

Chapter 4 ENVIRONMENTAL LAWS AND INSTITUTIONS

4.1 National System

Argentina consists of 23 provinces and the City of Buenos Aires. These 24 provincial organizations have highly respected independence. Some of them have their own environmental legislation different from the national one. Hence, the system of environmental laws and environmental standards and rules differ from province to province.

4.2 National and Local Environmental Laws

4.2.1 Introduction

The amendment of the National Constitution in 1994 defined the division of roles on environmental protection between national and provincial authorities. It stipulates that the former is to establish minimum standards and rules for environmental protection and the latter to supplement them. So far, however, the national government has not defined the mutual concrete roles and minimum provisions for environmental protection.

In such a situation, problems can be expected to arise, such as overlapping jurisdictions, dis-order, contradiction and matters difficult to be covered up. These problems might possibly lead to lack in coordination of administrative environmental activities as a whole, reduction of their effect, efforts in vain, difficulty in accumulation, transfer and common understanding of scientific and technological knowledge and experiences on environment.

4.2.2 Current Environmental Law System

1) Air Quality Standards

The National Law on Air (No. 20,284, 1973) stipulates national air quality standards in Argentina. Most of the provinces adhere to the standards, while several provinces have their own. Table 4.1 shows the current air quality standards of nation, the Province of Buenos Aires and the City of Buenos Aires, and the proposed standards of the City of Buenos Aires.

Because their evaluation times are not uniform, it is difficult to compare the standards to each other.

NO_x instead of NO₂ is adopted as an evaluation substance in Argentina. NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. NO itself has no known adverse health effect at concentrations found in the atmosphere.

Note that in the City of Buenos Aires, the Clean Air Law under deliberation at the Assembly adopts NO₂ instead of NO_x.

Table 4.1 Comparison of Air Quality Standards in Argentina

	Evaluation time	Argentine National Standards	Province of Buenos Aires	City of Buenos Aires	U.S. NAAQS ⁽¹⁾	WHO Guidelines
CO (mg/m ³)	15 mins	57.2	40.0	15	40	100
	20 mins					60
	30 mins					30
	1 hr					10
	8 hrs					10
	24 hrs					3
NOx (mg/m ³)		NOx expressed as NO ₂		NO ₂ only	NO ₂ only	
	20 mins	0.846	0.400	0.4	0.200	
	1 hr	0.282	0.100	0.1	0.04	
	24 hrs			0.100	0.04	
SO ₂ (mg/m ³)	10 mins	2.617	1.300	0.5	1.3	0.500
	20 mins					
	1 hr					
	3 hrs					
	8 hrs					
	24 hrs					0.078
1 month						
O ₃ (mg/m ³)	1 year		0.080		0.080	0.050
	20 mins	0.196	0.235	0.1	0.235	0.120
	1 hr					
	8 hrs					
24 hrs						
TSP (mg/m ³)	20 mins	0.15		0.500		
	24 hrs					
	1 month					
PM ₁₀ (mg/m ³)	24 hrs		0.150		0.150	
	1 year					
PM _{2.5} (mg/m ³)	24 hrs				0.065	
	1 year					
Settling dust (mg/m ²)	1 month	1.0	1	1.0	1	
Lead (mg/m ³)	20 mins		0.0015	0.01	0.0015	0.0005
	24 hrs					
	3 month					
	1 year					

(1) Proposed air quality standards of the City of Buenos Aires

2) Emission Standards

A Stationary Sources

At national level, the Secretariat of Energy has established as strict standards on conventional thermal power plants as in the advanced countries, and ENRE watches their conformance.

The National Law No. 20,284 stipulates that local authorities (provinces and municipalities) should establish emission standards of stationary sources. Presently, however, most provinces have no emission standard.

The Province of Buenos Aires has emission guidelines. However, the standard oxygen concentration is not defined.

The City of Lujan de Cuyo has its emission standards on combustion facilities and industrial facilities. In comparison of the national emission standards of thermal power plants with those of combustion facilities of the City, the former is stricter in SO_x and PM. However, the situation is different for NO_x. The national NO_x standards of steam turbine with fuels other than natural gas are milder. Those of gas turbines are stricter in 100 ppm, while they are milder in 200 ppm.

To establish suitable and reasonable local emission standards, previous air quality monitoring is inevitable.

B Motor Vehicles

There are national emission standards on motor vehicles, to which all the local governments adhere.

4.2.3 Ambient Air Monitoring

1) Local Governments

Continuous monitoring of air quality at fixed points by local governments is rare in Argentina. As a result, it is very difficult to know objectively whether air pollution is worsening or not.

To make matters worse, lack of automatic continuous monitoring throughout a year makes it difficult to know if the air quality at the point complies with the air quality standards.

Due to lack of simultaneous meteorological observation (wind direction, wind speed, etc.) with air quality monitoring, it is difficult to make good use of the monitored results.

The Province of Mendoza has been conducted air quality monitoring for many years. Now, it has 25 stations in the province.

