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Hanoi, October 14, 2016

## CIRCULAR

PROVIDING FOR ENVIRONMENTAL PROTECTION FOR INDUSTRIAL CLUSTERS,  
CONCENTRATIONS OF BUSINESSES, SERVICE PROVIDERS, TRADE VILLAGES,  
PRODUCTION, COMMERCIAL AND SERVICE ESTABLISHMENTS

*Pursuant to the Law on Environmental Protection dated June 23, 2014;*

*Pursuant to the Government's Decree No. 19/2015/ND-CP dated February 14, 2015 specifying implementation of several articles of the Law on Environmental Protection;*

*Pursuant to the Government's Decree No. 38/2015/ND-CP dated April 24, 2015 on management of wastes and scrap materials;*

*Pursuant to the Government's Decree No. 21/2013/ND-CP dated March 04, 2013 defining functions, duties, powers and organizational structure of the Ministry of Natural Resources and Environment;*

*Upon the request of the General Director of Vietnam Environment Administration and the Director of the Department of Legal Affairs;*

*The Minister of Natural Resources and Environment hereby introduces the Circular on environmental protection in industrial clusters, concentrations of businesses, service providers, trade villages, production, commercial and service establishments.*

### Chapter I

## GENERAL PROVISIONS

### Article 1. Scope

This Circular provides details of Article 67, Point dd Clause 1 Article 68, Article 101, Article 108, Clause 2 Article 121, Clause 3 Article 123, Clause 3 Article 125, and Clause 1 Article 130, of the Law on Environmental Protection; Clause 1 and 4 of Article 20 of the Government's Decree No. 19/2015/ND-CP dated February 14, 2015 on specifying implementation of several articles of the Law on Environmental Protection (hereinafter referred to as Decree No. 19/2015/ND-CP); Article 37, Article 39, Point a and Point c Clause 1 Article 43 of the Government's Decree No. 38/2015/ND-CP dated April 24, 2015 on management of wastes and scrap materials (hereinafter referred to as Decree No. 38/2015/ND-CP), including:

1. Environmental protection in industrial clusters, concentrations of businesses and service providers.
2. Environmental protection in trade villages.
3. Environmental protection in production, commercial and service establishments.

### Article 2. Subjects of application

This Circular shall be applied to domestic and foreign institutional and individual entities related to environmental protection activities in industrial clusters; concentrations of businesses and service providers; trade villages; production, commercial and service establishments (hereinafter referred to as establishment).

### Article 3. Definition

For the purpose of this Circular, terms used herein shall be construed as follows:

1. Investor in construction and commercial operation of industrial cluster infrastructure refers to enterprises, organizational or individual entities established and operated under Vietnam's laws, or granted the business registration as defined in Vietnam's laws and regulations, and directly making its investment in construction, management and business operation of industrial cluster infrastructure.
2. Concentration of businesses and service providers refers to supermarkets, commercial centers, local markets, tourism, sport and recreation attractions, bus terminals, or rail terminals, which require preparation of environmental impact statements.
3. Management board of concentration of businesses and service providers refers to enterprises, organizational or individual entities established and operated under Vietnam's laws, or granted the business registration as defined in Vietnam's laws and regulations, and directly making its investment in construction, management and business operation of infrastructure facilities of concentrations of

businesses and service providers.

4. Active industrial clusters, concentrations of businesses, service providers and establishments refer to those that have officially brought at least one work item or project into operation.

5. Environmental protection plan refers to the environmental management plan which is devised and implemented during the entire process of operation of active industrial clusters, concentrations of businesses, service providers and establishments, and trade villages.

## **Chapter II**

# **ENVIRONMENTAL PROTECTION IN INDUSTRIAL CLUSTERS, CONCENTRATIONS OF BUSINESSES AND SERVICE PROVIDERS**

## **Section 1. ENVIRONMENTAL PROTECTION IN INDUSTRIAL CLUSTERS**

### **Article 4. Environmental protection requirements in drawing up the construction planning of industrial clusters**

1. Planning of functional zones and production activities in industrial clusters must minimize impacts caused by polluting production activities on others, and facilitate actions to be taken to prevent and respond to environmental emergencies.

2. According to the planning, an industrial cluster must be fully furnished with environmental protection infrastructure meeting requirements referred to in Clause 1 Article 5 hereof.

3. Tree grown within an industrial cluster must cover at least 10% of total area of that industrial cluster.

### **Article 5. Requirements for development, construction, management and operation of environmental protection infrastructure facilities in industrial clusters**

1. Development of environmental protection infrastructure facilities in an industrial cluster must conform to the following requirements:

a) Engineering infrastructure of an industrial cluster is composed of rainwater drainage system, centralized wastewater collection and treatment system, solid waste retention and treatment system (if any).

Rainwater drainage system and wastewater collection, treatment and disposal system must be separate, have uniform designs, be installed in conformance to the approved planning, and comply with technical regulations and standards applied to construction activities, and relevant environmental regulations and technical standards;

b) Centralized wastewater collection and treatment system for an industrial cluster may be built in parts expressed in single segments (or modules) or in whole in proportion to the progress of occupancy of that industrial cluster, ensure that all of wastewater generated from that industrial cluster's operations must be treated in conformity with technical regulations on environment;

c) Centralized wastewater collection and treatment system for an industrial cluster must conform to the following requirements: using a meter for measuring inflow and outflow volumes, and electronic meters for independent electricity measurement; installing conspicuous signs at discharge points; designing the working floor covering a space of at least 01 m<sup>2</sup>, having walkways convenient for testing and inspection of regulatory authorities; making plans, infrastructure, equipment and instruments available for response and solution to any failure or breakdown that may happen to the system;

d) The centralized wastewater collection and treatment system for an industrial cluster having the effluent flow volume of at least 1,000 m<sup>3</sup>/day and night must be equipped with the automatic and continuous monitoring system as defined in Clause 1 and 3 of Article 26 hereof;

dd) Where an industrial cluster has its own plan to collect and treat solid wastes, laws and regulations on collection and treatment of solid wastes shall be applied.

2. Management and operation of environmental protection infrastructure facilities in an industrial cluster must conform to the following requirements:

a) The centralized wastewater collection and treatment system must be regularly operated in conformance to the regulatory technological process to ensure that wastewater is treated in conformity with technical regulations on environment before being discharged into the receiving source;

b) Operation of the centralized wastewater collection and treatment system must be recorded into the operational logbook in detail, including flow volume, typical parameters of influent and effluent (if any); volume of electricity consumed; type and amount of chemicals used and waste sludge produced. The operational logbook must be written in Vietnamese and retained for a period of at least 02 years;

c) The centralized wastewater collection and treatment system must be maintained and serviced on a periodic basis to guarantee its normal working conditions;

d) Effluent must not be diluted before entering into the discharge point referred to in Point c Clause 1

of this Article;

dd) Sewage sludge generated in the centralized wastewater collection and treatment system, and rainwater drainage system, of an industrial cluster must be harvested, transported and treated or reused in accordance with laws and regulations on sewage sludge management.

3. Exemptions from connection to the centralized wastewater collection and treatment system for an industrial cluster:

a) Any establishment generates an amount of wastewater in excess of the reception and treatment capacity of the centralized wastewater collection and treatment system for the industrial cluster, and is using its wastewater treatment method conformable to environmental technical regulations;

b) Any establishment is operating within an industrial cluster that has not had the centralized wastewater collection and treatment system, and is using a wastewater treatment method conformable to environmental technical regulations.

#### **Article 6. Responsibilities of establishments in an industrial cluster**

1. Treating wastewater:

a) Sign and comply with records of agreement or contracts with investors in construction and business operation of infrastructure facilities installed in an industrial cluster on connecting wastewater to the centralized wastewater collection and treatment system of the industrial cluster, or enter into agreements on transfer of wastewater to be treated with authorized establishments in accordance with regulations laid down in Article 20 hereof;

b) Establishments eligible for exemptions for connection defined in Clause 3 Article 5 hereof must observe regulations enshrined in Article 18 hereof.

2. Exercising responsibility for management of solid wastes, emissions, noise, vibration, light, heat and radiation as prescribed by Article 19 hereof.

3. Implementing environmental monitoring programs conducted by these establishments in accordance with applicable regulations, and notifying results achieved from such implementation to investors in construction and business operation of the industrial cluster's establishments to make an integrated report to competent authorities. Informing local governments and environmental protection regulatory authorities, as well as investors in construction and business operation of the industrial cluster's infrastructure in case of environmental emergencies or incidents, and taking measures to respond to and mitigate these situations in accordance with laws and regulations.

#### **Article 7. Responsibilities of investors in construction and business operation of an industrial cluster's infrastructure**

1. Make investment in construction, management and operation of environmental protection infrastructure facilities for the industrial cluster as defined in Article 5 hereof.

2. Do not expand the industrial cluster or approving more investment projects in the industrial cluster in the event that industrial cluster has yet to build any environmental protection infrastructure facilities as stipulated by Article 5 hereof.

3. Pay environmental protection fees defined by laws.

4. Assign at least 01 employee as the officer in charge of environmental protection issues who has attained a university's or higher-level degree in one of the following disciplines: environmental management, environmental science, technology and engineering, chemistry and biology. This officer shall be offered annual training courses on environmental emergency or incident prevention and response.

5. Draw up, and allow for implementation of, environmental protection plans in accordance with Chapter V hereof.

6. Prepare and submit an integrated evaluation report on environmental monitoring and environmental protection activities in an industrial cluster and at establishments operating in that industrial cluster to the Department of Natural Resources and Environment ahead of December 31 every year. The sample report is provided in the Appendix 1 hereto.

#### **Article 8. Responsibilities of district-level People's Committee**

1. Command its subordinate agencies that have appropriate competence to make investment in construction, management and operation of environmental protection infrastructure facilities for an industrial cluster as defined in Article 5 hereof unless investors in construction and business operation of industrial cluster infrastructure have been determined in accordance with laws and regulations.

2. Direct its subordinate competent agencies not to approve any new investment project in an industrial cluster where technical infrastructure for environmental protection purposes is not available as prescribed in Article 5 hereof within its jurisdiction.

