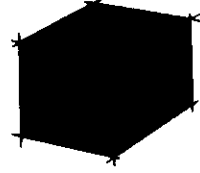


REPUBLIC OF LEBANON
PRESIDENCY OF THE COUNCIL OF MINISTERS

Investment Development Authority of Lebanon

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام



IDAL

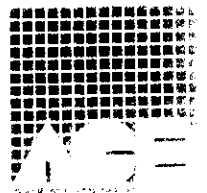
Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

**The Industrial Permitting Agency
Tasks, Organisation And Capacity Building**

March, 1997

FUGRO

Fugro Millieu Consult - The Netherlands
in association with
Associated Consulting Engineers - ACE - Lebanon



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THE INDUSTRIAL PERMITTING AGENCY

EXECUTIVE SUMMARY

The Industrial Permitting Agency (IPA) is the organisation which will have the responsibility to structure, guide and control future industrial developments in line with the new classification of industries into five categories depending on their potential impact on environment.

This report aims at defining the organizational structure, the staffing capacity, the budget requirement and the methodology of work of the IPA as well as the division of tasks between this organisation and various government bodies on the national and regional levels.

The present permitting procedures are quite extensive. Files are split into several parts and procedures take a long time. Control and enforcement are not planned and are conducted only subsequent to complaints. The various offices and bodies are either understaffed or with non-qualified staff. Support services such as computers are inexistant. The fee structure does not allow costs to be covered. Furthermore the basic concern of the existing procedure is alignment with spatial and health requirements with little concern on environment.

The review of various permitting procedures in Europe helped to determine recent trends in permitting and control philosophy and procedure and adapt them to the Lebanese situation.

Among the various organisational structures examined, the functional department structure is proposed for the IPA. The departments are: the permitting, the control and enforcement, the financial, the legal, the strategic development as well as the staff/communication departments. This structure helps in dealing effectively with all the different permitting aspects for industries especially in view of the world wide trend of integral permit granting in which the same authority deals with the permit application and its total processing and control. It is proposed that the Agency be attached to the ministry of industry as a directorate.

The tasks of the IPA have been defined taking into account the present situation and the need to transit to a different system where the tasks of each of the governmental bodies is well defined. As such, enactment of laws are initiated by the relevant ministries, in particular, the ministries of industry, environment, water resources, health and agriculture. Setting up of strategy, procedures, training and communication programs is the responsibility of the IPA. Permitting and enforcement are done by the same agency. For categories 1,2 and 3 industries, the relevant authority is the industrial permitting Agency. For category 4, it is the Mohafazath and for category 5, it is either the caza or the municipality. It is suggested that after a transitional period in which adequate training is given to Mohafazath employees, the Mohafazath will deal also with category 3 industries permitting and control. Since the tasks of the various bodies are interrelated, strong emphasis should be put on communication.

It is proposed that the capacity building of the organisation be constructed over 10 years. Frequency indicators prevailing in Europe with respect to the amount and time needed for the functions of issuing, control and revision of permits as well as for complaints handling for each of the five categories of industries, have been adopted. Based on the industrial census of 1994, and assuming a growth rate of 2% per annum for each of the five categories of industries, various tables were construed leading to a capacity plan in time needed per category for all the functions requested. The required manpower needed is obtained assuming a useful time of 1600 hrs/year/ person. The result shows that the estimated total capacity for categories 1, 2 and 3 industries start with 30 persons in year 1998 to reach 57 person in year 2008.

The whole permitting procedure should be self financing. A fee structure per category of industry for each of the issuance of permits, control and permit revision activity is proposed. The fee for issuing permits varies from LP 25 Million for category 1 to LP 0.5 Million for category 5. A control visit fee will vary between LP 7 Million for category 1 industry to LP 150,000 for category 5. With the requirements that all existing industries must undergo a permit revision within a ten year program and, coupled within the expected new permits and control visits and complaints pertaining to it, the total expected revenue will lead to a positive income-cost balance of LP 286 Million for the year 1998. Income for subsequent years is expected to be higher and a positive balance always maintained. Since the income at regional level from categories 4 and 5, is expected to be higher, it is suggested that half of the income of the regional level be diverted to the IPA.

The setting up of the organisation and its development require enactment of laws on the formation of the organisation, on the procedures of control and permitting, on standards to be adopted, and on others regulations for industries especially those dealing with environmental aspects. Other key elements include the setting up of special training programs for employees and the elaboration of a comprehensive manual on industrial permitting and enforcement. The preparation of adequate communication channels including publications and newsletters as well as the provision of state of the art support material like data banks are also a necessity.

1. INTRODUCTION

In July 1996, the IDAL study "classification of industries and industrial areas" was completed. The classification system as elaborated and presented in the Final Report, is intended to assist the Lebanese government in re-organising and guiding industrial developments in a sustainable way. The Lebanese industries have been classified with regard to their potential threat to the environment. Over forty industrial areas are identified and classified on the basis of their suitability for industries. Besides, an outline for a new permitting procedure has been developed. As indicated in the final report, a key role in future permitting was assigned to the Government Committee on industrial permitting.

This Government Committee was decreed to establish on a national level an organisation which has the overall knowledge and view to structure and guide future developments with regard to industrial developments and the environment. A more structured approach is required because industrial developments very often took place outside industrial zones. Especially several coastal areas appealed to investors. On the other hand, the development and construction of residential or tourist buildings inside the borders of these industrial zones took place.

The classification system provides a solid basis for dealing with present and future industries. However, various subjects need to be dealt with before the Government Committee can undertake its indicated tasks. Of main importance is the setting up of an organisation for industrial permitting and enforcement. An organisation which can deal with permitting and enforcement of all large and medium sized industries in Lebanon.

In this report, the tasks of the Organisation for industrial Permitting with regard to the above are defined, and the distribution of tasks between this Organisation and the other involved governmental organisations is examined.

1.1 Methodology and data gathering for the research

The development of a new organisation for a set of tasks which are presently executed with lack of man power using difficult and indistinct procedures is complex. A new organisation has to bear the good elements out of the present structure and requires new elements which are either missing or not adequate at present. The new organisation also has to be based on facts and figures of the present situation. Taking into consideration wishes and demands, the outline for the new organisation can be designed.

An insight of the present situation was obtained by setting out questionnaires addressed to governmental organisations. These questionnaires were designed for the employees of all relevant governmental organisations: the ministries, the mohafazaths and a sample of cazas and municipalities. The goal of the questionnaires was to obtain insight on present industrial permitting with regard to:

- permit applications
- the granting of permits
- permit revisions
- permit control and enforcement

In total 16 questionnaires were distributed with a response rate of 75 %. A list of the questioned organisations is given in Appendix 3.

To obtain ideas for the future organisational structure and the tasks and responsibilities of the permitting organisation, personal interviews were held. Interviews were conducted with the higher management of the ministries which are involved in present permitting of industries and have tasks related to environmental issues. Besides, all the Mohafezin were interviewed. A list of 22 interviewed organisations is given in Appendix 3.

1.2 Organisation of environmental permitting and control in Western Europe and Potential adaptation in Lebanon

Industrial environmental permitting and control are subjects of interest in most of the Western European countries. Experience on both has been gained during the last years.

The situation in six Western European countries is examined to help in the setting up of the structure of the Industrial Permitting Organisation and the outlining of its tasks and responsibilities. The situation of the following countries was examined:

- France
- Germany
- United Kingdom
- Belgium
- Spain
- The Netherlands

Using the data from these Western European countries without any understanding of the Lebanese situation however, will result in a non workable situation. Therefore several aspects of the specific Lebanese situation have been taken into account. These include:

- the present situation regarding permitting and control.
- Emerging from a long and devastating war, with the industrial sector severely affected, Lebanon wants to make a new start with regard to permitting and control of industries. The organisation of permitting and control systems in most Western European countries has been developing over a number of years.

- the classification of industries and industrial areas:

In 1996 the industries and industrial areas in Lebanon were classified. This classification is one of the main starting points for the organisation of permitting and control.

More and more Western European countries are working with a system of integral permitting and integral control of industries. As becomes clear out of the classification of Lebanese industries, such an integral system of permitting and control will also arise in Lebanon. Wherever integral systems of permitting and control are not functioning yet, in for example the United Kingdom, the organisation of permitting and control is also very complex. Such a situation has to be avoided.

In all countries the frequency of permitting and control of industries depends on their classification. The classification of an industry also determines which governmental organisation is responsible for permitting and control of a certain industry. Local governments are responsible for industries with a local impact on the environment.

Recent research in Western Europe (February 1997) made clear that the Dutch system of industrial permitting and control has the best environmental results. Therefore mainly the Dutch system is used to develop the system for Lebanon. The Flemish system can be compared with the Dutch system, elements of it are therefore also taken into account. Because of the strong national involvement in Germany its system may influence the proposed Lebanese organisation of permitting and control.

The comparison of the permitting systems in these European nations makes clear that there are differences on the topic of decentralisation of tasks. Generally, nations which have reached a higher level of development with regards to the permitting procedure, have also reached a greater level of decentralisation of tasks. In Lebanon, which is starting with a new permitting procedure system, a mix of the benefits of decentralisation of tasks with a national coordination is advised. In time a future decentralisation of tasks may be possible.

Further, the industrial Permitting Organisation can take notice of the system in the Netherlands of the flexible permit. The system which is based on the environmental act makes it possible for the permitting authorities to encourage developments that take into account environmental care and quality. This system rewards the better companies, meaning companies which have developed a certified environmental care system, with a permit containing fewer rules as to the emission and discharge goals which have to be reached.

1.3 Contents of this report

In the following chapter of this report an outline of the present situation with regard to the permitting, control and enforcement is given. Also present organisational aspects are described. The evaluation of the present situation and the main conclusions arising from this are used as basic material for this report. Chapter 3 provides an outline for

the future organisational structure. This future organisation has to meet some pre-conditions which are also given in this chapter. The responsibilities and tasks of the Industrial Permitting Organisations are described in chapter 4. Because communication is such an important and powerful instrument, chapter 5 entirely focusses on this subject. To conduct the tasks described in chapter 4 the Industrial Permitting Organisation has to be provided with manpower. An estimation of the required manpower for future permitting and control activities as well as for other activities, is given in chapter 6. All financial aspects are dealt with in chapter 7. The setting up of the Industrial Permitting Organisation and the key elements of such an organisation are described in chapter 8.

2. OUTLINE OF THE PRESENT SITUATION

2.1 Introduction

To gain insight on the present situation with regard to permitting, control and enforcement, FUGRO/ACE conducted interviews with representatives of the Ministries of Industry, Health, Environment and Agriculture. Interviews were also conducted at the five Mohafazaths and a number of Caza's and Municipalities.

Additional data was gathered through questionnaires. The questionnaire, a list of bodies and organisations that received the questionnaire and a list of bodies and organisations that replied, are enclosed in Appendix 3. The results of the interviews and the questionnaires are presented in this chapter.

2.2 Present permitting procedures, control and enforcement

Distribution of tasks

Under the present legislation, old categories or classes 1 and 2 industries have to apply for a permit at the Mohafazath. The old category or class 3 industries apply for their permit at the Caza.

2.2.1 *Permitting procedure*

a- The old category 1 and 2 permitting procedure

The permitting procedure for (old) categories 1 and 2 industries (excluding the Mohafazath of Beirut) is carried out in the following manner. The application is studied by the Health department for classification and then checked further by a clerk at the Mohafazath for completeness. A list of requested documents that should accompany the application is shown in the following table 2.1:

Table 2.1 - Informations required from applicants in categories 1 and 2

1. Personal information on the applicant. Legal status of the company or person submitting the application is also required.
2. The lot number on which the facilities will be located.
3. Type of industry.
4. Number of employees
5. Type of engines/horsepower rating.
6. Description of the industrial processes
7. Raw material needed/origin/storage facilities/importation methods.
8. Description of the products.
9. Receipt indicating payment of planning of setback and zoning fees.
10. Statement from the technical bureau (GDU) in the Caza, indicating zoning of the area, and urban planning decrees affecting the lot under examination.
11. If the property is rented a lease contract approved by the municipality
12. A plan (scale 1:1000) of the areas adjacent to the establishment. Indication of schools, hospitals, shelters, public administration buildings, railway depots, important industrial setups, single family dwellings, wells, rivers etc.
13. A plan (scale 1:100 or 1:200) of the buildings and land belonging to the establishment showing:
 - the purpose of the various areas and buildings;
 - a lay-out of the machinery;
 - safety equipment/measures taken to prevent damage or hazards to public health and agricultural activity in the area.
14. Plan of the sewage and waste disposal.
15. Receipt for the application fee.

If the application is not complete, it is returned to the applicant for completion. If the file is found complete it is opened. The file is then split into four parts, a part for the head of municipality, a sanitary part, an urban planning part and an environmental part. Coordination of the file takes place through the sanitary engineer.

The environmental part of the application is handled by the Ministry of Environment (MoE) through its headquarters in Beirut or via its offices at the Mohafazath. The MoE has only an advisory position and can issue recommendations to the sanitary section. The MoE bases its recommendation on an additional form the applicant has to fill. MoE may request a formal pledge from the applicant to abide with all environmental regulations inherent to the specific permit request.

The municipality inspects the file then publicise the application on official display boards and invite objections, if any, to the granting of the permit (the period within which people can react is 30 days for class 1 industries and 15 days for class 2 industries). The result of the advertisement and the advice of the municipal council are sent back to the sanitary engineer. The General Directorate of Urbanism inspects the site of the planned or the existing building with regard to the regulations and sends its approval or non-approval to the sanitary engineer.

The sanitary engineer, having inspected the site and drawn up his remarks, analyses the answers and the suggestions of all the four bodies and then makes a proposal to grant or to reject the permit. This proposal is submitted to the Health Board. The Health Board can decide to hear the applicant also.

Based on this hearing the Health Board decides on approval or rejection of the permit. If approved the permit is issued by the Mohafez. The exploitation permit is given after the establishment permit has been implemented and the site is ready to start production. The average required time from the first request to the granting of the permit (old class 1) is 12 weeks. For a permit old class 2 the average time is 10 weeks. Actually it takes considerably larger time in both cases.

Schedule 2.1 shown on the next page shows the procedure for the issuing of permits for (old) categories 1 and 2.

The permitting procedure for old class 1 and class 2 industries within the municipality of Beirut is different and is shown in schedule 2.2.

b- The old category 3 permitting procedure

The application is dealt with directly at the caza level with the Caem Macam

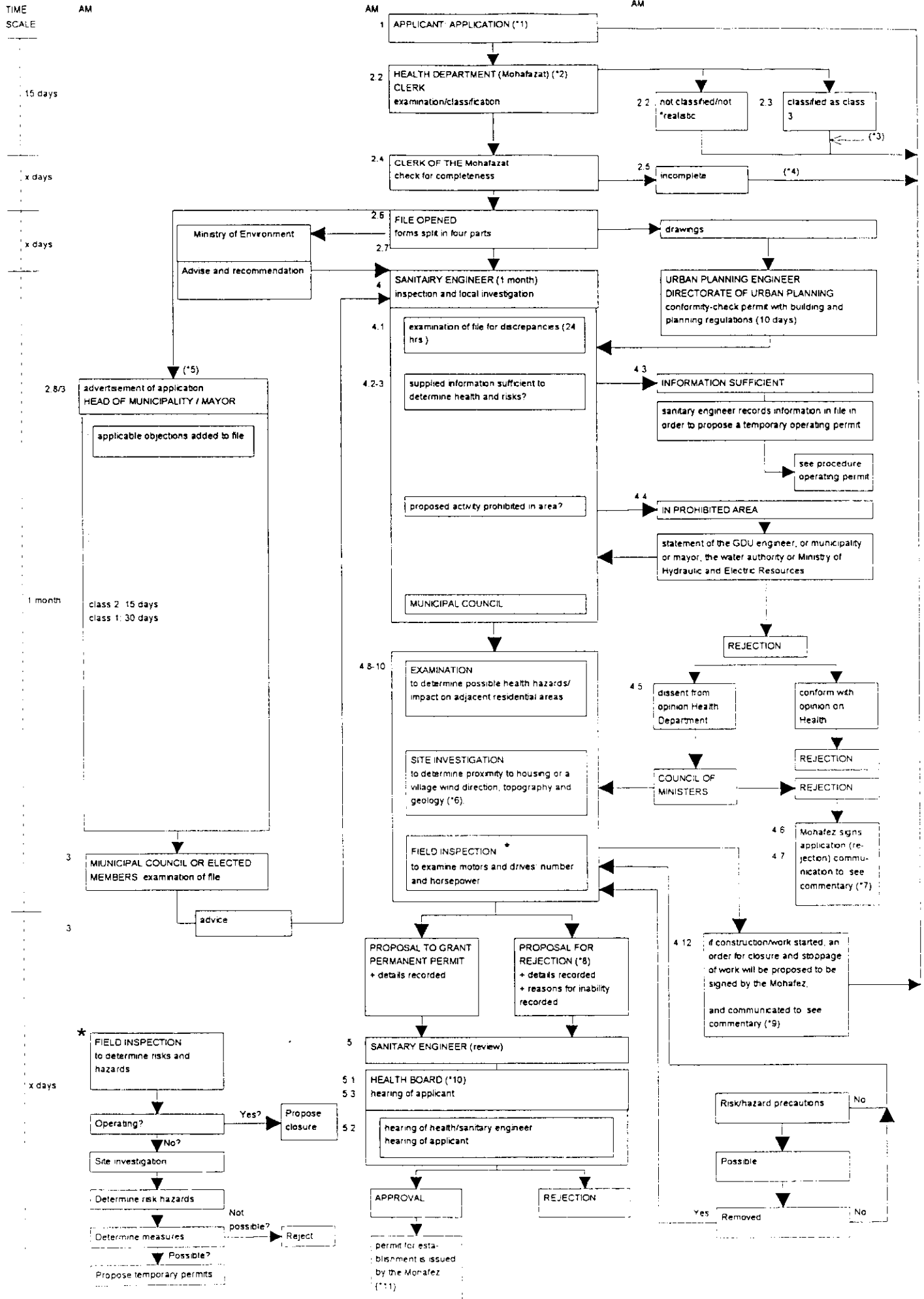
The contents of the application are

1. Copy of personal registry form
2. Site Location
3. Copy of lease or deed (certified)
4. Statement from the real estate registry files and from the GDU (one month old)
5. Subdivision plan
6. Topographic survey of the site
7. Permit of housing
8. Alignment decree
9. Common property bylaws (wherever applicable)

The subjects of permits handled by the application are:

