



# ENVIRONMENTAL REPORT

EMPRESA PORTUARIA  
ANTOFAGASTA **2019**





# INDEX

## INTRODUCTION

- General Information
- History
- Mission and Vision
- Values
- Strategic Guidelines
- Services
- Operational Indicators
- Stakeholders
- Certifications

02

## RESPONSIBILITIES

- Structure of the Organization of Empresa Portuaria Antofagasta
- Executive Team of Empresa Portuaria Antofagasta
- Environmental Responsibilities of the Key Personnel
- Environmental awareness
- Environmental Budget

04

## ENVIRONMENTAL REPORT

06

## ENVIRONMENTAL POLICY ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

- Identification of Environmental Aspects and Impact Evaluation
- Methodology for the Identification of Environmental Aspects and Impact Evaluation
- Environmental Legal Requirements
- Methodology for the Identification of Environmental Legal Requirements
- Matrix of Environmental Aspects and Impacts
- Environmental Performance Indicators
- Operational Performance Indicators
- Management Performance Indicators
- Environmental Conditions Indicators

01

03

## REVIEW OF COMPLIANCE

- Review of environmental performance and environmental legislation
- External Audit
- Internal Audit
- Review of legal compliance
- Revisión por la Dirección
- APL
- Planes de Mejora

05

## BEST PRACTICES





# INTRODUCTION

01



# General Information

**Business name:** Empresa Portuaria Antofagasta

**City:** Antofagasta

**Address:** Av. Grecia S/N

**Property:** Republic of Chile

**RUT/ Tax number:** 73.968.300-9

**Legal Status:** Company of the State (Government), attached to the Ministry of Transports and Telecommunications I.R.V. : Special Registry of Entity and Informants No. 46

**Phone number:** 56-55-2563756

**Fax-number:** 56-55-2563735

**Mail box n°:** 190

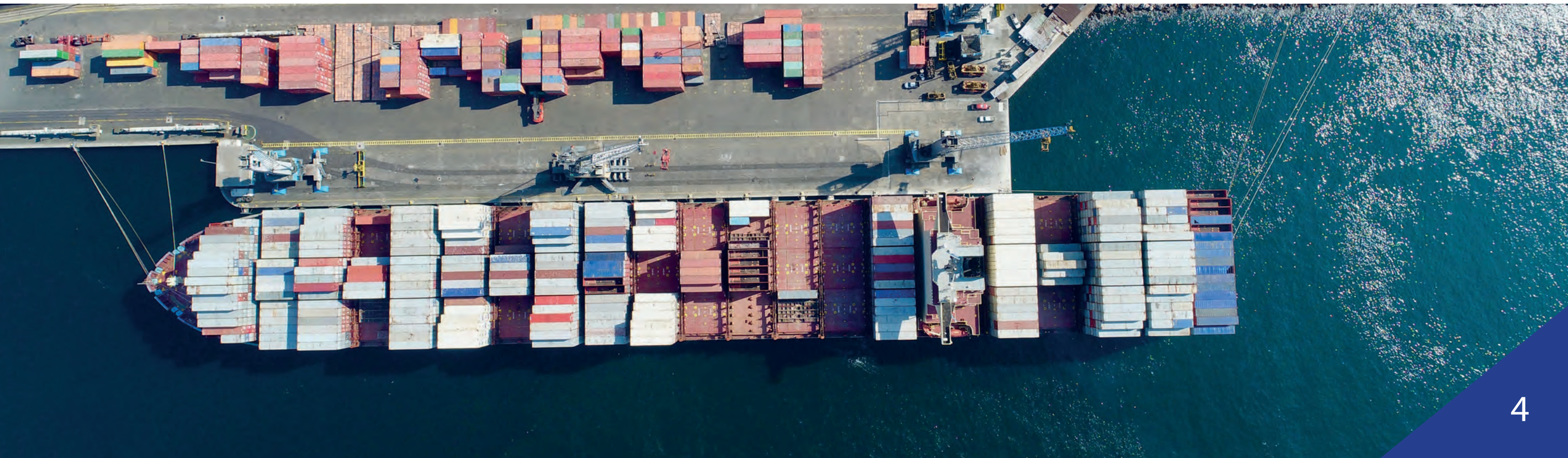
**Website:** [www.puertoantofagasta.cl](http://www.puertoantofagasta.cl)

# History

The origins of Puerto Antofagasta go together with the vertiginous growth of the city and the region that shelters it. Its beginnings go back to the beginning of the last century, when the magnificence of the saltpeter forced in those years to initiate managements to develop a port installation according to the demand, not only for the former and other minerals, but of varied merchandise that was gathered in the current “Muelle Histórico” (Historic Dock).

On September 8, 1916, through Law No. 3,132; the project of the Ports Commission was authorized to be financed and with this, the necessary resources were obtained to execute the important initiative.

Thanks to a series of subsequent investments and various changes in its infrastructure, the Port of Antofagasta is currently considered as one of the main port facilities in the north of Chile, serving the needs of the mining industry, as well as the transit and storage of merchandise from and to the neighboring countries of Bolivia, Argentina and Paraguay.





# Mission and Vision

## Mission

To manage, exploit, develop and conserve the Port and its terminals, facilitating port logistics to national and international trade of its hinterland, leading and articulating the actors involved in its logistics chain, promoting sustainability, productivity, integration, innovation and creation of shared value, in a harmonious and transparent relationship with the community.

## Vision

To be the main port logistics platform for the clients that require their services in the north of Chile, operating with the highest socio-environmental standards, standing out for the transparency and shared value.



# Values

## Sustainability and Shared Value

We respect and value those who are part of our community, incorporating as a main strategy the generation of shared value and sustainable development that incorporates the economic, environmental and social triad.

## Productivity

We constantly strive to increase the productivity of the port logistics system.

## Innovation

We promote the continuous improvement and innovation of our processes and services, to adequately respond to the needs of our customers, the community and the environment.

## Transparency and Integrity

We openly report on our decisions, based on concrete facts in a clear, accurate, timely and honest manner. In the same way we encourage responsible ethical behaviors, which give us confidence inside and outside the organization.

## Credibility

We generate trust and long-term relationships with our clients, stakeholders and the community.



# Strategic Guidelines

- I Expansion, integration and optimization of the Antofagasta port logistics system.
- II Development of the port logistics activity maintaining and improving the bond with the community.
- III Development of port logistics activity in accordance with world-class technologies and standards in the care of the environment.
- IV Compliance with the Treaties and International Agreements in which the Port of Antofagasta has participation, such as the Treaty of 1904 between Chile and Bolivia, of 1968 between Chile and Paraguay and of 1968 regarding the Free Trade Zone and the future Bioceanic Corridor.

# Services

The administration and operation of the Docking Front (Frente de Atraque) No. 1, or “Multi-operated Terminal”, can be used by all agencies and companies that require it. This has warehouses and backup areas for use throughout the port, in addition to Sites 1, 2 and 3.

The terminal is managed by EPA under the modality of multi-operation with ship and wharf agencies, it has 3 docking sites with a total length of 600 meters, with a maximum depth of 9.14 meters.

The terminal has 11 hectares of concourses for the storage and operation of loads, with 3 warehouses with a total capacity of 18,000 m<sup>2</sup> for storage.

Other services include the weighing of loads, Franco Paraguay deposit, warehouses for the use of Bolivian cargo, use of the dock, water supply services and electricity.





# Services:

## Use of the port

It consists of the right to use the port infrastructure corresponding to sheltered waters inside the pond. Its collection unit is “Gross Log Tonnage” and the rate is differentiated, for commercial ships and non-commercial ships, such as passenger ships.

## Use of the Dock

It consists of the assignment of sites for the berthing of the ships, according to the current Services Regulation and the Resolutions of the Maritime Authority. The allocation of sites is done through a daily planning meeting, in which Harbor Authorities, representatives of shipping agencies and wharf agencies, and Bay practice participate.

## Storage

The cargo deposit service consists of the custody that is lent to the cargo that remains in the deposit places set by Empresa Portuaria Antofagasta, from its reception and until delivery to its consignees or those who represent them.

The collection unit of this service is the “Ton / Day” and is differentiated for general cargo, bulk cargo and hazardous cargo in the covered and uncovered modality.

## Stockpile

The stockpile service, is a variant of the Storage service, and it is oriented to the bulky cargo deposit for extended periods.

The service consists of providing the client according to the requested, a covered or uncovered area for the cargo deposit, for a determined period.

