

# **ENVIRONMENTAL PROTECTION IN CHEMICAL FIELD IN VIETNAM**

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# Major functions of the environment

Habitat of human  
and species

Place to  
store resources

ENVIRONMENT



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graph TD; E((ENVIRONMENT)) --> A[Habitat of human and species]; E --> B[Place to store resources]; E --> C[Place to store and supply information]; E --> D[Place to contain artificial wastes];
```

Place to store and  
supply information

Place to contain  
artificial wastes

# **Section 1 – Overall on legal framework in chemical management in Vietnam**

# Chemical Pollution

- **Environmental pollution caused by chemical activities**
  - **Chemical activities: all activities in life cycle**
    - **Research and production**
    - **Export and import**
    - **Transportation and storage**
    - **Usage**
    - **Discharge, disposal**
  - **Chemical, hazardous chemicals**
  - **Dangerous goods**
  - **Chemical incident, environmental incident**
- **Relate to all production and business activities**
- **Integrated with pollution in environment's components: soil, water, air, sediment, species**

# History of agreements in environment-chemical (1)

- 1972 – UN Conference on environment and human: approval of “Statement of UN Conference on environment and human” and “Action Plan”; Establishment of the UNEP
- 1987-1992 Approval of Montreal Protocol: phasing out the production and use of substances caused ozone depletion; UN Conference on Environment and Development (UNCED): Approval of Rio declaration on Environment and Development; Chapter 19 of Agenda 21, “Environmentally sound management of toxic chemicals”; Oslo and Paris Convention (OSPAR Convention): regulation on input of substances into marine environment; OECD introduced High Production Volume Chemical (HPVC)

## **History of agreements in environment-chemical (2)**

- **2002- World Summit on Sustainable Development (WSSD): approval of “Implementation Plan of WSSD” and “Johannesburg Declaration on Sustainable Development”**
- **2003 – UN introduced “Globally Harmonized System of Classification and Labeling of Chemicals (GHS)” and determine objectives for total implementation of GHS in 2008**
- **2004 – Rotterdam Convention (PIC) stated validity: Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; Stockholm Convention (POP Convention): phasing out production and use of POPs, reduce and eliminate UPOPs**
- **2006 – International Conference on Chemical Management: Approval of “Strategic Approach to International Chemicals Management (SAICM)”**

# **Development of legal framework in Vietnam**

## **Direction and major measures for chemical control in environment**

- 1. Control of new chemicals;**
- 2. Management of existing chemicals;**
- 3. Provide information through the supply chain (MSDS/GHS, chemicals in products); Life Cycle Management**
- 4. Apply PRTR system and report in chemical release;**
- 5. Voluntary approaches for chemical control (strengthening begin-of-pipe control)**
- 6. Management of environmental/chemical incidents**
- 7. Communication measures on chemical risks and environmental risks**



**Legal system of Vietnam on  
Environmental Protection for  
Chemical Pollution  
and Sound Management of Chemicals**

# Overall on legal system (1)

- **Stockholm Convention: Chemical control, right to know/access of the community, protection of health and environment; Basel Convention, PIC, SAICM**
- **Law/regulation on environmental protection: Law on Environmental Protection (LEP), Decree 29/2011, Decree 179/2013, Circular 26/2011, Circular 12/2011, Joint Circular 34/2012, QCVN, ...**
- **Law/regulation on Chemical: Law on Chemical, Decree 108/2008, Decree 26/2011, Decree 163/2013, Circular 28/2010, Circular 20/2013, Circular 30/2011 (RoSH), Circular 40/2011, Circular 04/2012 (GHS), Circular 07/2013 ...**
- **Law/regulation on transportation: Law on transportation, Decree 104/2009, Decree 29/2005, Decree 39/2009 and Decree 54/2012, ...**
- **Law on Fire Prevention and Fighting**
- **Law on public health; food safety**
- **Laws on trade, customs**

# **Overall on legal system (2) \_ Chemical Law and its legal documents**

- 1. Chemical Law: provides regulation in chemical activities, safety in chemical field, right and duty of individual and organization in chemical activities, state management in chemical.**