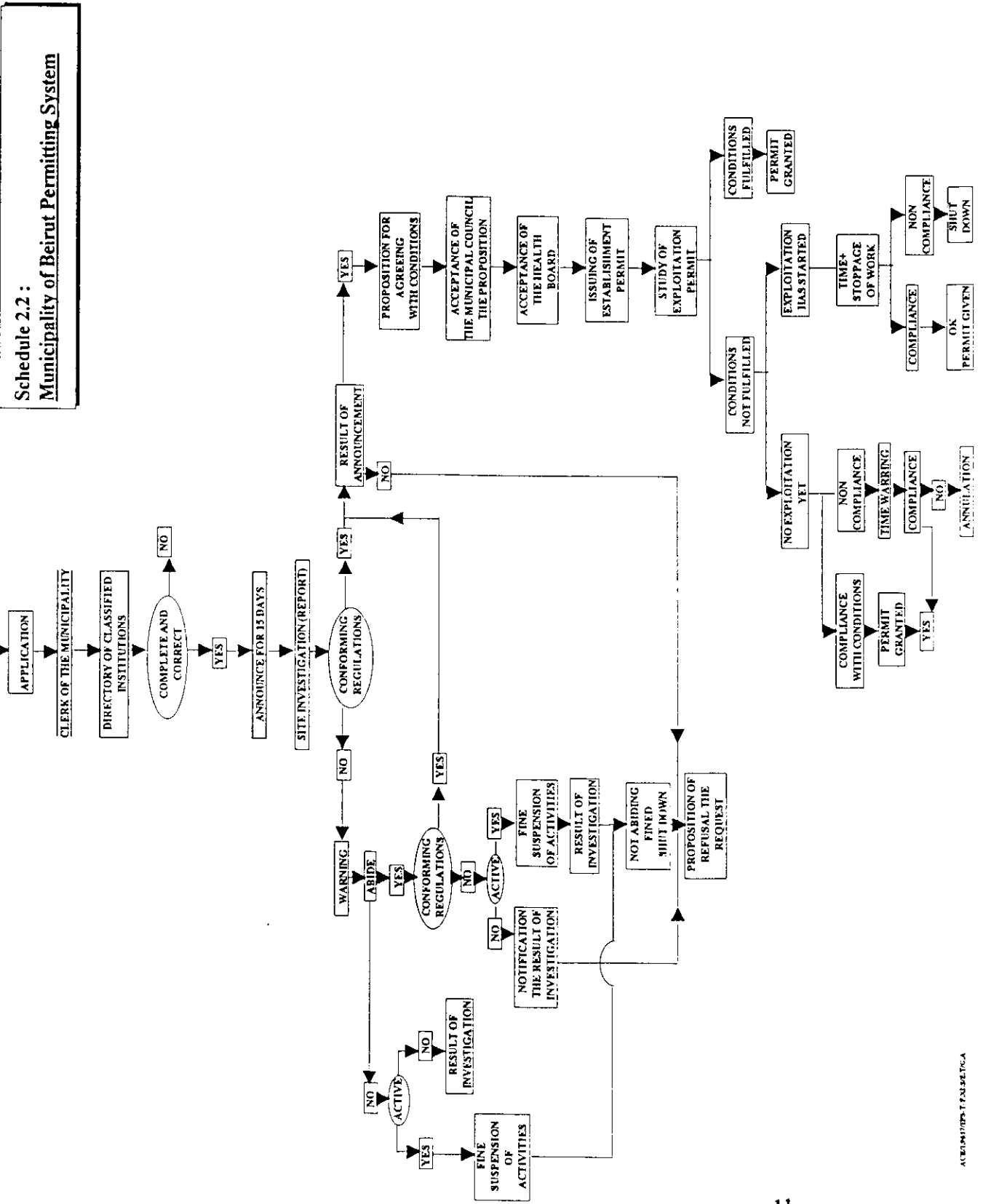
1. New industry
2. Change of location of existing industry
3. Major renovation in the site (due to)
4. Additional industrial activity
5. Combination of 2, 3, 4
6. Resumption of work after 2 years of stoppage
7. Start of activity after one year of obtaining permit

Schedule 2.1: Present Permitting Procedure class 1 and 2 industries



PERMITTING PROCEDURE CLASSES 1 and 2

Schedule 2.2 :
Municipality of Beirut Permitting System



Finally the permit issuance is communicated to

1. Applicant
2. Caza doctor
3. Health section of the Mohafazah
4. Municipality or Mokhtar
5. Archives

The permitting procedure for the old class 3 industries consists of the following steps. The application for the permit which must include the documents listed above, is presented at the Caza office. The complete application is routed to the health department of the Caza, where it is studied. Subsequently the health authorities in the Caza (Doctor and assistants) inspect the site and check it for compliance with the regulations concerning health conditions. The application is then sent to the Caem Macam with the written comments of the Caza doctor.

The application is also sent (in parallel) to the municipal authorities of the town/area concerned with the permit. The municipal officer inspects the site and the application is sent back to the Caem Macam with a recommendation from the Municipal council. Based on the opinions of the municipal council the health authorities of the Caza and his own opinion the Caem Macam decides to grant or to deny the permit. The permit has an unlimited time of exploitation. The average required time from the first request to the granting of the permit (old class 3) is 4 weeks. The permitting procedure for old category 3 industries is shown in schedule 2.3 on the following page

c- Annual amounts of permits issued

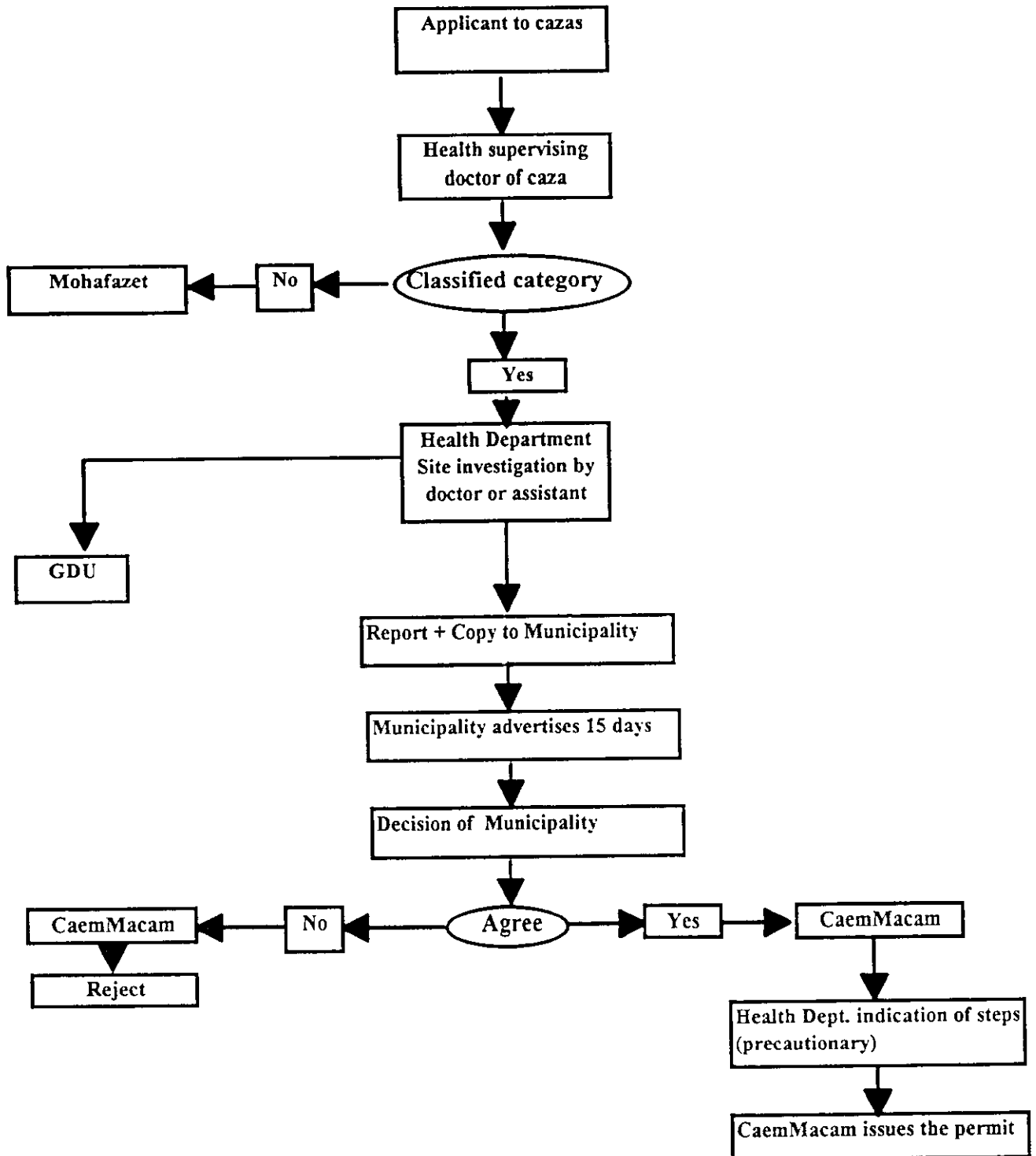
Table 2.2 shows the amount of permits issued in 1995 in the five Mohafazath regarding categories 1, 2 and 3. The expected amounts for 1996 are also listed.

Table 2.2 - Yearly permits issued (per mohafazath) per category

	<i>Number of permits 1995 (expected 1996)</i>			<i>Totals</i>
	<i>Category I</i>	<i>Category II</i>	<i>Category III</i>	
Beirut	None	*	*	116 (144)
Mount Lebanon	40 (50)	160 (200)	20 (40)	220 (290)
North Lebanon	*	*	*	65
South Lebanon	18	8	3	29
Bekaa	*	*	*	50
Nabatieh	1 (6)	8 (5)	12 (14)	21 (25)
Total				501

Note: Most of category 3 permits are issued at the CaemMacam level
 * Details not available or not provided

Schedule 2.3 : Permitting Procedure for class 3



d- Time for permit issuance per category of industry

Table 2.3 shows the estimated time necessary to issue a permit for different categories within the various Mohafazath.

Table 2.3 - Duration time to issue a permit per category of industry*

	<i>Time needed in days</i>		
	<i>Category I</i>	<i>Category II</i>	<i>Category III</i>
Ministry of Health	60	30	20
Ministry of Environment	120	60	-
Ministry of Beirut	-	30	30
Mohofazat of the North	45	45	30
Mohafazat of Mount Lebanon	150	120	90
Mohafazat of the South	75	75	15

* Revision of permits takes almost the same time as it is considered as a new permit. Only the application form differs.

There were no statistics available on the average required working hours spent by the government clerks/engineers per permit.

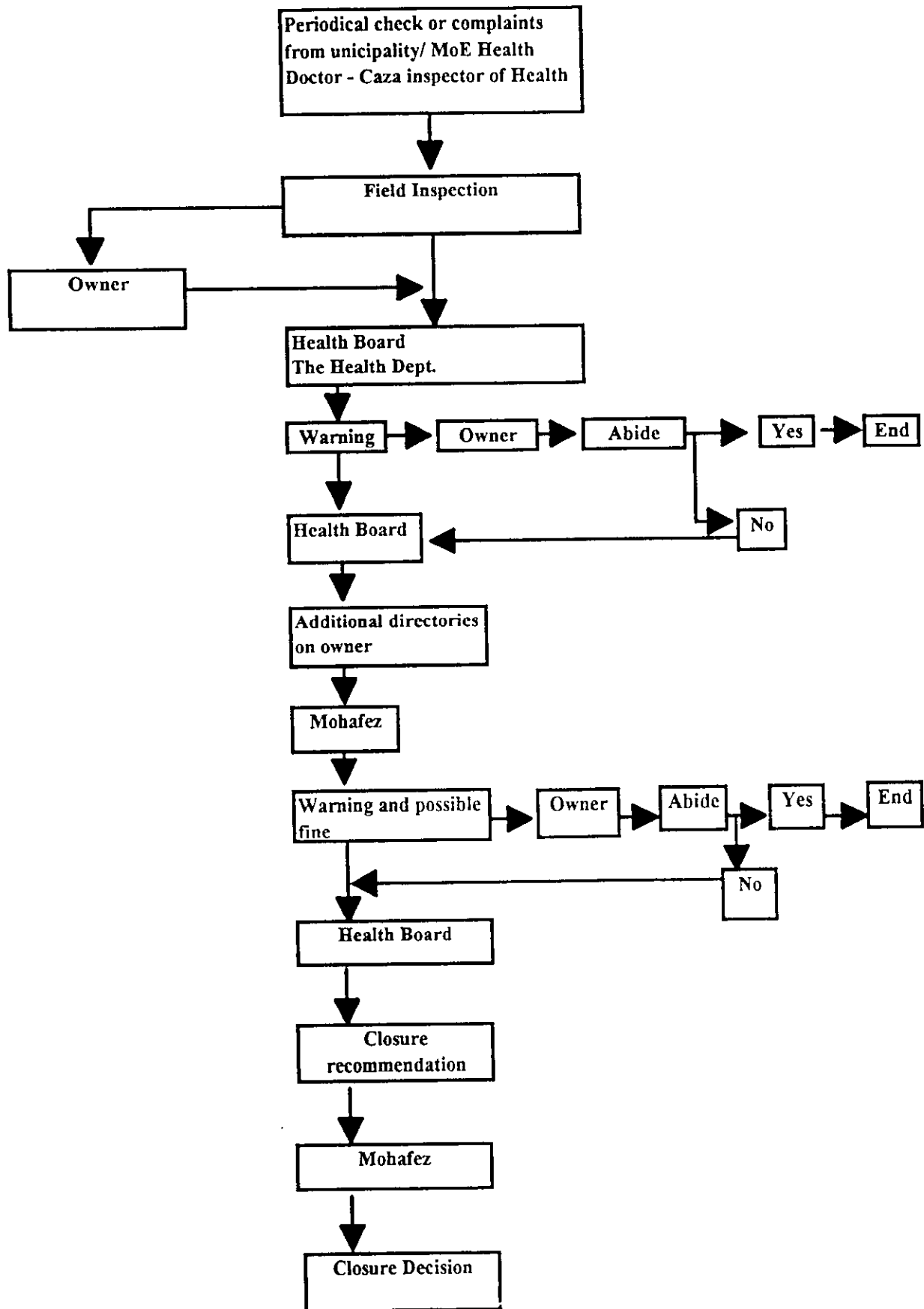
2.2.2 Procedures with regard to control and enforcement

The procedure for (old) class 1 and 2 can be described as follows. Theoretically periodical checks are carried out after a permit has been issued. In practice these checks are seldom carried out. The squeeze and squeal system applies. If there are complaints by neighbours, the Municipality, the Caza inspector of health or the MoE, the health doctor will carry out a field inspection. If the complaints are justified the Health Board will warn the owner of the establishment. If the owner does not take appropriate action the Mohafez will be notified. The Mohafez will give additional directives to the owner of the establishment and may threaten to impose a fine upon the owner. In case the owner still does not react, the Health Board will give a closure recommendation to the Mohafez who will take a decision on the closure of the establishment.

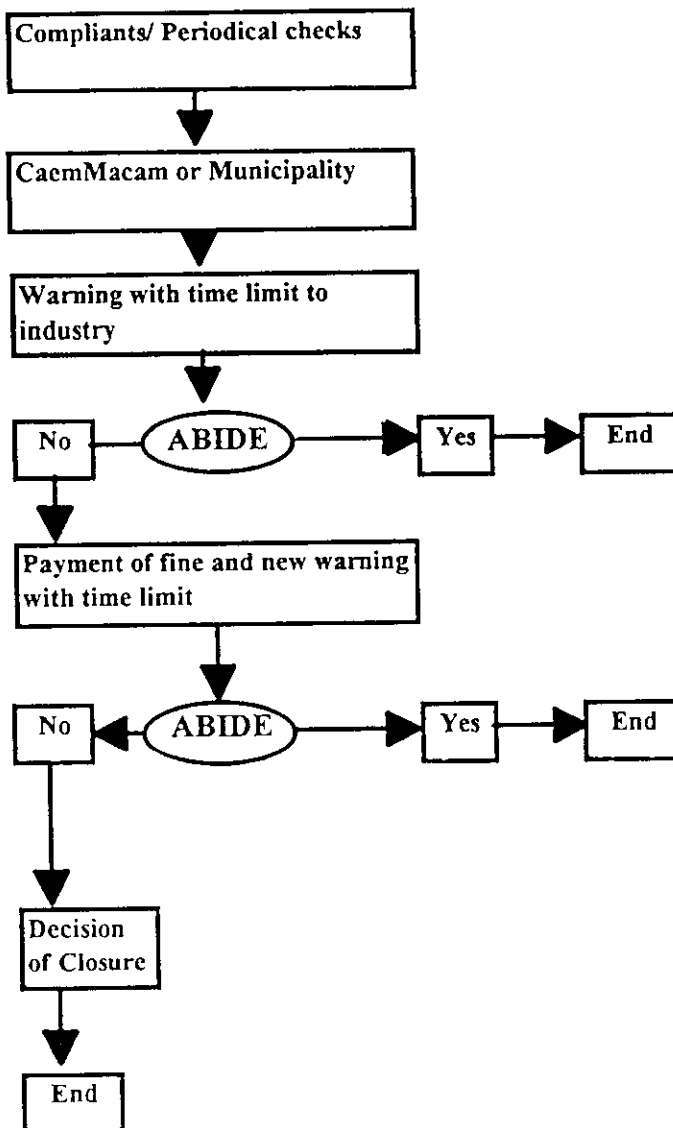
Schedule 2.4 (on the following page) shows the procedure of control and enforcement with regard to Class 1 and class 2 industries.

The procedure of control and enforcement is more or less the same for class 3 (old) industries. The jurisdiction however lays completely at the Caem Macam/municipality level. Schedule 2.5 (page 16) shows the procedure of control and enforcement with regard to Class 3 industries.

Schedule 2.4 : Controlling and Enforcement Class 1 and 2



Schedule 2.5 : Controlling and Enforcement Class 3



Annual numbers of control visits performed

There was no data available on the number of control visits that were carried out. The impression was given that not much attention has been paid to the control of permits in this category.

2.3 Present organisational aspects with regard to permitting, control and enforcement

At the Mohafazat level a maximum of 3-7 persons, comprising sanitary engineers, health inspectors, health delegates, administrative personnel are employed. At the Department of Environment, 1 head of department and 1 head of section as well as 6 engineers and chemists on a contractual basis are employed. At the Department of Urbanism (at the Mohafazat or Caza) we estimate 3 employees are involved. On the municipality level the amount of personnel is also estimated at 3 persons. On the Caza level (wherever applicable for category 3) a Doctor and a health inspector are employed. In total there are 48 employees involved in the issuing of permit class 1 (old) and 2 (old), and 72 employees involved in the issuing of permits of class 3 (old). The same staff dealing with the permitting activity is entrusted with the control and enforcement. The total staffing on permitting and enforcement tasks on national regional and local level is given in table 2.4.

Table 2.4 - Available man power for permitting and enforcement (based on questionnaire data)

<i>Organisations/government level</i>	<i>class 1</i>	<i>class 2</i>	<i>class 3</i>
Ministerial level			
Ministry of Environment		7 persons	
Ministry of Industry and Petroleum	-	-	
Ministry of Health			
Mohafazath level		35 persons	
Municipality/Caza			72 persons
Total staff on permitting and enforcement		42 persons	72 persons

There is a general consensus on the need to increase the amount of technical and administrative staff at the Mohafazat level and at the Ministry of Environment. The need to supply further means (cars, information etc.) is also established.

As a specific example, the municipality of Beirut indicated as shown in table 2.5, the personnel which is required at the department of Classification of the Municipality of Beirut to provide adequate services.

Table 2.5.-Indication of required personnel (municipality of Beirut)

	Head of Dept.	Engineer	Controller	Clerks	Total
Manager	1				1
Administrative office	1			6	7
Dept. of Chemical Industries	1	1	4	2	8
Dept. of Artisanal, Metal & Timber Industries	1	1	5	1	8
Dept. of Food Industries	1	1	4	1	7
Dept. of electrical equipment	1	2	6	1	10
Enforcement team		1	6	1	8
	<u>6</u>	<u>6</u>	<u>25</u>	<u>12</u>	<u>49</u>

At present, of these 49 persons, only 10 are available.

