# Research on Inspection and Supervision of Import and Export Hazardous Chemicals

## -- Take Hangzhou Customs as an Example

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### Abstract

Most hazardous chemicals are hazardous to human health and the environment in the process of production, transportation, storage and use. The new customs after the institutional reform are thinking and exploring the development direction of the inspection and supervision of the import and export of hazardous chemicals from top to bottom. Based on the inspection and supervision work of Hangzhou Customs after the institutional reform, this paper summarizes the main problems existing in this work, analyzes the causes of these main problems, and puts forward corresponding solutions, so as to provide reference suggestions for carrying out the inspection and supervision work of hazardous chemicals in the future.

### **Keywords**

hazardous chemicals; Inspection and supervision; Evaluation system; Integral management.

### 1. Preface

China is a big country in the production and use of hazardous chemicals. The output of refined oil, ethylene, chlor-alkali, synthetic resin, fertilizer and pesticide is among the highest in the world, forming an industrial system with complete categories and supporting varieties. Zhejiang is an important base for the production and use of hazardous chemicals. In 2019, there were 3,189 batches of hazardous chemicals exported from Ningbo with the value of US \$82.655 million, and 2,562 batches of imported hazardous chemicals with the value of US \$56.726 million, excluding those exported from Ningbo. In view of the hazardous characteristics of hazardous chemicals related to human health and the environment, many laws and regulations have been issued to regulate and strengthen the safe production, transportation, use and storage of hazardous chemicals. Therefore, classification, identification and evaluation of chemicals, effective management and control of hazardous chemicals and effective inspection and supervision of them have become international issues of universal concern.

### 2. Analysis of the Main Problems and Causes in the Inspection and Supervision of Import and Export of Hazardous Chemicals by Hangzhou Customs

Since April 14, 2018, the duties and teams of entry-exit inspection and the quarantine administration have been assigned to the Customs. Under the new circumstances, the Customs, as the competent department, conducts inspection and supervision over the import and export of hazardous chemicals and their packaging. However, the large amount of hazardous chemicals, and different chemicals, even different levels of the same chemical have different hazardous

characteristics, which makes the actual test and supervision more difficult. After the institutional reform of the customs directly under the general administration of customs of hangzhou, the jurisdiction except in ningbo area of zhejiang and its its waters of running, on the basis of national policies and regulations, the import and export of dangerous chemicals and its packaging are introduced more inspection regulatory documents, basically formed a set of relatively complete inspection supervision system, and achieved initial results, but there are still some deficiencies and problems. Mainly reflected in the following aspects.

#### 2.1. The Shortage of Supervisors cannot Meet the Development of the Industry

In recent years, the chemical industry in Zhejiang has developed rapidly, and the huge business volume has exposed the problem of a serious shortage of supervisors. Coincides with the inspection and quarantine department to the customs, also appeared on the transfer of personnel and new posts of personnel were not familiar with the inspection and supervision of the area. In the case of each batch of inspection, although controllable supervision can be carried out, it cannot be realized according to the existing manpower allocation. A long stay at the port leads to low customs clearance efficiency, which violates the requirements of the General Administration of Customs on improving customs clearance efficiency and the reform spirit of "no more than one run" in Zhejiang Province. The problem of shortage of personnel has been solved, but the inspective results cannot represent the quality of the whole batch of hazardous chemicals, and the import and export enterprises of hazardous chemicals cannot realize the risk control and the quality control.

### 2.2. Inspection Equipment and Technology cannot Handle High-tech Products

With the progress of science and the development and research of new technology, High-tech products emerge one after another. For example, the substitution, processing and synthesis of a variety of hazardous chemicals and a variety of non-hazardous chemicals form a mixture with complex hazardous characteristics, which puts forward higher requirements for the existing inspection and control equipment and technology. The problem of how to accurately classify, appraise and evaluate High-tech products closely with the pace of science and technology to make the effective inspection and supervision becomes particularly prominent. At present, the inspection and quarantine equipment and technology of Hangzhou Customs cannot be safe for the inspection and supervision of these High-tech products. It is easy to waste resources and cause heavy economic losses to enterprises to restore or destroy such hazardous chemicals. However, they cannot be released directly without being classified, appraised or appraised, so the quality and dangerous characteristics of such hazardous chemicals cannot be guaranteed and there are great safety hazards to the environment, human beings and property safety.

# 2.3. Inadequate Institutional Construction cannot Keep Pace with International Standardization

In terms of the supervision of hazardous chemicals, there is a lack of the perfect system, which cannot be well combined with relevant international regulations and standards. Compared with developed countries in the EU, the inspection and supervision of hazardous chemicals have not yet reached full coverage. However, the current hazardous chemicals catalogue also differs from the international chemical management system, which leads to different classification standards and judgment principles, causing certain confusion to supervision. There are contradictions and oversight omissions in regulations, rules and standards among customs, work safety supervision, maritime affairs and other departments, and each department makes its own standards. According to the characteristics of the industry and its supervision responsibilities, it is difficult to form a multi-department supervision body. For the same hazardous chemicals, laws, regulations and standards are different, and the classification, identification and evaluation report of the importing country and the report of the exporting

country different from the classification of hazardous characteristics, which is prone to the occurrence of technical barriers to trade and makes enterprises often confused.