## Supply of potable water and electricity

**Water:** At each docking area, there are taps for the supply of potable water to the ships.

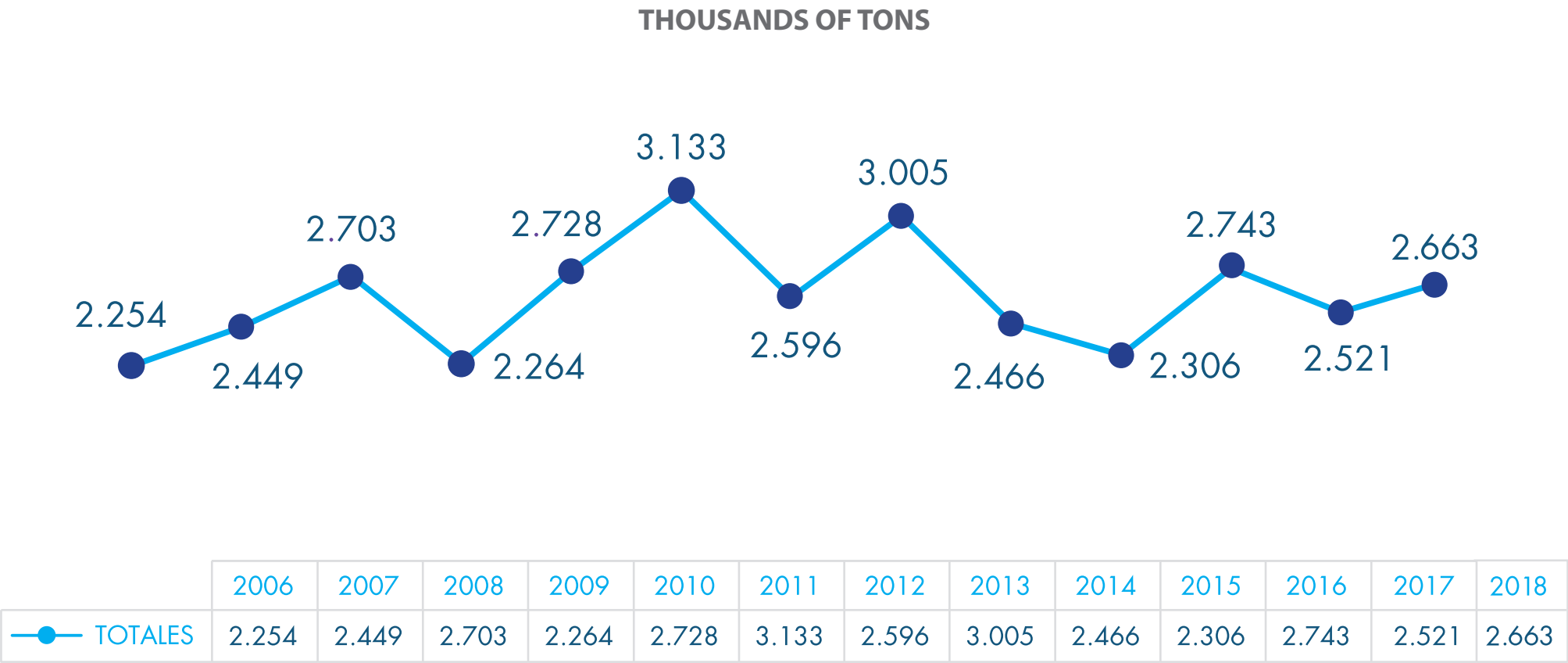
**Electricity:** At each docking site, there are connections to the electric grid, for the installation of the different equipment used in the cargo transfer operations.





# Operational Indicators

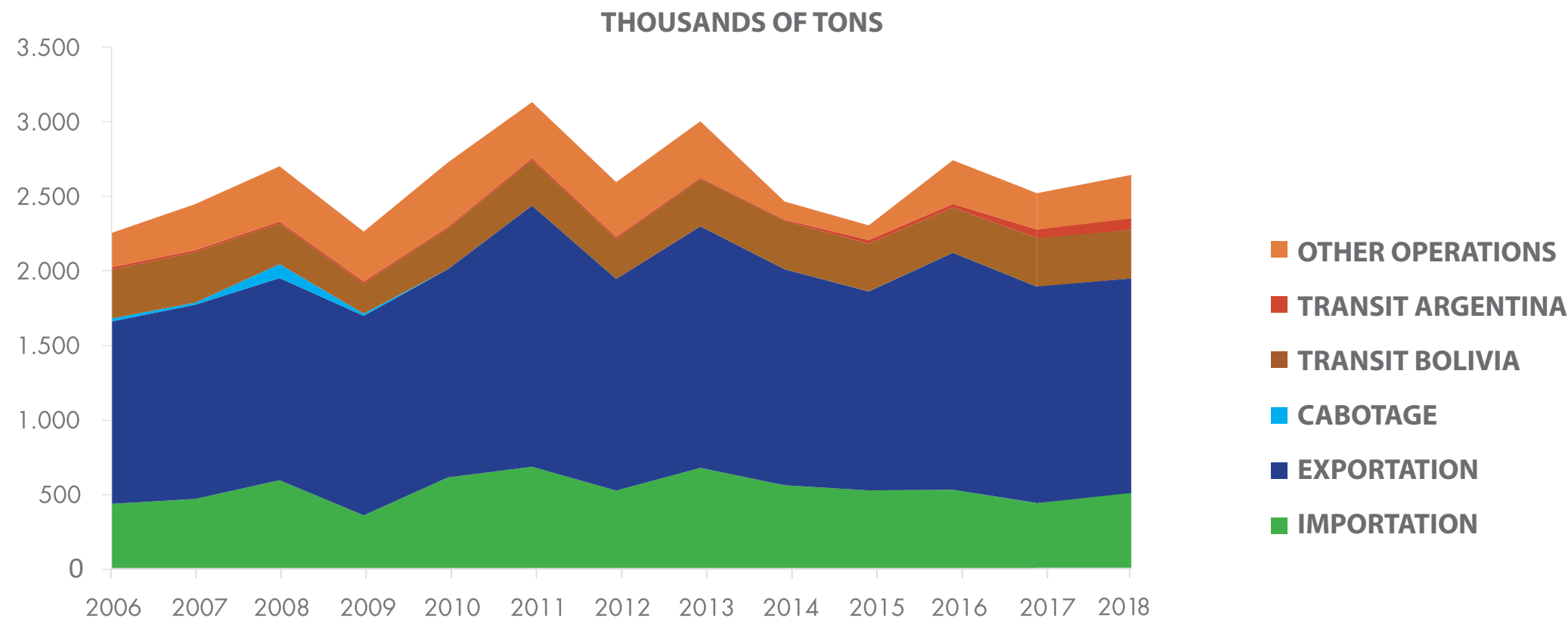
## HISTORICAL TONNAGE TRANSFERRED BY PUERTO ANTOFAGASTA





# Operational Indicators

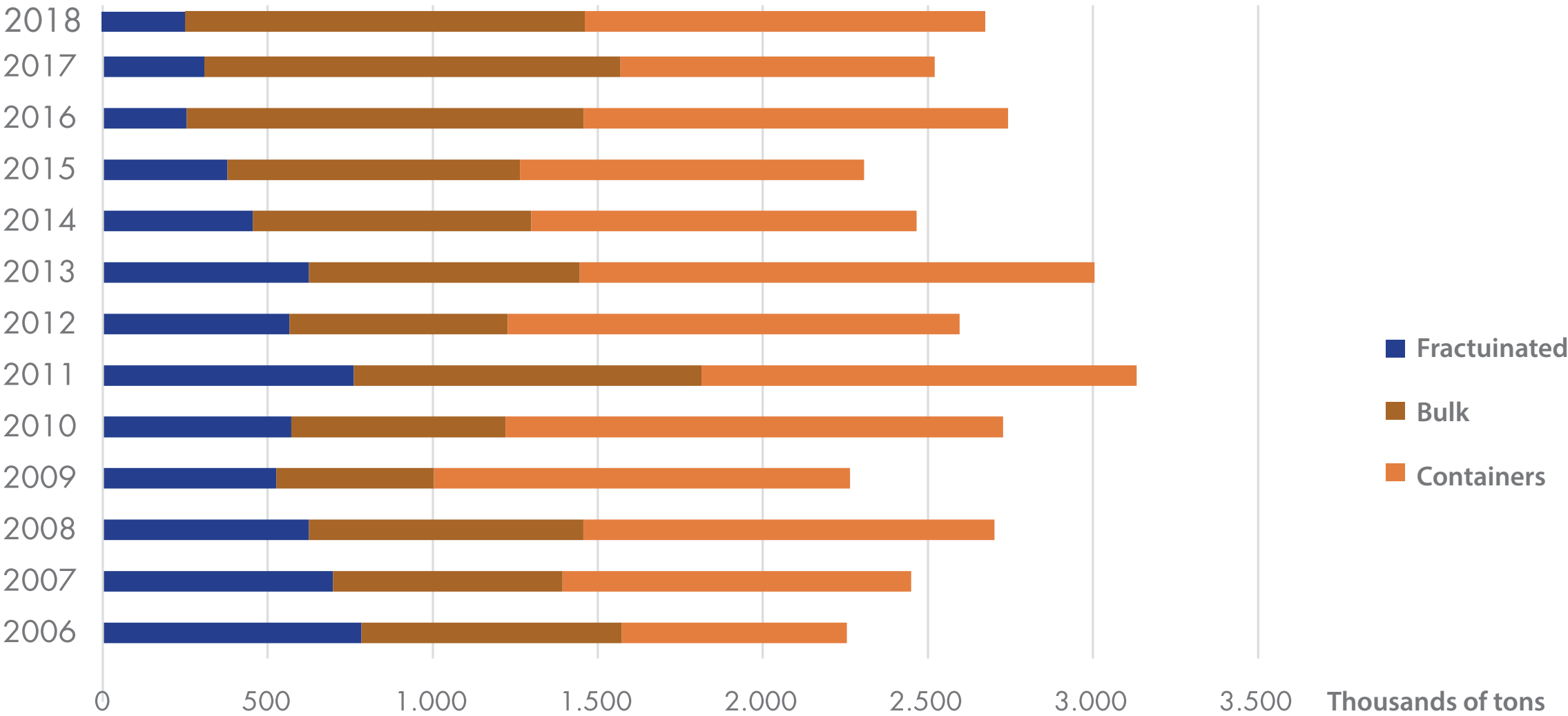
## TONNAGE TRANSFERRED BY TYPE OF OPERATION