- 2. Decree 108/2008/ND-CP on Oct. 07, 2008 of the Government regulates and guides implementation of Chemical Law.**
- 3. Decree 26/2011/ND-CP on April 08, 2011 revising some articles on Decree 108/2008/ND-CP.**
- 4. Decree 163/2013/ND-CP on Nov. 12, 2013 regulating sanctions/penalty in management of chemicals, fertilizers and industrial explosive materials.**
- 5. Circular 28/2010/TT-BCT on June 28, 2010 of Ministry of Industry and Trade (MOIT) detailing some articles of Chemical Law and Decree 108/2008/ND-CP.**

## **Overall on legal system (3) \_ Chemical Law and its legal documents**

- 6. Circular 18/2011/TT-BCT on April 21, 2011 of MOIT on supplementation and abolishment of administrative procedures of Circular 28/2010/TT-BCT.**
- 7. Circular 40/2011/TT-BCT on Nov. 14, 2011 of MOIT on chemical declaration.**
- 8. Circular 04/2012/TT-BCT on Feb. 13, 2012 of MOIT on classification and labeling of chemical (GHS)**
- 9. Circular 07/2013/TT-BCT on April 22, 2013 of MOIT on registration for use of dangerous chemical in production of products and goods in industrial sector.**
- 10. Circular 20/2013/TT-BCT on August 05, 2013 of MOIT on plan and measure for prevention and response chemical incident in industrial sector**

# **Overall on legal system (4)**

## **– Transportation of Chemicals**

- **Law on Environmental Protection 2005; Chemical Law 2007;**
- **Law on Civil Aviation; Marine-time Law; Law on Road traffic; Law on inland waterway transportation**
- **Decree 108/2008/ND-CP; Decree 26/2011/ND-CP**
- **Decree 104/2009/ND-CP on Nov. 09, 2009 regulating list of dangerous goods and its transportation by vehicle;**
- **Decree 29/2005/ND-CP on March 10, 2005 regulating list of dangerous goods and its transportation by inland waterway;**
- **Decree 109/2006/ND-CP regulating and guiding implementation of Railway Law.**
- **Decree 89/2006 on labeling of goods; TCVN 5507: regulation on label and technical requirement**

# Overall on legal system (5)

## \_ Chemical incident

### ■ **Environmental/Chemical Incident**

- Law on Environmental Protection 2005 and related documents
- Chemical Law 2007 and its documents

### ■ ***Environmental incident and Chemical incident:***

- Similar concept, but different in scope of impact
- In reality, relation and information exchange still limited

Some overlapping in regulations

# **SECTION 2 -**

# **AMENDMENT OF LAW ON ENVIRONMENTAL PROTECTION IN VIETNAM**

**(focus on regulation  
regarding chemical pollution)**

## PROGRESS OF LEP AMENDMENT IN VIETNAM

1. Conducting Resolution No. 20/2011/QH13 on Nov. 26, 2011 of the National Assembly session XIII on Program for establishing law and ordinance of National Assembly session XIII, the Government has assigned MONRE to implement a Project for revising the LEP 2005.
2. Since April 01, 2013, the Draft of LEP has been posted to the websites of Government and MONRE for gathering comments/feedbacks from business and the community.
3. At the 6th Meeting of Session XIII held on October 2013, the National Assembly reviewed and gathered ideas of 145 members on the Draft.
4. Currently, the Draft is being completed to submit to the National Assembly for approval by 7th meeting, which will be held in **May 2014**.



# CONTENTS OF THE DRAFT OF LEP RELATED TO CHEMICAL MANAGEMENT

## 1. Prohibited actions

*- In item 8, Article 7 of the Draft regulates: prohibition of Importing chemicals that do not meet environmental protection requirements (the LEP 2005 does not have this regulation).*

## 2. Environmental protection in mineral exploration, exploitation and processing activities

*- In Article 40 of the Draft regulates that:*

*+ The use of hazardous chemicals in exploring, exploiting and processing minerals shall have technical certificates and be checked, supervised by the state management agencies on environmental protection.*

*+ Exploring, exploiting, transporting and processing oil, gas and other minerals containing radioactive and hazardous substances shall comply with regulations on chemical, nuclear and radiation safety and other regulations on environmental protection (Article 44 of LEP 2005 also has this regulation).*

