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Investigate technical guide for pesticides POPs waste

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catalogue

Investigate technical guide for pesticides POPs waste.....	1
1 The purpose of compilation	3
2 Scope of the investigation	3
2.1 The survey region-wide.....	3
2.2 Investigation types of pesticides	3
2.3 Pesticides POPs sector.....	4
2.4 The locations may be waste and inventory	5
3 Investigation of the content and procedures	6
3.1 The investigation process	6
3.2 The field survey methodology.....	7
3.3 Survey data summary process	8
4 Quality control of the survey	10
4.1 General requirements	10
4.2 scene investigators quality control requirements	10
4.3 Quality Control staff responsibilities	10
4.4 investigate the quality of work acceptance requirements.....	11
5 The work requirements of environmental protection departments at all levels.....	12
6 Pesticides POPs waste / inventory questionnaire and guidance notes.....	13
6.1 questionnaire composition	13
6.2 Instruction	13

1 The purpose of compilation

The guidance of local environmental management departments to carry out the investigation and identification of pesticides POPs in waste to ensure the scientific accuracy of survey data, survey technical guidelines formulated to carry out pesticide POPs waste.

2 Scope of the investigation

2.1 The survey region-wide

Investigations will be conducted in Hubei and Hebei province.

2.2 Investigation types of pesticides

The Pesticides POPs that had been large-scale produced and used in the history of our country mainly include DDT, hexachlorobenzene (HCB), chlordane, mirex, and toxaphene. Therefore, the object of this investigation contains 6 species: DDT, hexachlorobenzene, chlordane, mirex, toxaphene, and POPs mixture (mixture for short), investigate the waste in circulation and inventory.

Heptachlor, aldrin, dieldrin and endrin are controlled in the POPs Convention; the four kinds of POPs pesticides in our history just developed a small amount of production. China has not yet formally approved the investigation of the newly added class BHC and endosulfan in POPs Convention, so we don't investigate these this time.

The investigation of alleged POPs waste refers to constituted pesticides or containing these insecticides or insecticide-contaminated waste. Specific types of waste (emphasis has lost its original use, as to 31 December 2010 already expired products), counterfeit or poor quality of pesticide products, direct packaging, doping of these pesticides refuse. Product prohibited by the state which is no longer in circulation (inventory) is included in the scope of this survey.

2.3 Pesticides POPs sector

The scope of this investigation includes pesticide production enterprises, circulation and use unit.

Most production companies have discontinued or changing the line in the 1980s, the survey of manufacturing enterprises in the development of the state implementation plan process was thoroughly investigated, this is no longer doing the survey, if historical production enterprises is discovered newly, it can be reported to the units of the project organization, and the project organizational unit is responsible for doing the supplementary survey.

The pre-survey data show that in the circulation process the department pesticide POPs involved in mainly contains three types:

(1) Agriculture: including the agricultural sector, the Plant Protection Station, Soil and Fertilizer Station, agriculture and forestry promotion agencies, and forest pest and disease control agencies; urban garden department normalized in such.

(2) Health areas: disease prevention and control center, and Epidemic Prevention Station, Patriotic Health Campaign Committee, schistosomiasis prevention and control institutions, pesticides service stations, health service centers and health pest control company.

(3) Termite control agencies: the Association of termite control, institute or company of termite control at all levels, construction timber and sleepers material corrosion unit.

Units investigated and their corresponding coordination units are shown in Table 2-1.

Table 2-1 by the investigation unit and the corresponding list of the coordination segment

Units investigated		corresponding coordination units	POPs species of major concern
Agriculture	agricultural sector	Economic and trade departments /Rural Work Committee	DDT HCB Chlordane Toxaphene
	Plant Protection Station	Bureau of Agriculture / Rural Work Committee / Bureau of Forestry	
	Soil and Fertilizer Station	Bureau of Agriculture	
	agriculture promotion agencies	Bureau of Agriculture / Rural Work Committee	
	forestry promotion agencies	Bureau of Forestry	