3. Examine and inspect construction of environmental protection infrastructure for industrial clusters within its jurisdiction in accordance with laws and regulations.

#### **Article 9. Responsibilities of the provincial-level People's Committee**

1. Consider allocating the budget as subsidy on investment in construction of environmental protection infrastructure for industrial clusters that fall within its jurisdiction in accordance with laws and regulations.
2. Order professional regulatory authorities, district-level and communal-level People's Committee to implement regulations on environmental protection for industrial clusters.

### **Section 2. ENVIRONMENTAL PROTECTION FOR CONCENTRATIONS OF BUSINESSES AND SERVICE PROVIDERS**

#### **Article 10. Management of wastewater and solid wastes**

1. Concentrations of businesses and service providers must apply methods for treatment of all sewage generated from business and service activities; have a sewerage system with sufficient capacity to handle sewage produced by businesses and service providers within these concentrations; manage and guarantee stability of sewerage service activities in accordance with laws and regulations.
2. Establishments, business or service households must apply solid waste sorting methods and not discharge solid waste into the sewerage system; transfer solid wastes to entities that have competence in collection, carriage and treatment thereof in accordance with laws and regulations.
3. The management boards of concentrations of businesses and service providers must carry out environmental protection activities for public places in accordance with Clause 2 Article 81 of the Law on Environmental Protection.

#### **Article 11. Officers undertaking environmental protection tasks in concentrations of businesses and service providers**

The management board of a concentration of businesses and service providers must assign 01 officer in charge of environmental protection activities to carry out tasks specified in environmental protection plans, and exercise other environmental protection responsibilities in accordance with laws and regulations.

### **Chapter III**

## **ENVIRONMENTAL PROTECTION FOR TRADE VILLAGES**

#### **Article 12. Environmental protection requirements for trade villages**

1. A trade village must have its own environmental protection plan prepared by using the sample given in the Appendix 2 hereto and approved by the district-level People's Committee.
2. Establishments operating within trade villages shall be obliged to:
  - a) obtain a state regulatory authority's approval of their environmental impact statements or confirmation of their environmental protection plans, or submit their reports on environmental protection solutions as prescribed by Article 17 hereof (except for those referred to in sections 1, 2, 3, 4, 6, 7, 9, 10, 11 of Appendix IV to the Government's Decree No. 18/2015/ND-CP dated February 14, 2015 on environmental protection scheme, strategic environment assessment, environmental impact assessment and environmental protection plan, hereinafter referred to as Decree No. 18/2015/ND-CP), or equivalent dossiers;
  - b) Implement methods for collection and treatment of wastewater (in the absence of the centralized treatment method) and emissions in conformity with relevant technical regulations; sort solid wastes and transfer them to licensed collection establishments in accordance with laws and regulations.
3. A trade village must construct environmental protection infrastructure, including the following facilities:
  - a) Wastewater or stormwater collection system ensuring that it has sufficient capacity to meet water drainage demands in the trade village and prevents any wastewater blockage, stagnation and inundation;
  - b) The centralized wastewater treatment system (if any) having sufficient capacity to guarantee that total volume of outflow of effluent before being discharged into the receiving source must be treated in conformity with relevant environmental technical regulations;
  - c) The solid waste consolidation point that conforms to hygiene standards, and the solid waste treatment area that meets regulations on solid waste management, or agrees with the plan to transport solid wastes to the solid waste management area located away from the trade village.
4. The trade village must establish an environmental protection self-management organization meeting the following requirements:

a) Have the establishment decision and operational rules adopted by the communal-level People's Committee;

b) Be well-equipped and provided with a full amount of personal protective equipment.

5. The trade village must meet environmental protection requirements referred to in Clause 1, 2, 3 and 4 of this Article to qualify for trade village accreditation.

6. In the event that there is any trade village recognized as accredited trade village before the entry into force of this Circular but failing to meet environmental protection requirements set out in Clause 1, 2, 3 and 4 of this Article, the provincial-level People's Committee shall direct its subordinate competent authorities to conduct improvements thereto.

#### **Article 13. Evaluation and classification of trade villages by levels of environmental pollution**

1. The provincial-level People's Committee shall take on the burden of evaluating and classifying trade villages within its jurisdiction by levels of environmental pollution according to criteria for evaluation and classification stipulated in the Appendix 3 hereto.

2. Evaluation and classification of trade villages by levels of environmental pollution shall be performed on a biannual basis.

3. The list of trade villages evaluated and classified by levels of environmental pollution must be disseminated through local communication means or media.

#### **Article 14. Measures for administration of trade villages causing environmental pollution and those causing serious environmental pollution**

1. The communal-level People's Committee shall adapt, submit to the district-level People's Committee for its approval of, and conduct implementation of, the environmental protection plan of a trade village to reduce environmental pollution caused by that trade village.

2. Any establishment that does not belong in the list of trades and industries eligible for incentive policies within a trade village shall be required to observe regulations applicable to it as laid down in Chapter IV hereof, or must be completely relocated to an industrial zone or cluster, or animal farming concentrations outside of the residential area; change their existing trades to others; terminate their production.

3. Forming new establishments that pose high risks of causing environmental pollution shall be prohibited and subject to specific regulations laid down in the Appendix 4 hereto.

#### **Article 15. Responsibilities for making arrangements for implementation of plans for environmental protection for trade villages**

1. Responsibilities of the communal-level People's Committee:

a) Fulfill environmental protection requirements set out in contents of the approved plan for environmental protection of a trade village;

b) In case of environmental emergencies or incidents caused by any establishment, impose suspension of its operations, implement measures to limit the extent and degree of impact, and make mitigation efforts; instantly notify the district- and provincial-level People's Committee and relevant authorities.

2. Responsibilities of the district-level People's Committee:

a) Allocate the funds in the authorized budget for implementation of environmental protection tasks in trade villages within its jurisdiction as stipulated by laws and regulations;

b) Expedite, guide and examine compliance with environmental protection requirements set out in the approved plan for environmental protection in a trade village;

c) Receive and handle environmental protection recommendations from environment-related institutional or individual entities throughout trade villages' operations in accordance with laws and regulations.

#### **Article 16. Responsibilities of environmental protection self-management organization of a trade village**

The communal-level People's Committee shall guide the environmental protection self-management organization to perform the following tasks:

1. Manage, operate, overhaul and improve environmental protection infrastructure facilities of the trade village as assigned by the communal-level People's Committee.

2. Post up regulations, oversee and promote compliance with hygiene requirements in public places.

3. Participate in formulation and undertake implementation of the plan for environmental protection in the trade village, village conventions and regulations on environmental protection activities; make

communicative and propaganda efforts in dissuading the public from eliminating unsound customs and habits which are unhygienic and harm environment.

4. Get involved in inspecting compliance of establishments operating within the trade village with environmental protection regulations as assigned by the communal-level People's Committee.

5. Promptly report to the communal-level People's Committee if it has discovered any indicator of environmental pollution, environmental incidents or violation against laws and regulations on environmental protection for trade villages.

6. Submit an annual review report to the communal-level People's Committee on its general operations, collection, transportation and treatment of wastes under its delegated authority before the 15<sup>th</sup> day of October, or an ad-hoc report upon request. The sample report is provided in the Appendix 5 hereto.

#### **Article 17. Responsibilities of establishments operating within a trade village**

1. Owners of establishments operating within the trade village that belong in the list of trades and industries qualifying for incentive policies, as defined in the Appendix I to the Decree No. 19/2015/ND-CP, shall assume the following responsibilities:

a) Prepare an evaluation report on environmental protection according to the sample report given in the Appendix 6 hereto as stipulated by Clause 1 Article 16 of the Decree No. 19/2015/ND-CP, and submit it to the communal-level People's Committee for its inspection and supervision;

b) Perform environmental protection tasks according to the environmental protection plan, or prepare a report on environmental protection approaches or equivalent dossiers, procedures.

2. Establishments operating within the trade village that belong in the list of trades and industries qualifying for incentive policies, as defined in the Appendix I to the Decree No. 19/2015/ND-CP, must comply with provisions of the Chapter IV hereof and relevant environmental protection regulations.

### **Chapter IV**

## **ENVIRONMENTAL PROTECTION FOR PRODUCTION, COMMERCIAL AND SERVICE ESTABLISHMENTS**

#### **Article 18. Wastewater management**

1. If any establishment located outside of an industrial zone or an industrial cluster that is not subject to Clause 1 Article 17 hereof operates its wastewater treatment system and has at least a flow volume of 30 m<sup>3</sup>/day-night, in addition to implementing laws and regulations on wastewater management, it must keep a logbook of operation of this system which is fully compiled and retained for a period of at least 02 years.

The operational logbook must be written in the Vietnamese language, including the following details: flow volume, operational parameters, effluent and influent monitoring results (if any), type and amount of chemicals used, and volume of waste sludge produced, of or from the wastewater treatment system.

2. If any establishment has a wastewater flow volume of at least 1,000 m<sup>3</sup>/day-night, in addition to implementing regulations laid down in Clause 1 of this Article, it shall be required to perform the following duties:

a) Automatically and continually oversee and monitor effluent under regulations laid down in Clause 1 and 3 Article 26 hereof;

b) Install a separate digital electricity meter to measure the power consumption of the wastewater treatment system and record all measurement data into the operational logbook;

c) Prepare the plan, infrastructure, vehicles and equipment to respond to and correct system failures or breakdowns that may occur;

d) Set up a point of inspection and control of discharge of wastewater into the water drainage system installed outside of the perimeter fence which is located along convenient walkways, and have warning signs.

3. If any establishment that generates at least 1,000 m<sup>3</sup>/day – night within the precincts of an industrial zone or industrial cluster is exempted from connecting to the centralized wastewater collection and treatment system, it shall be obliged to manage wastewater in compliance with Clause 2 of this Article.

4. Where establishments referred to in Clause 1, 2 and 3 of this Article do not autonomously treat non-hazardous wastewater and transfer their wastewater to wastewater treatment establishments that meet environmental technical standards, regulations enshrined in Article 20 hereof shall apply.

#### **Article 19. Management of solid wastes, emissions, noise, vibration, light, heat and radiation**

1. Production, commercial and service establishments must carry out management of municipal solid

wastes, common industrial solid wastes, biomedical solid wastes and hazardous solid wastes generated from production, commercial and service activities in accordance with laws on solid waste management.