## CONTENTS OF THE DRAFT OF LEP RELATED TO CHEMICAL MANAGEMENT (cont.)

### 3. Control and treatment of marine and islands environmental pollution

- *Article 51 of the Draft regulates: chemicals and other toxic substances used in activities on marine and islands must be collected, stored, transported and treated after use according to regulations on waste management. (LEP 2005 does not have this).*

## 4. Environmental protection of underground water

### Article 59 of the Draft:

- *Only chemicals on permitted lists issued by authorized state agencies may be used in groundwater exploration and exploitation.*
- *It is strictly forbidden to introduce toxic chemicals and other harmful agents into groundwater sources.*
- *For mineral exploitation projects and other projects using toxic chemicals, measures must be taken to prevent leakage and dispersal of toxic chemicals and wastes into groundwater sources.*
- *Chemical warehouses shall be constructed to ensure technical safety and prevention of toxic chemicals from penetration into groundwater sources (LEP 2005 does not have this).*

## 5. Pollution control for soil environment

Article 62 of the Draft:

*Land areas contaminated with dioxin, residues from plant protection chemicals and other hazardous substances shall be investigated, assessed, located and treated ensuring environmental requirements  
(LEP 2005 does not have )*

## 6. Environmental protection for chemical activities

- Article 72 of the Draft:

*+ Organization, individual who have chemical activity including production, import, business, use, transport, storage, transfer and treatment of chemicals must follow regulations on environmental protection for chemicals and other related regulations.*

*+ Every organization, individual who uses and generate chemicals in production, trading business and services must conduct risk assessment of chemical to community and must have rational safety management.*

## 6. Environmental protection for chemical activities (cont.)

- + *Organization, individual who uses and generate chemicals or materials, products containing harmful chemicals to environment has to conduct chemical release registration, report and public information on chemical release affecting environment.*
- + *Chemicals with high toxicity, persistent, wide spreading and high accumulative characteristics causing adverse impacts to the environment and human health must be inventoried, monitored, controlled of pollution, reduce of release and eventually eliminated.*

## **6. Environmental protection for chemical activities (cont.)**

+ MONRE regulates lists of chemicals mentioned in this Article, the registration and information management of chemical release; provides instructions for assessment and management of environmental risks of chemicals.

### ***Article 88 of LEP 2005 regulates chemical safety:***

+ Organizations and individuals engaged in the production, trade in, transport, storage, use and other activities relating to chemicals shall be only permitted to operate if they fully comply with chemical safety conditions, procedures and measures in accordance with the provisions of the law on the management and use of chemicals and the other provisions of the relevant law.

+ Use of chemical fertilizer, chemicals, feeds, pesticides and veterinary medicines that are likely to cause environmental pollution, deterioration and biodiversity degradation, must be restricted.

## 7. Environmental protection for commodity import and transit

Article 77 of the Draft:

- *Imported chemicals and goods shall meet requirements on environmental protection. Prohibition of importation of chemicals in the list of being ban to import;*
- *When the ban chemicals imported, their owners shall re-export, dispose or destroy under legal regulations on waste management; in case of leading to serious environmental consequences, the owners shall be handled with administrative fines or prosecuted for criminal offences depending on the characteristics and level of violation; if causing damages, the owners shall compensate according to the provisions of laws.*



## 8. Environmental protection for aquaculture

Article 81 of the Draft:

- *Organizations, individuals producing, importing, dealing in chemicals used in aquaculture shall follow provisions of laws on environmental protection and other relevant regulations of laws; Must not use chemicals that are expired or beyond the list permitted in aquaculture; Expired chemicals used in aquaculture, containers, packages of chemicals used in aquaculture after use shall be collected, handled under waste management regulations (the LEP 2005 also has this regulation).*
- *Concentrated aquaculture areas shall not use hazardous or toxic accumulated chemicals*

## **9. Environmental protection for research facilities and laboratories**

Article 82 of the Draft:

*Research facilities, laboratories shall process, destroy analytical samples, chemicals according to the environmental and technical regulations (LEP 2005 does not have this).*

## **10. Environmental components and substances needed to be monitored**

*Article 129 of the Draft: hazardous chemical released and accumulated in the environment need to be monitored (LEP 2005 does not have this).*

## **11. Take-back and treatment of products**

Article 85 of the Draft assigns the Prime Minister to regulate list of take-back and treatment of end-use products including chemicals.

*(Article 67 of LEP 2005 regulates: chemical used in industry, agriculture and aquaculture must be collected and treated. This content is detailed in Decision 50/2013/QĐ-TTg on August 09, 2013 of the Prime Minister).*

## IV. Remark

- The LEP 2005 has been approved on 29/11/2005 and entered into force since 01/07/2006. After 8 years of implementation, the LEP 2005 has contributed significantly for environmental pollution prevention and control; slowing down the pollution; improve environmental quality at some water sources and land areas, ...
- However, still some regulations are not practical, not feasible, not specific ; and also can not cope with the rapid development of the economy and international integration of Vietnam.
- Particularly, there are still overlaps or gaps in the legislation regarding the hazardous waste management, pesticides, toxic chemical releases, environmental incidents, ..

## IV. Remark (cont.)

- These shortcomings reduce the effectiveness and impacts of the state management activities for environmental protection.