# Operational Indicators

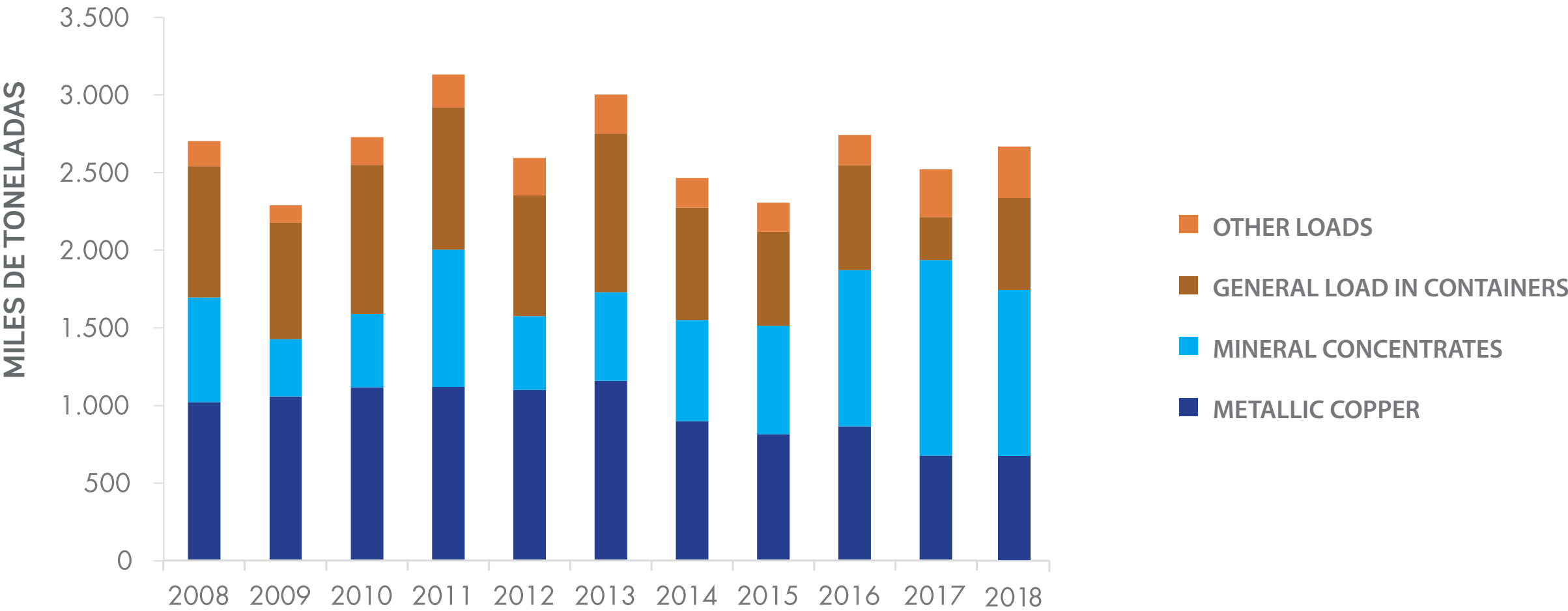
TONNAGE TRANSFERRED BY TYPE OF CARGO





# Operational Indicators

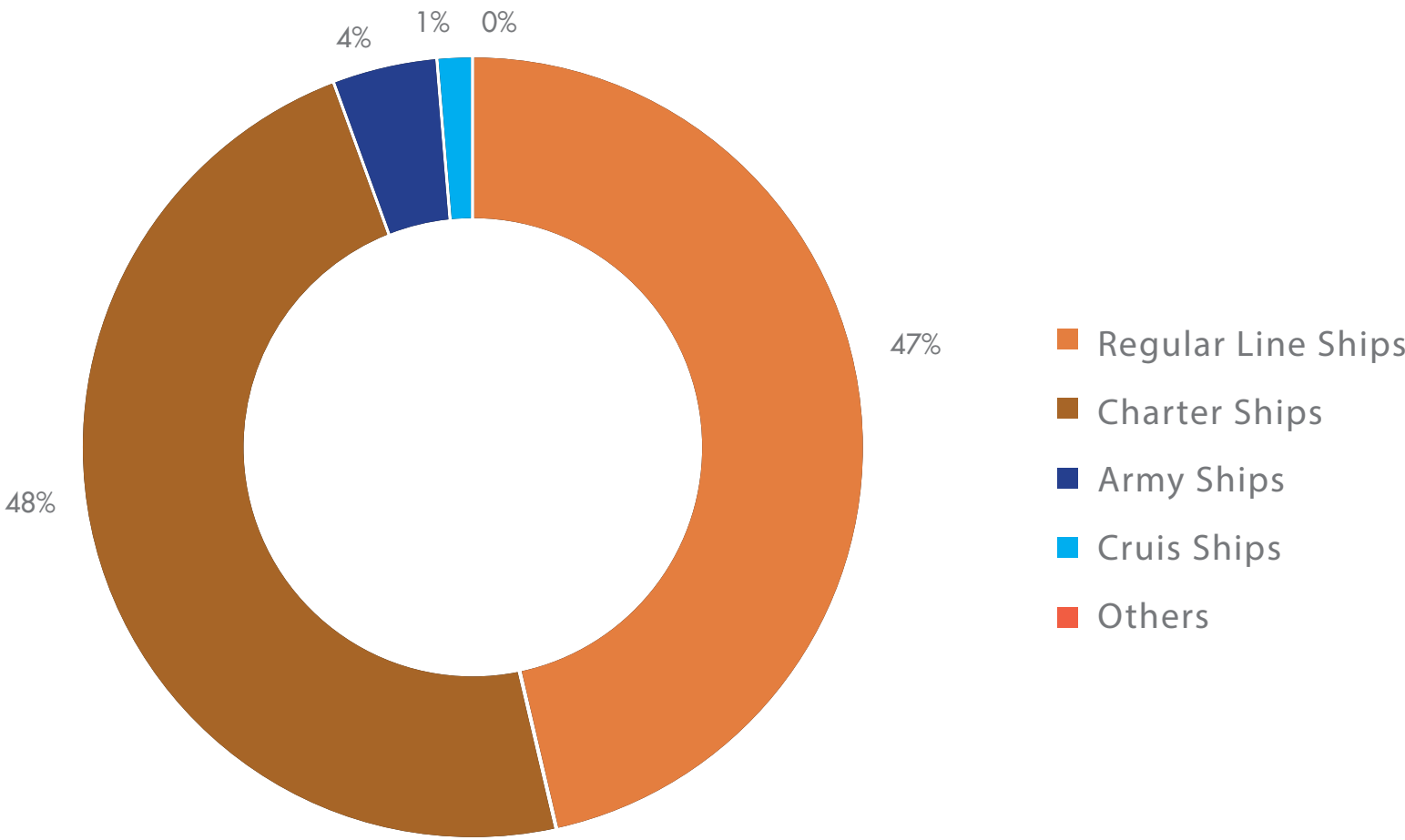
TONNAGE TRANSFERRED BY THE MOST RELEVANT PRODUCTS





# Operational Indicators

SHIPS SERVICED BY TYPE OF SERVICE

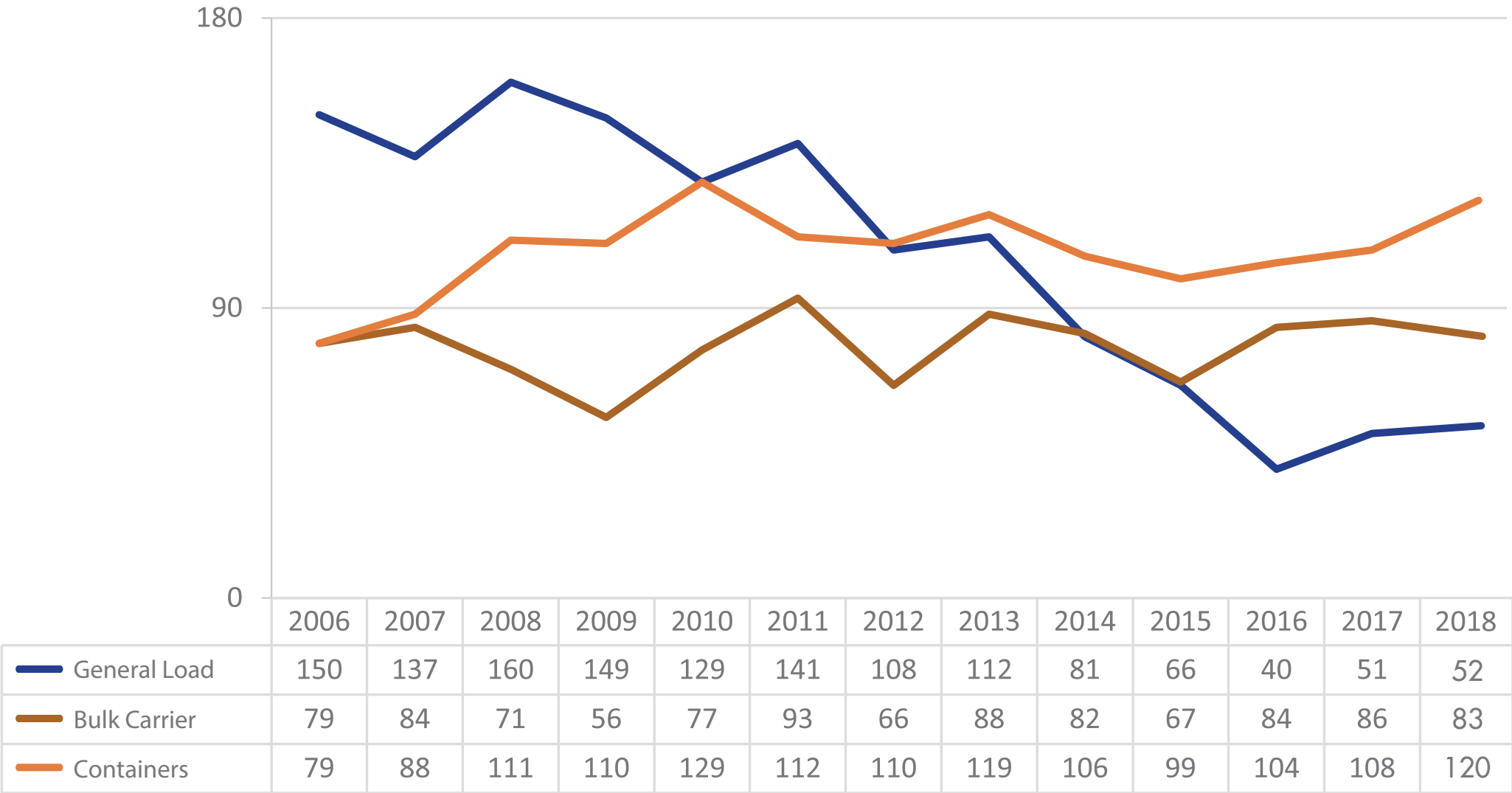




# Operational Indicators

## COMMERCIAL SHIPS

Number of ships





# Stakeholders

Empresa Portuaria Antofagasta has identified the stakeholders related to the port environment, their needs and expectations and the commitment of those interested in port activity.

STAKEHOLDER	NEEDS AND EXPECTATIONS
I. AUTHORITIES:	
President of the SEP (Consultants and Executive Directors)	Legal compliance. Accounting financial information. Compliance of goals. Cyber security risk management.
Ministry of Transport and Telecommunications	Legal compliance and submittal of information regarding the movement of the possible personnel of EPA. Fulfillment of goals
Treasury	Legal compliance and submittal of financial information of EPA. Budget compliance.
Ministry of Environment	Legal compliance in environmental matters.
National Director of the Agency for Sustainability and Climate Change	Compliance with the Clean Production Agreement (APL due to Spanish abbreviation).
Maritime authorities (Maritime Governor, Captain of Puerto Antofagasta)	Legal compliance. Security inside the port area, as well as in sheltered waters and in the open sea.
Regional Director of Customs	Legal compliance in customs Operations
Livestock Agricultural Service (SAG due to Spanish abbreviation)	Legal compliance. Prevent the entry of pests and insects harmful to the country.
Regional Directorate of Tourism	Quality of the service.
Sence of Antofagasta	Legal compliance (sence law)
Chancellery	Legal compliance, Treaty of 1904.
Consulates, Paraguayan, Argentine and Bolivian.	Legal and commercial compliance
Environmental Evaluation Service	Legal and commercial compliance
Seremi of Environment	Legal and commercial compliance
Superintendence of Environment (SMA due to Spanish abbreviation)	Legal and commercial compliance
Police of Investigation (PDI due to Spanish abbreviation)	Legal compliance (documentation of crew and passengers upon arrival in the country through the Port of Antofagasta).
Bidema (Investigation Brigade of Crimes Against the Environment and Cultural Heritage).	Environmental legal compliance.
Investigative Brigade of Cyber Crime	Legal compliance
Air Quality Information System (SINCA due to Spanish Abbreviation)	Environmental legal compliance
1st Environmental Court	Environmental legal compliance



# Stakeholders

STAKEHOLDER	NEEDS AND EXPECTATIONS
II COMMUNITY	
Neighbors	Clean surroundings.
Community Union of Neighbors Boards	Clean environment, use of the central curb
Social Groups	Clean environment, use of the central curb
Social Movements	Clean environment, use of the central curb
Universities and Technical Institutes/Centers	Agreements and space for professional internships
CREA (Regional Center of Studies and Environmental Education) Antofagasta	Link with society
CREO Antofagasta	Active participation
III. CLIENTS, USERS AND SUPPLIERS:	
Clients (Ship agencies, wharfage companies, container deposit, Customs Agencies, Cargo agencies, logistics operators).	Compliance with the contract, quality of service, access to daily shipping planning.
Users (Mining companies, transporters, tugs and logistics operators).	Continuity and expansion of the port offer and logistics services.
Suppliers (Small and medium size companies, maintenance companies, cleaning and environmental care services).	Timely payment, clear purchase specifications, transparent bidding process, access to bidding information.