2. Establishments generating emissions shall take on the following obligations:

- a) Invest in and install emission the treatment system that meets regulatory environmental technical standards in which the working floor must be available for safe sampling of emission;
- b) Keep an operational logbook of the emission treatment system which is fully compiled and retained for a period of at least 02 years.

The operational logbook must be written in the Vietnamese language, including the following details: flow volume, operational parameters, amount of water and chemicals used (applicable to any establishment of which form and size is equivalent to establishments that require preparation of an environmental impact statement as defined in the Appendix II to the Decree No. 18/2015/ND-CP);

- c) Carry out automatic and continual monitoring of emissions as stipulated by Clause 2 and 3 Article 26 hereof, and apply for registration as the owner of an emission source as prescribed by laws (applicable to any establishment that releases industrial emissions that belong in the list of high-flow emission sources referred to in the Appendix to the Decree No. 38/2015/ND-CP).

3. Any establishment creating noise, vibration, light, heat and radiation must invest in and install the system for reducing noise, vibration, light, heat and radiation that meets regulatory environmental technical standards and other relevant regulations.

#### **Article 20. Regulatory environmental protection requirements for transfer of non-hazardous wastewater**

1. Establishments transferring non-hazardous wastewater to serve treatment purposes must meet the following requirements:

- a) Draw up the plan to transfer, handle and treat wastewater which is specified in the following submissions: the approved environmental impact statement, certified environmental protection proposal, approved detailed environmental protection scheme, certified simplified environmental protection scheme or other equivalents;
- b) Apply the same national technical regulations on wastewater as those applied to wastewater receiving and treating establishments;
- c) Hold a wastewater treatment contract with wastewater receiving and treating establishments in conformity with requirements set out in Clause 3 of this Article;
- d) Build infrastructure facilities used for temporarily storing wastewater provided that these facilities help to prevent spills, overflows and leaks into the surrounding environment.
- dd) Permissibly transfer wastewater to wastewater receiving and treating establishments which have signed wastewater treatment contracts agreeing to method of wastewater treatment, and volume of wastewater that is not in excess of the volume specified in the wastewater transfer and treatment plan referred to in Point a of this Clause;
- e) Assume responsibilities for transporting wastewater that fully conforms to regulations laid down in Clause 2 of this Article. Wastewater transfer activities must be fully recorded in the mandatory environmental compliance management report prepared on a periodic basis;
- g) Keep a logbook written in the Vietnamese language and retained for a minimum period of 02 years which records details about time, method and volume of transferred wastewater.

2. Wastewater transportation must conform to the following requirements:

- a) Transfer wastewater only by drains which are subject to technical regulations on safe design and installation, prevent any spill into the surrounding environment, have valves and flow measurement meters, and are specified in the plan referred to in Point a Clause 1 of this Article, except for the case defined in Point b of this Clause;
- b) Carry wastewater generated from drain rinses or hydraulic pressure tests by means of transport, which must conform to the following requirements:

Such means of transport must conform to traffic eligibility requirements as prescribed by laws on transportation, and must be placarded with the sign saying "non-hazardous waste inside" of appropriate size at the front, rear or both sides thereof.

Storage equipment, holds or compartments must be airtight, watertight, and prevent leakage or corrosion risks from contact with wastewater.

3. Establishments receiving, handling and treating wastewater shall assume the following obligations:

- a) Draw up the plan to receive and treat wastewater which is specified in the following submissions:

the approved environmental impact statement, certified environmental protection proposal, approved environmental protection scheme, certified simplified environmental protection scheme or other equivalents;

b) Operate the wastewater treatment system built on the suitable technology and having sufficient capacity to treat influent wastewater;

c) Have the meter to measure the flow volume of wastewater after treatment;

d) Apply the same national technical regulations on wastewater as those applied to wastewater transferring establishments;

dd) Permissibly receive wastewater from wastewater transferring establishments which have signed wastewater treatment contracts agreeing to wastewater treatment method and volume of wastewater which is not in excess of the volume specified in the plan referred to in Point a of this Clause;

e) Do not transfer received wastewater to another third party for treatment purposes;

g) Keep a logbook written in the Vietnamese language and retained for a minimum period of 02 years which records details about time, method and volume of received wastewater. Receiving wastewater for treatment purposes must be fully recorded in the environmental compliance management report prepared on a periodic basis as prescribed by laws and regulations.

## **Chapter V**

### **ENVIRONMENTAL PROTECTION PLAN**

#### **Article 21. Entities requiring, and time of, preparation of environmental protection plan**

1. Entities requiring preparation of environmental protection plan include:

a) Active industrial clusters, concentrations of businesses and service providers or establishments of which form and size is equivalent to those that require preparation of environmental impact statement as defined in the Appendix II to the Decree No. 18/2015/ND-CP;

b) Trade villages.

2. Entities referred to in Point a Clause 1 of this Article shall be obliged to set up the environmental protection plan for construction works or projects which have been completed and officially brought into operation according to the actual progress. In case the environmental management system into which contents of the environmental protection plan are integrated according to regulations laid down in this Circular has been made available for use and certified as stated in Article 25 of the Decree No. 19/2015/ND-CP, formulation of the environmental protection plan is not needed.

3. Any entity, referred to in Point a Clause 1 of this Article, obtaining certification of its detailed feasibility study on the environmental protection project, must prepare the environmental protection plan after a competent regulatory authority's inspection of completion of all environmental protection works as stated in Point c Clause 1 Article 9 of the Circular No. 26/2015/TT-BTNMT of the Minister of Natural Resources and Environment dated May 28, 2015 allowing for the detailed and simplified environmental protection scheme.

4. The environmental protection scheme shall be considered as one of the bases for implementation of laws on environmental protection and environmental protection measures by entities specified in Clause 1 of this Article, and the basis for a competent regulatory authority's inspection and examination of such implementation.

#### **Article 22. Contents of environmental protection plan**

1. Entities, referred to in Point a Clause 1 Article 21 of this Circular, shall prepare the environmental protection plan by using the sample given in the Appendix 7 hereto which must be then deposited at establishment's offices.

2. Trade villages shall prepare the environmental protection plan by using the sample given in the Appendix 2 hereto.

#### **Article 23. Approval of the environmental protection plan for trade villages**

1. The People's Committee of the commune where trade villages are located shall prepare application for approval of the environmental protection plan for these trade villages for submission to the district-level People's Committee for its consideration and approval thereof.

2. A set of documents submitted to apply for approval of the environmental protection plan for trade villages shall include the followings:

a) 01 written request for approval of the environmental protection plan for trade villages by using the sample given in the Appendix 8 hereto;

b) 04 copies of the environmental protection plan for trade villages by using the sample given in the Appendix 2 hereto;



c) 01 duplicate copy of the proposal to develop trade villages within its jurisdiction, approved by the provincial-level People's Committee (where applicable).

3. Upon receipt of all required documents referred to in Clause 2 of this Article, the district-level People's Committee shall consult with the Department of Natural Resources, and the Department of Agriculture and Rural Development during the process of considering and approving that plan.

4. Upon receipt of opinions from regulatory authorities, referred to in Clause 3 of this Article, the district-level People's Committee shall be responsible for considering and approving that plan.

5. The time limit for consideration and approval of the plan shall not exceed 20 business days of receipt of all abovementioned documents. In case of rejection, the district-level People's Committee shall give a written notification in which reasons for such rejection must be clearly stated.

The decision to approve the environmental protection plan for trade villages shall be made by using the sample given in the Appendix 9 hereto.

6. Sign, stamp and send the environmental protection plan for trade villages:

a) after the plan has been approved, and the district-level People's Committee has put its signature and stamp on the cover page of the plan;

b) The district-level People's Committee shall send 01 copy of the approved decision to approve the environmental protection plan for trade villages to the communal-level People's Committee, and 01 copy thereof to the Department of Natural Resources and Environment, as well as the Department of Agriculture and Rural Development.

#### **Article 24. Responsibilities for implementation of the environmental protection plan**

1. Investors in construction and business operation of infrastructure facilities of industrial clusters, management boards of concentrations of businesses and service providers, and owners of establishments, shall be responsible for ensuring that their environmental protection plan is updated with operational status and progress; keeping all necessary documents, invoices, operational logbooks, record books and other equivalents under the instructions given in the Appendix 7 hereto.

2. Preventing and responding to environmental incidents as specified in the environmental protection plan shall be provided for as follows:

a) Investors in construction and business operation of infrastructure facilities of industrial clusters, management boards of concentrations of businesses and service providers, and owners of establishments, must establish and ensure sufficient capacity to carry out prevention of and response to environmental incidents during production, business and service activities;

b) In the event that any environmental incidents occur, these investors, management boards and owners shall be responsible for promptly notifying organizational entities concerned by using contents specified in the plan to prevent and respond to environmental emergencies or incidents; give alarm and muster workforce and equipment depending on the degree of environmental incidents or emergencies; implement pollution mitigation and environmental remediation measures upon the request of environmental protection authorities ;

c) Within a maximum period of 30 days after any environmental emergency or incident occurs, these investors, management boards and owners must send the People's Committee at all levels and the Department of Natural Resources and Environment the review report on environmental emergency or incident mitigation and response;

d) These investors, management boards and owners of those that cause environmental incidents or emergencies shall be liable for damages as specified in the Law on Environmental Protection and other relevant regulations.

### **Chapter VI**

## **ENVIRONMENTAL MONITORING PRACTICE**

#### **Article 25. Periodic monitoring of waste generation**

1. Regulated entities must carry out monitoring of wastewater and gas emissions generated from production, business and service activities, and the minimum frequency rate specified in the Appendix 10 hereto.

2. Any regulated entity that owns an automatic and constant system of monitoring of wastewater and gas emissions under regulations laid down in Article 26 hereof shall only be required to carry out periodic monitoring of wastewater and gas emissions as prescribed with respect to parameters which have not been measured through such automatic and constant monitoring process.

3. Establishments referred to in regulations of the Appendix IV to the Decree No. 18/2015/ND-CP and the Appendix I to the Decree No. 19/2015/ND-CP shall not be required to carry out monitoring of waste generation.