- The revision of LEP 2005 is to overcome the problems and also provide the more systematic and strong solutions for environmental protection
- The new LEP has been being developed as the Framework Law, with a vision towards a Systematic Legislation of Environment
- Many regulations will also be developed under the New LEP to explain and support the implementation (but not too many regulations !)

# **Section 3 – Regulation on the transportation of dangerous goods**

**(Circular on transportation  
of dangerous goods of toxic  
substances and infectious  
materials)**

# Presentation content

I. Regulation Goals

II. Scope of Regulation

III. Objects of Regulation

IV. Steps and Procedures for granting the permit for transportation of dangerous goods

# Example: Accidents



**Transportation accident – 800 L of chemicals, 150 m road contaminated**

**DONRE and Dist. Office of Natural resources and Environment managed to solve the problems**



- **Other accidents: Spill of 13.480 kg of highly concentrated acids**







# The Regulation's Goals

**1.** To concretize the current provisions of the law as well as detailing the contents of the transport of dangerous goods; Namely:

- Decree No. 29/2005/ND-CP dated 10/3/2005 (Clause 1, Article 4, Paragraph 2 of Article 15 point d ...);
- Decree No. 109/2006/ND-CP dated 22/9/2006 of the Government (paragraph 1 of Article 23, Point d, Clause 2, Article 36 ...);
- Decree No. 104/2009/ND-CP dated 09/11/2009 of the Government (paragraph 1 of Article 4, Clause 5, Article 18 ...).

**2.** To implement the state management activities in the field of chemical pollution control; reduce, prevent and respond to the accidents of transportation of dangerous goods that potentially release toxic chemicals into environment

# Scope of Regulation

Under the provisions of the above mentioned Decrees:

- *Dangerous goods under the management of the Ministry of Natural Resources and Environment are toxic substances, and infectious substances (class 6 in the Annex):*
- *Do not include chemicals managed by agricultural and health sectors*

Scope of regulation:

- 1. Conditions for transportation of dangerous goods*
- 2. The steps and procedures for granting permits for transportation of dangerous goods*

# Conditions for transport of dangerous goods

## **1. Must have** *Permits for transportation of dangerous goods:*

### **Case 1:**

- *Transportation of dangerous goods by road vehicle.*
- *Volume of dangerous goods to be transported higher than respective threshold specified in the list (Annex).*

### **Case 2:**

- *Transportation of dangerous goods by road vehicle.*
  - *Each type of dangerous goods do not exceed the volume specified in the Annex, but the total volume of dangerous goods is greater than 01 tons / 1 transportation (not include the volume of packaging, containers, ... ).*

## **2. Do not need to have Permits for transportation of dangerous goods:**

### **Case 1:**

- *Transportation of dangerous goods by road vehicle.*
- *Volume of dangerous goods to be transported lower than threshold specified in the list (Annex).*

### **Case 2:**

- *Transportation of dangerous goods by inland waterways or railways.*
- *Compliance with the provisions of the Decree, ISO, NTR, ... , respectively.*
- *Meet the conditions of packaging, packaging, containers, labeling, logos, danger signs; requirements for means of transport; Conditions for the driver and the escort person.*

## **Other general requirements:**

- ✓ *Have to develop Plan to prevent and respond to Environmental incidents.***
- ✓ *Have to meet the requirements of packaging, containers, labeling, signs of dangerous goods;***
- ✓ *Have to meet requirements for the modes of transportation;***
- ✓ *Have to meet requirements for the driver and escort person.***



# **Objects of regulation**

**II. Organizations and individuals engaged in activities related to the transportation of dangerous goods by means of by road vehicles, inland waterways, railways, namely:**

- 1. Owners of dangerous goods**
- 2. Owners of transport means of dangerous goods**
- 3. The drivers/controllers of transport means**
- 4. Escort/supervise people for dangerous goods**

## **1. Owner of dangerous goods**

- *Ownership of dangerous goods to be transported.*
- *Can apply for a permit to transport*
- *If he/she have no permit for transportation of dangerous goods, the transportation must be hired and implemented by permitted vehicles.*

## **2. Owner of transportation means for dangerous goods**

- *Ownership of transportation vehicles*
- *Need to apply for a permit of transportation of dangerous goods*

### **3. The driver of transportation means**

- *Have a valid License to control the vehicles*
- *Meet one of the following conditions:*
  - *Have a Certificate for transportation of dangerous goods (trained and issued by the Ministry of Natural Resources and Environment).*
  - *Have a Certificate of Technical Safety for transportation of industrial hazardous goods (Issued by Ministry of Industry and Trade).*
  - *Have a Certificate of professional training in fire prevention and response for transportation (issued by the Department of Fire protection).*

#### **4. Escort person of dangerous goods:**

- **Meet one of the following conditions:**

- **Have a Certificate for transportation of dangerous goods (trained and issued by the Ministry of Natural Resources and Environment).**

- **Have a Certificate of Technical Safety for transportation of industrial hazardous goods (Issued by Ministry of Industry and Trade).**

- **Have a Certificate of professional training in fire prevention and response for transportation (issued by the Department of Fire protection).**

- **Have trained degree in Technical college on chemistry**

# Steps and procedures for granting a permit:

1. Procedure: Application file to be submitted to VEA

- An application form
- List of goods, volume and transportation schedule,
- The list of drivers and escorts.