2) Thermal Power Plants

San Nicolas Power Plant has 2 automatic continuous monitoring stations for air quality and meteorology (wind direction and speed).

Central Costanera Power and Puerto Nuevo Power Plants monitor wind direction and speed in their premises.

3) Industries

Several large-scale factories conduct automatic continuous monitoring of air qualities and winds voluntarily. However, most of the monitored data are not open to the public.

4) Monitoring Equipment

There are national rules on the air quality monitoring method. However, there is no rule on inspection and maintenance of the monitoring instrument to verify its accuracy. Subsequently, the reliability of the monitored data is open to question.

4.2.4 Source Monitoring

1) Local Governments

Several provinces and municipalities request stationary source monitoring (flue gas measurement, etc.), without giving methods and rules of the monitoring.

2) Thermal Power Plants

As for thermal power plants, ENRE has rules for measurement and reporting. Measured results are reported to ENRE every 3 months.

Portable equipment for flue gas measurement should have a calibration check every 3 months at a reliable laboratory like CNEA.

Continuous monitoring equipment should be checked by CNEA's parallel measurement by portable equipment.

3) Industries

Several large-scale factories conduct flue gas measurement voluntarily.

4.2.5 Environmental Impact Assessment

The system of the environmental impact assessment is a powerful tool for prevention of deterioration of the environment. It enables entrepreneurs to make decisions with due consideration to the environment at the planning stage.

1) National Governments

At present, although there is no national law on the environmental impact assessment, several ministries or agencies impose the assessments on the projects under their jurisdiction.

Regarding electric power sector, new or extended installation of hydraulic or thermal power plants, and transmission lines are subject to EIA by the Secretariat of Energy.

2) Local Governments

At the provincial level, 15 of 23 provinces and the City of Buenos Aires have the assessment systems.

3) EIA Procedure

There are various EIA procedures in Argentina. Some request a public hearing, and some do not. Regarding national EIAs on thermal power plants, public hearings are held for EIAs of installation of thermal power plants, if needed. While, such hearings are not held in EIAs for extension of thermal power plants.

4) Cooperation between ENRE and Local Governments

ENRE and local governments have close contact with each other.

5) Confirmation of EIA Study

Air quality monitoring as post-EIA monitoring has been conducted for power plants located in the City of Buenos Aires where air pollution is comparatively high.

4.2.6 Source Inventory

Air pollutant source inventories at the national or the local level have not been developed yet. Although governmental organizations or research institutes conduct their studies, research and data collection, lack of cooperation between these organizations prevents exchange of information and creation of common databases.

4.2.7 Environmental Information

Both national and local governments attach much importance to development of environmental information system and provision of information to people. The Ministry of Social Development and Environment, the Province of Buenos Aires, the City of Buenos Aires and the Province of Mendoza provide environmental information through their home pages.

Also in the private sector, with the spread of ISO14001, certified businesses plan and do a voluntary environmental management, and provide their information to the public.

4.2.8 Trends of Air Quality Management

The Argentina Pollution Management Project for the Buenos Aires Metropolitan Area where air pollution is anticipated to become serious is under way by a World Bank fund. The studies in 1999 gave a rough estimate of air pollutant loads, recommendations on air quality monitoring and an evaluation of air pollution control measures.

With air quality monitoring, 12 and 11 sites furnished with automatic and continuous monitoring instrument are proposed for the City of Buenos Aires and the Province of Buenos Aires respectively. Meteorological parameters such as wind direction and speed are to be measured along with air quality. Unfortunately, this project is in suspension now.

In conjunction with this World Bank project, the Clean Air Law is under deliberation at the Diet in the City of Buenos Aires. This law proposes to adopt the air quality standards of the U.S.A (NO₂ instead of NO_x) as a provisional standards. It also includes the establishment of emission standards (stricter ones are applicable to highly polluted areas) and development of source inventories.

The execution of the above World Bank project and approval of the Clean Air Law in the City of Buenos Aires will have significant influences on the following aspects of air pollution management (policy making, its promotion and monitoring) in Argentina.

- Legal system on air (air quality standards, emission standards, etc.)
- Environmental monitoring and surveillance (air quality monitoring and source monitoring)
- Scientific approach (source inventories, data analysis and simulation)
- Environmental information system (database, processing of data and information)
- Provision of information (quality and quantity of information)
- Environmental consciousness (participation of citizens and businesses)
- Environmental education (school and social education)

4.3 Environmental Management of Thermal Power Plants

1) Thermal Power Plants

Thermal power plants develop their environmental management plans for 1 or 2 years and report their progresses every 3 months to ENRE.

2) Voluntary Environmental Management

Acquisition of ISO 1,4001 has been spreading in the private sector in Argentina. The number of enterprises with the certificate is about 120, one of which is a power plant. They make their own environmental targets and plans, and control their activities by themselves. There is a growing environmental consciousness in the private sector.