IV. WORKERS OF EMPRESA PORTUARIA ANTOFAGASTA:	
Unions	Compliance with company agreements, legal compliance, training.
Workers' Representative	Compliance with company agreements, legal compliance, training.
Joint Committee	Compliance with company agreements, legal compliance, training.
V. CONCESSIONAIRE	
Antofagasta Terminal Internacional	Legal compliance, concessions contract.
Mall Plaza Antofagasta	Legal compliance, concessions contract.



# Stakeholders

Empresa Portuaria Antofagasta maintains permanent contact with the community, developing different initiatives aimed at generating a positive impact on the life quality of the people, strengthening a harmonious and transcendent relationship.

The relationship initiatives with the stakeholders were defined in a “Relationship Plan”.

RELATIONSHIP PLAN 2018

N°	PARTE INTERESADA	ACCIÓN	OBJETIVO	RESPONSABLE	PERÍODO
1	Local Community	Circus in your Port 3rd version	An exclusive function is performed for EPA and Port workers, as well as part of the vulnerable population.	Responsible of RSE	2018
2	Local Community	Latin American Sails	Reception and parallel activities to Latin American Sails	Exploitation and Logistics Management	2018
3	Mass media	Cycle Lectures from El Mercurio	Two days of talks and lectures with El Mercurio Antofagasta regarding the relationship between City – Port	Responsible of Communications	2018
4	Authorities	Bikeway Agreement	Work will be delivered to the community completed for the contribution to pedestrian and bicycle traffic in space managed by the port in Antofagasta, between Condell and 21 de Mayo streets by Costanera Avenue.	Responsible of RSE	2018
5	Workers of Puerto Antofagasta	Christmas in the port	Family of all port workers will enjoy recreational activities (inflatable games among others).	Responsible of RSE	2018
6	Local Community	Support for entrepreneurs	Facilitate spaces in the central curb for entrepreneurs, artisans and cultural organizations.	Responsible of RSE	2018
7	Local Community	Approach to Puerto Antofagasta	Support with access to the Zero Site (Sitio Cero) of Puerto Antofagasta for the development of recreational activities, having at least 2 events.	Responsible of RSE	2018
8	Local Community	Student program in internship	Have at least 2 students during 2018	Responsible of HR	2018
9	Authorities	Meeting program with Ministers and Regional Government	According to meetings program (Intendent, Minister of Transport, Public Works, National Assets, and Treasury).	Legal Affairs and Responsible of Communications	2018
10	Local Community	Gender equality	Progress in the diagnosis	Head of contracts and procurement	2018
11	Workers	Execute benefits plan and activities to strengthen the work climate	Execute plan 2018	Responsible of HR	2018
12	Local Community - Environment - Suppliers - Clients - Authorities	Compliance Program APL	100% according to the AIA compliance and audit program	Exploitation and Logistics Management	2018



The “Relationship Plan 2018” was executed 100%. Some examples of executed environmental initiatives are:

**BIKEWAY**

Within the framework of the initiatives for the benefit of the local community, the Bikeway is a contribution to the quality of life of cyclists and pedestrians, who travel daily through the sector, improving safety conditions and encouraging the use of an ecological, efficient and healthy transportation means. The project, which covers a total of 450 linear meters by 15 meters wide, is executed jointly with the Regional Ministry Secretary Office of Housing and Urban Development, and its main objective is to connect the bikeways executed in the Coastal Border and ending in the Central curb facing Mall Plaza, from the north sector, and coastal walk from the south sector.