Units investigated		corresponding coordination units	POPs species of major concern
	forest pest and disease control agencies	Bureau of Forestry	
	urban garden department	Construction Committee / Construction Bureau	
Health areas	disease prevention and control center	Health Bureau	DDT
	Epidemic Prevention Station	Health Bureau	
	Patriotic Health Campaign Committee	Health Bureau / Construction Committee / Construction Bureau	
	Schistosomiasis prevention and control institutions	Health Bureau	
	pesticides service stations	Health Bureau	
	health service centers	Health Bureau	
	health pest control company	Health Bureau / Construction Committee / Construction Bureau	
Termite control agencies	Termite or station	Construction Committee / Construction Bureau / Termite Control Association	Chlordane Mirex
	Termite control company	Construction Committee / Construction Bureau / Termite Control Association	
	construction timber and sleepers material corrosion unit	Construction Committee / Construction Bureau / Railroad Bureau	

2.4 The locations may be waste and inventory

The business entity 2.3 units listed may be waste and inventory, specific locations are listed below:

- (1) Pesticides distribution / wholesale / retail outlets and warehouses;
- (2) Temporary library of a large number of agriculture, health, construction users
- (3) Other warehouse or staging points.

In addition to the warehouse, waste and inventory may exist in other locations, for example, temporary storage point stotted up in the process of demolition, immigration, and special treatment.

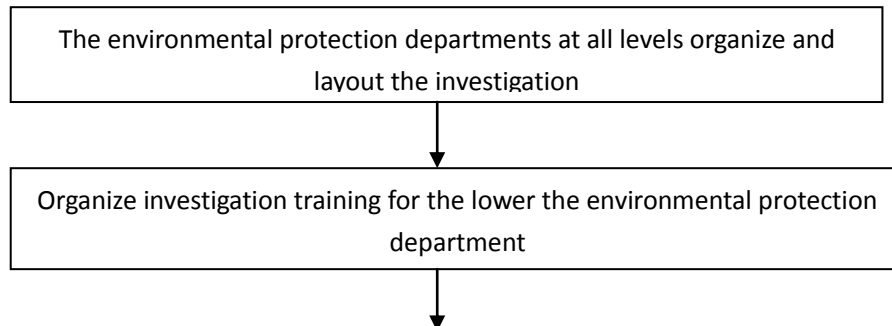
Various regions can organize and conduct the investigations according to the local specific circumstances.

3 Investigation of the content and procedures

3.1 The investigation process

The environmental protection departments at all levels work according to the requirements of the higher levels, the main steps are as follows:

- (1) Deploy the investigation; organize investigation training for the lower the environmental protection department.
- (2) Coordinate the agriculture, health, construction and other related departments to determine the list of survey sites in the area.
- (3) The environmental protection departments at the county level in accordance with the list of survey sites organize the on-site survey and fill out the survey form.
- (4) According to the survey quality control measures of this guide, audit and report to the higher level step by step.



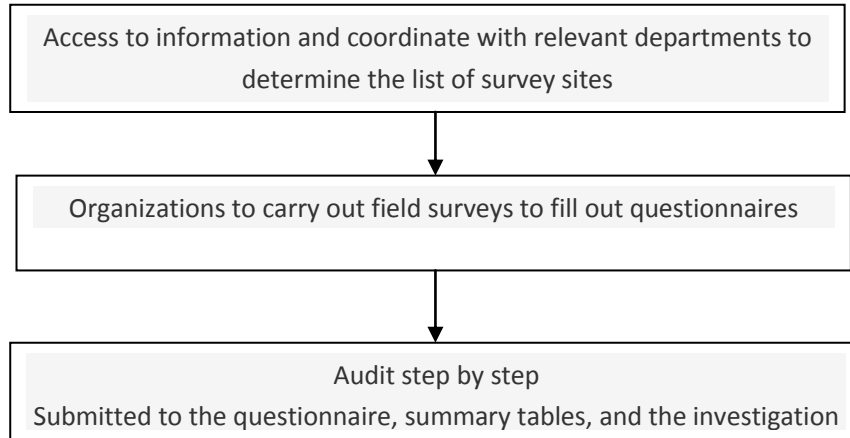


Figure 3.1 The investigation process

3.2 The field survey methodology

Field surveys the sites where may have inventory or waste, the main tasks and requirements are as follows:

(1) Arrived at the scene, survey preliminarily whether there may have six kinds of POPs pesticides; view the Treasury (or a temporary point), the name and label of the pesticides listed in the counter. According to the definition of the guidelines to determine whether there is waste or inventory.