2.4 Financial implications of the current permitting procedure

Fee structure

The current fee structure implies that establishments applying for and receiving a permit are charged with a fee. The amount of the fee is related to the category of industry. The fees which are charged are listed in table 2.6 below.

Table 2.6 - Fee Charged for Permit issuing (Lebanese Pounds)

<i>Category of Industry</i>	<i>Investigation Fee</i>	<i>Permit Fee</i>	<i>Exploitation Fee</i>	<i>Exploitation fiscal Fee</i>	<i>Total</i>
CAT. 1	500.000	100.000	750.000	25.000	1.375.000
CAT. 2	400.000	50.000	750.000	25.000	1.225.000
CAT. 3	300.000	20.000	750.000	25.000	1.095.000

Present Rate of the Lebanese Pound is: 1550 LP per 1 US \$

Financing of the current competent bodies issuing permits and dealing with control and enforcement

The financing of the competent bodies issuing permits and dealing with control and enforcement takes place through the ministries. The ministries are granted a part of the national budget. All fees are channelled to the treasury department.

2.5 Evaluation and main conclusion

Permitting procedures

The permitting procedures are quite extensive. The files are split into several parts. A delay in the handling of a file by one of the participants of the permitting process can slow down the whole procedure. In practice it can take a long time to obtain a permit.

Control and enforcement

The procedures for control and enforcement are clear and usable. In daily practice there is no structural approach of control and enforcement. Any action taken in this direction is usually a result of complaints. However a cleaner distinction should be established between administrative enforcement and criminal enforcement.

Staffing

The various bodies and offices are understaffed. More technical and administrative personnel is needed to fulfill the tasks on permitting, control and enforcement. Also the required means to fulfill these tasks such as cars, computers, software are not sufficiently provided.

Fees

The difference in the amount of fees that have to be paid by small establishments and large establishments is relatively small. The total amount of fees that is paid by the establishments can not cover the costs that have to be incurred by the various bodies and offices in the course of their duties.

3. OUTLINE FOR THE ORGANISATIONAL STRUCTURE

3.1 Introduction

During the review period of the project, 22 interviews were held with the management of the organisations which are involved in present industrial permitting. On the basis of these interviews, pre-conditions emerge which should be considered as a starting point for the development of the organisation for industrial permitting. These pre-conditions are given in section 3.2. Next, the legal status and position of the organisation is being discussed as well as the position of the organisation in relation to the ministries and other national organisations. In section 3.3 attention is paid to the management of the organisation. Finally, this chapter is round up with a proposal for an organigram for the organisation.

At the moment this report was drawn up, there was no clearness about the position of the organisation in relation to the present ministries. However, the possibility that industrial permitting and enforcement will be integrated in the newly developed Ministry of Industry is used as a further basis for the development and lay-out of the organisation.

3.2 Pre-conditions for the development of the organisation

- **Involvement of various ministries**

In the present situation, several ministries have tasks which are directly or indirectly connected to industrial permitting. These ministries are:

- Ministry of Health;
- Ministry of Environment;
- Ministry of Industry and Petroleum;
- Ministry of Public Works;
- Ministry of Municipal Affairs;
- Ministry of Agriculture.

The new organisation should reflect all mentioned ministries to guarantee that all issues are taken into consideration within the permitting procedure of an industry and the control of this industry. While the role of both the Ministry of Municipal Affairs and Ministry of Environment can be intermittent and selective with regard to type of industry, it is believed that the Ministry of water resources and electricity should be included as all industries depend on and affect water resources at both ends of the industrial process.

- **Ability to communicate by short communication lines**

The permitting organisation will be developed solely for the purpose to organise and run the policy and activities connected with industrial permitting and enforcement. This implies that the present tasks which are executed by the ministries, the mohafazaths and the municipalities will be partially centralized by the organisation. However, knowledge about specific issues on industrial management will remain at the ministerial

level within the ministries, as well as on the level of the mohafazaths and the municipalities. These authorities will keep many of the present tasks with regard to industrial issues. All ministries will keep their own responsibilities with regard to regulations and standards on sectoral aspects of the industrial activities. Also mohafazaths and municipalities will keep a role within the permitting procedure of polluting industries and will remain responsible for the granting of permits for less polluting and non polluting industries. In chapter 4 details on the division of tasks are elaborated. To structure and facilitate a swift information exchange with these governmental organisations, short communication lines between the permitting organisation and the other governments are key.

The external communication activities of the organisation are of big importance, because this communication has to ensure that activities of the organisation are accepted and dealt with in the desired way. Communication lines have to be short, inside the organisation, but also between the permitting organisation and industries and other non governmental organisations. The external and internal organisation is described in chapter 5.

- **Suitability for strategic and operational management**

The organisation should be designed in such a way that it can efficiently deal with all aspects of industrial permitting and enforcement. These are the most important tasks of the organisation.

The organisation should also be able to anticipate on future developments regarding industrial law and the development of strategies for industry. Therefore, these elements have to be placed within the organisation in a logical way. Moreover, it is advised that the organisation should be able to develop the strategy connected with industrial permitting issues, such as:

- law development (permitting procedures, specific decrees for branches of industries, general directives)
- location policy (location of specific types of industry or industries out of one branch within one area)
- further fine tuning of the area classification and updating of the classification of industries.

The organisation should also be involved in the development of standards and regulations regarding emissions and discharges as long as practical information of high value will be available within the organisation within short notice.

- **Flexible structure**

At present, there is no detailed insight in how industrial permitting will develop within Lebanon during the coming decades. The new organisation will be developed on the basis of the present available information. It is possible that more detailed information appearing from the daily practice of industrial permitting in the future will lead to new

insights or the necessity of a large increase of the capacity of the organisation. Both can result in organisational changes. To cope with these changes, the organisational structure should be simple, clear cut and flexible.

3.3 Design of the new organisation

One of the conclusions which arises from the evaluation of the present situation is that the new permitting organisation should be composed in a way in which it is possible to deal with the main tasks of an organisation responsible for industrial permitting and enforcement:

- managing permit applications
- the issuing of permits
- permit control
- enforcement of industries which are not in compliance with the regulations.

In general, organisations can be structured in several ways:

- 1 *A product department structure*
Mostly applied for organisations in which several products are developed. Each department is responsible for the complete processing of one type of products.
- 2 *A department structure based on clients*
Divisions are made between client groups like, government, industry, services, households, etc.. Each department is responsible for one account (one group of client). This structure is used by consultancies and other services.
- 3 *A geographic department structure*
In this structure, each department is responsible for the running of business in one sector of an area. In practice, these departments are most of the time branch offices in which a division based on one of the other structures is made.
- 4 *A process aimed department structure*
In such an organisation, each department is responsible for one part of the preparation of a product. Mostly used in industries for the production of large or complex products.
- 5 *A functional department structure*
In a functional organisation, activities are grouped on the basis of the functions. Functions depend on the goals and activities of an organisation. Key is that specialists on one terrain are grouped. People with the same skills and tasks are grouped in one department.

Within a functional structure, an organisation can deal effectively with all different permitting aspects of industries, such as dealing with applications, the permitting itself, control and enforcement, development of law, financial aspects of permitting and the development of industry related strategies. Therefore, a functional organisation structure seems most effective.

Functional indicates that the organisation should be designed in such a way that it is optimally utilized to deal with the main tasks of : permit applications, the issuing of permits and control and enforcement. The skills and expertise with regard to dealing with permit applications are closely related to the issuing of permits. For this reason, these tasks can be grouped in one department. On the basis of the main tasks, two departments emerge:

- the issuing of permits (including permit applications)
- permit control and enforcement.

Further, the organisation should be set up in such a way that several internal facilitating services can be efficiently used by the whole organisation. Within the permitting organisation, the following facilitating services should be present:

- external communication;
- management support/secretary services;
- internal management;
- support on financial aspects.

For each task, a department should be composed, and the following departments are proposed:

- industrial permitting department (including assessment of applications)
- control and enforcement department
- financial department (fees and fines)
- law department (development of new law and assistance in legal procedures)
- strategic development (long term and middle term strategy on permitting and enforcement)
- staff / communications department

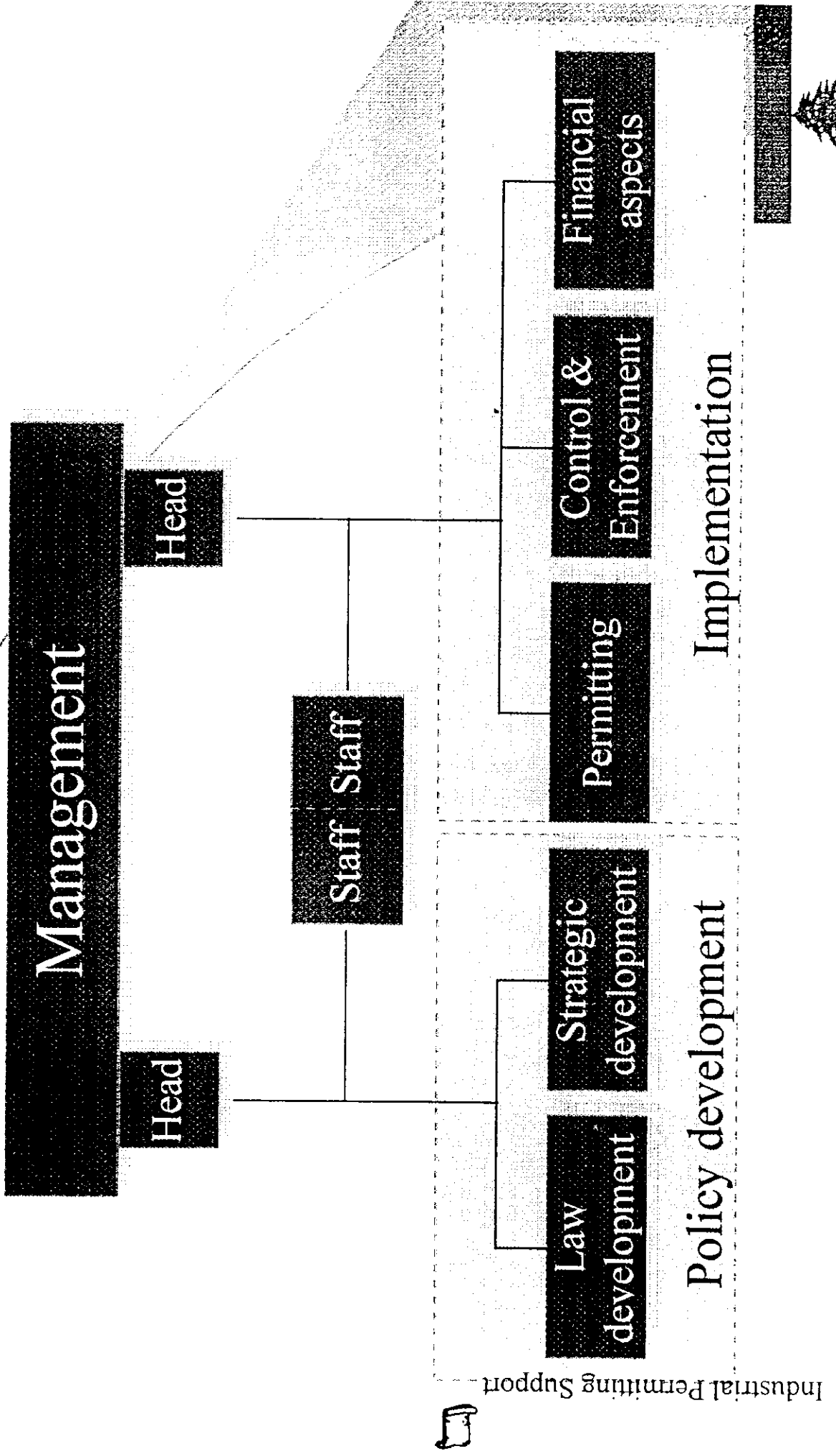
The proposed organisational structure is given on the next page.

3.4 Management of the organisation

The following ministries should be involved in the management of the organisation:

- Ministry of Industry and Petroleum
- Ministry of Environment
- Ministry of Health
- Ministry of Public Works
- Ministry of Municipal Affairs

Outline of the organisation structure



Also, it is advised to give IDAL a role in the management.

It is proposed to give the organisation a recognisable name:

- Industrial Permitting Organisation in case the organisation will be semi-independent
- Directorate for Industrial Permitting (DIP) in case the organisation will be integrated in the Ministry of Industry

3.5 Position of the organisation

Industrial permitting encompasses various aspects. One of the main aspects is the environment. Industrial permits are granted to safeguard the environment from hazards and threats caused by the operational activities of industries. Closely related to the natural environment is the human environment. Industrial permits are also granted to protect and safeguard people which live close to the industries. Therefore nuisance aspects are also one of the main concerns in permitting.

Next, the aspects related to spatial planning are part of the permitting procedure. Industries have to be located in suitable areas, and this has to take place in conformance with spatial planning plans for the national, regional and local governments.

Finally, issues related to the sole industrial aspects of the entrepreneurship of industries are part of the industrial permitting process.

This complex field of interests should be reflected in the legal position of the organisation. There are two head directions to position the permitting organisation:

- 1- a (semi-)independent organisation which is directly controlled by the Presidium of the Council of Ministers. By giving the permitting organisation such a position, it will be more or less comparable with organisation like IDAL, CDR etc...
- 2- attachment to or integration into one of the involved ministries.

(Partial) attachment to one of the involved ministries or integration into one of the involved ministries is advised.

The main reason is that industrial permitting will become a regular task of the governmental institutions. Regular governmental tasks should preferably be a part of or attached to governmental organisations. Nevertheless, the organisation should get a recognisable place within a ministry and should have the opportunity to develop its own strategy on planning and operational level. Of course this strategy should be in line with the general policy of the concerned ministry. In this way the organisation can act highly effectively.

It is advised to attach the organisation to the new Ministry of Industry.

The Ministry of Industry will deal with other aspects of industries and will obtain knowledge with regard to economic aspects of industries. Attachment to this Ministry also meets the new standards of external integration of environmental and health aspects into the economic and industrial business.

However involvement of the Ministries of Health, Environment, Public Works, Municipal Affairs and Agriculture is required to guarantee the incorporation of these specific issues in the strategy and operational practice of the organisation. The involvement of the other ministries should be reflected in the management as well as at the lower organisational levels. This implies that the other ministries should be involved in the advisory board of the organisation. On operational level it merely points at the assimilation of employees of the mentioned ministries into the permitting organisation.

4. RESPONSIBILITIES AND TASKS

4.1 Introduction

In this chapter the tasks and responsibilities of the Industrial Permitting Organisation are described. The specific skills that are required to do this work are described in chapter 8. In section 4.5 attention is paid to the division of tasks between the Industrial Permitting Organisation and the other governmental organisations.

4.2 Permitting Tasks

The permitting tasks are described in a chronological order and consist of the following elements:

Helping establishments with their permit application

The person in charge of the application at the establishment is instructed on how to fill in the application form and the other documents that complete the application by a permitting clerk. This will result in a better application which saves time at the next step of the preliminary assessment of the application.

Preliminary assessment of the application

A preliminary check on the application is carried out to insure that all the necessary information is included in the application. If necessary, technical specialists are called in to determine if all the technical data has been submitted. When the application does not meet the desired standards it will be rejected.

Dealing with the application

When the application has been completed and all the relevant annexes have been submitted the application is accepted by the competent body. The application will then be dated. The applicant will be notified that the application has been taken into consideration. The application is studied to determine which spatial and environmental aspects are at hand.

Area verification

The competent body determines to which category the establishment belongs. The information needed is found in the permit application. The category should be in compliance with the already defined area classification. If the area classification does not allow the establishment to be located as indicated in the application, the permit will be denied.

Determination of the standards that should be taken into consideration

The application is studied to assess which emissions take place at the establishment. The standards that should be taken into consideration are then selected. Standards should be available on the following subjects:

- * emissions to air
- * discharges to water
- * discharges to soil and ground water
- * concentration levels of hazardous compounds in (chemical) waste
- * maximum acceptable sound- and vibration levels
- * storage and transportation of chemicals and chemical waste

This will allow authorities to determine what kind of pretreatment is necessary before allowing emissions and discharges.

Designing the draft permit

When all the necessary information such as the relevant standards and regulations have been collected the draft permit can be drawn up. The permit will consist of regulations which will reduce the risks to the environment and nuisance to surroundings to an acceptable level.

Consultations and advice

According to the permit procedure the application might be sent to another body for advice. The application will also be sent to the Caza in which the establishment is located for consultations. After a round of consultations and advice, the advice and/or the objections will be reviewed. The permitting clerk will recommend which of the advice/objections should be taken into account when drawing up the definitive permit.

Drawing up of the definitive permit

After the necessary alterations are made in the draft permit on the basis of the advice that was given and/or the objections that were raised, the permit is granted. The considerations that have led to the granting of the permit are described in a preface to the permit.

Appeal and constraints

The advisory bodies as well as the Caza in which the establishment is located have the opportunity to lodge an appeal against a decision by the competent body on an application for a permit with an administrative court. The competent body will defend their consideration regarding the granting or denying of the permit before the administrative court.

Planning of industrial permitting

With a total of approximately 23000 establishments a structural approach on permitting (and control) is necessary. A registration system containing data on all establishments is used. Individual establishments are classified into category 1 to 5. On the basis of this file a plan of priorities is made for the coming 4 years. This plan indicates which establishments should apply for a permit first. Establishments with a

large environmental impact have a higher priority on the list than establishments with a low environmental impact. The permit planning system is constantly kept up to date. Input for the system is formed by four sources:

- * new establishments applying for a permit;
- * control visits with establishments that have a permit
- * control visits with establishments that do not have a permit and have not been registered into the permit planning system
- * establishments closing down

The plan is revised every year. The new priority list for the coming 4 years is drawn up.

4.3 Tasks of administrative enforcement

In this section the tasks of administrative enforcement are described. The enforcement through criminal law is excluded. The tasks on controlling permits are described in a chronological order and consist of the following elements:

Preparation

In order to conduct a successful control visit, a thorough preparation is essential. The preparation consists of studying the regulations that are drawn up in the permit and acquainting oneself with the lay-out of the plant by studying the blueprints, maps and diagrams of the production line. As a result of the preparation, a checklist is drawn up with relevant subject to be checked or looked into during the control visit.

Site investigation with the responsible manager

During the site investigation all relevant parts of the production process are checked. Filters, water treatment systems, storage facilities, e.g. are technically checked. All regulations that are drawn up in the permit are checked.

Check on the environmental registration system

Registration systems mentioned in the permit, such as the registration of disposal of (hazardous) waste, is checked.

Interviews with and briefing of the responsible manager

After the site investigation and the check on the registration system have been concluded, the responsible manager is briefed on the general findings of the control visit. Any questions regarding the proper executions of regulations are answered.

Report of findings

A report of findings is drawn up. The report contains all deficiencies that were found during the control visit. The report states all the regulations that are being violated.