## **Article 26. Automatic monitoring of waste generation**

### **1. Automatic monitoring of wastewater:**

a) Parameters that must be measured through the monitoring process shall include the followings: flow volume of influent and effluent wastewater, pH level, temperature, COD, TSS and other activity-specific parameters (if there are technologies and equipment available on the market to be suitable for automatic monitoring activities) as requested by state regulatory authorities having competence in approving the environmental impact statement and detailed environmental protection scheme;

b) The automatic wastewater monitoring system must include the automatic sampler which is sealed and managed by the Department of Natural Resources and Environment; have the attached camera connected to Internet to observe the outlet of the wastewater treatment system and store images taken within the last 03 months.

### **2. Automatic monitoring of gas emissions:**

a) Parameters measured through the monitoring process are provided for in the Appendix 11 hereto;

b) In case an establishment has various sources of industrial emission generation that belong in the list referred to in the Appendix 11 hereto, the owner thereof shall carry out automatic and constant monitoring of all sources of generation thereof.

3. The system of automatic and constant monitoring of wastewater and gas emissions must operate in a stable manner, must be inspected and calibrated as prescribed, and ensure that it conforms to technical requirements concerning data connection to transmit data directly to the Department of Natural Resources and Environment.

## **Article 27. Depositing, reporting and disclosure of information and data obtained through the environmental monitoring process**

1. Investors in construction and business operation of infrastructure facilities of industrial zones, industrial clusters, management boards of concentrations of businesses and service providers, and owners of establishments, must safely keep results achieved from the automatic environmental monitoring process in the form of electronic files; store the original of periodic report on results achieved from the environmental monitoring process, and the original of notification of analysis results, within a minimum period of 03 years.

2. These investors, management boards and owners shall be responsible for submitting required reports and results achieved from the environmental monitoring process.

3. These investors, management boards and owners that require automatic monitoring of waste generation shall be responsible for posting and publicizing the results achieved from the environmental monitoring process on a periodic basis on their websites (if available).

## **Chapter VII**

## **ENFORCEMENT PROVISIONS**

### **Article 28. Entry into force**

1. This Circular shall enter into force from December 1, 2016.

2. The Circular No. 46/2011/TT-BTNMT of the Minister of Natural Resources and Environment dated December 26, 2011 providing for environmental protection for trade villages shall be repealed from the entry into force of this Circular.

3. Contents pertaining to the frequency rate at which waste generations are monitored as specified in the subsection 5.2 of the Appendix 2.3; subsection 3.3 of the Appendix 5.5 of the Circular No. 27/2015/TT-BTNMT of the Minister of Natural Resources and Environment dated May 29, 2015 on strategic environment assessment, environmental impact statement and environmental protection plan; Point b Clause 3 Article 7 of the Circular No. 40/2015/TT-BTNMT of the Minister of Natural Resources and Environment dated August 17, 2015 on the technical procedure for monitoring of gas emissions, shall become defunct from the entry into force of this Circular.

### **Article 29. Responsibilities for enforcement**

1. The Vietnam Environment Administration shall provide guidance on, and carry out inspection of, compliance with this Circular, and submit a periodic evaluation report on environmental protection activities for industrial clusters, concentrations of businesses and service providers and trade villages to the Ministry of Natural Resources and Environment that will be then responsible for making a final report to the Prime Minister.

2. Ministries, Ministry-level agencies, Government organs, People's Committee at all levels, Department of Natural Resources and Environment, and organizational or individual entities involved, shall be responsible for implementing this Circular.

3. Exercise of state-delegated authority over management of environmental protection activities for

industrial clusters and trade villages referred to herein shall be financed by the state budget appropriations for environmental issues and other funds stipulated by laws and regulations.

4. In the course of implementation hereof, if any difficulty or problem occurs, institutions, organizations or individuals shall be advised to promptly report to the Ministry of Natural Resources and Environment for its review before any possible amendment is made./.

**PP. THE MINISTER  
THE DEPUTY MINISTER**

**Vo Tuan Nhan**

## **APPENDIX 1**

**EVALUATION REPORT ON RESULTS ACHIEVED THROUGH THE MONITORING PROCESS AND ENVIRONMENTAL PROTECTION ACTIVITIES FOR INDUSTRIAL CLUSTERS**  
*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

<b>Name of the investor in construction and business operation of infrastructure</b>	
<b>EVALUATION REPORT ON RESULTS ACHIEVED THROUGH THE MONITORING PROCESS AND ENVIRONMENTAL PROTECTION ACTIVITIES FOR INDUSTRIAL CLUSTERS</b>	
<b>HOST BODY</b> (Sign, write full name and stamp)	<b>CONSULTING BODY</b> <i>(if any)</i> (Sign, write full name and stamp)
<b>Month..., year...</b>	

### **I. GENERAL INFORMATION**

- Name of the investor in construction and business operation of infrastructure:
- Address, telephone number:
- Representative's name:
- Operating outcomes (with reference to data given in the Table 1a).

### **II. RESULTS ACHIEVED THROUGH THE ENVIRONMENTAL MONITORING PROCESS**

1. The in-charge unit:
2. Comparing results achieved from the automatic environmental monitoring process (where applicable, reported on quarterly basis) with applicable environmental technical regulations.
3. Comparing of results achieved at specific stages of collection of surface water, underground wastewater, etc. with applicable standards and regulations (with reference to data given in the Table 1c).
4. Drawing the chart that shows and assessing how results achieved from the monitoring process change over stages, years and by referring to parameters defined through monitoring of specific environmental components.

### **III. ENVIRONMENTAL PROTECTION ACTIVITIES**

1. Determining the number of establishments that produce the volume of gas emissions in proportion

to that generated by the entire industrial cluster, and that manage treatment systems.

2. Measuring results of connection to the centralized wastewater treatment system (as of the reporting date):

- The number of establishments that complete connection to the centralized wastewater treatment system in proportion to the volume of wastewater discharged into that system.
- The number of establishments that are exempted from connection to the centralized wastewater treatment system in proportion to the volume of wastewater that can be treated on their own.
- The number of establishments that do not/have yet to connect to the centralized wastewater treatment system in proportion to the volume of wastewater generated.

3. Operating the centralized wastewater treatment system for an industrial cluster:

- Ratio of wastewater generated to the treatment capacity of, and effluent wastewater disposed of by, the centralized wastewater treatment system.
- The number of days during which the system is running/ the number of days during which the system stops or is serviced.
- Total electricity consumed for operation of the centralized wastewater treatment system (kWh/month).
- The volume of sewage sludge produced, and sludge treatment and disposal method.
- Operation of the automatic wastewater monitoring system:
  - + The number of days during which the system is running/stops;
  - + The number of days during which results achieved from the monitoring process surpass environmental technical regulations;
  - + Retention and transmission of data to the local Department of Natural Resources and Environment.

4. Total volume of common/ hazardous solid wastes generated and treated.

#### IV. ENVIRONMENTAL INCIDENT OR EMERGENCY PREVENTION, RESPONSE AND MITIGATION

1. Establishing the plan for environmental incident or emergency prevention, response and mitigation.

2. Making a report on implementation of environmental incident or emergency prevention, response and mitigation tasks (with reference to the Table 1b) which elaborates on the following matters:

- Solutions to preventing environmental incidents or emergencies at industrial clusters.
- Response to and mitigation of environmental incidents or emergencies that may happen at industrial clusters.

#### V. CONCLUSIONS AND RECOMMENDATIONS

1. Give overall comments about environmental quality at industrial clusters.
2. Give general remarks on compliance with regulations on environmental protection, waste treatment and environmental monitoring activities
3. Make recommendations or proposals (whenever possible).

#### APPENDICES

- Chart of locations of sampling and monitoring of environmental components, as required by the Decision to approve the environmental impact statement.
- Sample table 1a, 1b and 1c.
- Notification of monitoring results and sample analysis.

**Table 1a. List of establishments operating within an industrial cluster**

No.	Name	Operational type	Volume of gas emissions	Emission treatment method	Volume of wastewater generated (m <sup>3</sup> /day-night)	Wastewater treatment method	Solid waste (tonne/year)		Solid waste treatment method
						(Autonomous treatment conforming to Vietnam's national regulations (QCVN)/ connection to the	Common (or non-hazardous) solid waste	Hazardous solid waste	

						centralized wastewater treatment system/ transfer of wastewater)			
1									
2									
...									

**Table 1b. Results achieved from implementation of environmental incident or emergency prevention, response and mitigation tasks**

No.	Incident or emergency	Occurrence time	Causes	Consequences and impacts	Response and mitigation actions	Difficulties and recommendations

**Table 1c. Results achieved through the environmental monitoring program in industrial clusters**

Sample type: (Environmental components/ wastewater)

Discharge flow volume (m<sup>3</sup>/day-night for wastewater)

Sampling time:

No.	Parameter description	Unit of measurement	Analysis method	Results achieved at sampling locations			Applicable QCVN
				Location 1	Location 2	Location...	
1.	Parameter...						
2.	Parameter...						
3.	Parameter...						
4.	Parameter...						
5.	Parameter...						
...	Parameter...						

**Note:**

<sup>1</sup> Results achieved from the monitoring process according to specific types of soil/ wastewater/ surface water/ groundwater/ air, etc., which are expressed in separate tables or charts.

<sup>2</sup> Specify each sampling location.

## APPENDIX 2

### SAMPLE ENVIRONMENTAL PROTECTION PLAN

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

(PEOPLE'S COMMITTEE OF THE DISTRICT...)  
(PEOPLE'S COMMITTEE OF THE COMMUNE...)

**ENVIRONMENTAL PROTECTION PLAN FOR THE TRADE VILLAGE...(1)...**  
**Located at the commune...district...province...**

PEOPLE'S COMMITTEE OF THE COMMUNE... PEOPLE'S COMMITTEE OF THE DISTRICT...  
(President of PC of the commune signs, writes his/her full name, and affixes his/her stamp) (Authorized representative signs, write his/her full name, and affixes his/her stamp)

(Place name), month...year...