(2) Waste or inventory records, fill out the questionnaire on the type and weight.

When record the weight of the waste, inventory of each POPs, ignoring the specific dosage form, physical form and categories, and only records the weight simple accumulation. Mirex waste, for example, may be the expiration of the original drug, powder, emulsion, etc., and may also be mirex packaging, but the weight of the mirex waste in the survey points is the sum weight of the expired products, packaging.

If the label is clearly, stated in the manufacturer and year of production of waste or inventory; description of the situation near the store (including information of the current facilities, residential areas, water sources or other environmental sensitive point). This information can be stated on another additional page.

For the waste and inventory that aren't labeled, identify by classification, label, archive, and establish warning signs.

(3) Other Considerations

Take photos on POPs inventory or waste-kind. The original information of the site investigation, including records, in-kind photographs, tables, etc. should be safekeeping by the county environmental protection department, prepare for the verify.

You must pay attention to select the appropriate personal protective equipment to protect your own safety in the process of handling, transporting or other behavior exposure to POPs waste or inventory. When go into the warehouse or storage point, pay attention to your safety to prevent poisoning, do not enter alone, and act at least two pairs.

When you encountered within the large scope of pollution which is difficult to determine the exact number, the special circumstances should be promptly reported to the higher environmental protection department or the Ministry of Environmental Protection.

3.3 Survey data summary process

The environmental protection departments at the county level Pooled analysis of the county survey, fill in the Table 2 <Pesticides POPs waste / inventory questionnaire in county>, and submit it to the municipal environmental protection department.

The municipal environmental protection department audits the survey material reported by the county environmental protection department, if the report passed, fill in the relevant summary table (Table 3) (municipal), and report to the provincial environmental protection department.

The provincial environmental protection department audits the survey material reported by the municipal environmental protection department, if the report passed, fill in the relevant summary table (Table 3) (provincial), compile the province POPs investigation reports and technical reports.