Notifying the establishment of the findings

The establishment receives the report of findings. In the accompanying letter a warning is given to adjust the production process so that the process will be in line with the regulations stated in the permit. The establishment is warned that fines will be imposed upon them unless the necessary modifications are made.

Follow-up visit

Once the warning expires, a follow-up visit is conducted to check if the necessary modifications to the production process have been made.

Drawing up a second report of findings

The report on the findings shall state which modifications were made. If the necessary modifications have not been made, the deficiencies that are still existing are listed.

Fining

Administrative fines are laid upon an establishment that does not comply with the regulations during the second visit.

Closing down of the establishment

If after a stipulated time the necessary modifications have still not been made the competent body will close down the establishment. If necessary the police may be called in to execute the closing down of the establishment.

Planning of controlling permits

The central registration system mentioned in section 4.2 is also used to organise the control on permitting. The individual establishments which have been classified into category 1 to 5 are arranged in a plan of priorities for the coming 4 years. This plan indicates which establishments should be visited first. Establishments with a large environmental impact are visited more frequently than establishments with a low environmental impact. During the control visits the permit situation is assessed and if a revision of the permit is necessary the establishment will be asked to apply for a revision permit. The data of the permit planning system is constantly kept up to date. The plan is revised every year. The new priority list for the coming 4 years is drawn up.

4.4 Summary of tasks

Tasks on permitting

- Helping establishments with their permit application;
- Preliminary assessment of the application;
- Dealing with the application;

- Area verification;
- Determination of the standards that should be taken into consideration;
- Designing the draft permit;
- Consultations and advice;
- Drawing up of the definitive permit;
- Appeal and constraints;
- Planning of industrial permitting.

Tasks of administrative enforcement

- Preparation;
- Site investigation with the responsible manager;
- Check on environmental registration system;
- Interviewing and briefing of the responsible manager;
- Report on findings;
- Notifying the establishment of the findings;
- Follow-up visit;
- Drawing up a second report of findings;
- Fining;
- Closing the establishment;
- Planning of controlling permits.

4.5 Distribution of tasks between governmental organisations during the transitional period

The Industrial Permitting Organisation will be one of the official bodies of office which will have a role in industrial permitting and enforcement. Permitting and enforcement will be partially executed by other bodies. In this section, an insight is given on the tasks of the Industrial Permitting Organisation and those of the other governmental organisations. The role of each governmental body, and his relation with the Industrial Permitting Organisation are described.

- **Assignment of industrial categories to different governmental bodies**

To deal effectively with the new categorisation of industries in Lebanon and the classification of areas and to speed up industrial permitting and enforcement in accordance with the newly developed permitting procedure, the Industrial Permitting Organisation will deal with the permitting and enforcement issues related to the larger industries. During the transition period, the following division of categories should be used:

- Category 1, 2 and 3 industries : Industrial Permitting Organisation
- Category 4 industries : Mohafazaths
- Category 5 industries : Municipalities and Cazas

- **Tasks of the Industrial Permitting Organisation**

The key tasks of the permitting organisation are:

- *dealing with permit applications;*
- *industrial permitting for category 1, 2 and 3 industries (during the transition period).* During the transition period, the organisation will be partially staffed by other ministries. Despite the specific expertise of the experts of the ministries, it should be noted that each member of staff should be able, or will be trained, to give a permit for an industry which will:
 - restrict the impact of industries to the environment
 - limit the nuisance to surroundings to an acceptable level.
- *permit control and enforcement*

The tasks of the Industrial Permitting Organisation are described in detail in section 4.3.

- **Tasks of the Ministries**

Ministry of Industry and Petroleum

With regard to the Industrial Permitting Organisation

- * Member of the Board of directors of the Industrial Permitting Organisation
The Ministry will have its representative in the Industrial Permitting Organisation-Board of Directors.
- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Regulatory tasks connected with the Industrial Permitting Organisation

- * Responsible for the issuing of decrees for industries with regard to economic aspects of industries, related to e.g. import, export, use of machines.

Ministerial inspection tasks on industries

- * Inspection of industries on the following issues:
 - control on the use and type of machines

Ministry of Health

With regard to the Industrial Permitting Organisation

- * Member of the Board of directors of the Industrial Permitting Organisation
The Ministry will have its representative in the Industrial Permitting Organisation-Board of Directors.
- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Regulatory tasks not connected with the Industrial Permitting Organisation

- * Responsible for the issuing of decrees for industries with regard to safety and health aspects with regard to labour force within industries and hygiene aspects of products.

Ministerial inspection tasks on industries

- * Inspection of industries on the following issues:
 - health aspects of labour and products.

Ministry of Environment

With regard to the Industrial Permitting Organisation

- * Member of the Board of directors of the Industrial Permitting Organisation
The Ministry will have its representative in the Industrial Permitting Organisation-Board of Directors.
- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Regulatory tasks not connected with the Industrial Permitting Organisation

- * Responsible for the issuing of regulations on admissible emission levels to air, soil and water, regulations on waste, noise, odour, dust, regulations related to environmental impact assessment, regulations related to the use of chemicals throughout the life cycle, regulations on product standards related to the environmental impact of products,

Ministry of Public works

With regard to the Industrial Permitting Organisation

- * Member of the Board of directors of the Industrial Permitting Organisation.
The Ministry will have its representative in the Industrial Permitting Organisation-Board of Directors.
- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Regulatory tasks not connected with the Industrial Permitting Organisation

- * Responsible for spatial planning policy and issuing specific regulations on spatial planning related to industries, in accordance with the classification system for areas.

Ministerial inspection tasks on industries

- * Inspection of industries related to building aspects of the industries.

Ministry of Municipal affairs

The role of this Ministry is rather limited to the municipal level.

With regard to the Industrial Permitting Organisation

- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Ministry of Agriculture

With regard to the Industrial Permitting Organisation

- * Providing limited man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation.

Regulatory tasks not connected with the Industrial Permitting Organisation

- * Responsible for the issuing of decrees on product quality of agricultural enterprises.

Ministerial inspection tasks on industries

- * Inspection of industries on the following issues:
 - control on the product quality within agricultural enterprises

- **Tasks of the Mohafazaths**

During the transition period, the Mohafazaths will be responsible for permitting and control aspects for category 4 industries.

With regard to the Industrial Permitting Organisation

- * Providing man power to the Industrial Permitting Organisation during the first years of operation of the Industrial Permitting Organisation. The transition period will be used to train Mohafazath employees on industrial permitting and enforcement in accordance with the new regulations and permitting procedures. After the transition period, these employees will reintegrate the Mohafazath to expand the knowledge on Mohafazath level. *After the transition period,*

Mohafazaths should also be made responsible for permitting and enforcement for category 3 industries.

- **Tasks of the Municipalities and Cazas**

During the transition period, the Mohafazaths will be responsible for permitting and control aspects for industries of the 5th category.

5. COMMUNICATION

5.1 Introduction

For a new organisation, communication is one of the main tools which is required to make the organisation operational. Communication can be divided into two: internal communication and external communication. Together, they form the corporate communication which is defined as *the management tool with which all internal and external communication can be finetuned in such a way that the internal pre-conditions are created to obtain and maintain a solid cooperation with target groups for the organisation.*

Communication is one of the most difficult parts of the daily practice of an organisation. The theory on communication is based on the following 5 laws:

- 1 Communication usually fails-except by chance.
- 2 If a message can be understood in different ways, it will be understood in just that way which does the most harm.
- 3 There is always someone who knows better than you what you meant by your message.
- 4 The more communication there is, the more difficult it is for communication to succeed.
- 5 In communication, it is not important how things are, the important thing is how things seem to be.

The internal and external communication for the permitting organisation are structured in this chapter.

5.2 Internal communication

5.2.1 Strategy on internal communication

An efficient and effective flow of information is important for three reasons:

- information is required (at the top as well as at the bottom) to undertake operational tasks;
- information on the functioning of the organisation is required to motivate employees on all levels and to keep them involved;
- internal communication is an irreplaceable management tool to guide and facilitate organisational changes

In a new organisation with new tasks the employees will need information on the following subjects and will also need to communicate amongst each other about these subjects:

- the way to implement new legislation;
- new guidelines with regard to procedures;

- standards with regard to maximum acceptable concentrations of emissions and the correct way to apply these standards;
- directives on control and enforcement;
- the fee structure;

Initially these subjects will be discussed in training sessions. Once people start working in the new organisation the communication between employees and between management and employees should guarantee the proper implementation of the operational tasks.

In the developed structure as given in chapter 3, vertical communication lines are short. This gives good opportunities for quick and effective bottom-up communication. There are six departments on the lowest organisational level. Communication within these six departments is extremely important. Especially during the first year of operation, the permitting organisation has to be a *learning organisation*. Success and failures have to be communicated within the departments and have to be part of the training programmes for the employees. Within the training programmes for the employees, communicative skills also have to be formed. All the same, communication between the departments is required. All departments partially deal with the same 'clients': the industries. Information about the industries has to be passed throughout the organisation in a natural way. Linking pin constructions between the departments (persons who take a part in two or even more departments have to be appointed, Furthermore, the management of the departments should instigate working meetings on a regular basis (at least once a week).

During these meetings the way the tasks on permitting, control and enforcement are fulfilled are discussed. Experiences can be exchanged and practical problems can be solved in a joint effort.

5.2.2 *Communication plans*

With regard to implementing internal communication, plans should be used to structure communication. Three levels have to be distinguished:

Level 1

The multi annual communication programme

In this programme, the communication policy of the organisation on the long term has to be included. Besides, a picture should be given on what should be the role of communication in the developments of skills and knowledge of the employees.

Level 2

The annual communication programme

This programme concerns the yearly activities and budgets on internal communication such as videos, employees magazines, etc. Also an insight should be given in the yearly budget and required man power.

Level 3

Occasional communication programmes

Per project, insight is given in the way communication on internal big projects will be set up. Attention should be paid to:

- the goals;
- the contents of the communication (the message);
- the internal target groups;
- the communication channels and media (the methods);
- the responsibilities and the organisation.

5.3 External communication

5.3.1 *The need for communication*

During the first years of operation, when the permitting organisation is granting permits for large industries in Lebanon and in fact also controlling and enforcing these permits, external communication is of key importance. Without this communication, industries, other governments and groups of interest will not have adequate information on the new way of permitting, its procedures and the ongoing changes in the division of tasks. Therefore all involved parties have to be informed and involved in the development of the organisation on a regular basis. Open communication is crucial for commitment of all involved.

Frequent communication has to be established with the following parties:

- the ministries
- IDAL
- the lower government level
- the industries and its representatives.

The Communication department has the lead in setting up and maintaining contacts with the organisations mentioned above. Implementation lines for communication with each group of interest is given in the following.

5.3.2 *Communication with other ministries*

In section 4.5 it has been pointed out that the permitting organisation will not be the only responsible governmental authority regarding industrial activities. Several tasks remain at the Ministries of Industry and Petroleum, Health, Environment, Public Works and Municipal Affairs.

It is advised to uphold communication on two levels:

Strategic level

The need for communication on a strategic level partially depends on the involvement of the other ministries in the management and staffing of the permitting organisation. When during the transition period employees of the ministries are gradually involved in the staffing of the organisation, basic communication lines between the ministries and the organisation are established. However, communication on strategic issues on Director General level is required. Therefore it is advised to maintain the Government Committee on Industrial Affairs as a forum for discussions on the direction of industrial permitting in Lebanon. The Committee should serve as an advisory Committee to the permitting organisation and the Council of Ministers.

Operational level

On operational level exchange of information on industrial information is a precondition for a good operational practice in both the ministries and the permitting organisation. Information should be exchanged on the following topics:

- * governmental strategies for the industrial sectors
 - * news on regulations and procedures
 - * new industries in Lebanon
 - * news on industrial processes and techniques
 - * industrial information which is not directly related to industrial permitting and enforcement
- *It is advised to introduce a two monthly magazine on industrial issues, published by the permitting organisation, for other governmental organisations and the industries.*
- *It is advised to introduce bimonthly news letter for governmental organisations. This news letter, prepared by the permitting organisations, should provide essential information for other governments.*

5.3.3 *Communication with IDAL*

IDAL is developing the industrial areas with the ongoing facilities. For future but also present industrial areas, facilities or infrastructural requirements (roads, electricity, water treatment plants) depend on the kind of industry which is or will be located on the areas. For future areas, clustering of industrial sectors or branches is an opportunity to reduce costs on these facilities. Communication between IDAL and the permitting organisation on these subjects is required.

Communication should be maintained on management level.

5.3.4 *Communication with lower government level*

The mohafazaths and the municipalities will be responsible for the industrial permitting and enforcement of respectively category 4 and 5 industries. At present permitting procedures and regulations are being developed. When the first results emerge, these should be directly communicated to the mohafazaths and municipalities. It is to be expected that regulations will be developed for the greater part under the responsibility of the permitting organisation. Therefore, the organisation will be responsible for the communication and training of lower governments on the new procedures, new regulations and new standards with regard to maximum allowable concentrations of emissions

Besides, the magazine on industrial issues will become a source of information of lower governments on permitting and enforcement issues.

5.3.5 *Communication with industries*

At present industries are not familiar with the organisational and juridical changes which take place on the national level. The Government committee on industrial permitting has to start up the issuing of a regular news letter for industrial branches. This news letter will give updates on the developments on permitting and enforcement. It should be addressed to the chamber of commerce, industrialists association, and branch representatives of the industries.

When the permitting organisation is established, the tasks between all governmental organisations are set and the permitting procedures with the ongoing regulations are implemented, a *brochure on industrial permitting* has to be issued. This brochure has to give information on:

- the classification of industries
- the classification of industrial areas
- the organisation at which permit applications should be addressed and will run the permitting procedure
- the way the new permitting procedure works, including time schedule, advice and environmental impact assessment
- the role of the permitting organisation and other governmental organisations.

Further, the magazine on industrial issues will become a regular information source for industries. Industries should also be stimulated to use the magazine to publish obtained successes in operational business, for example with regard to the introduction of cleaner techniques or environmental management systems.

5.3.6 *Communication plans*

Communication plans with regard to external communication can be structured also on the three levels defined for internal communication (see section 5.2.2)

6. CAPACITY BUILDING

6.1 Introduction

In chapter 2 the outline of the present situation is described. It appears that the present capacity for industrial permitting and enforcement is not sufficient to provide each industry with an adequate permit which is kept up to date on a regular basis and which is controlled periodically. In this chapter an estimate of the required capacity for industrial permitting and enforcement in Lebanon is given. It should be emphasised that this estimate is made on the basis of average figures related to the present permitting situation. The available figures differ between the different ministries, Mohafazaths and municipalities/Czas and are not fully complete.

Guidelines are provided for the staffing of the permitting organisation from existing organisations and additional staffing.

6.2 Required time for future industrial permitting and enforcement

Due to lack of information, the time estimate required for permitting and enforcement is based on indicators which are used in Western Europe for industrial permitting and enforcement. These indicators show the time in hours which is required for the issuing of permits and the control visits of an industry. On the basis of the information gathered in the project "Classification of Industries and Industrial Areas" and information gathered through the interviews, indicators for the five new categories of industry in Lebanon are formulated. The time-indicators for permitting and enforcement are given in table 6.1 below.

Table 6.1 - Required time (in hours per permit) for permitting and enforcement of industries

<i>Task</i>	<i>Category</i>				
	<u>Cat. 1</u>	<u>Cat. 2</u>	<u>Cat. 3</u>	<u>Cat. 4</u>	<u>Cat. 5</u>
Issuing of the permit	500	120	70	30	15
Control visit	300	30	20	15	10
Permit revision	400	80	50	20	10
Complaints	20	5	5	2,5	2,5

Industries belonging to categories 1 and 2 have the highest potential threat to the environment and have to be controlled accordingly. The smaller industries are less important and can do with a lower sequence of controlling. The same reasoning applies to permit revision. These particularities are reflected in Table 6.2.

Table 6.2 - Frequence for controlling of industries and permit revision

<i>Category</i>	<i>Controlling</i>		<i>Permit revision</i>	
	Frequency	Indicator	Frequency	Indicator
1	Four times a year	4	Once in four years	0,25
2	Twice a year	2	Once in five years	0,2
3	Once in two years	0,5	Once in ten years	0,1
4	Once in five years	0,2	Once in ten years	0,1
5	Once in ten years	0,1	Once in ten years	0,1

The estimation of the required time, the frequency of controlling and permit revision is based on the figures which Western European countries use to determine their workload with regard to permitting and control. These figures do not include overhead, such as management and secretarial activities.

From 1998 a new permitting situation wherein integral permits for all categories of industry will be issued will start. Therefore each industry should have a new adequate permit. At present it is estimated that there are about 23.500 industries in Lebanon¹ (based on the industrial census report) classified as follows:

- cat 1: 2
- cat 2: 100
- cat 3: 1500
- cat 4: 4000
- cat 5: 18000

Due to the economic growth the number of industries is expected to increase at a rate of 2% a year and it will reach in 2008 the figure of 29000 categorized as follows:

- cat 1: 2
- cat 2: 120
- cat 3: 1828
- cat 4: 4877
- cat 5: 22174

Based on the controlling, the permit revision frequency, the presumption that every industry needs a new permit and the required time for each activity, an estimation of the required input of man hours can be made as indicated in Table 6.3.

¹ On the basis of our experience in Western Europe, we expect a larger number of industries in Lebanon. This could effect the calculations for the required man power. The calculation sheets are made in such a way that changes can be processed easily.

Table 6.3 - Estimation of required man hours in 1998 (hours/year)

<i>Category</i>	<i>Tasks</i>				
	Issuing of permits	Control visits	Permit revisions	Complaints	Total time
1	500	-	-	40	540
2	2400	-	-	40	2440
3	10500	-	-	600	11100
4	12000	-	-	500	12500
5	27000	-	-	2250	29250

It is estimated that a man year consists out of 1600 productive hours. This means the following manpower is required for permit issuing and taking care of complaints:

· Ministerial level (category 1, 2 and 3)	14.080/1600 =	8,88 man years
· Mohafazat/municipal level (category 4 and 5)	41.750/1600 =	<u>26,09 man years</u>

Total 34,89 man years

Naturally controlling can only start from the moment permits have been issued. So controlling activities will start in 1999 and will increase during the following years. The first permit revisions will take place in 2002, when the permit for one of the category 1 industries issued in 1998, has to be revised. From that moment on, permit revision will take place with a regular frequency. Therefore, the required capacity will increase with time.

Table 6.4 - Estimation of required manpower per activity in 1999

<i>Activity</i>	<i>Category</i>				
	1	2	3	4	5
Permit issue	0,31	1,65	7,88	9,00	20,25
Control	0,75	0,75	0,94	0,75	1,13
Permit revision	-	-	-	-	-
Complaints	0,03	0,03	0,38	0,32	1,43
Total	1,09	2,43	9,19	10,07	22,81

Table 6.5 - Estimation of required manpower per activity in 2002

<i>Activity</i>	<i>Category</i>				
	1	2	3	4	5
Permit issue	-	1,65	7,96	9,09	20,46
Control	1,50	3,23	4,33	3,46	5,19
Permit revision	0,25	-	-	-	-
Complaints	0,03	0,03	0,41	0,34	1,52
Total	1,78	4,90	12,69	12,89	27,17

Table 6.6 - Estimation of required manpower per activity in 2008

<i>Activity</i>	<i>Category</i>				
	1	2	3	4	5
Permit issue	-	0,15	1,58	1,8	4,03
Control	1,50	4,43	11,20	8,96	13,44
Permit revision	-	1,10	4,69	5,0	11,25
Complaints	0,03	0,03	0,46	0,38	1,71
Total	1,53	5,71	17,92	16,14	30,44

Out of these estimations it becomes clear that the required capacity will increase substantially in ten years. The complete data on industrial permitting and enforcement throughout the years is given in appendix 4.