*Note:*

*(1) Write the full and exact name of the trade village preparing the environmental protection plan.*

## **CHAPTER 1. BRIEF DESCRIPTION OF A TRADE VILLAGE**

### **1.1. Trade village's name**

Write the full and exact name of the trade village preparing the environmental protection plan.

### **1.2. General information**

- Address: Clearly write commune/ ward/ town, urban or rural district/ district-level town/ city, province/ centrally-affiliated city.
- Description of geographical location: Specify the administrative subdivision ranging from village and/or commune and higher-level one where it is located; coordinates of boundary points of the trade village to which the map showing these points
- Preliminary description of natural and socioeconomic conditions that may be affected by trade villages' operations (e.g. rivers, streams, lakes, ponds and population, etc.)
- Description of the receiving source into which trade villages' effluent wastewater is discharged, including source name, utilization purpose.
- Water supply sources used in daily living and production activities (drill wells, water extracted from surface water sources and supplied water).
- Map or chart attached so as to illustrate the geographical location of a trade village and nearby articles as described (if any).

### **1.3. Production scale**

- Production type: main production and other type (where possible).
- The number of production establishments/ total households operating within a trade village (as for multi-trade villages, trade- or activity-specific statistics is required). The list thereof must be prepared as attachment.
- Manufactured products: List out main products and total output of main products per day.

## **CHAPTER 2. WASTE GENERATION AND ENVIRONMENTAL PROTECTION ACTIVITIES ALREADY PERFORMED**

### **2.1. Generation of wastes from trade villages**

- Waste generated from daily living activities:
  - + Wastewater: Total average volume of waste generated (m<sup>3</sup>/day);
  - + Solid wastes: Total volume generated (kg/day).
- Waste generated from production activities:
  - + Wastewater: Total volume generated (m<sup>3</sup>/day, measured as of the peak production period)
  - + Hazardous and non-hazardous solid wastes: Total volume generated (kg/day);
  - + Description of activities generating gas emissions: waste generation level (qualitative/ quantitative where applicable);
- Assessment of current conditions of pollution of surrounding environment (soil, water and air) and impacts on community health.

### **2.2. Environmental protection activities already performed**

- Description of water drainage, collection and treatment system (if any) operating within a trade village.
- Current solid waste collection method, vehicle and equipment used for collection, storage and treatment of non-hazardous solid wastes and hazardous wastes of a trade village.

- Gas emission treatment method and project.
- Other environmental protection method.
- Collection of environmental protection fee applied to wastewater, solid waste; environmental sanitation fee.
- Allocated funds for implementation of environmental protection tasks for a trade village.
- Establishment and operation of environmental protection self-management group for a trade village (number of personnel and operational regime).
- General cleaning of village streets and alleys, and dredging of channels and ditches.
- Integration of regulations on environmental protection for trade villages into village conventions and statutes.
- Assessment of efficiency in implementation of the abovementioned measures, and comparison with applicable regulations.

### **CHAPTER 3. PROPOSAL TO IMPLEMENT ENVIRONMENTAL PROTECTION MEASURES**

#### **3.1. Proposal to manage production establishments operating within trade villages (with reference to reports on environmental protection measures, requirements relating to environmental protection for these establishments)**

- Establishments that belong in the list referred to in the Appendix I of the Decree No. 19/2015/ND-CP are obliged to comply with reports on environmental protection measures.
- Establishment that do not belong in the list of trades and industries eligible for incentive policies within a trade village is obliged to implement regulations laid down in the Chapter IV hereof, or comply with the proposal for relocation or change of trade or activity under the direction of regulatory authorities.

#### **3.2. Waste collection and treatment**

##### *3.2.1. Wastewater*

- As for any trade village that has operated a waste collection and treatment system (if any) as defined in the subsection 2.2, it must be improved and upgraded to meet waste collection and treatment demands of establishments within its precincts.
- Plan to operate waste collection and treatment facilities.

##### *3.2.2. Solid wastes (apply similar regulations to those applied to wastewater)*

##### *3.2.3. Method for periodic employee health examination*

#### **3.3. Measures to prevent and respond to incidents or risks**

##### *3.3.1. Labor safety at production establishments within trade villages*

- Provide personal protective equipment, knowledge about prevention and control of fires and explosions for employees directly working at the production site.
- Service technical equipment to guarantee safe operation and conformity with technical standards.

##### *3.3.2. Work environment safety at production establishments within trade villages*

- With regard to manufacturing stages in which high risks of incidents are potentially posed, such as work with boilers, chemicals or furnaces, etc., protective equipment, plans to prevent and respond to any incident that may occur must be made available.
- Arrange equipment or machinery at workplace to ensure safety for employees and prevent any incidents that may occur.

### **CHAPTER 4. ARRANGEMENTS FOR IMPLEMENTATION OF PLANS FOR ENVIRONMENTAL PROTECTION FOR TRADE VILLAGES**

#### **4.1. Budget for implementation**

Clearly specify state budget funds for environmental issues and funding sources used for implementation of environmental protection tasks for trade villages.

#### **4.2. Assignment of responsibilities**

- Responsibilities of production establishments operating within trade villages.
- Responsibilities of environmental protection self-management organizations for trade villages.
- Responsibilities of the communal-level People's Committee.

### **CONCLUSIONS, RECOMMENDATIONS AND COMMITMENTS**

## 1. Conclusions

The following conclusions must be clearly stated:

- Have already identified and described waste generation source, and measured volumes of wastes of various kinds, and identified and described environmental and socio-economic issues.
- Have determined efficiency and feasibility of environmental protection facilities and measures; have solved environmental and socio-economic issues that may arise from trade village's operations.

## 2. Recommendations

Recommend relevant centrally and locally-governed all-level and sectoral authorities to deal with issues beyond the communal-level People's Committee's competence.

## 3. Commitments

- Comply with predetermined contents, progress of construction, improvement and operation of environmental protection facilities and measures.
- Comply with regulations on reporting regime defined in the decision to approve the plan for environmental protection for trade villages.
- Comply with laws and regulations on environmental protection pertaining to trade villages, even including environmental technical standards and regulations.
- Oversee and comply with regulations on sanctions imposed on production establishments within trade villages in case of incidents.

## APPENDIX 3

### CRITERIA FOR EVALUATION AND CLASSIFICATION OF TRADE VILLAGES BY LEVELS OF ENVIRONMENTAL POLLUTION

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

Evaluation and classification of level of environmental pollution at each trade village shall be carried out according to the following steps:

**Step 1:** Identify the typical activity of each trade village (specific activities listed in the Table 2.1).

**Step 2:** Identify parameters of typical pollutants to be at least analyzed in each trade village, based on its typical activities (specified at the Table 2.1).

*Table 2.1. Environmental component-specific pollutant parameters classified by typical production activities*

No.	Production activities	Environmental component-specific pollutant parameters		
		Surface water	Soil	Air
1	Food processing	BOD <sub>5</sub> , N, P	-	-
2	Textile, dyeing and tanning	COD, metal	-	-
3	<i>Scrap recycling</i>			
	Paper and plastic recycling	COD, TSS	-	-
	Metal recycling	COD, material-specific metal parameters		-
4	Animal farming and slaughter	BOD <sub>5</sub>	-	-
5	Building materials	-	-	CO, total particles
6	<i>Handicraft</i>			
	Stonework and pottery production	TSS	-	Total particles
	Bamboo and rattan knitting	COD	-	-
	Wooden artwork production	-	-	Total particles
7	Metalwork (gold, silver, etc.)	Material-specific metal parameters		
	Metal machining	Material-specific metal parameters, mineral oil	Material-specific metal parameters	-



**Step 3:** Collect and analyze samples of environmental components by using typical environmental pollutant parameters defined in the Table 2.1.

Depending on availability of funds, collection and analysis of samples can be carried out on a quarterly basis, or in a specified point of time in March, June, September or December of the given year. In case funds are limited, collection and analysis of samples must be carried out on biannual basis: the first occurring at the peak of dry season and the second occurring at the peak of rainy season. If funds are sufficient for only 01 time of sample collection and analysis, such activity must be carried out in the dry season or the peak production period in a given year.

Measurement and collection of samples must adhere to the following principles:

- Surface water samples are collected at the centre of pond, lake, canal or channel, etc. within the precincts of the trade village receiving industrial wastewater. Sample collection points should be typical for surface water environment quality of the entire trade village, including at least one point which is designated as the ultimate discharge of effluent wastewater into the receiving surrounding environment (such as canals, channels, ponds, lakes, rivers and streams, etc.) for the entire region where the trade village is located.
- Measurement and collection of samples of ambient air are carried out in the midst of production sites, including at least one point located in the area towards which the wind is blowing within the precincts of trade village.
- Soil samples are collected from unpaved ground in the proximity of production sites.

**Step 4:** Calculate pollution coefficient A according to the following formula as the basis for classification of levels of environmental pollution occurring within trade villages.

**Formula for calculating pollution coefficient A:**

$$A = \frac{\frac{C_1}{C_{q1}} + \frac{C_2}{C_{q2}} + \dots + \frac{C_n}{C_{qn}}}{n}$$

Where:

A: Environmental pollution coefficient of trade village, calculated according to typical pollution parameters.

C<sub>1</sub>, C<sub>2</sub>... C<sub>n</sub>: Value of parameters of typical pollutants existing in the surrounding environment (defined in the Table 2.1), which is averaged for sample collection times within a given year.

C<sub>q1</sub>, C<sub>q2</sub> ... C<sub>qn</sub>: Threshold value of the said parameters provided for by respective national technical regulations on quality of the surrounding environment.

n: Number of typical pollutant parameters (defined according to the Table 2.1)

**Step 5:** Classify levels of environmental pollution occurring within trade villages after calculation of the pollution coefficient A according to the Table 2.2 given hereunder.