**TREE PLANTING IN CONJUNCTION WITH CONAF**

CONAF provided 120 trees to EPA at the beginning of 2018, which were planted in the port’s bikeway, as shown in the image below.





### SUSTAINABILITY REPORT

Empresa Portuaria Antofagasta prepared its 6th Sustainability Report, elaborated under the methodology G04 of the Global Reporting Initiative (GRI), which demonstrates, on the one hand, that this is a consolidated practice within the Company (EPA), but above all, the commitment of the company to move decisively towards an increasingly sustainable operation. This report aims to inform about its strategy, management, priorities and performance in the most relevant matters for the sustainability of its operations, defining issues of greater relevance, achievements 2017-2018 and commitments 2019.

<https://www.anfport.cl/reporte-sostenibilidad/>





# Certifications

## ISO STANDARDS

Empresa Portuaria Antofagasta has implemented an integrated management system for quality, environment and safety of the information, based on the requirements of ISO 9001, ISO 14001 and ISO 27001.

Since March 2019, EPA has been certified for its quality and environmental management system in accordance with the 2015 versions of the ISO 9001 and ISO 14001 standards, respectively. This certification was granted by Bureau Veritas Certification Chile S.A.

## AGREEMENT FOR CLEAN PRODUCTION (APL DUE TO SPANISH ABBREVIATION)

The “Agreement for Clean Production (APL) Logistic Mining in Port of Antofagasta”, seeks to incorporate measures, additional to those mandated by current regulations, associated with the prevention and control of potential emissions of Particulate Matter (PM), in the handling, transportation, storage, loading, unloading of bulk mineral concentrate that are transferred through of the Port of Antofagasta and other actions related to the management of these and that could potentially impact the city of Antofagasta and its environment.

The APL - signed in 2016 - is a joint effort with different actors of the local task. Through an investment of MM \$ 11,000, it groups government entities, companies in the region and trade associations around active cooperation to implement measures to prevent and control emissions of particulate matter.

The vision aims towards innovation and modernity, incorporating the best available techniques in logistics, together with the construction of an environmental diagnosis on air quality through the generation of technical, specialized and objective information. In this way, the APL becomes an instrument that not only allows the optimization of operational management, but also an essential factor to contribute to the welfare of the inhabitants of the city.

Among the initiatives, the acquisition of dump containers for the transfer of mineral concentrates from Portezuelo to the Port of Antofagasta, the implementation of the truck washing system, the improvement of the green areas of the Central Curb in Antofagasta, the implementation of a system for cleaning of internal roads of circulation and reception of material.

In May 2019 EPA obtained the certification of compliance of the goals and actions committed in the APL, such certification is valid until May of 2022.







# ENVIRONMENTAL POLICY

02



# ENVIRONMENTAL POLICY

Empresa Portuaria Antofagasta has implemented a Policy for its Integrated Management System, which includes the guidelines and commitments of the organization in environmental matters. These environmental guidelines and commitments are appropriate to the nature, scale and environmental impacts of EPA activities, products and services.

The Policy has been communicated to all its employees, contractors and operators, and it is available to all stakeholders through its publication on the EPA website.

The Integrated Management System Policy can be downloaded from the EPA website

<https://www.anfport.cl/politica-sistema-de-gestion-integrado/>

EPA Management guarantees the availability of the necessary resources for the implementation and maintenance of the Integrated Management System Policy.

## Integrated Management System Policy

The management of Empresa Portuaria Antofagasta demonstrates its commitment to the development and implementation of the Quality, Environmental and Safety Management System of the information by incorporating the following commitments into its strategic and operational decisions:

- Satisfy the requirements of our clients, by providing quality services, structured according to a system of internationally recognized standards.
- Protect information resources and technology used for processing, against threats, internal or external, deliberate or accidental, in order to ensure compliance with the confidentiality, integrity and availability of information.
- Protect the environment by preventing pollution and controlling its significant environmental aspects, working towards the main environmental objectives, which are: keeping the concentration levels of particulate matter PM 10 and PM 2.5 controlled, the hydrocarbon levels in the dock (inner harbor), emissions from fixed and areal sources, noise levels, household and hazardous waste, water and energy consumption, water column and marine fauna in the dock and green areas.

- Use resources as efficiently as possible, striving to reduce energy and water consumptions, and minimize waste. All of the above in order to contribute to sustainable development.
- Be socially responsible with the community and respond to the needs and expectations of the relevant port actors.
- Biannually publish an Environmental Report, which incorporates information on the progress of environmental management.
- Comply with current legislation and other commitments voluntarily signed by the Empresa Portuaria Antofagasta.
- Continuously improve its quality, environmental and information security management system, preventing its risks, training human resources and developing methodologies to manage quality, environmental performance and the security of the information. All of the above, trying to be a service platform that facilitates activities that add value to the national and international transport logistics chain, tourism and commerce in the region, in a framework of harmonious development with the city.

In this context it is declared that it will be permanently encouraged and supported regarding all the necessary actions to ensure the involvement in matters and issues of quality, environmental and information security of all persons working in the port system.



**Carlos Escobar Olguín**  
General Manager  
Empresa Portuaria Antofagasta

Valid from April 2019

## 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

### 2.1 Identification of Environmental Aspects and Impact Evaluation

Empresa Portuaria Antofagasta has identified the significant environmental aspects of its activities, products and services, which it can control and which can be expected to have influence. The Head of Environment of the port keeps this information updated.

The detail of the methodology is described in the Procedure “Identification of Environmental Aspects and Impact Evaluation, code: P-A-01”.

#### 2.1.1 Methodology for the Identification of Environmental Aspects and Impact Evaluation

##### Objective

The purpose of this document is to establish the methodology for identifying and maintaining updated information on the environmental aspects related to the different activities and services performed by the operations (direct or indirect) of Empresa Portuaria Antofagasta and the evaluation of the significance of its impacts.

##### Responsibilities

###### Concessions and Sustainability Manager:

- Ensure compliance with this procedure.
- Ensure that the resources necessary for the implementation of EPA environmental operations controls are available.

###### Head of Environment along with the Head of the corresponding area:

- Identify environmental aspects.
- Identify the legal requirements related to environmental aspects.
- Evaluate the significance of environmental aspects.
- Define operational controls.
- Keep the Environmental Aspects and Impacts Matrix (EA/EI Matrix) update
- Verify compliance with environmental operations controls





# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Internal Auditor:

- Communicate the EA / IE Matrix by uploading it into the intranet of the company.

Entire personnel:

- Review the EA / IE Matrix from the internet regarding what is applicable to their activities.
- Implement the applicable environmental operations controls.

Description of the Activities

The Head of Environment along with the corresponding Heads of the different areas perform:

- a. Within the scope defined for the Environmental Management System, the identification of the environmental aspects related to the different products, activities and services, and their associated environmental impacts, from a life cycle perspective.
- b. Identify the legal requirements related to environmental aspects.
- c. They evaluate the significance of these aspects, activity they carry out considering the variables of probability and consequence according to the criteria detailed below:

Evaluation Criteria of the Significance of Environmental Aspects

MS = C x P

MS (Significance Magnitude) = P (Probability) x C (Consequence)

Evaluation Criteria:

CONSEQUENCE (C)			PROBABILITY (P)		
Value	Type	Criterion	Value	Type	Criterion
3	Mayor	The impact is irreversible and the investment cost for mitigation activities is equal to or greater than \$ 10,000,000	3	Mayor	The aspect is usually generated (every day or at least once a week).
2	Serious	The impact is reversible but making a strong investment to recover it (equal to or greater than \$ 1,000,000)	2	Serious	The environmental aspect is generated with a frequency of 1 or 2 times a month.
1	Minor	The impact is reversible and the recovery cost is less than \$ 1,000,000	1	Minor	The environmental aspect is rarely generated, less than 1 time every three months.

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Evaluation of Impact Significance:

MAGNITUDE OF THE RISK		OPERATIONAL CONTROLS (MINIMUM)
SIGNIFICANT	4-9	Mandatory implementation of one or more operational control measures, privileging the possibility of elimination, substitution or engineering control. If none of these types of control are possible, administrative controls must be implemented ensuring the existence of the definition of objectives, goals and management programs or a documented procedure or standard.
NON-SIGNIFICANT	1-3	It does mandatorily require the implementation of operational control measures.