6.3 Overall capacity - Staffing

Based on the outline of the organisational structure, and as indicated in Table 6.7, an estimate has been made for the required overall capacity of the Industrial Permitting Organisation, including management and staff. The present capacity for the control on safety aspects within industries must be maintained and are not included in the following presentation of the required overhead capacity.

Each department of the new Industrial Permitting Organisation should have its own manager. Furthermore each department will need its own secretarial staff. This staff will be placed within the staff/communication department. Especially during the first years, a lot of attention has to be paid to strategic development on permitting and enforcement. Therefore this department has to be provided with full capacity on short notice. The same applies for the law department. The activities of the financial department will increase during the coming years in line with the number of permits issued. Accordingly the capacity of this department can be built up. Especially during the first years of the Industrial Permitting Organisation extra efforts with regard to communication are necessary.

The calculations regarding the technical capacity for the industrial permitting department and the control and enforcement department are described in the previous paragraph.

Table 6.7 - Estimation of the required overall capacity - Staff Number

<i>Department</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>
General management	2	2	2	2	2	2	2	2	2	2	2
Ind. permitting*	9,5	11	11	11	11	11	11	11	11	11	11
Control and enforcement*	-	3,5	6,5	8,5	10,5	12,5	13,5	14,5	16	17	19
Financial	5	6	6	7	7	7	8	8	8	8	8
Law	4	4	4	4	4	4	4	4	4	4	4
Strategic development	2	2	2	2	2	2	2	2	2	2	2
Staff	4	5	6	6	7	7	8	8	8	8	8
Communciation	3	3	3	3	3	3	3	3	3	3	3
Total	29.5	36.5	40.5	43.5	46.5	48.5	51.5	52.5	54	55	57

* this table includes only the required capacity with regard to categories 1, 2 and 3

7. FINANCING AND BUDGETS

7.1 Introduction

On the basis of the calculations on the required capacity for industrial permitting and enforcement, presented in chapter 6, the estimation of the costs can be made. In this chapter, first the budget required for permitting and enforcement, on national and on regional level is estimated. Then a proposal on how to finance industrial permitting and enforcement is elaborated. Then distinction is made between industrial financing and financing from the government budget.

7.2 Required budget (1998 year)

The budget for the year 1998 would not be actually representative of the budget for the subsequent years. The early years will be the period of setting up and starting of work. As such, revenues would not be at the expected normal operating regime. consequently the 1998 revenues would be relatively smaller than those of following years. Nevertheless 1998 is chosen for budget estimate as it would provide a conservative basis for comparison.

The basic estimated costs data needed to build up the budget are shown in table 7.1

Table 7.1 - Basic Estimated Costs Data (1998)

Average national personnel costs (includes wages overheads)	30, 000, 000 LP/year / person
Average regional personnel costs (includes wages overheads)	18, 000, 000 LP/year / person
Transport Costs	LP 500/Km
Secretarial Cost	10, 000, 000 LP/year / person
Software/ office design/ office materials	10% of total salary costs
premisses location and basic hardware	taken as the initial investment to be put in by the government

NATIONAL LEVEL

- Personnel Costs
On national level, a total yearly capacity of 30 man years (see Table 6.7) is required. On the basis of average salary costs of LL 30,000,000 the total personnel costs on national level are L.L 900,000,000

- Nonpersonnel costs
Because there is presently no national organisation for industrial permitting and enforcement, this organisation has to be set up completely. The organisation will probably be integrated in the newly set up ministry of Industry. However, the cost estimate has to be prepared as for a new organisation. The cost estimate given below focuses on permitting and enforcement on national level. A complete cost estimate for regional and local level is not dealt with in this report.

The following non personnel costs for the new permitting organisation on national level are applicable:

Table 7.2 - Non personnel costs ministerial level for 1998 (Estimates)

<u>Cost centre</u>	<u>Required budget (L.P)</u>
* Office design, soft ware, office materials	90,000,000
* Secretarial costs (10 secretaries)	100,000,000
* Transport (600 trips)	12,000,000
*	
*	
* <u>Total required budget non personnel costs</u>	<u>202,000,000</u>

- Total required budget
On the basis of the above the total budget which is required for the operation of the permitting organisation can be calculated:

* Personnel costs	L.P 900,000,000
* Non personnel costs	L.P 204,000,000
	<hr/>
Total costs national level	L.P 1,102,000,000

REGIONAL LEVEL

On regional level it is assumed that the locals are already available and the cost could be basically salaries and support.

The man/year required for categories 4 and 5 has been estimated at 26 (see Table 6.3) and the total cost estimate is as indicated below:

1- Personnel costs	:	18 000 000 x 26	=	468 000 000
2- Support & other various costs	:	20% item 1	=	94 000 000
				<hr/>
				562 000 000

The costs at the regional level are only the direct costs of permitting and controlling.

7.3 Financial resources

Financial resources in the present situation are mostly covered by the general government budget. For the future situation it is proposed that industries partially cover the costs of industrial permitting and enforcement activities. Based on the estimates in the previous chapter, the revenues indicated in Tables 7.3, 7.4 and 7.5 can be available for the permitting organisations on national, regional and local level.

Table 7.3 - Future fee structure per category for industries in LP x 1.000)

<i>Activity</i>	<i>Cat. 1</i>	<i>Cat. 2</i>	<i>Cat. 3</i>	<i>Cat. 4</i>	<i>Cat. 5</i>
Issuing of permits	25.000	5.000	3.500	1.000	500
Control visit	7.000	1.500	1.000	500	150
Permit revision	15.000	2.500	1.500	750	250
Complaints					

Table 7.4 - 1998 Total revenues from category 1,2 and 3 (national level) in LP x 1000

<i>Activity</i>	<i>Cat. 1</i>	<i>Cat. 2</i>	<i>Cat. 3</i>	<i>Total</i>
Issuing of permits	25.000	100.000	525.000	650.000
Control visit				
Permit revision				
Complaints				
Total				650.000

The revenues will increase in the coming years because of increasing number of permits issued and increasing controlling activities.

Table 7.5 - 1998 Total revenues from category 4 and 5 (regional level) in LP x 1000

<i>Activity</i>	<i>Cat. 4</i>	<i>Cat. 5</i>	<i>Total</i>
Issuing of permits	400.000	900.000	1.300.000
Control visit			
Permit revision			
Complaints			
Total			1.300.000

The revenues will increase in the coming years because of increasing number of permits issued and increasing controlling activities.

7.4 Analysis of the financial results

Table 7.6 below shows the balance between revenues and costs.

Table 7.6 - Revenue - Cost Balance

	Income L.P x 1,000,000	Costs L.P x 1,000,000	Balance L.P x 1,000,000
National Level Cat. 1, 2, 3	650	1102	-
Regional Level Cat. 4, 5	1300	562	+
Total	1950	1664	+ 286

It may be noticed that revenues from categories 1, 2 and 3 (national level) will not cover the cost anticipated in 1998. This will actually change in later years as control visits, permit revision and complaints increase. For the year 1998 the deficit encountered at the national level is covered by revenues at the regional level. This would be justified by the fact that the industrial permitting organisation would be providing the support, legal technical and strategic to the whole process of industrial permitting. It is suggested that half of the income of the regional level be diverted to the national level.

8. THE SETTING UP AND THE DEVELOPMENT OF THE ORGANISATION

8.1 Introduction

In the previous chapters, the tasks, organisational aspects and the capacity building of the new permitting organisation are dealt with. To set the permitting organisation in operation several requirements have to be met. These requirements are being discussed in this chapter.

8.2 Key elements for setting up the organisation

8.2.1 *Legal provisions*

The organisation has to be legalised. When the organisation will be encompassed as a Directorate General in the new Ministry of Industry, legal provisions have to be taken on ministerial level.

The new division of tasks on industrial permitting and enforcement for the categories 1,2,3,4 and 5 industries have to be laid down in law. At present, various laws and decrees are applicable for industrial permitting and enforcement. This situation is not efficient nor advisable for the future situation.

It is advised to set up a framework law on industrial permitting and enforcement. This law should include all aspects of controlling and reducing the impact of industrial activities on its surroundings. A framework law could be composed of 5 parts as follows:

Framework law for industrial permitting

Part 1 Procedures

Permitting procedure for cat 1-3 industries

Permitting procedure for cat 4-5 industries

Control and enforcement act

Memento document including e.g.:

- * *permitting procedures*
- * *control and enforcement*
- * *consultation in the procedure*
- * *tasks on permitting*
- * *tasks on control and enforcement*
- * *terms in the procedure*
- * *fee structure on permitting and enforcement*

Application forms

Part 2 Applicable laws for industries

*Decree on which emission and discharge standards for industries are applicable
(the standards have to be included in the Manual on industrial permitting)*

Part 3 Classification system

*Classification of industries
Classification of industrial areas*

Part 4 Standard regulations for industries and enterprises

Decree for which types of industries and enterprises specific and standard regulations are applicable (the regulations themselves have to be included in the Manual on industrial permitting).

Part 5 Related laws

Environmental impact assessment

8.2.2 Commitment of the government and ministries

The new system of industrial permitting and enforcement brings about a shift of tasks between governmental levels and between governmental institutions on one level. This will inevitably cause uncertainties and unclearness. Nevertheless, all governmental institutions which are presently involved in industrial permitting and enforcement will all keep a role in future industrial permitting. Therefore commitment of all governmental institutions is required. Communication will be one of the key tools in obtaining and insuring commitment over a longer period of time as it is essential to involve all governmental organisations in the oncoming process of change. The newsletter can be one of the media of use in communicating changes.

Besides, new laws have to be communicated and should be obtainable for all organisations involved. It is proposed to include all new laws, decrees and regulations related to industrial permitting and enforcement in a Manual. By means of the manual, all organisations will have a practical tool which will help to keep them committed during the first years of working with the new division of tasks.

8.2.3 Skills of employees

At present, there is a shortage of competent staff to deal with industrial permitting and enforcement. Moreover through the interviews and questionnaires we conducted, it became clear that the present staff is not sufficiently trained to deal with integral permitting. The various ministries and Mohafazaths have skilled workers, trained and schooled in particular subjects of industrial permitting (such as environment, health, spatial planning, etc.) but not in all aspects of the permitting process.

Under the new laws, employees from national, regional and local level should be able to deal with most aspects of industrial permitting and enforcement themselves. This approach will make permitting and enforcement more effective and more efficient, and is thus both beneficial for governments and industries.

To obtain this integral level of knowledge, additional training on all governmental levels is required. Training is especially required on national level. Ministries had till now an advisory role from sectoral points of view, and as such the total number of staffing is insufficient, new employees have to be recruited and accordingly have to be trained.

It is advised to set up a training course for employees from national, regional and local level wherein employees are trained on:

- *the new permitting procedures*
- *the issuance of integral permits (including the use of regulations on industrial emissions and immissions)*
- *the assignment of tasks to various governmental organisations and their subsequent roles*
- *controlling of industries*
- *enforcement of industries*
- *communication between governments and industries*
- *programme and project management*

8.2.4 Support materials

To facilitate the task of the employees involved in industrial permitting and enforcement and to run the involved organisations efficiently, support facilities should be made available. These facilities will include:

- Computer systems

Visits of various official bodies revealed that there is no comprehensive insight on aspects such as:

- * the level of industrial permitting: which industries do have what kind of permit
- * the level of control and enforcement, including the frequency of control of establishments
- * the dispersion of industries throughout the country

For a sound system of industrial permitting and enforcement, this information is crucial for the permitting organisations.

Therefore, it is advised to set up a data base in which the following information will be gradually stored and available:

- industrial areas:
 - present industries (categorised 1-5) on each area;
 - available space on each area;
 - environmental impact and complaints within each area;
 - industrial classification - amount and location of industries present in Lebanon for each industrial code
 - permitting
 - industries which have a permit
 - industries without a permit
 - revision time of permits for each industry
 - controlling
 - the last time each industry was controlled (+ attached to it the results of the control visit
 - the date/year for the next control visit (related to the category of industry)
 - enforcement
 - industries which were enforced for environmental infringements (+ attached to it the enforcement report)
 - complaints
 - environmental complaints directed to the industrial areas.
- Manual on industrial permitting and enforcement

It is expected that during the coming years more and more information on procedures, standards, production processes, emissions and discharges will be available for industrial permitters and enforcers. The experience in Western Europe, the US and other countries indicates that manuals for permitters and enforcers are indispensable.

It is advised to put out a manual on industrial permitting, based on materials obtainable from various countries, which should encompass the following information:

- elaborated permitting procedures
- the framework for the classification on industries and industrial areas, including how to deal with e.g.:
 - * categorisation of new or unknown industries
 - * deviation for a classification in a category
 - * categorisation of new industrial areas
- Summary document, including how to deal with e.g.:
 - * permitting procedures
 - * control and enforcement
 - * consultation in the procedure

- * *tasks on permitting*
 - * *tasks on control and enforcement (execution of control visits and enforcement)*
 - * *terms in the procedure*
 - * *fee collection on permitting and enforcement*
- *standard regulation for industries and enterprises*
 - *information on techniques and production processes per type of industry*
 - *the application of standards and when to deviate from them*
 - *who is who lists with practical information on organisations and persons employed on industrial permitting and enforcement*
- Public relations materials

In chapter 5, an insight is given on the communication materials which should be issued. Summarised, it concerns the following pr-materials:

- bi-monthly magazine on industrial issues related to industrial permitting, enforcement, clean technologies, best available techniques, etc.
- bi-weekly newsletter for governmental organisations
- brochure on industrial permitting for present and new industries and governmental organisations in which the changes with regard to the new permitting situation and classification systems is clarified.

APPENDIX 1 PROJECT ORGANISATION

Steering Committee

- Dr. Y. Choucair IDAL
- Mr. A Bejjani IDAL
- Mr. M Ayoub Ministry of Industry and Petroleum
- Mr. A. Baltagi Ministry of Health
- Mrs. L. Taher Ministry of Economic Affairs
- Mr. A. Chouiri Ministry of Agriculture
- Dr. M. Kaissi Chambre de Commerce
- Dr. S. Khaled Directorate of Urbanism
- Mr. G. Mansour Ministry of Municipal Affairs
- Dr. E. Matli Ministry of Environment
- Mr. J. Sukkar Customs
- Mr. H. Debs URBI
- Mr. J. Naufal ACE

Consultants

Fugro Milieu Consult BV

- B. Krikke MSc BSc Project manager
- H. van Nispen tot Pannerden MSc
- G. Venema BSc
- E. van Vliet BSc

ACE Associated Consulting Engineers

- S. Adra Coordinator
- E. Tabbal Industrial Consultant
- M. Hajjar
- A. Basha

APPENDIX 2 BACKGROUND INFORMATION ON INTERNAL COMMUNICATION

The structure of communication

The structure of the internal communication depends on the structure of the organisations. This structure is given in chapter 3. The communication system is developed in such a way that with some minor changes it will be suitable for an independent permitting organisation. However, the structure is primarily set up as to be implemented for a new directorate general for a (new) ministry of industry. There are three kinds of internal communication:

- *formal direct communication*
This form of communication follows the structure of the organisation. This way of communication is solid and verbal and will take place throughout the layers of the organisation. This communication usually follows top-down lines. However, bottom-up communication has to be encouraged because this communication proves to give vital information for decision making processes for the management of the organisation.
- *formal parallel communication*
By means of formal parallel information the employees and the staff will be informed about specific issues regarding the work of the permitting organisation:
 - new projects;
 - running business;
 - new information on industrial aspects.

Communication by means of an internal journal is advised. This issue should be published on a regular basis by the communications department

- *informal communication*
In each organisation, informal communication determines to a large extent the total communication of an organisation. The management of the permitting organisation should encourage a regular information exchange, informal, but should also stimulate an exchange of information and knowledge by job rotation and the regular setting up of project-organisations for special projects. Special projects could be designed with regard to the following subjects:
 - area aimed policy for specific industrial zones;
 - the development of environmental regulations for branches of industry;
 - the development of handbooks for permitting and enforcement;
 - the communication between the permitting organisation and the target sectors
 - further streamlining of tasks between the ministries and the mohafazaths and cazas.

Communication on information can be divided into three:

- informing messages (commercial information and decision making information): The middle management, the heads of the six departments, will play a crucial role in the exchange of this kind of information. Part of these messages is policy information on the organisation
- instructive messages
These messages concern the contents of the work. It is advised to structure this communication by means of handbooks on industrial permitting. The handbook should contain, among other things, the following elements:
 - * the permitting procedure
 - * the industrial classification system
 - * the area classification
 - * standard permit regulations for each branch of industry
 - * information on possible production processes within industrial branches
 - * key information on contact persons within the concerned governmental organisations (ministries, mohafazaths, cazas, municipalities)
 - * key information on contact persons of the industrial branches.
- motivating messages
This information, usually top-down, is extremely important within a new organisation. Motivating messages remain important during the aging of an organisation. The kind of message is due to changes. During the starting phase, communication on team building and to obtain a common feeling are essential. Later on, communication should focus more on the individuals and should ensure the commitment of all personnel during a longer period.

In the above, several aspects of the internal communication structure are mentioned. Nevertheless, some special points of attention which should be taken into consideration while developing the communication structure are:

- The possibilities for bottom-up communication
- The possibilities for horizontal communication within the departments and between departments
- The possibilities for diagonal communication (between staff departments and the line organisation);
- The balance between get- and carry-information.

APPENDIX 3 RESPONDENTS ON INTERVIEWS AND QUESTIONNAIRES

Table I - Bodies and Offices interviewed

Ministry of Environment	Representative	Mr. R. Sayah
Ministry of Agriculture	Representative	Mr. G. Mansour
Ministry of Health	Representative	Mr. A. Baltagi
Ministry of Industry	Representative	Mr. M. Ayyoub/S.
Assy/R. Saba		

Mohafez of Mount Lebanon	Mr. Souheil Yammout
Mohafez of South Lebanon	Mr. H. Foyad F. ELSAYEGH
Mohafez of Nabatieh	Mr. M. Mawla
Mohafez of North Lebanon	Mr. K. Hindi
Mohafez of Bekaa	Mr. F. Korm
Mohafez of Beirut	Mr. N. Saba

Caem Macam of the Caza of	Aley
	Zgharta
	Batroun
	Metn
	Jbeil
	Kesrouan

الجمهورية اللبنانية
 مَكْتَبُ وَزِيرِ الدَّوْلَةِ لِمَشْوَؤُنِ التَّنْمِيَةِ الإِدَارِيَّةِ
 مَرْكَزُ مَشَارِيْعِ وَدَرَاسَاتِ القَطَاعِ العَامِ

Head of municipalities of	North-Metn
	Choueifat
	Kfarchima
	Bouchrieh
	Zouk Mechael
	Jounieh

Table II - List of Bodies of Organisms that received the questionnaire

Ministry of the Environment
Ministry of Industry
Ministry of Agriculture
Ministry of Health

Mohafez of Beirut
Mohafez of Mount Lebanon
Mohafez of South Lebanon
Mohafez of North Lebanon
Mohafez of Bekaa
Mohafez of Nabatieh

Municipality of Beirut - Dept. of Classification
Department of Health - Mohafazat of Mount Lebanon
Department of Health - Mohafazat of South Lebanon
Department of Health - Mohafazat of North Lebanon
Department of Health - Mohafazat of Bekaa
Bureau of the Ministry of Industry - South Lebanon

Table III - Bodies and Organisations that answered the questionnaire

Ministry of the Environment
Ministry of Health

Mohafez of Mount Lebanon
Mohafez of South Lebanon
Mohafez of North Lebanon
Mohafez of Beirut
Mohafez of Nabatieh

Municipality of Beirut - Dept. of Classification

Department of Health - Mohafazat of Mount Lebanon
Department of Health - Mohafazat of South Lebanon
Department of Health - Mohafazat of North Lebanon

Bureau of the Ministry of Industry - South Lebanon

(note: of the 16 questionnaires handed in, 12 answers were received which the response rate is $12/16 = 75\%$.)