*Table 2.2. Classification of levels of environmental pollution occurring within trade villages by the pollution coefficient A*

Pollution coefficient A	Classification of levels of environmental pollution
$A \leq 1.0$	Not polluted
$1.0 < A \leq 2.0$	Polluted
$A > 2.0$	Seriously polluted

## APPENDIX 4

LIST OF TRADES AND INDUSTRIES INELIGIBLE FOR INCENTIVE POLICIES AT TRADE VILLAGES AND POSING POTENTIALLY HIGH RISKS OF ENVIRONMENTAL POLLUTION  
(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)

### Group I

This group comprises establishments belonging to the industry divisions in which there are production stages posing potentially high risks of environmental pollution as described below:

- Charcoal pit: *wood burning and pit kiln stage*.
- Silk reeling: *cocoon and silk fiber spinning stage*.
- Food and agricultural product processing (handmade production of sugar from sugarcanes, jams and

confectioneries; handmade production of fish sauce, salted and fermented fish paste and soya bean sauce; handmade production of noodles and rice papers of all kinds; wine distillation: *cleaning, raw material processing stages; the stages at which fuels like coals, wood logs and husks are used for changing composition and characteristics of raw materials; the stages at which unpleasant odours are emitted*).

- Fish/seafood preparation/processing: *cleaning and raw material preparation stage; the stages at which raw materials (coals, wood logs and husks) are used for changing composition and characteristics of such raw materials; the stages at which unpleasant odours are emitted*.

- Artwork production (manufacturing of stone, wooden, metal or precious stone artwork products; manufacturing of ceramic products; lacquerware production, etc.): *Raw material preparation/ product shaping stage in which dirt and odor are produced; the stages at which chemicals are used for surface treatment purpose; the stages at which raw materials and products are treated by dipping, soaking and blanching processes; the stage of drying and baking through which heat is supplied by using coals, wood logs and husks*.

- Glass production: *Melting stage*.

## **Group II**

This group comprises establishments belonging in the following industry divisions:

- Manufacturing of building materials: lime, bricks, roof tiles and sawn stones.
- Paper sorting, cleaning and recycling.
- Metal sorting, cleaning and recycling.
- Plastic sorting, cleaning and recycling.
- Dyeing by using industrial colorants.
- Tanning.
- Electroplating or dip galvanization
- Preliminary processing of rubber latex (coagulation).
- Starch processing: output of at least 0.1 tonne/day.
- Mechanical machining and engineering: output of at least 0.3 tonne/day.
- Regular livestock and poultry farming with the following sizes of farm flocks:
  - + Buffalo, cattle, horse: for reproduction, mating and milk production purposes, the flock size is at least 5 heads; for meat production purpose, the flock size is at least 10 heads;
  - + Swine: for reproduction and mating purposes, the flock size is at least 10 heads; for meat production purpose, the flock size is at least 20 heads;
  - + Goat, sheep and dog: the flock size is at least 50 heads;
  - + Hare: The flock size is at least 100 heads;
  - + Poultry: The flock size is at least 100 heads; quail: The flock size is at least 1,000 heads.
- Regular livestock and poultry slaughter with the following outputs:
  - + Livestock: at least 01 tonne/day;
  - + Poultry: at least 0.5 tonne/day;

## **APPENDIX 5**

### **SAMPLE PERFORMANCE REPORT OF ENVIRONMENTAL PROTECTION SELF-MANAGEMENT ORGANIZATION FOR A TRADE VILLAGE.**

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

(PEOPLE'S COMMITTEE OF  
THE COMMUNE...)  
ENVIRONMENTAL PROTECTION  
SELF-MANAGEMENT  
ORGANIZATION  
-----

**THE SOCIALIST REPUBLIC OF VIETNAM**  
**Independence - Freedom - Happiness**  
-----

*(Place name), date: .....*

## PERFORMANCE REPORT OF THE YEAR ...

### I. General assessment of current environmental status

### II. Review of implementation of environmental protection tasks assigned by the communal-level People's Committee

- Collection and treatment of wastes and operation of infrastructural facilities for environmental protection for the trade village.
- Collection and spending of funds for environmental protection tasks.
- Assessment of actual implementation compared with the plan for environmental protection for the trade village according to its authorized functions and responsibilities.

### III. Unsolved issues

### IV. Conclusions and recommendations

On behalf of the self-management  
organization  
Representative  
(Sign and write full name)

## APPENDIX 6

### SAMPLE REPORT ON ENVIRONMENTAL PROTECTION MEASURES

(intended for establishments belonging in the list of trades and industries eligible for incentive policies at trade villages)

(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)

### I. Establishment's general information

1. Full name of establishment's owner: .....
2. Telephone number:.....
3. Trade village's name:.....
4. Establishment's address:.....
5. Type of activity: .....
6. Year of foundation of establishment:.....

### II. Information about current status of operations and waste generation

1. Input materials.
2. Operational time.
3. Production scale:
  - Products/day.
  - Number of employees.
  - Total number of production days within a given year.
  - Machinery used and working condition.
4. Total volume of water used for production activities.
5. Establishment's generation of wastes:
  - Waste generated from daily living activities:
    - + Wastewater: Total volume of waste generated/day;
    - + Solid wastes: Total volume generated/day.
  - Waste generated from production activities:
    - + Wastewater: Total volume of waste generated/day;
    - + Solid wastes: Total volume generated/day;
    - + Gas emissions: Level of emission generation (qualitative/quantitative if applicable);

- + Noise: Level of noise generation (qualitative/quantitative if applicable);
- + Vibration: Level of vibration generation (qualitative/quantitative if applicable).
- 6. Receiving source into which effluent wastewater is discharged.
- 7. Indication of level of pollution on the surrounding environment (qualitative/quantitative if applicable).

### **III. Environmental protection measures**

- Wastewater collection and treatment.
- Solid waste sorting and storage (common and hazardous solid wastes) at source.
- Gas emission collection and construction of vents conforming to environmental technical regulations.
- Measures to be implemented to reduce noise and vibration.

....., date:.....  
**Establishment's owner**  
 (sign and write full name)

## **APPENDIX 7**

### **SAMPLE ENVIRONMENTAL PROTECTION PLAN**

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

### **ENVIRONMENTAL PROTECTION PLAN OF ...**

*Place name, date:.....*

#### **1. Basic information**

- Name, location and site coverage.
- As for industrial clusters, specify occupancy rate, main activity, functional areas (list and describe location, and give an attached map).
- As for concentrations of businesses and service providers, specify main activities, functional areas (list and describe location, and give an attached map).
- Investor's contact information: representative, address, telephone number, email address.

#### **2. Legal requirements concerning environmental protection**

- Enumerate requirements, regulations, licenses, certificates, procedures relating to environmental protection that the investor and owner of establishments must comply with (including waste generation standards and typical waste management regulations).
- Environmental permits, certificates, procedures that investors have implemented (environmental impact statement, registration book of ownership of discharging source of hazardous wastes, license to dispose of wastewater into the receiving waters, and other environment-related certificates, etc.).

#### **3. Description of production, commercial and service activities**

##### ***Description of production, commercial and service activities and stages of the establishment***

- Description of production, commercial and service activities and process flowchart.
- Time, frequency rate of activities, stage (number of shifts and hours, etc.).
- Activity location and site within the precincts of the establishment.
- Involved personnel.

*\* As for industrial clusters, describe:*

- Implementation of the planning of functional sites and location of establishments in the industrial cluster.
- Establishments that remain active at the time of formulation of environmental protection plan (name, type of production, commercial and service activities).
- Investment projects approved to be executed within the industrial cluster but still pending (name, type of production, commercial and service activities, schedule of official operation).
- As for the industrial cluster where the centralized wastewater treatment system is not available, specifically describe the plan for construction of that system.

\* As for concentrations of businesses and service providers, describe:

- Implementation of the planning of functional sites and location of business and service activities.
- Activities that are currently performed at the time of formulation of environmental protection plan (name, type of business and service activities).
- Investment activities which have been accepted to be executed but still pending (name, type of business and service activities, schedule of official operation).
- As for concentrations of businesses and service providers which have not operated the centralized wastewater treatment system, or are not connected to the regional water drainage system, specifically describe the plan for construction of the wastewater treatment system.

### **3.2. Enumeration and calculation of amount of raw materials (if available) and waste streams produced from activities**

#### **3.2.1. Enumeration of raw materials, fuels and chemicals used as inputs**

Stage	Description of raw materials, fuels and chemicals*	Measurement unit	Weight
1 <sup>st</sup> stage	1 <sup>st</sup> raw material, fuel and chemical		
	2 <sup>nd</sup> raw material, fuel and chemical		
	...		
	n <sup>th</sup> raw material, fuel and chemical		
2 <sup>nd</sup> stage	1 <sup>st</sup> raw material, fuel and chemical		
	2 <sup>nd</sup> raw material, fuel and chemical		
	...		
	n <sup>th</sup> raw material, fuel and chemical		
...			
n <sup>th</sup> stage			

\* As for chemicals, specify the CAS number

*Note: This table is compiled on biannual basis (from January to June, and from July to December every year) and deposited with the establishment for a minimum period of 2 years.*

#### **3.2.2. Enumeration of weight of output**

Stage	Product/output*	Measurement unit	Weight
1 <sup>st</sup> stage	1 <sup>st</sup> product/output		
	2 <sup>nd</sup> product/output		
	...		
	n <sup>th</sup> product/output		
2 <sup>nd</sup> stage	1 <sup>st</sup> product/output		
	2 <sup>nd</sup> product/output		
	...		
	n <sup>th</sup> product/output		
...			
n <sup>th</sup> stage			

\* Wastes are not listed in this table.

*Note: This table is compiled on biannual basis (from January to June, and from July to December every year) and deposited with the establishment for a minimum period of 2 years.*

Documents used for verification:

- Dispatch records.
- Product transfer records.

### 3.2.3. Enumeration of wastes

Stage	Description of waste	Flow volume/ Weight	Discharged volume*
1 <sup>st</sup> stage	1 <sup>st</sup> wastewater (m <sup>3</sup> /6 months)		
	2 <sup>nd</sup> wastewater (m <sup>3</sup> /6 months)		
	...		
	1 <sup>st</sup> solid waste/ hazardous waste (kg/6 months)		
	2 <sup>nd</sup> solid waste/ hazardous waste (kg/6 months)		
	...		
	Particles collected from gas emission treatment (kg/6 months)		
	1 <sup>st</sup> gas emission (m <sup>3</sup> /6 months)		
	2 <sup>nd</sup> gas emission (m <sup>3</sup> /6 months)		
	...		
Stage...			

\* Calculation of discharged volume by using typical pollutant parameters is preferred.