Those environmental aspects whose assigned consequence value is 3, independent of the final value of significance evaluation, should be considered as significant.

d. Then, depending on the significance of the aspects, the evaluation team must identify the existing and new operational controls focused on avoiding possible environmental impacts.

All the activities described above are recorded in the Matrix of Environmental Aspects and Impact Evaluation (EA / IE Matrix). The Head of Environment keeps the matrix updated according to changes in aspects, activities and controls.

The Internal Auditor communicates the EA / IE Matrix, uploading it to the company’s Intranet. All personnel review the EA / IE Matrix from the intranet and implement the controls applicable to their activities.

2.2 Environmental Legal Requirements

EPA has identified legal requirements and other environmental requirements that are applicable to its significant environmental aspects. The Head of Environment of the port keeps this information updated. An external and independent Legal Expert verifies that the legal requirements and other environmental requirements identified are adequate and relevant for the main environmental aspects of the port.

The detail of the methodology for the identification of legal requirements is described in the procedure “P-A-02 Procedure Environmental Legal Requirements”, which is detailed below.

2.2.1 Methodology for the Identification of Environmental Legal Requirements

Objective

The purpose of this document is to establish the methodology for the process of identification of the applicable legal requirements and other requirements voluntarily assumed in environmental matters, as well as, the evaluation of the compliance status of each of them, in order to guarantee maintaining such information updated and take action plans in case of breach of any legal requirement.

Responsibilities

Concessions and Sustainability Manager:

- Ensure compliance with this procedure.
- Ensure that the resources necessary for the implementation of EPA environmental operations controls are available.



## 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

### Head of Environment:

- Perform the survey of all environmental legal requirements that apply to EPA.
- Keep the information of the applicable environmental legal requirements updated.
- Manage the implementation of new applicable environmental legal requirements.
- Verify and evaluate EPA legal environmental compliance.
- Together with the Concessions and Sustainability Management, prepare the action plans in case of legal environmental breaches.

### Legal Expert:

- Review the Legal Matrix of EPA

### Internal Auditor:

- Upload the information of the environmental legal requirements to the company's Intranet.

### Entire Personnel:

- Review from the intranet the environmental legal requirements applicable to their activities.
- Comply with the applicable environmental legal requirements.

### Description of the activities

Head of Environment carries out the survey of all applicable legal requirements and others assumed voluntarily and which are related to the environmental aspects of the EPA. This information is concentrated in a Legal Matrix that links the different applicable legal bodies in force.

The Head of Environment keeps the legal information related to environmental aspects updated through the service provider SINAIL. The Head of Environment monthly enters the provider's platform to be informed of any updates in the environmental legislation applicable to the EPA. With this information that person updates the Legal Matrix, manages the implementation of the new requirements and informs the Internal Auditor to upload the information to the intranet so that the personnel has access and knowledge.

Annually, an external and independent Legal Expert verifies that the legal requirements and other environmental requirements identified are adequate and relevant for the main environmental aspects of the port.

All environmental regulations applicable to the EPA are uploaded by the Internal Auditor to the company's Intranet, from which the staff can access it.



## 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

The Head of Environment verifies and evaluates at least once a year the degree of compliance with the applicable legal requirements. The compliance evaluation is registered in the Legal Matrix.

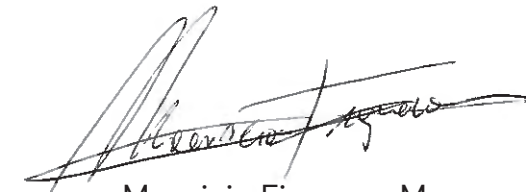
In case of evidencing breach of one or more requirements, the Head of Environment notifies the Concessions and Sustainability Management, to jointly define the Action Plans.

### SIMPLE LEGAL STATEMENT

I, Mauricio Andrés Figueroa Mendoza, Lawyer, I.D. N° 12.834.278-8, with address in Traumao N° 1153, Antofagasta, declare under oath the following:

That, by virtue of the review and verification made to the Matrix of Environmental Aspects and Impacts (EA / EI Matrix) of Empresa Portuaria Antofagasta, single tax role number 73.968.300-9, with registered address Avenida Grecia S / N, Antofagasta, these are suitable and relevant in accordance with the main environmental aspects of the port, thus complying with the current environmental legal regulations in Chile.

The aforementioned in order to comply with requirement 1.2 of the Port Environmental Review System (PERS) according to ECOPORTS certification.

A handwritten signature in black ink, appearing to read "Mauricio Figueroa M.", written over a horizontal line.

Mauricio Figueroa M.  
Lawyer  
R.U.T. 12.834.278-8



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

## 2.3 Matrix of Environmental Aspects and Impacts

Next, the Matrix of Environmental Aspects and Impacts is presented, which contains the significant environmental aspects identified and legal requirements, as well as other environmental requirements that are applicable to its significant aspects.

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Work in computers – printing of documentation due to wear	<u>Domestic Waste</u> Disposal of paper	Soil Contamination	Responsible for Integral Security of the Port	DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Procedure Handling of Waste in Administration area, P-A-03”.
				DFL 725 MINSAL SANITARY CODE	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste	Installation of boxes for the deposit of paper to be recycled.
	<u>Hazardous waste</u> Tonner, cartridge	Soil Contamination	Responsible for Integral Security of the Port	DS 148 MINSAL Sanitary Regulation on Hazardous Waste Handling	<b>DS 148. Art 6:</b> During the handling of hazardous waste, all necessary precautions should be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different stages of handling such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	“Procedure Handling of Waste in Administration area, P-A-03”.
				DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Installation of Container in Corporate Building for toner and Cartridge
				DFL 725 MINSAL Sanitary Code	<b>Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Request, Assignment and Site Preparation / Service Settlement: Administrative Activities

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Replacement of batteries due to wear	<u>Hazardous Waste Batteries</u>	Soil Contamination	Responsible for Integral Security of the Port	DS 148 MINSAL  Sanitary Regulation on Hazardous Waste Handling	<p><b>Art 6.</b> During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.</p> <p><b>Art 7.</b> At any stage of hazardous waste handling, it is expressly forbidden to mix them with waste that does not have that nature or with other substances or materials, when such mixture is intended to dilute or decrease its concentration. If for any circumstance this happens, the entire mixture must be handled as a hazardous waste, in accordance with the provisions of this regulation.</p> <p><b>Art 9.</b> Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced.</p> <p>However, in the elimination processes, waste of groups A and B of such Table may be mixed, once it is demonstrated that the reaction effects they generate are under control.</p> <p><b>Art 29.</b> Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.</p>	<p>““Procedure Handling of Waste in Administration area, P-A-03”.</p> <p>Installation of Container for batteries in Corporate Building</p>



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Request, Assignment and Site Preparation / Service Settlement: Administrative Activities

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
				DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725 MINSAL Sanitary Code	<b>Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Request, Assignment and Site Preparation / Service Settlement: Administrative Activities

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Replacement of Computer Equipment and Accessories	<b>Electronic Waste</b> Computer Equipment Waste and accessories (monitors, UPS batteries, keyboards, etc.)	Soil Contamination	Environmental Engineer	Law 20.920 MMA	<p><b>Article 4.</b> Of the prevention and valorization. All potentially recoverable waste must be used for this purpose, avoiding its disposal. For this purpose, the Ministry, considering the principle of gradualism and when relevant, must establish by means of a supreme decree, the following instruments aimed at preventing the generation of waste and, or promoting its valorization:</p> <p>a) Eco design. b) Certification, labeling and tagging of one or more products. c) Deposit and reimbursement System. d) Mechanisms of separation at source and selective waste collection. e) Mechanisms to ensure an environmentally rational waste management. f) Mechanisms to prevent the generation of waste, including measures to prevent that products suitable for use or consumption, as determined by the corresponding supreme decree, from becoming waste.</p> <p>A regulation will establish the procedure for the elaboration of the supreme decrees that establish the previous instruments. This procedure must contain at least the following stages: a) A general analysis of the economic and social impact. b) A consultation with competent public and private entities, including base recyclers. c) A public consultation stage, which will have a minimum duration of thirty business days.</p> <p>The proposal for a supreme decree that regulates any of the instruments indicated in the previous letters must be submitted to the Council of Ministers for Sustainability, in accordance with the provisions of articles 71 and following of Law No. 19,300. Such decree shall be claimed in the terms established in article 16.</p> <p>The Superintendence shall be competent to supervise compliance with such instruments and impose sanctions, in accordance with its organic law.</p>	<p>“Procedure Handling of Waste in Administration area, P-A-03”.</p> <p>E-waste Certificate</p>



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Request, Assignment and Site Preparation / Service Settlement: Administrative Activities

