhaust gas stream No. 06).
- Dust treatment system No. 07: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7060 Coating line 3 system with capacity of 8,000 m<sup>3</sup>/hour (Exhaust gas stream No. 07).
- Dust treatment system No. 08: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7061 Coating line 4 system with capacity of 8,000 m<sup>3</sup>/hour (Exhaust gas stream No. 08).
- Dust treatment system No. 09: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7062 Coating line 5 system with capacity of 8,000 m<sup>3</sup>/hour (Exhaust gas stream No. 09).
- Dust treatment system No. 10: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7063 Coating line 6 system with capacity of 8,000 m<sup>3</sup>/hour (Exhaust gas stream No. 10).
- Dust treatment system No. 11: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7064 Coating line 7 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 11).
- Dust treatment system No. 12: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7065 Coating line 8 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 12).
- Dust treatment system No. 13: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7066 Coating line 9 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 13).
- Dust treatment system No. 14: Dust treatment system of sugar coating and mixing step of (round) Bag Filter 7067 Coating line 10 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 14).
- Dust treatment system No. 15: Dust treatment system of sugar coating and mixing step of (round) Coating line 11 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 15).
- Dust treatment system No. 16: Dust treatment system of sugar coating and mixing step of (square) Bag Filter Coating Line 12 system with capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 16).
- Dust treatment system No. 17: Dust treatment system of sugar coating and mixing step of (square) Coating Line 13 Pelegrini system with maximum capacity of 10,000 m<sup>3</sup>/hour (Exhaust gas stream No. 17).
- Dust treatment system No. 18: Dust treatment system of sugar coating and mixing step of (square) Bag Filter Coating Line 3 system with capacity of 7,000 m<sup>3</sup>/hour (Exhaust gas stream No. 18).

- Dust treatment system No. 19: Dust treatment system of sugar coating and mixing step of (round) Bag Filter chocolate line system with capacity of 12,000 m<sup>3</sup>/hour (Exhaust gas stream No. 19).
- Dust treatment system No. 20: Dust treatment system of sugar silos of Dosmat Sugar Scale Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 20).
- Dust treatment system No. 21: Dust treatment system of sugar silos of Gravomat Chupa Sugar Scale Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 21).
- Dust treatment system No. 22: Dust treatment system of sugar silos of Gravomat Candy Sugar Scale Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 22).
- Dust treatment system No. 23: Dust treatment system of sugar silos of AWM Mentos Sugar Scale Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 23).
- Dust treatment system No. 24: Dust treatment system of sugar silos of Gum Crusher Sugar Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 24).
- Dust treatment system No. 25: Dust treatment system of sugar silos of Line Jely Sugar Silo system with capacity of 3,000 m<sup>3</sup>/hour (Exhaust gas stream No. 25).
- Dust treatment system No. 26: Exhaust gas treatment system of boiler No. 01 with capacity of 13 tons/hour fueled by Biomass with capacity of 45,000 m<sup>3</sup>/hour (Exhaust gas stream No. 26).

2.2.1. Sampling sites:

No.	Sampling sites	Coordinates	
		X	Y
1	At the exhaust pipe, after exhaust gas treatment system No. 01 (Exhaust gas stream No. 01)	12.07.322	06.08.426
2	At the exhaust pipe, after exhaust gas treatment system No. 02 (Exhaust gas stream No. 02)	12.07.325	06.08.410
3	At the exhaust pipe, after exhaust gas treatment system No. 03 (Exhaust gas stream No. 03)	12.07.304	06.08.463
4	At the exhaust pipe, after exhaust gas treatment system No. 04 (Exhaust gas stream No. 04)	12.07.315	06.08.466
5	At the exhaust pipe, after exhaust gas treatment system No. 05 (Exhaust gas stream No. 05)	12.07.293	06.08.447
6	At the exhaust pipe, after exhaust gas treatment system No. 06 (Exhaust gas stream No. 06)	12.07.294	06.08.450
7	At the exhaust pipe, after exhaust gas treatment system No. 07 (Exhaust gas stream No. 07)	12.07.294	06.08.453
8	At the exhaust pipe, after exhaust gas treatment system No. 08 (Exhaust gas stream No. 08)	12.07.294	06.08.454
9	At the exhaust pipe, after exhaust gas treatment system No. 09 (Exhaust gas stream No. 09)	12.07.293	06.08.457
10	At the exhaust pipe, after exhaust gas treatment system No. 10 (Exhaust gas stream No. 10)	12.07.293	06.08.458
11	At the exhaust pipe, after exhaust gas treatment system No. 11 (Exhaust gas stream No. 11)	12.07.293	06.08.459
12	At the exhaust pipe, after exhaust gas treatment system No. 12 (Exhaust gas stream No. 12)	12.07.293	06.08.460
13	At the exhaust pipe, after exhaust gas treatment system No. 13 (Exhaust gas stream No. 13)	12.07.293	06.08.461
14	At the exhaust pipe, after exhaust gas treatment system No. 14 (Exhaust gas stream No. 14)	12.07.293	06.08.462
15	At the exhaust pipe, after exhaust gas treatment system No. 15 (Exhaust gas stream No. 15)	12.07.293	06.08.465
16	At the exhaust pipe, after exhaust gas treatment system No. 16 (Exhaust gas stream No. 16)	12.07.293	06.08.467
17	At the exhaust pipe, after exhaust gas treatment system No. 17 (Exhaust gas stream No. 17)	12.07.319	06.08.520
18	At the exhaust pipe, after exhaust gas treatment system No. 18 (Exhaust gas stream No. 18)	12.07.317	06.08.504