*Note: This table is compiled on biannual basis (from January to June, and from July to December every year) and deposited with the establishment for a minimum period of 2 years.*

Documents used for verification: Handover record, stored amount based on meters or calculation according to the waste generation coefficient (applicable to those of which determination of weight is difficult).

### 3.2.4. Enumeration of total amount of raw materials, fuels and chemicals

Description	Opening inventory	Purchases	Closing inventory
1 <sup>st</sup> raw material, fuel, chemical			
2 <sup>nd</sup> raw material, fuel, chemical			
3 <sup>rd</sup> raw material, fuel, chemical			
...			

*Note: This table is compiled on biannual basis (from January to June, and from July to December every year) and deposited with the establishment for a minimum period of 2 years.*

Documents used for verification: purchase invoice, dispatching and receiving records.

## 4. Environmental protection facilities and measures

### 4.1. Wastewater collection and treatment facilities and measures

- Wastewater treatment technology and equipment (attach a map showing the location of the wastewater treatment system, wastewater collection network, waste discharge point, and process chart of wastewater treatment technology).

- Type and amount of chemicals, fuels and materials used during the process of wastewater treatment (specify origin and trade name).

- Detailed description of operational process of the wastewater treatment system (operational parameters, steps, manuals, waste disposal location, time of sludge dredging, maintenance and

servicing policies, etc.).

- In case all or part of wastewater are not treated, specifically specify the plan to transfer wastewater for treatment purpose (type and volume of wastewater transferred, method of transportation of wastewater, wastewater receiving and treatment unit, attached copy of wastewater treatment contract). Record books of transfer of wastewater for treatment purpose, which are retained for a minimum period of 2 years.

- Plan to renovate, expand and improve capacity of wastewater collection and treatment facilities and measures (where applicable).

#### **4.2. Gas emission treatment facilities and measures**

- Gas emission technology and equipment (attach the map showing location of the gas emission collection and treatment system, vent or discharge pipe installation position, process chart of emission treatment technology).

- Type and amount of chemicals and materials used during the process of gas emission treatment (specify origin and trade name).

- Detailed description of operational process of the gas emission treatment system (operational parameters, steps, manuals, maintenance, servicing, repair and chemical change policies, etc.).

- Plan to renovate, expand and improve capacity of gas emission collection and treatment facilities and measures (where applicable).

#### **4.3. Solid waste and hazardous waste management facilities and measures**

- Description of location, coverage and structure of the site and equipment for storage of solid wastes and hazardous wastes.

- Solid waste and hazardous waste (if any) management facilities and measures: describe the technological process, waste treatment facility and equipment, technical specifications and operational parameters.

- Plan to transfer solid wastes and hazardous wastes: frequency rate and waste collection and treatment unit.

#### **4.4. Facilities and measures for treatment of wastes derived from, and mitigation of environmental impacts caused by, other discharge sources**

- Waste collection and treatment (if any) facilities and measures with respect to rainwater overflows.

- Facilities and measures for minimization of adverse effects caused by noise, vibration and radiation (specify which facilities and measures are used at specific stages and activities that may generate these pollution sources).

### **5. Plan for environmental incident or emergency prevention and response**

#### **5.1. Identification of potential risks of causing environmental incidents or emergencies during the operational process**

##### *a) Production, business and service establishments*

- Identify potential risks of causing incidents at production, business and service stages (spill, overflow, explosion, fire, leakage or acts of god, etc.).

- Identify potential risks of causing incidents during the process of treating wastewater, gas emissions, managing solid wastes and hazardous wastes (overflow, spill, fire, explosion, leakage or acts of god, etc.).

- Forecast of extent and severity of impact by specific risks.

##### *b) Industrial clusters, concentrations of businesses and service providers*

- Information about incidents or emergencies that have occurred within these sites.

- Identify potential risks of causing environmental incidents (spill, overflow, explosion, fire, leakage or acts of god, etc) in activities of the centralized wastewater treatment system, temporary solid waste storage site, goods and chemicals warehouses of establishments within the precincts of industrial clusters, and in activities of concentrations of businesses and service providers.

- Identify potential risks of causing environmental incidents that may result in impacts beyond the establishment's boundary (e.g. petroleum general warehouses, chemical warehouses, chemical production lines, waste treatment process, etc. of establishments within the precincts of industrial clusters, and activities of concentrations of businesses and service providers), and infrastructural facilities of industrial clusters, concentrations of businesses and service providers, together with the attached location map.

- Forecast about extent and severity of impact by specific risks.

## ***Environmental incident or emergency prevention and response measure***

### ***a) Production, business and service establishments***

- Plan to test, maintain and replace and list of equipment used in production, business and service stages at which there are potential risks of causing environmental incidents or emergencies.
- Measures to prevent specific potential risks of causing environmental incidents or emergencies defined in point a subsection 5.1.
- Plan to locate production sites with the aim of reducing level of negative impacts in case of environmental incidents or emergencies taking place.
- Plan to provide sufficient resources (personnel, materials, equipment and finance) to get ready to respond to and mitigate environmental incidents or emergencies.
- Cooperation mechanism, roles and responsibilities of internal and external organizations and individuals in prevention, response to and mitigation of environmental incidents or emergencies.
- Warning, alarming, security and traffic arrangement measures for prevention and response to environmental incidents or emergencies that may occur at establishments.
- Plan to provide training, practicing, drilling, and disseminate information about environmental incident or emergency prevention and response, to staff members of establishments, and external organizations or individuals concerned.
- Steps in responding to environmental incidents or emergencies that may occur at establishments (emergency and priority measures; method of alarming, notification, evacuation, personnel and equipment mobilization, etc.).

### ***b) Industrial clusters, concentrations of businesses and service providers***

- Plan to test, maintain and service, and list of, equipment installed at the centralized wastewater treatment system, temporary solid waste storage site, goods and chemicals warehouses of establishments within the precincts of industrial clusters, and activities performed within concentrations of businesses and service providers that pose potential risks of causing environmental incidents or emergencies.
- Measures to prevent specific potential risks of causing environmental incidents or emergencies as defined in point b subsection 5.1.
- Plans to arrange locations of functional sites, establishments operating within industrial clusters, and activities performed within concentrations of businesses and service providers, with the aim of preventing and reducing level of adverse effects in case of environmental incidents or emergencies.
- Plan to provide sufficient resources (personnel, materials, equipment and finance) to get ready to respond to and mitigate environmental incidents or emergencies.
- Warning, alarming, security and traffic arrangement measures for industrial clusters, concentrations of businesses and service providers for environmental incident or emergency prevention and response purposes.
- Plan to provide training, drilling and practice, and disseminate information about environmental incident or emergency prevention and response for organizations and individuals concerned.
- Cooperation mechanism, roles and responsibilities of local organizations and individuals involved in response to and mitigation of environmental incidents or emergencies.
- Steps in responding to environmental incidents or emergencies (emergency and priority measures; method of alarming, notification, evacuation, personnel and equipment mobilization, etc.).

## ***5.3. Relevant information and documents***

### ***a) Production, business and service establishments***

- Technical information relating to goods, chemicals or pollutants released due to environmental incidents or emergencies.
- List of and technical information about equipment, vehicles and materials, etc. used for response to environmental incidents or emergencies that may occur at establishments.
- List of and technical information about equipment, vehicles and materials, etc. used for response to environmental incidents or emergencies that may occur nearby (if applicable).
- General map/chart of the establishment showing positions where risks of environmental incidents or emergencies may occur; sensitive areas (such as neighboring residential areas, etc.); muster stations in case of environmental incidents or emergencies; locations where equipment and materials are available for response actions; traffic system allowed for in case of environmental incidents or emergencies.



- Documents and information about nearby establishments and facilities.
- List of internal contacts and local units involved in responding to environmental incidents and emergencies (Police department of city/province, urban/rural district; Firefighting Department; closest hospitals and medical facilities; military units, etc.)
- Organizational chart, specific functions and responsibilities of grassroots-level incident response forces and attached contact information.

*b) Industrial clusters, concentrations of businesses and service providers*

- Technical information relating to chemicals or pollutants released due to environmental incidents or emergencies.
- List of, and technical information about, equipment, vehicles and materials, etc. used for internal incident response actions within industrial clusters, concentration of businesses and service providers.
- List of, and technical information about, equipment, vehicles and materials, etc. used for incident response actions of establishments operating within nearby industrial clusters, concentration of businesses and service providers (where applicable).
- General map/chart of industrial clusters, concentrations of businesses and service providers showing positions where risks of environmental incidents or emergencies may occur; sensitive areas (such as areas of high density of employees, neighboring residential areas, etc.); muster stations in case of environmental incidents or emergencies; locations where equipment and materials are available for response actions; traffic system allowed for in case of environmental incidents or emergencies.
- Documents and information about facilities outside of industrial clusters and concentrations of businesses and service providers that may be affected due to environmental incidents or emergencies (e.g. chemical storage facilities, factories, water reservoirs or dams, etc.) (where applicable).
- Plans prepared by establishments operating within industrial clusters, and plans for activities performed within concentrations of businesses and service providers (environmental emergency response plan, firefighting plan, etc.) (where available).
- List of internal contacts and local units involved in responding to environmental incidents and emergencies (Police department of city/province, urban/rural district; Firefighting Department; closest hospitals and medical facilities; military units, etc.)
- Organizational chart, specific functions and responsibilities of industrial clusters and concentrations of businesses and service providers, and attached contact information.

## **6. Environmental monitoring and observation plan**

### **6.1. Waste generation monitoring**

#### *6.1.1. Periodic monitoring of waste generation*

##### a) Monitoring of wastewater:

- Sampling locations.
- Monitored parameters.
- Monitoring frequency rate.

##### b) Monitoring of gas emissions:

- Sample collection points in locations where gas emissions are generated from production activities.
- Monitored parameters.
- Monitoring frequency rate.

##### c) Observation of solid wastes:

Carry out analysis of solid wastes generated from production activities to identify hazardous wastes.

#### *6.1.2. Automatic monitoring of waste generation (where possible)*

##### a) Automatic monitoring of wastewater (where possible):

- Description of the automatic wastewater monitoring system (name of manufacturer, manufacturing year, basic technical specifications), installation time and location, point of surveillance camera installation; inspection and calibration organization or frequency rate.
- Monitored parameters.