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of Air Conditioning	Emission and/or Leaks of Refrigerant Gas	Air Contamination	Responsible for Minor Maintenance	Montreal Agreement  <u>MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER</u>  MINISTRY OF FOREIGN AFFAIRS	<p>It establishes the compromise for the control of the consumptions of substances that deplete the Ozone Layer, regarding: 1st Not exceeding the calculated consumption levels of 1986 and 2nd, Reduce that consumption</p> <p><u>CONTROL MEASURES</u></p> <p>1)FOR THE SUBSTANCES OF GROUP Group I of Annex A,</p> <p>Each Party shall ensure that, in the 12-month period starting on 01/04/1991 and in each subsequent twelve-month period, its calculated level of consumption of controlled substances in this group does not exceed its calculated level of consumption from 1986. At the end of the same period, each Party producing one or more of these substances shall ensure that its calculated production level of these substances does not exceed its production level from 1986, with the exception that such level cannot be increased by more than 10% with respect to the level of 1986, each Party shall also ensure that, in the period from 07.01.93 to 06.30.94 and in each successive period of twelve months, its calculated level of consumption of controlled substances does not exceed 80% of its calculated consumption level of 1986.GROUP I</p> <ul style="list-style-type: none"><li>•CFCL3 CFC-11 1,0</li><li>•CF2CL2 CFC-12 1,0</li><li>•C2F3CL3 CFC-113 0,8</li><li>•C2F4CL2 CFC-114 1,0</li><li>•C2F5CL CFC-115 0,6</li></ul> <p>2)FOR THE SUBSTANCES OF GROUP II Each Party shall ensure that, in the 12-month period starting on 09.01.93 and in each subsequent twelve-month period, its calculated level of consumption of controlled substances in this group does not exceed its calculated level of consumption from 1986. Each Party producing one or more of these substances shall ensure that its calculated production level of these substances does not exceed its calculated production level from 1986, with the exception that such level cannot be</p>	Use of organic refrigerants

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Request, Assignment and Site Preparation / Service Settlement: Administrative Activities

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<p>increased by more than 10% with respect to the level of 1986, each Party shall also ensure that, in the period from 07.01.98 to 06.30.98 and in each successive period of twelve months, its calculated level of consumption of controlled substances does not exceed 50% of its calculated consumption level of 1986.</p> <p>•CF2BRCL (halon-1211) 3,0 •CF3BR (halon-1301) 10,0 •C2F4BR2(halon-2402)</p> <p>It provides the possibility of the effect of industrial rationalization, which implies that every Party whose calculated production level of 1986 of controlled substances in group I of Annex A is less than 25 kilo tons may transfer to any other Party, or receive from any other Party, the surplus of production that exceeds the limits established in paragraphs 1, 3 and 4, provided that the total calculated and combined production levels of the interested Parties does not exceed the production limits established in this article. +</p> <p>Every transfer of production made in accordance with paragraph 5 shall be notified to the secretariat, at the latest at the time of transfer.</p> <p>8a) The Parties that are a State member of any regional economic integration organization, as defined in paragraph 6 of article 1 of the Agreement, may agree that, pursuant to that article, they will jointly fulfill their obligations, subject to their production as the combined total consumption does not exceed the levels provided by that article.</p> <p>Any of these production transfers must be notified to the secretariat at the latest at the time the transfer is made.</p> <p>Within five years after the entry into force of this Protocol, the Parties shall determine the possibility of prohibiting or restricting the importation of processed products, but not containing controlled substances, from any State that is not considered a Party to this Protocol. If they consider it possible, the Parties shall elaborate in an annex, in accordance with the procedures established in Article 10 of the Agreement, a list of such products. One year after the entry into force of that annex, the Parties that have not objected to it in accordance with those procedures shall prohibit or restrict the importation of such products from any State that is not considered a Party to this Protocol.</p>	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Maintenance of Berthing Defenses	<b>Industrial Waste</b> Tire and Steel Cable Scrap	Soil / Water Contamination	Minor Maintenance	DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Environmental Standard,  D-A-02”
				DFL 725 MINISTRY OF HEALTH  Sanitary Code	Sanitary Code DFL <b>725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	Recovery of the residue in case of falls to the dock;  Use as a fortress in Porteguelo facilities

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Maintenance of Sea bottom (for draft maintenance)	Multiple Waste	Soil Contamination	Minor Maintenance	DS 148  MINSAL  Sanitary Regulations on Hazardous Waste Management:	<p><b>Art 27</b> Notwithstanding its own obligations, the Generator subject to a Hazardous Waste Management Plan, which entrusts to third parties the transportation and / or disposal of their hazardous waste will be responsible for:</p> <p>a) Remove and transport hazardous waste through carriers that have sanitary authorization.</p> <p>b) Carry out the disposal of their hazardous waste in Disposal Facilities that have the proper Sanitary Authorization that includes such waste</p> <p>c) Timely provide the information corresponding to the Hazardous Waste Statement and Monitoring System and deliver to the carrier the respective Safety Data Sheets for the Transport of Hazardous Waste.</p> <p>The Generators that are not required to be subject to a Library Management Plan of the National Congress of Chile - <a href="http://www.leychile.cl">www.leychile.cl</a> - document generated on Nov 13, 2018</p> <p>Hazardous Waste must in any case comply with the obligation indicated in letter b) above.</p>	“Environ-mental Standard,  D-A-02”  Classification and handling of waste according to its type
				DS 594 MINSAL	<p><b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.</p>	
				DFL 725 MINISTRY OF HEALTH Sanitary Code	<p><b>Sanitary Code DFL 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.</p>	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Maintenance of Luminaire	<b>Hazardous Waste</b> light bulbs and lighting equipment	Soil Contamination	Minor Maintenance	DS 148  MINSAL  Sanitary Regulations on Hazardous Waste Management:	Art 9. Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced  However, in the elimination processes, residues of groups A and B of said Table may be mixed, when it is demonstrated that the effects of the reaction they generate are under control.  Art 29. Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.	“Environmental Standard,  D-A-02”  Removal of waste by Contractor Company and authorized final disposition (Proof of final disposition)
				DS 594  MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725  MINSAL  Sanitary Code	<b>Sanitary Code, 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
General Vacuuming of Esplanades	Hazardous Waste Contaminated ground	Air and Soil Contamination	Responsible for Integral Security Management of the Port	DS 148  MINSAL  Sanitary Regulations on Hazardous Waste Management	<p><b>Art 9.</b> Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced.</p> <p>However, in the elimination processes, residues of groups A and B of said Table may be mixed, when it is demonstrated that the effects of the reaction they generate are under control.</p> <p>Art 29. Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.</p>	“Environmental Standard,  D-A-02”  Use of luminaires towards the ground and caps to prevent dispersion
				DS 59  Ministry General Secretariat of the Presidency; National Environment Commission  It establishes norms to avoid emanations or air pollutants of any nature.	<p>Art 2. The primary standard of air quality for the contaminant Breathable Particulate Matter MP10 is one hundred fifty micrograms per normal cubic meter (150 µg / m3N) as a 24-hour concentration.</p> <p>The air quality standard for breathable particulate matter shall be considered exceeded when the Percentile 98 of the 24-hour concentrations recorded during an annual period at any monitoring station classified as EMRP is greater or equal to 150 µg / m3N.</p> <p>Likewise, the standard will be considered surpassed, if before the end of the first annual period of measurements certified by the competent Health Service it is registered in one of the monitoring stations for Breathable Particulate Matter MP10 classified as EMRP, a number of days with measurements over the value of 150 µg / m3N greater than seven (7).</p> <p>From January 1, 2012, the DTO 45, primary standard of air quality for the contaminant SEC. GRAL. PRES.</p> <p>Breathable Particulate Matter MP10, shall be one hundred Art. First No. 3 twenty micrograms per normal cubic meter (120 µg / m3N) D.O. 11.09.2001 as a concentration of 24 hours, unless in that date NOTE has entered into force an environmental quality standard for Fine Particulate Matter MP2.5, in which case the value of the standard established in the first paragraph will be maintained.</p>	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<p>The primary standard of air quality for the Breathable Particulate Matter MP10 is fifty micrograms per normal cubic meter (50 µg / m3N) as an annual concentration.</p> <p>The annual primary standard of air quality for breathable particulate matter MP10 will be considered surpassed, when the annual concentration calculated as an arithmetic average of three consecutive calendar years in any monitoring station classified as EMRP, is greater than or equal to 50 µg / m3, if applicable according to what is indicated in the point</p>	
				<p>DS 12</p> <p>Ministry of Environment</p> <p>Establishes primary environmental quality standard for breathable fine particulate material MP 2.5</p>	<p>DS 12. Art 3: The primary standard of air quality for fine particulate matter is twenty micrograms per cubic meter (20 µg / m3), as an annual concentration, and fifty micrograms per cubic meter (50 µg / m3), as a 24-hour concentration.</p>	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Dock to the Ship: Berthing Facility Area “Berthing Facility Leasing Services”