The process of data gathered and reported is shown in Figure 3.2

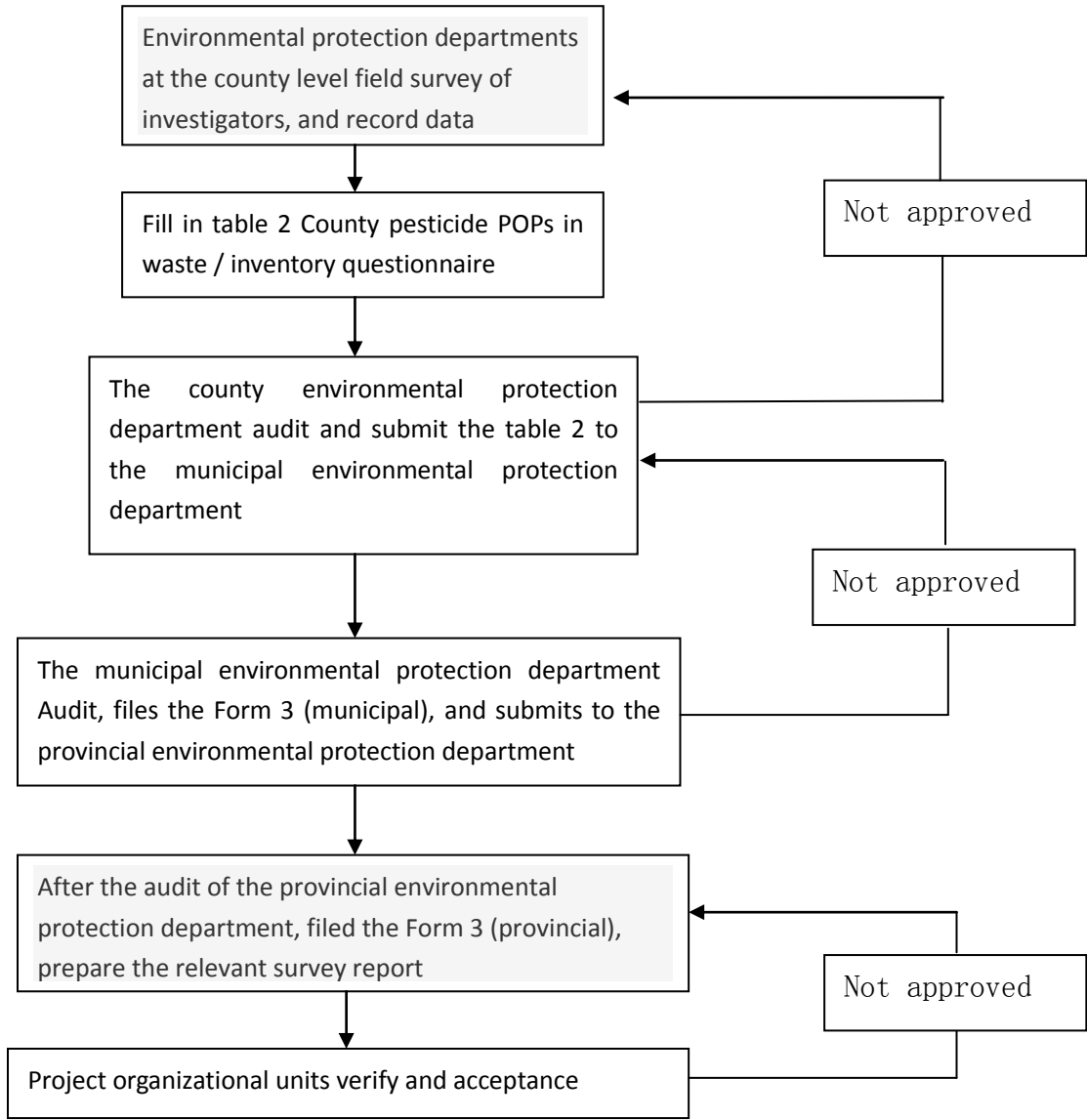


Figure 3.2 Data gather and report the process

4 Quality control of the survey

4.1 General requirements

To ensure the quality of the investigation, all aspects of the investigation must implement quality control. The data should be no omissions, no duplication, comprehensive and accurate.

The environmental protection departments at all levels should develop specific implementation measures for quality control of the investigation based on the actual situation in the region.

Based on the principles of lean, efficient, choose a certain professional quality personnel responsible for quality control work.

4.2 scene investigators quality control requirements

(1) The investigating officers should be in-depth investigation points to effectively grasp the real data.

(2) The information of each survey point should be faithfully recorded. The original questionnaire the investigators enrolled in should be archived for future reference.

4.3 Quality Control staff responsibilities

(1) Collect, collate, analyze the investigation of quality control, timely reflect to the leadership of the investigation and the problems, and put forward some improvement measures and opinions ensure the investigation quality.

(2) Quality control personnel should take measures to verify, check the registration quality of the investigators. The main problem includes the investigation not to be registered, there are indeterminate messages, etc.

(3) Check the investigators registration questionnaire. If it meets the acceptance requirements,

sign it to confirm; if it does not meet the acceptance requirements, find the cause and correct it.

4.4 investigate the quality of work acceptance requirements

This survey is to implement a system of quality inspection, quality control indicators are shown in Table 4-1. The inspection work of the investigation quality includes county-level self-examination, the municipal verify and the provincial verify. The main steps are:

(1) Extract a certain amount of storage for verification in accordance with the provisions of Table 4-1.

(2) Verification method is as follows: conduct site visits or telephone to confirm the storage drawn, the key information of the verification is the "quantity", "type", "Location". If the key information is incorrect, then the investigation of the storage point is failure. If the key information is correct, the investigation is qualified.