19	At the exhaust pipe, after exhaust gas treatment system No. 19 (Exhaust gas stream No. 19)	12.07.202	06.08.393
20	At the exhaust pipe, after exhaust gas treatment system No. 20 (Exhaust gas stream No. 20)	12.07.228	06.08.414
21	At the exhaust pipe, after exhaust gas treatment system No. 21 (Exhaust gas stream No. 21)	12.07.232	06.08.415
22	At the exhaust pipe, after exhaust gas treatment system No. 22 (Exhaust gas stream No. 22)	12.07.256	06.08.402
23	At the exhaust pipe, after exhaust gas treatment system No. 23 (Exhaust gas stream No. 23)	12.07.293	06.08.414
24	At the exhaust pipe, after exhaust gas treatment system No. 24 (Exhaust gas stream No. 24)	12.07.301	06.08.409
25	At the exhaust pipe, after exhaust gas treatment system No. 25 (Exhaust gas stream No. 25)	12.07.204	06.08.384
26	At the exhaust pipe, after exhaust gas treatment system No. 26 (Exhaust gas stream No. 26)	12.07.322	06.08.649

(VN2000 coordinate system, longitude of 105<sup>0</sup>45' and projection zone 3<sup>0</sup>).

2.2.2. Pollutants and their permissible limits: During trial operation period, the Company shall have to monitor the pollutants of the exhaust gas flow and evaluate the treatment performance of its exhaust gas treatment system in compliant with the permissible limits as specified in Section 2.2, Part A of this Appendix hereby.

2.3. Sampling frequency: During trial operation of dust and exhaust gas treatment system, monitoring shall be performed as prescribed in Article 21 of Circular No. 02/2022/TT-BTNMT dated January 10, 2022 by the Ministry of Natural Resources and Environment on detailing the implementation of a number of articles of the Law on Environmental Protection.

3. Environmental protection requirements:

3.1. Dust and exhaust gases generated and emitted from project operations shall have to be collected and treated to ensure compliant with the regulations on permissible limits of pollutants in Section 2.2 Part A of this Appendix hereby before discharging into the environment.

3.2. The company shall be liable for any failure of meeting the requirements specified in Section 2.2, Part A of this Appendix hereby and shall have to immediately stop exhaust gas discharge to take corrective measures.

3.3. The resources, equipment, and chemicals shall have to be sufficient to regularly and effectively operate the dust and exhaust gas collection and treatment works.

3.4. During the trial operation process, it shall have to seriously and fully responsibly implement the contents as specified in Clauses 7 and 8, Article 31 of Decree No. 08/2022/ND-CP dated January 10, 2022. In case of any change of trial operation plan prescribed by this Environmental License, the responsibilities as prescribed in Clause 5, Article 31 of Decree No. 08/2022/ND-CP dated January 10, 2022 shall have to be fulfilled.

3.5. Within 10 days from completion of trial operation of the waste treatment works, the project owner shall have to report on trial operation results to the Binh Duong Industrial Zones Authority as prescribed.

3.6. The operation log books to record all information of trial operation and operations of dust and exhaust gas collection and treatment works shall have to be available.

3.7. The resources, equipment, and chemicals shall have to be sufficient to regularly and effectively operate the dust and exhaust gas collection and treatment works.