***APPENDIX 4 CALCULATION OF REQUIRED CAPACITY
FOR PERMITTING AND CONTROL***

Indicators for permitting, control and complaints

Subject	Cat.1	Cat.2	Cat.3	Cat.4	Cat.5
Permit revisi	0.25	0.2	0.1	0.1	0.1
Control visit	4	2	0.5	0.2	0.1
Complaints	1	0.08	0.08	0.05	0.05

Required units in hours for permitting, control and complaints

Subject	Cat.1	Cat. 2	Cat. 3	Cat. 4	Cat. 5
Permit issue	500	120	70	30	15
Control visit	300	30	20	15	10
Permit revisi	400	80	50	20	10
Complaints	20	5	5	2.5	2.5

Total amount of industries per category

Year \ Cat	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1	2	2	2	2	2	2	2	2	2	2	2
2	100	102	104	106	108	110	112	114	116	118	120
3	1500	1530	1561	1592	1624	1656	1689	1723	1757	1792	1828
4	4000	4080	4162	4245	4330	4417	4505	4595	4687	4781	4877
5	16000	16360	18727	19102	19484	19873	20271	20676	21090	21512	21942

Capacity planning [in amounts] for permitting, control and complaints

Year	1998					1999					2000					2001				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Cat	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Permit issue	1	20	150	400	1800	1	22	180	480	2160	-	22	181	482	2167	8	128	255	272	613
Control	-	-	-	-	-	4	40	75	80	180	8	84	166	176	395	-	-	-	-	-
Permit revision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Complaints	2	8	120	200	900	2	5	122	204	918	2	8	125	208	936	2	8	27	212	955
Year	2002					2003					2004					2005				
Cat	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Permit issue	1	22	182	485	2162	1	2	182	467	2190	1	2	183	488	2197	1	2	184	490	2205
Control	8	172	346	369	830	8	216	437	466	1048	8	220	528	563	1267	6	224	620	661	1467
Permit revision	1	-	-	-	1	1	20	-	-	-	22	22	-	-	-	-	22	-	-	-
Complaints	2	9	130	217	974	2	9	132	221	994	2	9	136	325	1014	2	9	138	230	1034
Year	2006					2007					2008									
Cat	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Permit issue	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5					
Control	8	228	712	759	1708	8	232	804	857	1929	8	236	896	956	2151					
Permit revision	1	22	-	-	-	1	22	-	-	-	-	22	150	400	1800					
Complaints	2	9	141	234	1054	2	9	143	240	1076	2	10	146	244	1097					

Capacity planning [in time] for permitting, control and complaints

Year	1998					1999					2000					2001				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Category	500	2400	10500	12000	27000	500	2640	12600	14400	32400	2400	2640	12670	14460	32505	2400	2640	12670	14490	32626
Permit issue	-	-	-	-	-	1200	1200	1500	1200	1800	2400	2520	3300	2640	3960	2400	3840	5100	4080	6130
Control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permit revision	40	40	600	500	2250	40	40	610	510	2295	40	40	625	520	2340	490	40	635	530	2387
Complaints																				
Total	540	2440	11100	12500	29250	1740	3880	14710	16110	36495	2440	5200	16595	17620	38805	2440	6520	18405	19100	41143

Year	2002					2003					2004					2005				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Category	-	2640	12740	14550	32730	-	240	12740	14610	33330	-	240	12810	14640	32935	-	240	12880	14700	-
Permit issue	2400	5160	6920	5535	6300	2400	6480	8740	6990	10480	2400	6600	10560	8445	12670	2400	6720	12400	9915	14870
Control	400	-	-	-	-	400	1600	-	-	-	-	1760	-	-	-	-	1760	-	-	-
Permit revision	40	45	650	542	2435	40	45	660	552	2485	40	45	675	562	2533	40	45	690	575	2585
Complaints																				
Total	2840	7845	20310	20627	43465	2840	8365	22140	22152	45815	2440	8645	24045	23647	48160	2440	8765	25970	25190	50530

Year	2006					2007					2008				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Category	-	240	12880	14760	33210	-	240	12950	14820	33330	-	240	2520	2880	6450
Permit issue	2400	6840	14240	11385	17080	2400	6960	16080	12855	19290	2400	7080	17920	14340	21510
Control	400	1760	-	-	-	400	1760	-	-	-	-	1760	7500	6000	18000
Permit revision	40	45	705	585	2635	40	45	715	600	2690	40	50	730	610	2742
Complaints															
Total	2840	6885	27825	26730	52925	2840	9005	29745	26275	55310	2440	9130	28670	25830	48702

Required manpower

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Permit issue	32.75	39.92	38.92	35.02	38.16	37.78	37.9	38.06	28.18	36.34	7.56
Control	-	4.31	9.26	13.47	17.7	21.93	25.42	28.94	32.47	35.99	39.53
Permit revision	-	-	-	-	0.25	1.25	1.10	1.10	1.35	1.36	22.04
Complaints	2.14	2.18	2.23	2.27	2.32	2.36	2.41	2.46	2.51	2.56	2.61
Total	34.89	45.58	50.41	54.57	59.43	63.32	66.84	70.66	74.5	78.2	71.73

Required manpower per industrial activity in 1998

Year	1998					1999				
Category	1	2	3	4	5	1	2	3	4	5
Permit issue	0.31	1.50	6.51	7.50	16.48	0.31	1.65	7.88	9.00	20.25
Control	-	-	-	-	-	0.75	0.75	0.94	0.75	1.13
Permit revision	-	-	-	-	-	-	-	-	-	-
Complaints	0.03	0.03	0.38	0.31	1.41	0.03	0.03	0.38	0.32	1.43
Total	0.34	1.53	6.94	7.81	18.28	1.09	2.43	9.19	10.07	22.81

Year	2002					2005				
Category	1	2	3	4	5	1	2	3	4	5
Permit issue	-	1.66	7.96	9.09	20.46	-	0.15	8.05	9.19	20.67
Control	1.50	3.23	4.33	3.46	5.19	1.50	4.20	7.75	6.20	9.23
Permit revision	0.25	-	-	-	-	-	1.10	-	-	-
Complaints	0.03	0.03	0.41	0.34	1.52	0.03	0.03	0.43	0.36	1.62
Total	1.78	4.90	12.69	12.89	27.17	1.53	5.48	16.23	15.75	31.56

Year	2006				
Category	1	2	3	4	5
Permit issue	-	0.15	1.58	1.80	4.08
Control	1.50	4.43	11.20	8.96	13.46
Permit revision	-	1.10	4.69	5.00	11.25
Complaints	0.03	0.03	0.46	0.38	1.75
Total	1.53	5.71	17.92	16.14	30.44

Republic of Lebanon
Office of the Minister of State for **Administrative Reform**
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

APPENDIX 5

***NATIONAL INDUSTRIAL PERMITTING SYSTEMS OF
FRANCE, GERMANY, THE UNITED KINGDOM, BELGIUM,
SPAIN AND THE NETHERLANDS.***

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1. FRANCE

France is an industrialized country with a relatively low population density. There are four administrative levels:

- state level - national policy development/enactment of laws
- regional level - state representative in each region/dept
- department level - préfet, responsible for implementing laws
- municipality level - mayor, responsible for implementing laws

French legislation on industrial pollution dates back to 1810, but most current environmental laws and regulations have been developed over the past fifteen years. The fast development is due to the pressure from the environmental lobby and the EU. Nowadays the law on Classified Installations for Environmental Protection exists. This is an integrated pollution control legislation.

1.1 *Division of tasks*

The responsible for the formulation of environmental policies at national and regional level is principally the minister of the environment.

The Préfet is the local representative of the French Government in each department. The Préfet is responsible for the implementation of the policies. For the tasks of permit approval, environmental control and sanctioning, the Préfet is assisted by inspectors of the Ministries of Environment and Industry.

The Regional Directorate of Industry, Research and Environment (DRIRE) is the agency who is involved in defining technical requirements and monitoring implementation on regional level.

1.2 *Integral permit or sectoral permits*

A facility is subject to the environmental laws if it will involve one or more of 400 specified categories of activities as described in the legislation (*Nomenclature des Installations Classées*). If an industrial activity is on this list, it generally indicates that the plant undertaking such activity is subject to an "authorization" or "declaration" process, depending on how many risks or hazards the plant poses to the environment.

- * When an installation creates serious danger or nuisance, it needs an authorization from the local Préfet. Such an authorization specifies conditions of operation.
- * When an installation creates less serious danger or nuisance it needs the submission of a declaration of the activity to the local Préfet. These installations have to deal with requirements written out in the prescription type' form for the relevant industry/process as issued by the Préfet.

Most industrial or commercial facilities need prior authorization from the competent authorities before they can realise their facility or operate.

Essential to the environmental legislation is the classification of facilities. Class A (Authorization) activities, being the most hazardous, need prior authorization (permit). Class D (Declaration) facilities only need to submit a prior notice to the competent authorities. Generally speaking, manufacturing activities require authorization whereas commercial activities (stores, warehouses, repair centres etc) need either an authorization or a declaration.

The classification of the activity stresses out the type of procedures applicable and the technical regulations which will control the operation of the facility. For certain types of facilities (e.g. those involving waste related activities), a change of operation requires a new authorization.

There are different rules and regulations for the building and operation of an industrial facility. The most important ones concern waste, water, air and noise pollution.

1.3 *The permitting procedures*

The applicant has to submit a complete dossier to the Préfet, including an EIA (Environmental Impact Assessment) and a risk study (for Class A facilities). According to the French International Enterprise Development Association's information, a long and complex procedure is undertaken after the application. This procedure involves extensive advice from relevant governmental agencies and a public inquiry.

The inquiry of at least one month, enables interested parties to influence the conditions of the authorizations. The application is available at the town hall during this period. A summary of the written comments that come out of this inquiry are added to the dossier for response to the applicant.

The DRIRE is the coordinating body providing a technical recommendation report for the authorization. After a public comment period of at least one month, amendments can take place. The signature of the Préfet is necessary for a valid authorization.

The total procedure can take 6 to 18 months, with an average of 8 months. Building can start after 6-8 months.

After issuing the authorization, the applicant and other parties involved may appeal against the authorization to the Administrative Tribunal.

Class D activities only have to notify their plans and wait for acknowledgement of receipt. The latter includes the relevant general technical regulations, issued by the Ministry of Environment, that apply for the specific activity. These general regulations can be changed by the Préfet taking into account specific local circumstances.

Class A technical regulations are defined as part of the overall procedure and are usually more restrictive and detailed, concerning emission reduction measures and also reporting and monitoring requirements for larger installations. Usually the standards are defined. The methods to reach these standards are often left to the applicant.

General standards are provided by the Ministry of the Environment. More stringent standards can be imposed by the regional administrations to meet the principle of the Best Available Technology Not Entailing Excessive Cost (BATNEEC).

Activities that are not pointed out by law as one of the categories, can be made subject to similar rules when the Préfet considers them to be a serious threat to the environment.

1.4 *Enforcement and control*

The enforcement of environmental regulation is to a large degree in the hands of the classified installations inspectors at the initial stages.

Controls relating to industry are carried out through the *Classified Installations Law 663 of 1976*.

Liability resulting from violations of environmental regulations and/or environmentally related damage to third parties may take one of the following three forms:

Administrative sanctions

- fulfill the operating obligations/ closing down of the plant
- carrying out the necessary work to put the plant into compliance with the regulations at the operator's expense
- ordering payment by the operator of an amount corresponding to the cost of the work to be performed.

Criminal sanctions

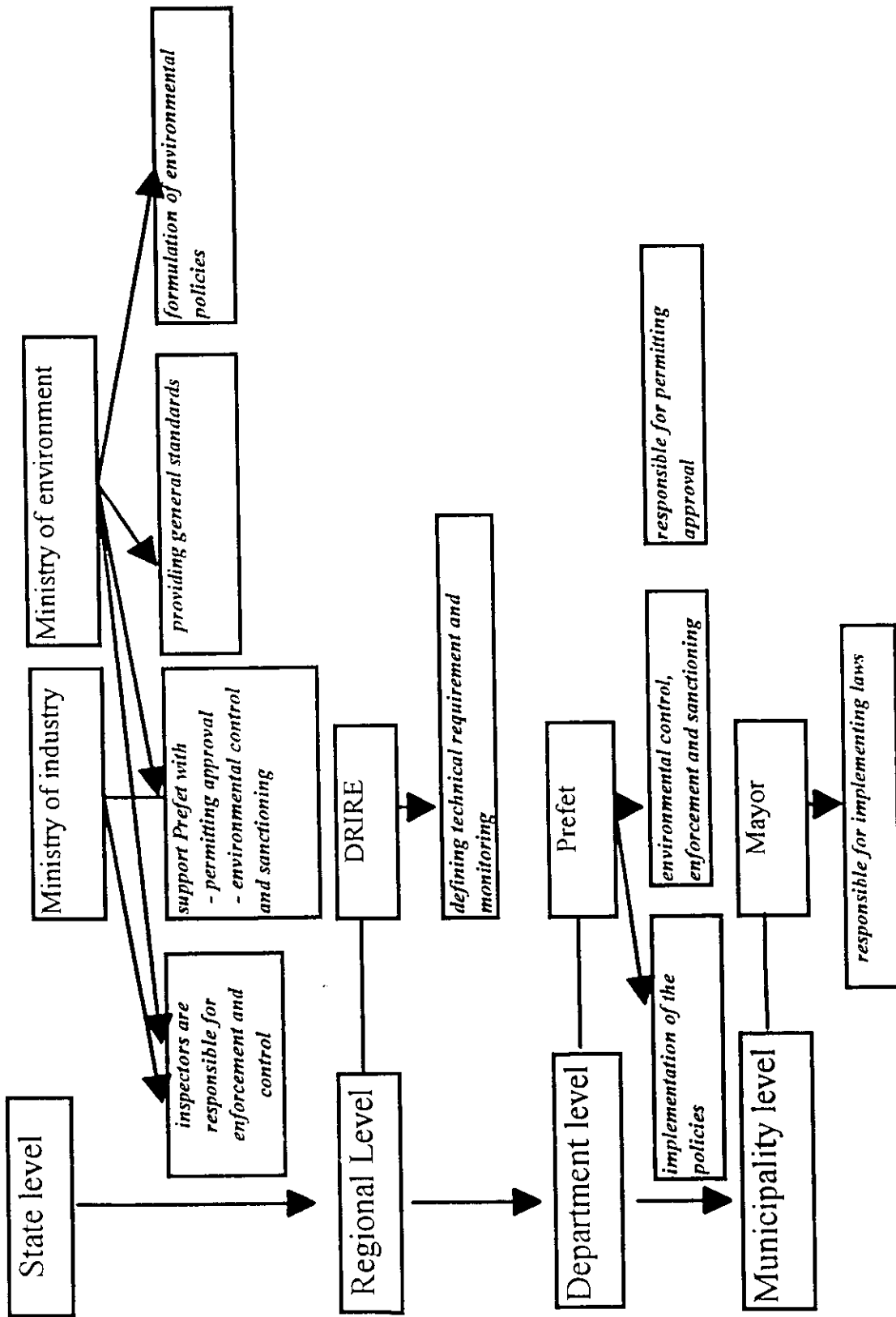
- plant managers may incur fines from 2,000FF to 500,000FF and/ or imprisonment from ten days to six months for the first offence
- for the next offence, the fine will be higher and the imprisonment will be longer
- the criminal court is also able to close down the plant or order the operator to take certain steps within a specific period.

Civil liability

Any third party who suffers "abnormal neighbourhood inconvenience" may bring court action against the plant operator based upon the law.

1.5 *Diagram*

A diagram on permitting and enforcement tasks and the different authorities involved is displayed on the next page.



2. GERMANY

Germany is a densely populated industrialized country. 85% of the inhabitants live in urban areas. The administrative levels are:

- federal government, with the chancellor as head of the state: enact laws;
- 16 states (13 area states and three metropolitan states): implement and enforce laws, with latitude for interpretation;
- administrative districts within some of the states, with a president as head;
- counties;
- municipalities as subdivision of counties.

In the Federal Republic of Germany the protection of the environment has become one of the prime concerns of policy makers, of the business community and of the public at large.

2.1 *Division of tasks*

The legislative powers in the field of environmental law are divided under the federal constitution (the "Basic Law" *Grundgesetz* (GG)) between the federation (*Bund*) and the federal states (*Länder*).

The competence of the *Bund* mainly applies to the legislation comprising the enactment of laws, regulations and administrative guidelines. In principle the enforcement of these legal rules is the task of the *Länder*.

Under the *GG*, the *Bund* has concurrent legislative powers and thus can pre-empt the *Länder* legislation in several areas of environmental law, including waste disposal, pollution control and hazardous substances legislation. In areas of nature protection and water resources management, the *Bund* has the right to enact framework laws (*Rahmengesetze: Nature Conservation Law*), which are complemented and implemented by more detailed *Länder* laws.

Federalism also characterises the exercise of executive powers in the field of environmental law. Whereas environmental legislation is primarily enacted on the federal level, executive competence rests largely with the *Länder* and their administrative entities (districts, counties, communes).

2.2 *Integral permit or sectoral permits*

To assess whether and if so, what kind of permit is required for the realisation and operation of a new industrial plant a difference has to be made between two types of plants:

- those where a permit is always required (on behalf of the Emission Protection Act);
- those where no permit is required but inspection is necessary (on behalf of the Industrial Code);

In practice most industrial activities require a permit. The general requirements, i.e. whether or not a permit is necessary, can be obtained from a checklist of plants and activities, incorporated in the Emission Protection Act.

When the application procedure starts, the authority dealing with the application will be identified. This depends on location, size and type of plant. The appointed authority will be in charge of all the necessary environmental permits and is responsible for the coordination of the entire procedure. Before the whole procedure is going to start, it has to be clear whether a shortened procedure can be followed or a full procedure is necessary.

The following permits are required for the construction of a new industrial plant in Germany:

- *Permit on behalf of the Act of Emission Control*
This permit is issued by the regional authorities.

- *Building Permit*
A building permit is included in the procedure on behalf of the Emission Protection Act and is valid for the entire plant. Under certain circumstances an additional building permit may be necessary for an administration building or a warehouse. Some restrictions under which the permit is granted would possibly refer to:
 - * limits of emissions;
 - * requisitions for test runs;
 - * implementation of technical rules.