(3) Refer to Table 4-1 in the qualifying indicators require to determine the eligibility of the quality of survey of the area being audited. If the quality of survey of the region is judged to be failure, the audited areas should be re-corrected, report, and then re-verify and audit.

(4) The surveyed storage point of Provincial, municipal, county spot check, in principle, should not be repeated. If it is accepted by the person in charge of the investigation at all levels ,it should be signed and confirmed respectively.

Table 4-1 survey quality control index table

Verification object	The verification number	Survey of acceptable quality indicator
The region has 1~10 storage points	50% of storage (If it is singular, the total number of plus 1 and then computing)	no unqualified depot
The region has 11~40 storage points	5 storage points	failed storage point of not more than one
The region has more than 40 storage points	10 storage points	failed storage point of not more than two

5 The work requirements of environmental protection departments at all levels

(1) General requirements

The environmental protection departments at all levels should be flexible and efficient to carry out investigations, sum up the method of investigation methods according to the actual local conditions.

(2) The work requirements of the provincial environmental protection department

The provincial environmental protection departments should well organize the training work.

The organization should supervise and inspect the implementation of the around the investigation according to the quality control measures.

Check and accept the survey data of the municipal environmental protection department.

(3) The municipal environmental protection department of job requirements

The municipal environmental protection department shall cooperate with the environmental protection department at a higher level to do the training.

Supervise and guide the county environmental protection department to investigate the POPs waste and inventory in charged areas. Guide the county environmental protection department to count and gather the survey results.

Check and accept the survey data of the country environmental protection department, and report to the provincial environmental protection department.

(4) The requirements of the county environmental protection department

The environmental protection departments at the county level should be compatible with the environmental protection department at a higher level to do the training.

Environmental protection departments at the county level investigate the Pesticides POPs waste and inventory in the area according to the survey guide.

Implement this level of investigation in accordance with the requirements of the survey quality control.

6 Pesticides POPs waste / inventory questionnaire and guidance notes

6.1 questionnaire composition

The pesticide POPs in waste / inventory questionnaire include:

Table 1, the basic information table of provincial, municipal, district and county levels - Pesticides POPs waste / inventory survey.

Table 2 County Pesticides POPs waste / inventory questionnaire

Table 3 provincial, municipal - pesticides POPs in waste / inventory summary by region

6.2 Instruction

The total describes of Filling in the form:

1. Data reporting shall be in Arabic numerals, the text will be in Chinese characters;
2. Please fill in the data according to the order of magnitude unit specified. Data integer bit should be less than 12; the decimal places should be less than 6. Scientific notation is not allowed to use when filling in, for example, 1000 cannot use the 1.0×10^3 said.
3. Handwritten and computer printed both can be used. If you handwrite the form, you must write with a fountain pen or pen (blue or black), the writing should be neat, clear, may not be altered;
4. This form should be in duplicate. Copy of the paper and electronic documents should be submitted to the environmental protection department at a higher level, the environmental protection departments at all levels retained in paper and electronic documents to be filed for future reference.
- 5 The investigation unit involved in shall ensure a true and accurate data reporting, relevant responsibilities shall re-check the data, the form must be stamped with official seal.

Table 1 Pesticides POPs waste / inventory survey of the basic information table for provincial, municipal, district and county levels

Survey Year: _____ Preparer: _____; Time: _____

The survey area					regional codes: □□□□□□	
The enterprise name (Seal)		Person in charge		address	_____Province_____Municipality_____ County_____Towns (street, road) _____Number Zip Code:□□□□□□	
Telephone number			fax		Email	

Instructions

(1) This form should be filled by the filling staff of the province, city, district and county environmental protection department;

(2) Survey Year: fill in 2010 this survey;

(3) Filling time: format XXXX-YY-ZZ, such as "2011-06-01";

(4) The survey area: completed, such as "Hubei Province, Hubei Province × ×", "Hubei Province in × × × County (city, district)";

(5) Regional codes: code should be in accordance with the location of the administrative divisions of the country the People's Republic of administrative division code. The latest county administration and county zoning code can query the Bureau of Statistics website: <http://www.stats.gov.cn/tjbz/xzqhdm/>;