3.8. The measures to strengthen control and minimize odors during production, wastewater treatment and waste storage shall have to be available.

3.9. The Company shall have to be fully liable for discharging dusts and exhaust gases which fail to meet the requirements of this License hereto into the environment.

3.10. The regulations in Circular No. 10/2021/TT-BTNMT dated June 30, 2021 by the Minister of Natural Resources and Environment; and the Decision No. 22/2023/QĐ-UBND dated July 6, 2023 by the People's Committee of Binh Duong Province on promulgating environmental protection regulations in Binh Duong Province and other concerned legislations as prescribed shall have to be adhered

Appendix 3

ENSURING PERMISSIBLE LIMITS OF NOISE AND VIBRATION AND ENVIRONMENTAL PROTECTION REQUIREMENTS

(Attached to Environmental License No. 51/GPMT-BQL dated September 29, 2023 by Binh Duong Industrial Zones Authority)

A. THE CONTENTS OF ENVIRONMENTAL LICENSE FOR NOISE AND VIBRATION:

1. Sources of noise and vibration:

- Source No. 01: The area of pellet-fueled boiler No. 01 with capacity of 13 tons/hour.
- Source No. 02: The area of CNG-fueled boiler No. 02 with capacity of 10 tons/hour.
- Source No. 03: The area of CNG-fueled boiler No. 03 with capacity of 6 tons/hour.
- Source No. 04: The area of CNG-fueled boiler No. 04 with capacity of 6 tons/hour.
- Source No. 05: 2,500 KVA generator No. 01
- Source No. 06: 500 KVA generator No. 02.
- Source No. 07: 500 KVA generator No. 03.
- Source No. 08: 1,000 KVA generator No. 04.
- Source No. 09: Factory area.

2. Sites of noise and vibration

- Source No. 01: coordinates: X= 12.07.322; Y= 06.08.649
- Source No. 02: coordinates: X= 12.07.273; Y=06.08.373
- Source No. 03: coordinates: X= 12.07.279; Y=06.08.373
- Source No. 04: coordinates: X= 12.07.284; Y= 06.08.374
- Source No. 05: coordinates: X= 12.07.314; Y=06.08.371
- Source No. 06: coordinates: X= 12.07.312; Y=06.08.371
- Source No. 07: coordinates: X= 12.07.309; Y=06.08.371
- Source No. 08: coordinates: X= 12.07.305; Y=06.08.371
- Source No. 09: coordinates: X= 12.07.288; Y= 06.08.464
- Source No. 10: coordinates: X= 12.07.192; Y=06.08.397

(VN 2000 coordinate system, longitude of 105<sup>0</sup>45' and projection zone of 3<sup>0</sup>)

3. Noise and vibration shall have to meet environmental protection requirements and QCVN 26:2010/BTNMT – National technical regulations on noise, QCVN 27:2010/BTNMT– National technical regulations on vibration, which shall be specified as follows:

3.1. Noise:

No.	From 6:00 to 21:00 (dBA)	From 21:00 to 6:00 (dBA)	Frequency of periodic monitoring	Note
1	70	55	-	Common area

3.2. Vibration:

No.	Application time of day and permissible vibration acceleration level (dB)		Frequency of periodic monitoring	Note
	From 6:00 to 21:00	From 21:00 to 6:00		
1	70	60	-	Common area

B. ENVIRONMENTAL PROTECTION REQUIREMENTS FOR NOISE AND VIBRATION:

1. Works and measures to minimize noise and vibration:

- Office area and production area shall have to be separated; The project owner shall have to ensure that all machinery and equipment shall be upgraded to meet technical requirements before being moved and put into production activities, thereby somewhat limiting the possibility of noise generation;
- The balance of machines and equipment during installation and operation shall have to be ensured;
- Wear of components shall have to be checked and lubrication of machinery or replacement of damaged equipment shall have to be performed regularly;
- Designed rubber anti-vibration pads of the machines and equipment shall have to be installed to reduce vibration and noise;
- The balance of machinery and equipment shall have to be checked and adjusted if necessary;
- Maintenance and service of machinery and equipment shall have to be performed periodically;
- The measures to minimize noise and vibration for workers shall have to be available;
- For the employees working at the high noise levels stages, they shall have to be fully equipped with earplugs and noise-protective capsules and plugs;

- Working hours at noise-generating stages shall have to be arranged appropriately and the number of workers of high noise areas shall have to be minimized;
  - The plans to regularly inspect and closely monitor the use of personal protective equipment by workers shall have to be available.
  - The works and measures to minimize vibration: For high equipment capacity, their base rubber cushions shall have to be installed for free of direct contact with concrete floor, thereby vibration during their operation shall be minimized. Engine parts shall have to be checked periodically for wear and lubricating oil shall have to be changed regularly.
2. Environmental protection requirements:
- 2.1. Sources of noise and vibration shall have to be minimized within the permissible limits as specified in Part A of this Appendix herewith.
- 2.2. The equipment shall have to be maintained and adjusted periodically to limit noise and vibration.