### 3. Feasible Countermeasures with Existing Problems

In order to strengthen the inspection and supervision of import and export hazardous chemicals by Hangzhou Customs and create a safe and orderly living and the production environment, the following measures and Suggestions are put forward in view of the problems.

#### 3.1. Strengthen Inspection and Supervision

According to the batch and value of hazardous chemicals imported and exported in 2019 in Zhejiang except Ningbo according to the statistics of Hangzhou Customs, the import and export quantity of hazardous chemicals are huge. Therefore, it is particularly important to enlarge the intensity of inspection. To strengthen the compliance inspection of import and export hazardous chemicals, the customs department should first strictly supervise the inspective declaration enterprises, the inspection declaration hazardous chemicals, the inspection declaration standards and the process. Secondly, inspection and supervision personnel need to acquire the knowledge of hazardous chemicals and take up the post with qualified examination certificate to ensure that front-line inspection and supervision personnel have a comprehensive understanding of the nature of hazardous chemicals and domestic and foreign laws and regulations. Finally, management of dangerous chemicals import and export enterprises to take points, you can pick and choose the typical enterprise to pilot, on the basis of the preliminary test each batch of inspection a points, points to a certain extent can be appropriate by way of sampling observation, determine the scope of the sampling and frequency according to actual condition, once the sampling is unqualified, accumulated integral reset before, unqualified for inspection of dangerous chemicals at the same time also does not meet the requirements of the rectification, resolutely ban on the import and export.

# 3.2. Study New Technologies and Update Old Equipment to Improve Law Enforcement Guarantee Level

With the development of science and technology, the application of new technology in hazardous chemicals will inevitably lead to the emergence of High-tech products, which will have a huge impact on the inspection and supervision of hazardous chemicals. As a product with zero tolerance and full coverage of supervision, hazardous chemicals require special funds to be invested in the instruments and equipment involved in inspection and regular maintenance and update, so as to meet the hardware requirements of hazardous chemicals inspection. The technical department of the Customs shall pay close attention to the industrial trends of hazardous chemicals at home and abroad in real time, organize technical backhands to conduct in-depth research on them, have the ability of classification, identification and evaluation, give full play to technical advantages to overcome difficulties and miscellaneous points, and provide technical support for front-line inspection and supervision law enforcement personnel.

# 3.3. Establish the Evaluation System in Line with International Laws and Regulations

As the current regulations and regulation of Hangzhou Customs are not in line with the international standards, it is necessary to carry out a special study on the international regulations of hazardous chemicals, synthesize and refine the research results, and establish a classification and identification method system and data source oriented to practical application. Laws and regulations on classification and identification of hazardous chemicals can be divided into two levels. The first level is international conventions, including

conventions, declarations, agendas and protocols on the management of hazardous chemicals formulated by the United Nations and other international organizations. This level mainly involves principles and framework documents, the core of which is the UN GHS regulations. The second level is regional and national regulations, including regulations and directives on hazardous chemicals issued by major developed countries and emerging economies. In view of the European Union is an international leader in the field of hazardous chemical management, should be mainly from the European study of dangerous chemicals of management regulations, and gradually expand to other countries, this paper studies the global chemical classification and label unified coordinate system (GHS) and the European Union chemical registration, evaluation, authorization, and restrictive regulations (REACH), the mixture of the eu chemicals and classification, marking and packaging regulations (CLP). Establish GHS classification, labeling and SDS (Chemical Safety Data Sheet) database to support inspection supervisors. In this way, the law enforcers with laws to follow, and the risk characteristics analysis can be intelligently integrated with international standards, so as to effectively implement inspection and supervision.

### 4. Conclusion

With the development of economic and trade within their respective jurisdictions, dangerous chemicals into exports growing, shortly after the institutional reform associate with administrative allocation of resources, to the enterprise supervision mode and corresponding rules and regulations and system construction has been unable to fully meet the new situation new customs for import and export of dangerous chemicals regulation and effective implementation. Based on the work practice of the front-line inspection and supervision personnel of the customs, this paper puts forward its own preliminary suggestions to solve these problems: enlarging the inspection strength and supervision force while increasing the investment in inspection equipment and the research and development of new and high technology; Classification and further study of the global chemical tags unified coordinate system (GHS) and the European Union chemical registration, evaluation, authorization, and restriction regulations (REACH), the European Union, the mixture of chemicals and classification, marking, and the relationship of the packaging regulations (CLP), to establish a system of classification of dangerous chemicals appraisal that provide data support for the line inspection regulators and rapid means of checking, also provide convenience for fast customs clearance; Taking Hangzhou Customs as the background, the point system supervision mode is implemented for the import and export hazardous chemicals enterprises within its jurisdiction, and typical enterprises are selected for the first trial and then fully implemented. Hangzhou Customs should give full play to its functions, make use of its own advantages and strength, actively guide hazardous chemical enterprises, effectively prevent the safety risks brought by hazardous chemicals, and make steady progress in the inspection and supervision of import and export of hazardous chemicals in a good environment.

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