##### b) Automatic monitoring of gas emissions (where possible):

- Description of the automatic gas emission monitoring system (name of manufacturer, manufacturing year, basic technical specifications), installation time and location, control room location; inspection

and calibration organization or frequency rate.

- Parameters that must be measured through the process of monitoring specific vents and exhaust pipes.

## **6.2. Environmental monitoring plan implementation**

### **6.2.1. Hiring of organization rendering environmental monitoring service**

- Suggested organizations rendering environmental monitoring service.
- Considerations.

### **6.2.2. Self-monitoring**

Description of supporting equipment and personnel

## **7. Conduct of environmental management**

Describe resources of investors used for environmental protection tasks that are currently performed:

- Funds for specific environmental protection tasks.
- Selection of employees/ establishment of environmental management division, and assignment of responsibilities to officers participating in implementation of environmental protection plan.
- Environmental management rules/regulations of investors applied to establishments operating within industrial clusters.
- Schedule of training on implementation of environmental protection plan.

## **Annex**

- Decision to approve environmental impact statement, detailed environmental protection scheme (where available).
- Other documents and procedures (where applicable).
- Certifications for environmental management system of the unit constructing infrastructural facilities (where applicable).
- Engineering and construction contracts (only sections containing information relating to environment needed).
- Copy of certificate for completion of environmental protection project (where applicable).
- Copy of inspection record or competent authority's confirmation of completion of environmental protection project (applicable to entities that hold approved detailed environmental protection schemes).
- Copy of wastewater treatment and transfer contracts (where available).
- Copy of solid waste and hazardous waste collection and treatment contract (where available).
- Chart/drawing of general layout, wastewater collection, drainage and treatment system; as-built drawing of environmental protection facility.
- Other relevant documents.

## **APPENDIX 8**

### **SAMPLE APPLICATION FOR APPROVAL OF THE ENVIRONMENTAL PROTECTION PLAN FOR TRADE VILLAGES**

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and  
Environment dated October 14, 2016)*

PC of the commune...(1)...

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**THE SOCIALIST REPUBLIC OF VIETNAM**

**Independence - Freedom - Happiness**

-----

No.: ...../.....

*(Place name), date:...*

Re. Consideration and approval of  
the environmental protection plan  
for the trade village ...(2)...

To the People's Committee of the district... (3)...

The People's Committee of the commune...(1)... has prepared documentation on environmental protection plan for the trade village...(2)... for submission to the People's Committee of the district...(3)..., including:

- 04 copies of the environmental protection plan for the trade village... (2)...
- 01 duplicate copy of the proposal to develop trade villages within our jurisdiction, approved by the provincial-level People's Committee (where applicable).

We hereby undertake that all information and data mentioned herein are true, and assume all legal responsibilities in case of any misrepresentation.

We are looking forward to consideration and approval of the environmental protection plan for the trade village...(2)... by the People's Committee of the district...(3).../

**FOR THE PEOPLE'S COMMITTEE OF THE  
COMMUNE**

...(1)....

**Representative**

(specify title, write full name, sign and stamp)

**Recipient:**

- as mentioned above;
- ...(4)...
- Depository ....

**Note:**

(1) Name of the People's Committee of the commune submitting application for approval

(2) Full name of the trade village requiring approval of the environmental protection plan

(3) Name of the People's Committee of the district

(4) Other recipients

**APPENDIX 9**

**SAMPLE DECISION TO APPROVE THE ENVIRONMENTAL PROTECTION PLAN FOR TRADE  
VILLAGES**

*(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)*

PC of the district...(1)...

-----

**THE SOCIALIST REPUBLIC OF VIETNAM**

**Independence - Freedom - Happiness**

-----

No. ..../.....

(Place name), date: ... ..

**DECISION TO APPROVE THE ENVIRONMENTAL PROTECTION PLAN FOR THE TRADE  
VILLAGE ... (2) ...**

**THE PEOPLE'S COMMITTEE OF THE DISTRICT...(1)...**

Pursuant to the Law on Environmental Protection dated June 23, 2014;

Pursuant to the Government's Decree No. 19/2015/ND-CP dated February 14, 2015 specifying implementation of several articles of the Law on Environmental Protection;

Pursuant to the Circular No. 31/2016/TT-BTNMT dated October 14, 2016 of the Minister of Natural Resources and Environment on environmental protection for industrial clusters, concentrations of businesses, service providers, trade villages, production, commercial and service establishments;

After reviewing contents of the environmental protection plan for the trade village...(2)... submitted together with the Document No. ...dated...of the People's Committee of the commune...(3)...

**HEREBY DECIDES**

**Article 1.** Approve the environmental protection plan for the trade village...(2)... (hereinafter referred to as plan).

**Article 2.** Implementation

2.1. Prepare resources and assign responsibilities for implementation according to the contents referred to in Chapter 4 of the plan.

2.2. Fully and duly comply with environmental protection contents mentioned in the plan; guarantee that wastes and other environmental issues will be managed and dealt with in conformity with requirements set out in applicable laws and regulations.

**Article 3.** This Decision shall enter into force from the signature date./.

**FOR THE PEOPLE'S COMMITTEE OF THE  
DISTRICT  
PRESIDENT**

**Recipient:**

- As mentioned above;
- .... (4) .....
- Depository...

(Sign, write full name, stamp)

**Note:**

(1) Full name of the People's Committee of the district granting approval of the environmental protection plan for the trade village.

(2) Write the full and exact name of the trade village.

(3) Name of the commune, ward and town where the trade village is located.

(4) Other recipients (if applicable).

**APPENDIX 10**

LIST OF ENVIRONMENTAL MONITORING FREQUENCY RATES AT PRODUCTION,  
COMMERCIAL AND SERVICE ESTABLISHMENTS

(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)

No.	Applied subjects	Monitoring frequency rate
1	Establishments of which operational scale is similar to those defined in the Appendix II of the Decree No. 18/2015/ND-CP	Once every 03 months
2	Establishments of which operational scale is similar to those defined in the Appendix 5.1 of the Circular No.27/2015/TT-BTNMT	Once every 06 months
3	Establishments of which operational scale is similar to those defined in Clause 2 Article 32 of the Circular No.27/2015/TT-BTNMT	Once a year

**APPENDIX 11**

LIST OF WASTE DISCHARGE SOURCES SUBJECT TO AUTOMATIC GAS EMISSION  
MONITORING

(Issued together with the Circular No. 31/2016/TT-BTNMT of the Minister of Natural Resources and Environment dated October 14, 2016)

No.	Description of activity	Total output	Source of industrial gas emission discharge	Gas emission parameters measured through automatic and constant monitoring process
1	Steel billet manufacturing	More than 200,000 tonnes/year	Sintering machine	Flow volume, total particle, temperature, NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), CO, O <sub>2</sub>
			Blast furnace	Flow volume, total particle, temperature
			Basic oxygen furnace	Flow volume, total particle, temperature, O <sub>2</sub>
			Electric arc furnace	Flow volume, total particle, temperature, NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), CO, O <sub>2</sub>
			Middle frequency furnace	Flow volume, total particle, temperature, O <sub>2</sub>
			Coke ovens	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), O <sub>2</sub>

2	Thermoelectric generation	All, except for thermo-electric plants fuelled by natural gases	Steam boiler	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), O <sub>2</sub>
3	Cement manufacturing	All	Clinker furnace	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), CO, O <sub>2</sub>
			Clinker crushers and cooler	Flow volume, total particle
4	Chemical production	More than 10,000 tonnes/year		
4.1	Sodium chloride manufacturing		Cl <sub>2</sub> liquefier	Flow volume, temperature, total particle, Cl <sub>2</sub>
4.2	HNO <sub>3</sub> manufacturing		Acid absorption tower	Flow volume, total particle, temperature, NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), CO, O <sub>2</sub>
4.3	H <sub>2</sub> SO <sub>4</sub> manufacturing		Acid absorption tower	Flow volume, total particle, temperature, SO <sub>2</sub> , O <sub>2</sub>
4.4	H <sub>3</sub> PO <sub>4</sub> manufacturing		Decomposition reaction container, evaporator and filtration equipment	Flow volume, fluoride, O <sub>2</sub>
			Hydration tower, venture process equipment, electric filtration equipment, acid defumer	Flow volume, total particle
4.5	NH <sub>4</sub> OH and NH <sub>3</sub> manufacturing		Neutralization and concentration container, cooler	Flow volume, total particle, temperature, NH <sub>3</sub> , O <sub>2</sub>
5	Chemical fertilizer manufacturing	More than 10,000 tonnes/year		
5.1	Urea manufacturing		Urea prilling tower	Flow volume, total particle, temperature
			NH <sub>3</sub> absorption and recovery tower	Flow volume, total particle, NH <sub>3</sub>
5.2	DAP manufacturing		Transformation, granulation and finished product making tower	Flow volume, total particle, temperature, HF, O <sub>2</sub>
			Product dryer	Flow volume, temperature, HF, O <sub>2</sub>
5.3	Manufacturing of fused phosphate fertilizer	Furnace	Flow volume, total particle, temperature, HF, O <sub>2</sub>	
6	Chemical and chemical fertilizer manufacturing activities	More than 10,000 tonnes/year with respect to specific product types	Determined according to characteristics of specific production activities and requirements stipulated by regulatory authorities	Determined according to characteristics of specific production activities and requirements stipulated by regulatory authorities
7	Petrochemical refinery production	More than 10,000 tonnes/year	Heating chamber furnace	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), O <sub>2</sub>
			CO combustion furnace	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), CO, C <sub>x</sub> H <sub>y</sub> , NH <sub>3</sub> , O <sub>2</sub>

			Gas emission combustion furnace	Flow volume, temperature, SO <sub>2</sub> , O <sub>2</sub>
8	Establishments using industrial steam boilers	More than 20 tonnes of steam/hour per 01 steam boiler, except for the steam boilers fuelled by natural gases, CNG and LPG	Steam boiler	Flow volume, total particle, temperature, SO <sub>2</sub> , NO <sub>x</sub> (calculated according to NO <sub>2</sub> ), O <sub>2</sub>