- *Permit on behalf of the Water Management Act*
The Water Management Act requires the Lander authorities to ensure that indirect discharges to sewers undergo appropriate treatment prior to sewer. Because of this, indirect discharges must comply with Lander legislation.

- *Other Permits that may apply*
Depending on the type of activity, the authorities involved in the permit application procedure can demand additional rules and regulations applicable to the project concerned. A selection of these regulations are:
 - Waste Avoidance and Waste Management Act
 - Chemical Agents' Act
 - Decree on Hazardous Substances
 - Decree on Trouble Prevention

Implementation and permitting of federal and Lander environmental legislation is the responsibility of the Lander. Lander laws may be made to implement federal legislation or federal laws may be adopted directly by the Lander. Technical instructions apply nationally; the Lander are not permitted to alter them in their own legislation.

Permitting tasks are generally delegated by the Lander environment ministries to the district or other lower authorities.

In order to comply with the requirements given by the recently passed EU-IPPC-Directive (which is applicable for big installations causing emission with significant impacts on the environment) there might be in the future one integral permit only covering the sectors air, water and soil.

2.3 *The permitting procedures*

The procedures for obtaining a permit are an integrated part of the plant design. They can generally be divided into four phases:

- * application for a permit by the investor (together with the technical design of the industrial plant)
- * notice of approval by the approval authority (sometimes with certain conditions regarding plant modification)
- * plant construction
- * start-up of plant operation

With the notice of approval, final design is carried out. During the construction and the start-up of the plant operation, the approval authority is again involved as it checks the measures taken to meet permit conditions. In the case of possible plant-modifications (e.g. enlargement) or shut-down, new permit procedures become necessary.

Depending on the plant's size and importance, the investor is committed to comply with an extensive approval procedure or a simplified one.

The maximum permissible duration of the permit procedure is not defined by law. It can vary from one German state to another. In addition, the political background of the state administration can influence the duration of the procedure. Therefore it is necessary to compare permit procedures of the same kind in different German states to get an impression of the possible required time.

In order to make investments in Germany more attractive, the Federal Government plans a new law for the acceleration and simplification of approval procedures.

If the law is implemented, the complicated approval procedures would be replaced by simplified ones. This would mean that the authorities need less time for the procedure and that there would also be less time for objections by the public.

This federal law has to be taken over by the states and would change some existing laws:

- * water management law
- * emission control law
- * waste laws

2.4 *Enforcement and control*

In order to ensure the necessary feedback between the legislation and enforcement level, a special body, the *Umweltministerkonferenz* (UMK= conference of the Lander - ministers for environmental issues) has been created which meets twice a year. Besides there are working groups consisting of representatives of the Bund and the Lander which deal with problems concerning certain environmental sectors (Emission control (LAI), watermanagement (LAWA), waste disposal (LAGA)).

Enforcement is decentralised throughout Germany and is the responsibility of the Environment Ministries of the Federal Lander. Various tasks are delegated to district or other lower authorities by the Lander Ministries.

In theory the decentralised approach could result in different levels of control and sanctioning of facilities across the country.

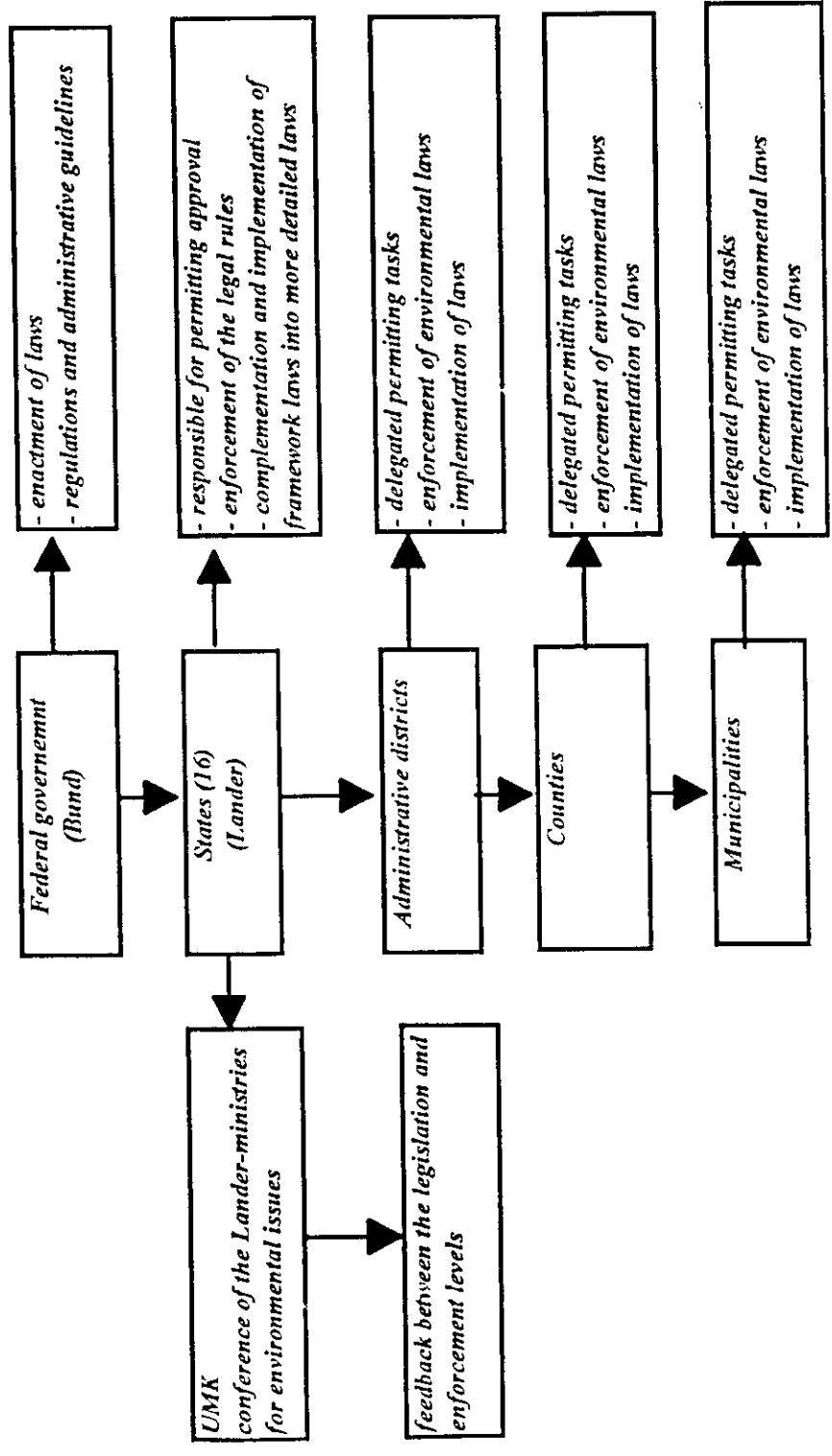
In some cases, the Land or local authorities have been integrated. They use the same procedures for enforcement (eg North Rhine Westfalia and Baden Wuttenburg).

Control of conduct can be achieved with different instruments:

- criminal environmental law
- fines
- special laws
- environmental taxes
- subsidization
- return and recycling

2.5 *Diagram*

A diagram on permitting and enforcement tasks and the different authorities involved is shown on the next page.



3. THE UNITED KINGDOM

The United Kingdom (UK) encompasses England, Scotland, Wales and Northern Ireland. It has a central government, but Scotland has its own legal system. The UK will be seen as one entity. Population density is relatively high.

The key levels of the government in the UK are as follows:

- National Parliament
- Central Government Departments and Agencies
- County Councils
- Borough/District Councils

Environmental legislation and organisations responsible for its implementation differ from one part of the UK to another.

3.1 *Division of tasks*

Political aspects of environmental policy and the enactment of legislation are the task of the national Parliament. The Department of the Environment is the leading Department in the development and implementation of environmental law and policy, except in the area of major accident hazards. This part is covered by the Health and Safety Executive (HSE). The HSE is sponsored by the Department of Employment. Local Authorities do not have a major role in the development of national policy but they are responsible for local land use planning.

The approach to environmental permitting of manufacturing facilities by the responsible authorities depends on the size/type of the process and the type of permit required.

For certain processes and substances an integrated permitting system (IPC) exists, under the authority of Her Majesty's Inspectorate of Pollution (HMIP). Under this system a single permit is issued for dispersion to air, water and land.

For other processes and substances (which are less potentially polluting) a media based system of permitting exists. In this system different authorities are responsible for discharge to different media.

- *Local Authority*; responsible for emissions to air.
- *National Rivers Authority*; discharges to controlled water.
- *Sewerage Undertakers*; discharges to sewer.
- *Waste Regulation Authority*; waste management.

The Health and Safety Executive is responsible for permitting and enforcement of the storage/handling of chemicals.

3.2 *Integral permit or sectoral permits*

In the UK all procedures concerning planning and processing which may have some effect on the environment have been laid down in National Acts and Regulations. In general, acts are enforced on a national level although some legislation is enforced by the local authority who have in some cases different interpretations of the law concerned.

In the UK, it is necessary, according to the law, that local authorities design their own Development Plans for their area. This plan for plants or processes has to be in line with the Unitary Development Plan of the local authority. The area is divided into simplified planning zones and enterprise zones. The assignment of the different areas in the development plans can be different from the assignment as it stands in the Unitary Development Plan, but that will make no difference.

New industrial activities always require planning permission. Where the type of development proposed is in line with the terms agreed for the zone, specific permission may not be required for the project. If significant environmental effects are expected a planning permit is required and the addition of an EIA is required.

Obtaining planning permission from the local planning authority (or Secretary of State for major infrastructure projects) is necessary for all building activities.

The EPA (Environmental Protection Act) makes a distinction in two types of industrial processes:

- part A processes are subject to Integrated Pollution Control (IPC) and the authorization provisions are enforced by HMIP;
- part B processes are designated for air pollution control by the Local Authority which is also the relevant authority for permit application and handling.

For part A processes the Inspectorate can use additional conditions to the authorization concerning emissions to air and other media.

Whether the activities envisaged, require prior authorization depends on the release of specified compounds during operations. If release of these compounds is foreseen, the process used determines whether the authorization will be controlled under part A or Part B of IPC.

Typical industries with processes as described in part A of the EPA are oil refineries, power generation, mineral industries, chemical and pharmaceutical industries, waste disposal and recycling.

Industries covered by both parts A and B are the paper and pulp manufacture, tar and bitumen processes, coating and printing processes, timber processes and processes involving rubber.

Processes listed under part B of the EPA which involve less material than the lower limit for HMIP control are subject to local authorities control.

3.3 *The permitting procedure*

The first step for a new facility is the application to the Local Authority for planning permission which includes the environmental assessment study, if required.

Processes prescribed as category A are those with the most harmful emissions to air or sewer, or which produce significant amounts of hazardous waste. In those applications, HMIP is required to consult with the Ministry of Agriculture, Fisheries and Food, HSE, NRA (National Rivers Authority) and sewerage undertakers.

The NRA has overriding control on the discharge to water. Conditions for the discharge to water must be at least as stringent as those which the NRA would require. Major accident hazards facilities must be notified to the HSE. Emergency plans are approved.

For category B facilities, permits for air emissions must be obtained from the Local Authority. Permits for discharge of waste water to water or sewer must be obtained from the NRA and water companies, respectively for category B and non-prescribed processes.

Permits for waste treatment and disposal are supplied by the Local Authority Waste Regulation Authorities (WRA). HMIP has the role of overseeing the activities of the WRAs.

3.4 *Enforcement and control*

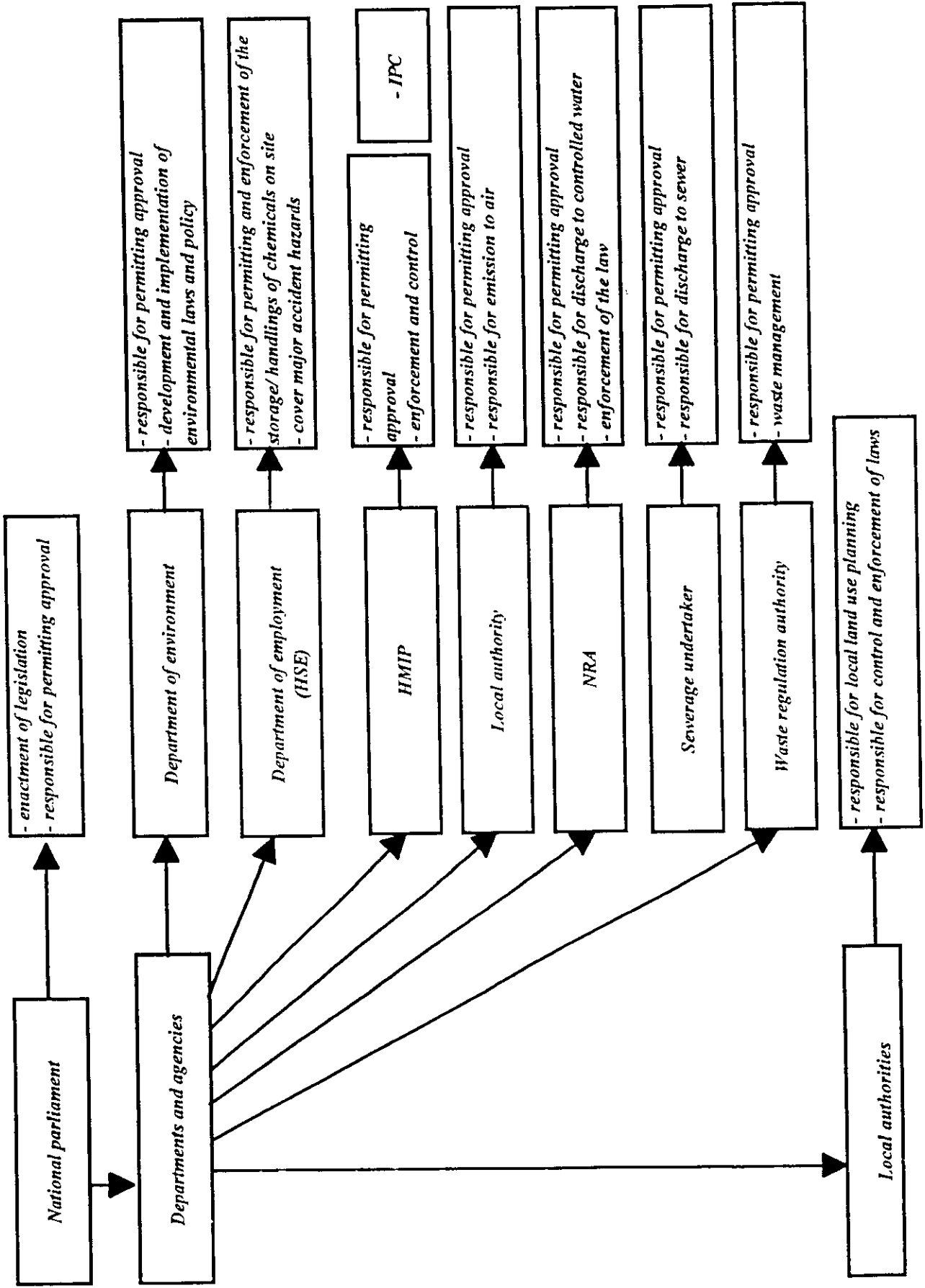
The designated authorities (HMIP, the NRA, the HSE and local authorities) enforce environmental statutes by bringing criminal prosecutions or by recovery of the costs of anti-pollution measures.

Individuals and companies may bring private prosecutions for violation of environmental statutes, but more usually they bring actions in the civil courts on the basis of common law provisions.

Nowadays inspectors have enough powers and prosecutions for offenses and fines are increasing. Individuals and companies are becoming more aware of their rights and have more information available to them about how to bring civil actions to protect their rights.

3.5 *Diagram*

A diagram on permitting and enforcement tasks and the different authorities involved is reflected on the next page.



4. BELGIUM

Belgium is a Federal Country. The Flanders, Wallonia and Brussels regions are largely autonomous for most so-called "territorial" policy matters, including environmental policy. Until 1980, environmental legislation in Belgium was entirely in the hands of the national government. It gradually became a regional matter with the exception of product standards, the protection against ionizing radiation and the movement of waste.

4.1 *Division of tasks*

The Belgian State has been re-organised as a federal union. It has three autonomous regions: the Flemish and the Walloon Regions and the Region of Brussels. An increasing number of powers and financial means have been delegated to each of these regions. The Constitution itself provides only for the principle of delegation: the magnitude of the regional powers and their interaction with the residual federal powers are the subject of special statutes which require the approval of a majority within each linguistic group in parliament, representing the Dutch and the French speaking communities.

4.2 *Integral permit or sectoral permits*

The regions are competent for all issues which are not explicitly attributed to the federal level, and this includes environmental matters. An exception is made for the following issues for which national government is responsible:

- Transit of waste;
- Radioactive waste;
- Product norms.

Each Region has its own environmental policy, determined by different geographical, economical and political circumstances.

The region of Flanders has the most developed environmental policy and has inspired the other two regions to take actions.

Environmental awareness in the Brussels and Wallonia Regions is not as well developed as it is in the region of Flanders.

Since the federalisation of Belgium, the Regions have collaborated more, and on several issues, such as waste and trans regional cooperation agreements have been made. This is often on the initiative of the Interministerial Committee for the Environment, which comprises the three regional Ministers for the Environment and the Federal Minister.

The Ministry of the Flanders Region is subdivided into six departments, including the Department of the Environment. This department is further subdivided into six administrations, and in relation to industry the most important administration is the

Administration for the Environment, Nature and Land Development (AMINAL). AMINAL is responsible for the preparation and implementation of environmental policy, and is competent for the following matters:

- General Environmental Policy;
- Environmental Investments;
- Environmental Permits;
- Inspection;
- Nature Conservancy and Development;
- Land Management

The AMINAL is also responsible for bringing out the exploitation permit.

In addition to AMINAL, there are other bodies which are important for the preparation and the implementation of the environmental policy relating to industry, as follows:

- *OVAM (Openbare Afvalstoffenmaatschappij voor het Vlaamse Gewest)*
- *VMM (Vlaamse Milieumaatschappij)*
- *Vlaamse Milieuholding*
- *N.V.AQUAFIN*
- *N.V.VLAR*
- *N.V.INDAVER*

The OVAM has two major tasks:

- The first task is to supply permits to companies who require an environmental permit.
- Its second task is to check the permits of the different companies.

According to the land decree, there are three different forms of inspection of the permits of the companies;

- every five years;
- every ten years;
- every twenty years.

In Belgium every company needs its own environmental management system. The companies are divided into two categories; the second category is more obligated to have an environmental system than the first one. All companies need an environmental coordinator. He transmits information to the head of the responsible authority in order to keep environmental control over the company.

Large companies have to draw up an environmental report every year and they also need an environmental management system.

There has to be a connection between the environmental management system and the permit, according to the European regulation EMAS and ISO standards.

4.3 *The permitting procedure*

The permitting procedure is different in each of the regions.