## Appendix 4

WASTE MANAGEMENT REQUIREMENTS AND ENVIRONMENTAL EMERGENCY PREVENTION  
AND RESPONSE(Attached to Environmental License No. 51/GPMT-BQL dated September 29, 2023 by Binh Duong  
Industrial Zones Authority)

## A. WASTE MANAGEMENT:

## 1. Type and volume of waste generated:

## 1.1. Volume and type of hazardous waste generated regularly:

No.	Waste name	State	Waste code	Classification symbols	Volume (kg/year)
1	Fluorescent light bulbs	Solid	16 01 06	NH	500
2	Waste lubricant oils	Liquid	17 02 04	NH	2,200
3	Soft waste packages	Solid	18 01 01	KS	150
4	Hard metal waste packages	Solid	18 01 02	KS	6,200
5	Hard plastic waste packages	Solid	18 01 03	KS	14,000
6	Chemical-contaminated rags and gloves	Solid	18 02 01	KS	2,500
7	Waste lead batteries and cells	Solid	19 06 01	NH	1,000
8	Waste toner cartridges	Solid	08 02 04	KS	1,200
	Total	-	-	-	27,750

## 1.2. Volume and type of common industrial solid waste generated:

No.	Waste name	State	Waste code	Classification symbols	Volume (kg/year)
1	Solid waste generated from conventional production				6,258,400
1.1	Waste candy	Solid	14 07 01	TT-R	1,400,000
1.2	Sewage sludge	Solid	14 07 03	TT	1,200,000
1.3	Waste paper and waste packages of all kinds	Solid	18 01 05	TT-R	1,170,000
1.4	Sugar and gum dusts	Solid	14 07 01	TT-R	1,570,000
1.5	Waste plastics and plastic packages	Solid	18 01 06	TT-R	69,900
1.6	Types of waste pallets	Solid	18 01 07	TT-R	493,000
1.7	Iron, steel, stainless steel scraps	Solid	11 04 03	TT-R	205,500
1.8	Waste ash	Solid	12 01 10	TT	150,000
2	Liquid production wastes with high organic contents	Liquid	19 10 01	TT	22,500
3	Wastewater from boiler blowdown and domestic wastewater at site 2	Liquid	19 10 01	TT	708

## 1.3. Volume of domestic solid waste generated:

No.	Waste name	Generated volume (kg/year)
1	Domestic waste	386,235

1.4. Volume and types of controlled industrial waste: It shall be sorted out and classified in compliant with the regulations in Circular No. 02/2022/TT-BTNMT by Ministry of Natural Resources and Environment dated January 10, 2022.

2. Environmental protection requirements for the storage of solid domestic waste, common industrial solid waste and hazardous waste:

2.1. Equipment, systems and works for storing hazardous waste:

2.1.1. Storage equipment: The drums with lids.

2.1.2. Storage:

- Warehouse area: 15 m<sup>2</sup>.

- Design and structure: The hazardous waste (HW) storage warehouse shall have to have walls and roof. Its floor shall have to be reinforced with waterproof materials, and have floor drains and ledges to collect liquid hazardous waste in case of spillage. It shall have to be installed standard warning signs classifying each HW code, be fully equipped with HW containers labeled with HW codes, have fire protection equipment, and meet technical requirements and regulatory management processes.

2.2. Equipment, systems and works for storing common industrial solid waste:

2.2.1. Storage equipment: Common industrial solid waste shall be collected into separate warehouses.

Liquid production waste with high organic contents shall be collected into 02 30-m<sup>3</sup> tanks and total storage volume shall be of 60m<sup>3</sup>.

Wastewater from the boiler blowdown process and domestic wastewater at Site 2 shall be stored in a 3-m<sup>3</sup> tank at Site 2 and compliant with the regulations.