(6) The enterprise name: fill in the full name of the enterprise the preparer belongs to, and seal;

(7) Person in charge: fill in the legal representative of the unit;

(8) Telephone number, fax: Format code - phone (- ext);

Table 2 _____ County Pesticides POPs waste / inventory questionnaire

Survey year: _____ Preparer: _____; Filling time: _____

Serial number	Storage sites	Type Name	Waste / inventory quantity (kg)	Contact Information of the Storage
1		<input type="checkbox"/> DDT <input type="checkbox"/> hexachlorobenzene <input type="checkbox"/> toxaphene <input type="checkbox"/> chlordanane <input type="checkbox"/> mirex <input type="checkbox"/> mixture		The enterprise name: contact address: linkman name: phone number:
2		<input type="checkbox"/> DDT <input type="checkbox"/> hexachlorobenzene <input type="checkbox"/> toxaphene <input type="checkbox"/> chlordanane <input type="checkbox"/> mirex <input type="checkbox"/> mixture		The enterprise name: contact address: linkman name: phone number:
3		<input type="checkbox"/> DDT <input type="checkbox"/> hexachlorobenzene <input type="checkbox"/> toxaphene <input type="checkbox"/> chlordanane <input type="checkbox"/> mirex <input type="checkbox"/> mixture		The enterprise name: contact address: linkman name: phone number:
.....
Total		—		—

Introduction

(1) Survey Year: fill in 2010 this survey;

(2) Filling time: format, for XXXX-YY-ZZ, for example, "2011-06-01";

(3) Serial number: the order number of each record. A storage place to fill in a record;

(4) Storage sites: waste or inventory storage locations;

(5) Type name: the types of corresponding waste / inventory program can be selected with √. If the pesticides POPs waste or inventory and other non-POPs types of pesticide mixed, neglecting other types of pesticides, fill in the POPs name. If the waste containing two or more pesticides POPs, fill out the "mixed"; tag is unknown, the unknown composition of POPs pollution, waste pesticides may be classified as "mixed" category;

(6) Waste / inventory quantity (kg): waste refers to the insecticide consisting of or containing the above-mentioned insecticides or insecticide-contaminated waste. Garbage refers to having lost its original use, such as expired products, counterfeit or poor quality of pesticide products, direct packaging, garbage of doping these pesticides; completing the pesticides expired weight of the product, counterfeit or poor quality of pesticide products, direct packaging, doped with the garbage of the pesticides added directly; the amount of waste in kilograms (kg), when the number is difficult to determine, it can be estimated;

Inventory means unexpired pesticides storage which still has the function to use, or products containing pesticides. For example, DDT-related inventory refers to the original drug, powder, emulsion. Different with the garbage, waste inventory is not expired, and still functional products. Prohibited by the state and no longer allowed the circulation of listing, so once expired becomes a waste. When you fill in the weight of the waste, the original drug of the same insecticide, preparation, etc. can be added directly, and the number of the inventory is kilograms (kg);

For storage location with all types of waste and inventory, fill in the total number.

(7) Contact Information of the Storage: Fill in the name of people who are responsible for the storage sites, and their telephone number, contact address. Fill out the "no", if the storage belongs to none;

(8) Total: The number of storage sites combined, the total waste / inventory quantity.

Table 3 pesticides POPs in waste / inventory summary by region (provincial, municipal)

Preparer: _____; Filling time: _____

Serial number	Region name	The number of the waste/ inventory storage sites (count)	Waste / inventory quantity (kg)
1			
2			
3			
.....
total			

Instruction

- (1) This table should be filled by staff of the provincial environmental protection department or city environmental protection departments.
- (2) Filling time: format, for XXXX-YY-ZZ, for example, "2011-06-01";
- (3) The number of the waste/ inventory storage sites: the sum of all the investigations of POPs waste / inventory storage point.
- (4) Waste / inventory quantity (kg): the weight of all investigations of POPs waste / inventory, not allowed to use scientific notation;