In the Flemish Region, the regulations known as VLAREM I and VLAREM II have promoted the concept of a single unitary environmental permit. The application for the permit covers all aspects of the classified activity which may affect the environment. The Brussels Region has decided to adopt a similar approach. The Walloon Region still keeps the procedures existing under the General Regulations for the Protection of Workers which may require the applicant to file different permit applications with different authorities. The tendency in the Walloon Region is to improve the permitting process by creating new and updated licensing procedures for specific sectors of the industry which are typical for the Walloon economy (such as mines, quarries, forest industry and tourism)

In spite of this diversity, the regional permitting schemes have important features in common. The classified activities requiring a permit are divided into Categories I and II. A permit for Category I requires the approval of the provincial authorities and a permit for Category II can be issued by the municipal authority.

4.4 *Enforcement and control*

- Criminal action:

When the rules are not observed in the right way, an official report is given to the public prosecutor. Only he may find it necessary to take action against or to dismiss an offence. The inspector cannot substitute for the public prosecutor.

The public prosecutor may dismiss the case, or propose a settlement of the case in court. Penalties vary from 10.000 B F up to 1.000 millions B F. Imprisonment varies from 8 days to 5 years.

- Administrative action:

When making an official report, the inspector mostly gives orders to remedy the illegal situation. When the offender does not follow the orders, criminal action is taken against him and more administrative sanctions are possible, including:

- * suspension or abolishment of the permit;
- * injunction to stop the activities;
- * seal up the installation;
- * close down the facility

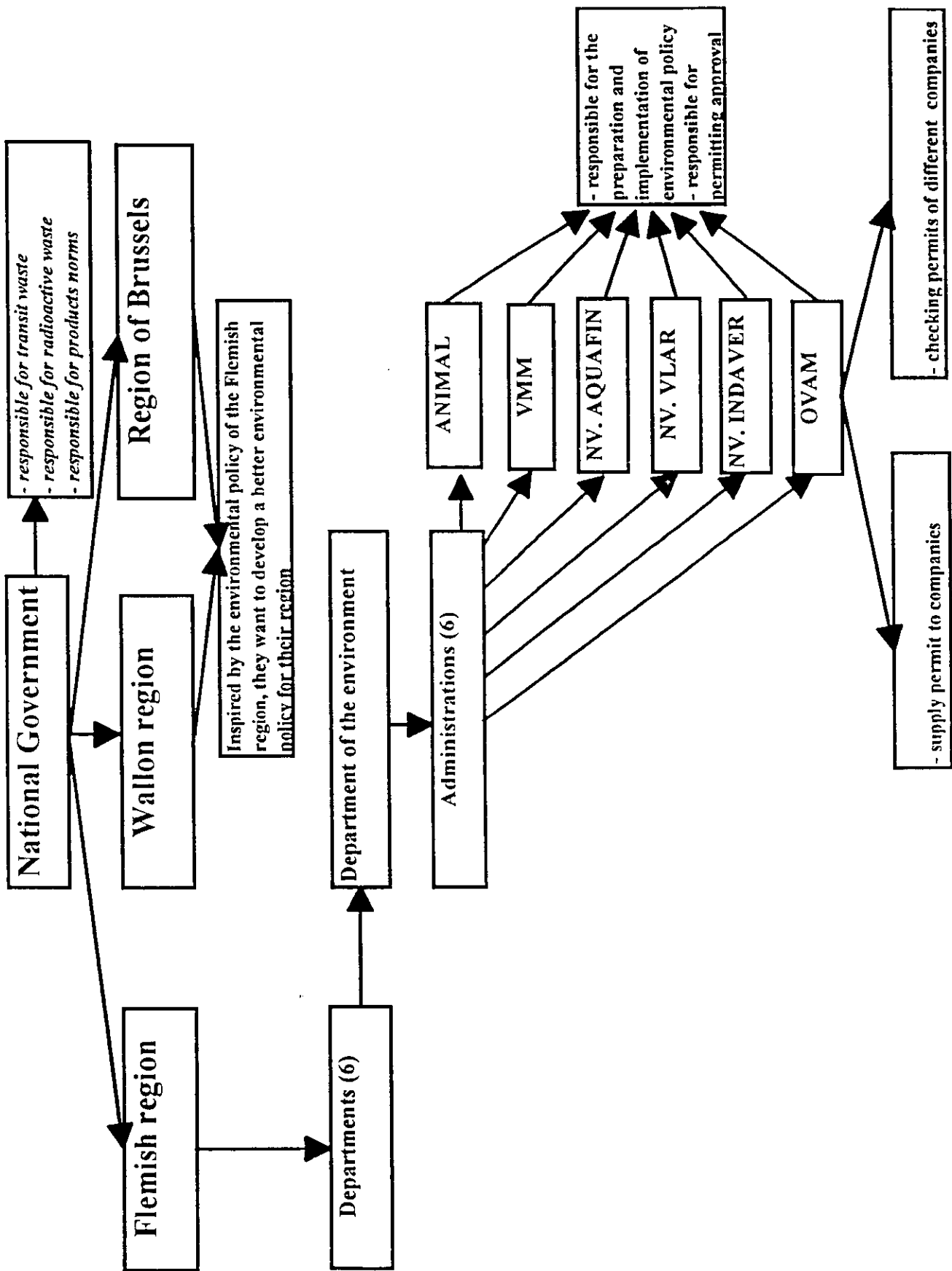
Furthermore, the inspector can start the procedure to change the conditions of the permit. In case of severe or imminent danger, the inspector can take all measures necessary to put an end to the danger. In the case of discharge of manure into surface water, a fine of 100.000 BF can be imposed.

- *Civil action:*

The inspector has the possibility to ask the civil court to put an injunction on the offender in order to force the execution of the imposed measurements.

4.5 *Diagram*

A diagram on permitting and enforcement tasks and the different authorities involved is reflected on the next page.



5. SPAIN

Spain has one of the lowest population densities in the EU (about 39,000,000 inhabitants on 504,800 km²). It has three levels of administration:

- state level;
- 17 autonomous regions;
- local level (provinces and municipalities)

Regulation of the environment has become increasingly important in Spain in keeping with EC legislation, and the 1978 Spanish Constitution contains provisions to avoid further damage to the environment. Nowadays in Spain, the social and political awareness of the common heritage is much more developed than it was only a couple of decades ago. However, the challenge remains to protect the environment further.

5.1 *Division of tasks*

Laws are enacted at state level. There is a ministry of Environment since 1996.

The state has given different levels of responsibilities to the autonomous regions. Therefore environmental and industrial control can be implemented in different ways. Also provinces and municipalities have different responsibilities. As a result there is a complex inter-relationship in legislation.

5.2 *Integral permit or sectoral permits*

Spain is administratively divided into 17 regions, called autonomous communities. These autonomous communities, in addition to the municipalities, have powers to legislate on environmental matters and to enact legislation more restrictive than the national legislation.

Broadly speaking, the autonomous communities have exclusive competence over matters such as land use and planning, housing and the protection of wildlife and mountain areas. In addition, the autonomous communities are competent to adopt legislation to protect and regulate the use of the environment but within the framework and under the guidelines established by the national legislation.

Municipalities are competent to regulate certain environmental matters including water supply and disposal, collection, recycling and disposal of waste, sewage network and treatment of residual water.

The existence of these administrative divisions has often resulted in confusion and overlapping of competencies, especially between the state and each autonomous community. This situation has been aggravated by the partial delegation by the autonomous communities and municipalities of their powers to government or private agencies and companies.

5.3 *The permitting procedure*

An application is first addressed to the Municipality to obtain a building permit. After that the proposal is passed to the Regional Territorial Commission comprising several regional ministries (Environment, Industry, Health, Agriculture). For the prescribed activities the proposal will include an environmental assessment statement.

The next stage involves applications for relevant sectoral permits eg air (Regional Ministry of Industry), water (Water Basin Agency), waste (Regional Ministry of Environment). The Commission then considers the proposal and the sectoral permits, and passes its decision back to the Municipality. Rejection by the Commission halts the process, but if the Commission accepts the proposal, the Municipality may still reject it.

The municipality can reject the proposal, because a certain industry causes too much pollution to the environment or produces too much noise etc. The industry has to make certain adaptations to get the permission from the municipality. The norms which are used by the different municipalities to supply a certain permission are standard for all the municipalities in Spain.

When both the Commission and the Municipality accept the proposal, construction may begin.

Prior to the start of the new facility, an operating permit must be obtained from the Ministry of Industry and finally a pre-operation check is made by the Municipality, which takes account of all permits.

5.4 *Enforcement and control*

Enforcement is divided between national enforcement, enforcement by the autonomous communities and enforcement by the local authorities.

- national

Enforcement of environmental legislation is still very limited. It is done through public awareness campaigns but mainly through the imposition of criminal and civil liabilities.

- autonomous communities

The degree of enforcement of environmental regulations by autonomous communities varies depending on the policy and recourses of each community. Madrid and Catalonia are taking the lead in this regard.

- local authorities

The municipalities are also increasingly more active in the control and punishment of environmental offenders. However, they have limited technical and human resources available to implement their environmental policies effectively

In Spain, Regions and Water Basin Agencies check their own permits. Catalonia Ministry of Industry employs consultants for compliance checking.

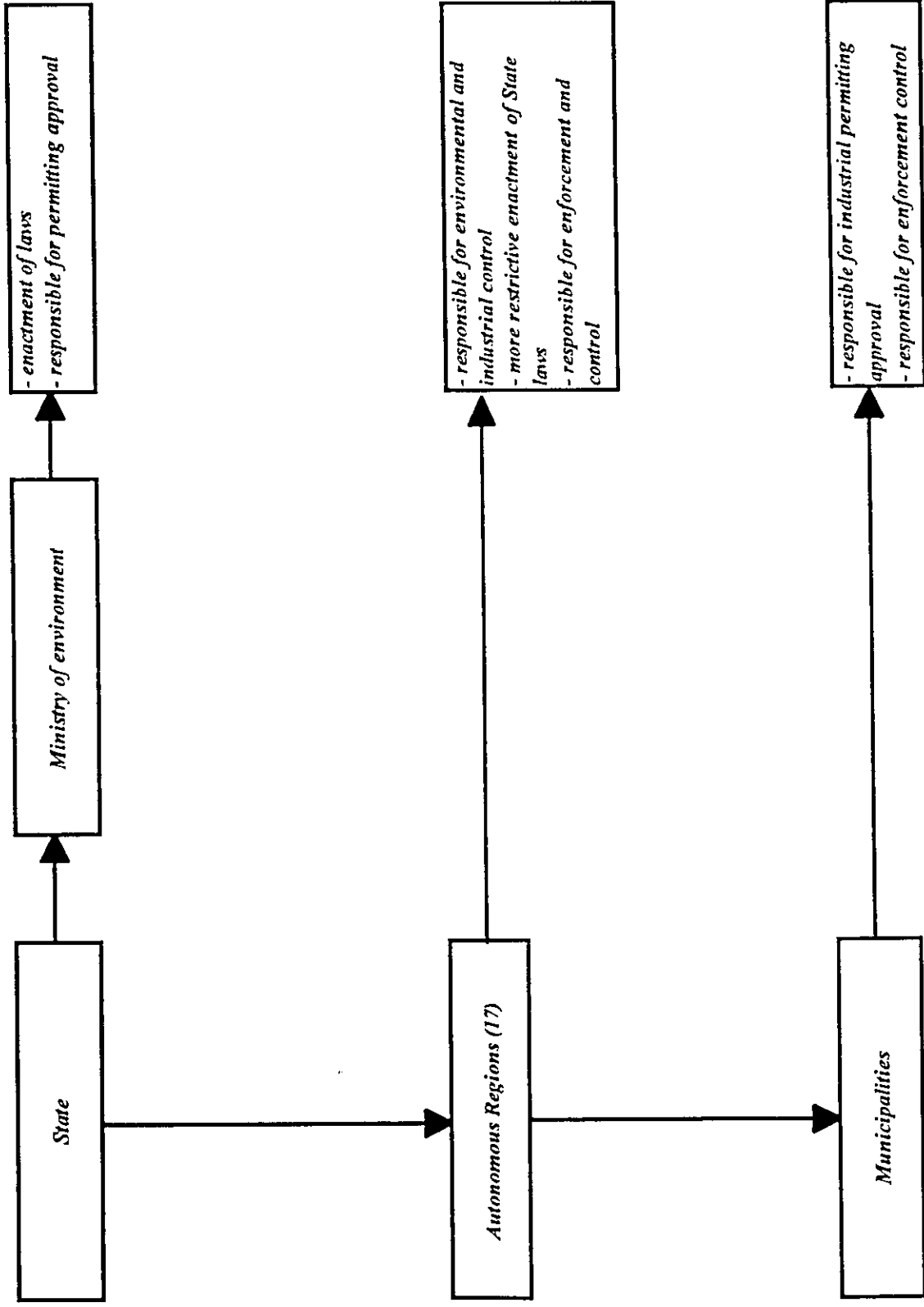
The role of the authorities in non-compliance situations is as follows;

warnings and administrative fines may be issued by the authorities. Facilities may be temporarily closed and permits revoked. Legal action may be initiated by the public prosecutor in response to reports from the authorities.

Maximum penalties in Spain are: fines up to 78,000 ECU and imprisonment.

5.5 *Diagram*

A diagram on permitting and enforcement tasks and the different authorities involved is reflected on the next page.



6. THE NETHERLANDS

The Netherlands can be characterized as a highly industrialized and densely populated country.

Three levels of administration are institutionalized:

- the National Government with 13 ministries
- 12 provinces
- 640 municipalities

Since the 1970s the environment has become a major topic in the Netherlands. The main environmental legislation is based on the Nuisance Act dating back to 1875.

6.1 *Division of tasks*

Both the national government and the provinces and municipalities have authority to make rules. However, the rules of lower authorities can not contradict rules put by a higher authority.

The legislation and plans for its implementation are the responsibility of the national parliament. Concerning the environment the most closely associated ministries are the ministry of Housing, Physical Planning and the Environment, the ministry of Transport and Public Works and the Ministry of Agriculture, Nature management and Fisheries.

The environmental laws, regulations and plans are prepared by the Ministry for Housing, Physical Planning and the Environment. This ministry is in control of the policy-making and planifies the implementation and monitoring. The Ministry for Housing, Physical Planning and the Environment has a major part in enforcing the Environmental management act. It also plays a role in general strategy and coordination.

The Ministry for Transport and Public Works handles legislation and permits regarding water quantity and water quality. Besides that, it coordinates the policy making concerning water quantity (including water extraction, dehydration and nature development).

The Ministry of Agriculture, Nature Management and Fisheries is, amongst other things responsible for the zoning of agricultural activities.

The provinces and municipalities take care of the actual implementation. As a guideline the province has three plans: a provincial spatial plan, an environmental policy plan and a water management plan. Provinces have a task in coordinating and enforcing permits. Regarding the Environmental management act, provinces are responsible for permits and control of large companies. Smaller companies are controlled by municipalities. Provinces are also responsible for permits and control related to the Water pollution act. However, almost every province has -by means of functional decentralization of

tasks- a water board that takes care of the actual permitting and control. Municipalities work with zoning plans. The most outstanding feature of a zoning plan is that it contains stringent regulations. Implementation of the zoning plan (e.g. granting/suspending permits and enforcement) is the main task of a municipality.

So, permitting and control are in the Netherlands handled by the same organization. Recently, most authorities have ended the separation between permitting and controlling, although in most situations some type of functional separation still exists. In the Netherlands a distinction can be made in administrative and criminal enforcement of laws. The administrative enforcement is carried out by the government itself, using methods such as fines, administrative sanctions and withdrawal of a permit. The goal of administrative enforcement is ending an illegal situation. The criminal enforcement of laws is carried out by special supervisors, predominantly by departments of police and justice. Criminal enforcement is meant to punish illegal situations; not only to end the situation. All people responsible for the enforcement of laws are part of local, regional and national consultative structures.

Besides the permitting, control and enforcement there is an organization that monitors the quality of permitting and control done by other authorities. This is the Regional Inspection service for environment and health. This inspection service acts directly for the minister for the environment (Ministry of HPPE). The inspection personnel often visits the companies, municipalities and provinces to determine whether they function well and whether the delivered products have the required standards.

6.2 *integral permit or sectoral permits*

As prescribed above there are two major laws:
the environmental management act
the Water pollution act

The Environmental management act has been recently adopted by the parliament and is an integral law. The Environmental management act regulates various environmental laws. For instance air pollution, energy, waste management, transport and small emissions to water are regulated by this law. A permit issue based on this law is an integral permit. The Water pollution act can be characterized as a sectoral law. Most environmental laws are regulated by these acts. There are three exceptions: the Radiation act (carried out by the Ministry of HPPE, and concerns a very limited group of companies), the mining act and the genetically modified organisms act.

When a company wants to start or wants to make changes, other legal procedures must be followed. In the zoning plan made by the municipality every building is prescribed. Building or rebuilding in contravention to the zoning plan requires a special permit. Changing the zoning plan is possible but takes a long time because all people concerned can react to the new plans. Larger changes posing a great threat to the environment require an environmental Impact Assessment Report. This report is obligatory, without it no permit can be issued.

6.3 *The permitting procedure*

Procedures for the Environmental and water pollution act

- application When a company applies for a permit regulated by the Environmental management act, the company must present a lot of information. e.g. what the company is going to produce, how it is going to do it and what the environmental consequences are.
- approval When the authority accepts the application, it produces a draft-permit. The fact that the draft-permit has been made is published in the newspaper allowing everyone to make objections.
- acceptance After a period of a few weeks the permit is made definitive and granted.

For every modification the company can request to change in the permit, the authority can simply be notified of the modification at least one month before the commencement of its implementation. A license issued for an establishment also applies to modifications to the establishment and its operation when reasonably assumed that it does not affect the nature and extent of the original permit or which will only have a mitigating effect on the extent of the adverse effects on the environment caused by the establishment. The permit is renewed on a regular basis, the frequency of renewing the permit depends on the environmental impact of the company.

When a permit is written, not only the laws must be taken into account, but also various regulations, standards on emissions and special programmes that are created for the execution of the laws.

procedure for the building permit

The application for a building permit must contain a list of all planned building activities and the processes to be executed in the buildings.-All effects on nature environment and health in the surrounding must be shown. When large effects are expected an Environmental impact Assessment (EIA) is needed. the EIA must be accorded, by a special organization. The same phases of approval and acceptance described above, are executed.

6.4 *Enforcement and control*

For every company there is a standard frequency of control. There is a national standard, but every authority can decide itself what frequency will be executed. This approach creates the possibility that a "clean" and environmentally concerned company is better trusted than a "dirty" environmentally irresponsible company. When a company is less trusted the control-frequency can be higher.

Furthermore, the Environmental management allows the permitting authorities to adapt the permit to the specific situations within companies. This way, developments with

regard to environmental care and quality care can be taken into account. Generally, a company which has developed an environmental management system within standards of BS7750 or ISO 14001 will receive a permit containing less rules. The rules in this permit are directed to the emission and discharge goals the company has to reach.

Any third party who suffers abnormal neighborhood inconvenience ' concerning, soil pollution and health risks man bring court action against a company based on the law.

Specific for the Netherlands are the target-group covenants. The covenants contain agreements between government, authorities and industrial branches. Covenants are signed for energy, for packaging-waste and special products. These covenants offer the possibility for companies to write down how they are going to reduce the environmental pressure in their own way. The targets are set for acompany or for the branch as a whole.

6.5 *Diagram*