2.2.2. Storage:

- Warehouse area: 128 m<sup>2</sup> (118 m<sup>2</sup> for common industrial solid waste storage and 10 m<sup>2</sup> for domestic solid waste storage)

- Design and structure: The warehouse shall be labeled as Non-hazardous industrial waste storage area. It shall have walls and roofs, and its floors shall be reinforced with waterproof concrete.

2.3. Equipment, systems and works for storing domestic solid waste:

- Storage equipment: Plastic containers with lids at factory areas, office areas, and cafeteria areas.

- The factory's garbage collection staff shall collect all domestic waste to the factory's domestic waste gathering area everyday

- An authorized disposal contractor shall transport and dispose waste in compliant with the regulatory.

**B. ENVIRONMENTAL EMERGENCY PREVENTION AND RESPONSE REQUIREMENTS**

- Environmental emergency prevention and response plans for chemical leakage, oil spills and other incidents shall have to be prepared and available as prescribed by laws and regulations.

- The responsibilities to prevent from and prepare for environmental emergency, organize environmental emergency response and remediate environment after emergency shall have to comply with the provisions of Article 122, 124, 125 and 126 of Law on Environmental Protection.

- The responsibilities to promulgate and organize the implementation of plans to prevent from and respond to environmental emergency shall have to comply with the provisions of the Law on Environmental Protection, Decree No. 08/2022/ND-CP dated January 10, 2022 in accordance with the contents of preventing environmental emergency in this Environmental License hereby. In case the environmental emergency response plan is included, integrated and approved with other emergency response plans in compliant with the provisions of Point b, Clause 6, Article 124 of the Law on Environmental Protection, it shall have to include all contents as prescribed in Clause 2, Article 108 of the Decree No. 08/2022/ND-CP dated January 10, 2022.



Appendix 5

OTHER REQUIREMENTS ON ENVIRONMENTAL PROTECTION

(Attached to Environmental License No. 51/GPMT-BQL dated September 29, 2023 by Binh Duong Industrial Zones Authority)

1. The Government's Decree No. 08/2022/ND-CP dated January 10, 2022 on detailing a number of articles of the Law on Environmental Protection; Circular No. 02/2022/TT-BTNMT dated January 10, 2022 by the Minister of Natural Resources and Environment on detailing the implementation of a number of articles of the Law on Environmental Protection shall have to be adhered.
2. The regulations on chemical safety, occupational safety, and industrial sanitation, fire and explosion prevention and other concerned technical codes and regulations shall have to be adhered; and the personnel to perform environmental management and protection during project implementation shall have to be staffed.
3. Waste generated during operations shall have to be managed to ensure environmental hygiene requirements and comply with legislations on environmental protection.
4. Legislations on labor safety, traffic safety, food safety, and fire prevention shall have to be adhered in compliant with applicable regulations.
5. The environmental protection works shall have to be reported on an annual or irregular basis; and environmental information and environmental emergency response plans shall have to be publicized in compliant with legislations.
6. Implement educational The officials and employees working on the project shall have to be trained and strengthened their awareness about environmental protection, chemical safety, fire and explosion prevention.
7. A model to manage and ensure financial resources shall have to be established so that the Project's environmental protection works shall be maintained and operated effectively and environmental monitoring and supervision programs shall comply with regulatory provisions.
8. The responsibilities of common industrial solid waste and hazardous waste generators shall have to comply with the provisions of law.
9. The environmental management and monitoring programs, and environmental protection measures and works shall have to comply with the licensed contents hereby; Monitoring data shall have to be updated and kept for inspection by state regulatory agencies.
10. Legislations on environmental protection and other concerned provisions shall have to be adhered properly and fully responsibly. In case legislations or environmental technical regulations specified in this license hereby are amended, supplemented or replaced, the provisions of the new legislations shall prevail./.

I, Đặng Thanh Huy, translator of English, Citizen Identity Card No.079070037147 issued on July 10, 2021 by the Police Department for Administrative Management of Social Order, undertake that this is true translation from the document hereby attached.

Translator



Đặng Thanh Huy

Viet Uc Chau Translation Ltd Co.

Hereby certifies that the signature appearing herein is the true signature of Mr. Đặng Thanh Huy, the Translator of the Company.

No: 1336/CT

Ho Chi Minh City, 03/10/2023

  
DIRECTOR  
CÔNG TY TNHH  
VIỆT ÚC CHÂU  
Nguyễn Thị Quỳnh An