- Driver's license, registration certificate of transport means, accreditation certificate of technical safety and environmental protection for the vehicles.
- Other related certificates.
- Registration of business
- A copy of identity card / passport for drivers and escorts
- Economic contract or written agreement (for the case of hiring transportation).
- Chemical safety sheet.
- Test results for packaging, container (if available, and the owner/operator is responsible for test results if self-testing).
- Developed Plan for prevention and response environmental incidents.
- Cleaning measures of vehicles after transportation.

## 2. The procedures:

- The application file to is sent to the VEA to assessment for granting/not granting a permit.
- Additional time to complete application documents if the application is invalid: **05 days.**
- Time for assessment of the application file: **10 days.**
- Time for examination and granting the **Permit:** **20 days.**

## Provisions of Responsibilities and rights

- All organizations and individuals related to transportation of dangerous goods
- Responsible for monitoring and inspection:
  - *Vietnam Administration of Environment*
  - *The local Department of Natural Resources and Environment*
  - *The District Office of Department of Natural Resources and Environment*

**Section 4 – Circular on registration of chemical releases into environment and public dissemination of information on chemical releases (Draft)**



## **Chapter I - General Provisions**

Article 1. Scope of regulation

1. Registration of chemical releases; report on releases of hazardous chemicals

2. Public information to the community

Article 2. Applying Subjects of regulation

Article 3. Interpretation of terms/concepts

## **Chapter II – REGISTRATION, REPORT AND MANAGEMENT OF INFORMATION OF HAZARDOUS CHEMICAL RELEASES INTO ENVIRONMENT**

- Article 4. The list of hazardous chemicals of environmental concern
- Article 5. Registration and reporting of hazardous chemical releases into environment
- Article 6. Information of chemical release from non-point sources
- Article 7. Evaluation and quality assurance data on chemical releases
- Article 8. Compile, summary and disclosure of information of chemical release into environment
- Article 9. Information protection

## **Chapter III - CONTROL OF CHEMICAL RELEASES FROM MANUFACTURING AND TRADING OPERATIONS**

- Article 10 . Requirements on control and monitoring of chemical releases into environment
- Article 11 . Control of chemical disposal in research facilities, test of chemicals and products of concern

## **Chapter IV - IMPLEMENTATION AND ENFORCEMENT PROVISIONS**

- Article 12 . Responsibilities of the Ministry of Natural Resources and Environment
- Article 13 . Responsibilities of the Department of Natural Resources and Environment of the provinces and cities directly under the central government
- Article 14 . Effectiveness

# APPENDICES

- APPENDIX 1 - LIST OF HAZARDOUS CHEMICALS OF ENVIRONMENTAL CONCERN
- APPENDIX 2 - LIST OF FACILITIES TO REGISTER CHEMICAL RELEASES
- APPENDIX 3 - REGISTRATION AND REPORT FORMS ON CHEMICAL RELEASES FOR FACILITIES
- APPENDIX 4 – ACCEPTANCE FORM OF REGISTRATION OF CHEMICAL RELEASES

# Introduction of other regulations...

- Circular for guidance on prevention, response, recovery of environmental incidents
- Circular on regulating PCBs management
- Circular on control of industrial POPs
- Circular on issue of the technical regulations (environmental standards)
- Regulation on monitoring, QA / QC, environmental information, ...
- ***The New “Sanction Regulation” – Decree 179/2013/ND- CP***
- ***Major enforcement: Environmental Inspectors, and Environmental police***

# Conclusions

- ❖ Stronger regulation and enforcement being applied
- ❖ More effective regulation framework have been developed recently
- ❖ Improvement needed for inter-sector / collaborative measures for management of toxic chemicals/ chemical pollution control
- ❖ Chemical pollution prevention should be paid more attention and given more efforts
- ❖ International cooperation regarding sound chemical management should be further carried out

**Thank you for attention !**

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