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of outdoor luminaires	<b>Outdoor lighting</b>	Light pollution	Minor Maintenance	DS 43  Ministry of Environment	<p>Art 2. Territorial Aspect. The following emission standard will be applied within the administrative territorial limits of the Regions of Antofagasta, Atacama and Coquimbo.</p> <p>Art 3. Issuing Sources. The sources that must comply with this emission standard are lamps, whatever their technology, that are installed in luminaires, in projectors or by themselves, that are used in what is called Outdoor Lighting. Issuing sources such as notices, light signs, projectors or other lighting devices that may be moved while moving are also considered in this category.</p> <p>In the cases where the lamps are installed in luminaires or projectors, the joint emission of these (lamp-luminaire or lamp-projector assembly) will be considered for the requirements that specify it.</p>	Use of luminaires towards the ground and caps to prevent dispersion
Use of X-ray Machines	Emission of Ionizing Radiation	Air Pollution and Exposed Persons	Responsible for Integral Security Management of the Port	DS 594  MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Maintenance of the Equipment  Authorization for the Operation from Health Authority



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Loading Dock: Warehouse Area: Storage of Cargo Covered and Uncovered

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Reception, Storage and Cargo Dispatch	Noise	Acoustic Pollution	Multi-Operated Terminal Management Responsible	DS 38  Ministry of the Environment establishes a noise emission standard generated by sources that indicates, prepared after the revision of Decree No. 146, of 1997, of the Ministry General Secretariat of the Presidency	<b>Article 6°:</b> <b>28. Zone I:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows exclusively the use of Residential land or this land use and any of the following land uses: Public Space and / or Green Area.  <b>29. Zone II:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone I, Equipment of any scale.  <b>30. Zone III:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone II, Productive and / or Infrastructure Activities.  <b>31. Zone IV:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows only Productive and / or Infrastructure Activities.  <b>32. Rural Zone:</b> that zone located outside the urban limit established in the corresponding Territorial Planning Instrument.	Performance of Annually Noise Study
	Industrial Waste Packaging Remaining's (Pallet, Sticks, Hoops, Plastics, etc)	Soil Contamination		DFL 725 Sanitary Code	<b>Sanitary Code, 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	"Environmental Standard, D-A-02"
				DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Trash Removal and Disposal of Industrial Waste in Landfill

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Loading Dock: Warehouse Area: Storage of Cargo Covered and Uncovered

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Warehouse Luminaire Maintenance	<b>Hazardous Waste</b> light bulbs and lighting equipment	Soil Contamination	Responsible of Minor Maintenance	DS 148  Sanitary Regulations on Hazardous Waste Management	<p>Art 6. During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.</p> <p>Art 7. At any stage of hazardous waste handling, it is expressly forbidden to mix them with waste that does not have that nature or with other substances or materials, when such mixture is intended to dilute or decrease its concentration. If for any circumstance this happens, the entire mixture must be handled as a hazardous waste, in accordance with the provisions of this regulation.</p> <p>Art 9 Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced.</p> <p>However, in the elimination processes, waste of groups A and B of such Table may be mixed, once it is demonstrated that the reaction effects they generate are under control.</p> <p>Art 29. Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.</p>	“Environmental Standard, D-A-02”  Removal of waste by Contractor Company and authorized final disposition (Proof of final disposition).
				DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Use of Loading Dock: Warehouse Area: Storage of Cargo Covered and Uncovered

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
General Vacuuming of Warehouses	<b>Hazardous Waste</b> Contaminated ground	Soil Contamination	Responsible for Integral Security Management of the Port	DS 148  MINSAL  Sanitary Regulations on Hazardous Waste Management:	<p>Art 6. During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.</p> <p>Art 7 At any stage of hazardous waste handling, it is expressly forbidden to mix them with waste that does not have that nature or with other substances or materials, when such mixture is intended to dilute or decrease its concentration. If for any circumstance this happens, the entire mixture must be handled as a hazardous waste, in accordance with the provisions of this regulation.</p> <p>Art 9 Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced.</p> <p>However, in the elimination processes, waste of groups A and B of such Table may be mixed, once it is demonstrated that the reaction effects they generate are under control.</p> <p>Art 29. Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.</p>	“Environmental Standard, D-A-02”  Handling and Disposal as Hazardous Waste

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Warehouse Area: Covered and Uncovered Cargo Storage

SUB-ACTIVITY	ENVIRON-MENTAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Container Consolidation and Deconsolidation	Solid industrial waste generation (beams, wood, plastic)	Soil Contamination	Multi-Operated Terminal Management Responsible	DS 594	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	"Environmental Standard,  D-A-02"
				DFL 725 MINSAL Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
Load lashing / trenching	Solid industrial waste generation (beams, wood, plastic)	Soil Contamination	Multi-Operated Terminal Management Responsible	DS 594 MINSAL DFL 725 Sanitary Code MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.  <b>Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	Training in Waste Handling
Operation of Forklifts for load handling	Fuel consumption	Depletion of Natural Resources	Responsible of Integral Security Management of the Port	-----	-----	Technical Inspection up to date
Operation of Forklifts for load handling	Gas emissions	Atmospheric pollution	Responsible of Integral Security Management of the Port	LAW 18290 Transit Law	LAW 18290 Art. 82: Motorized vehicles must be equipped, adjusted or carbonated so that the engine does not emit polluting materials or gases at a higher rate than allowed	Technical Inspection up to date
				DS 144 MINSAL	<b>Art 1.</b> Gases, vapors, fumes, dust or pollutants of any nature produced in any factory or workplace must be captured, disposed in a manner that does not cause damage or discomfort to the neighborhood.	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Warehouse Area: Covered and Uncovered Cargo Storage

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<b>Art 7.</b> The circulation of any motor vehicle that emits visible smoke through its exhaust pipe is prohibited	
Use of Truck and Forklift for Cargo Movement with oil and / or hydrocarbon leakage	Spills of oil and / or hydrocarbon	Soil Contamination	Responsible of Integral Security Management of the Port	DS 148  Sanitary Regulations on Hazardous Waste Management:	<p>Art 6. During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.</p> <p>Art 7 At any stage of hazardous waste handling, it is expressly forbidden to mix them with waste that does not have that nature or with other substances or materials, when such mixture is intended to dilute or decrease its concentration. If for any circumstance this happens, the entire mixture must be handled as a hazardous waste, in accordance with the provisions of this regulation.</p> <p>Art 9 Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced.</p> <p>However, in the elimination processes, waste of groups A and B of such Table may be mixed, once it is demonstrated that the reaction effects they generate are under control.</p> <p>Art 29. Every place for the storage of hazardous waste must have the corresponding sanitary authorization for installation, unless it is included in the sanitary authorization of the main activity.</p>	<p>“ Procedure for Preparation and Response in case of Emergency, P-A-06”</p> <p>Training in Emergency Procedure for Emergency Drill</p>

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Maxibags (Soda Ashes - Bicarbonate): Unloading and Consolidation of Maxibags (Soda Ash - Bicarbonate)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Movement of Maxibags o (loading / unloading, Consolidation in containers)	Soda Ash or Bicarbonate spill due to rupture of Maxibags	Air and Soil Contamination	TMO Environmental Advisor	DS 594  MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Load handling of Soda Ash - Bicarbonate in Maxibag  Load handling via forklift operated by licensed driver
				DFL 725 Sanitary Code	Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
				DS 59 (PM10)  Ministry General Secretariat of the Presidency; National Environment Commission	<p>Art 2. The primary standard of air quality for the contaminant Breathable Particulate Matter MP10 is one hundred fifty micrograms per normal cubic meter (150 µg / m3N) as a 24-hour concentration.</p> <p>The air quality standard for breathable particulate matter shall be considered exceeded when the Percentile 98 of the 24-hour concentrations recorded during an annual period at any monitoring station classified as EMRP is greater or equal to 150 µg / m3N.</p> <p>Likewise, the standard will be considered surpassed, if before the end of the first annual period of measurements certified by the competent Health Service it is registered in one of the monitoring stations for Breathable Particulate Matter MP10 classified as EMRP, a number of days with measurements over the value of 150 µg / m3N greater than seven (7).</p>	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Maxibags (Soda Ashes - Bicarbonate): Unloading and Consolidation of Maxibags (Soda Ash - Bicarbonate)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<p>From January 1, 2012, the DTO 45, primary standard of air quality for the contaminant SEC. GRAL. PRES.</p> <p>Breathable Particulate Matter MP10, shall be one hundred Art. First No. 3 twenty micrograms per normal cubic meter (120 µg / m3N) D.O. 11.09.2001 as a concentration of 24 hours, unless in that date NOTE has entered into force an environmental quality standard for Fine Particulate Matter MP2.5, in which case the value of the standard established in the first paragraph will be maintained.</p> <p>The primary standard of air quality for the Breathable Particulate Matter MP10 is fifty micrograms per normal cubic meter (50 µg / m3N) as an annual concentration.</p> <p>The annual primary standard of air quality for breathable particulate matter MP10 will be considered surpassed, when the annual concentration calculated as an arithmetic average of three consecutive calendar years in any monitoring station classified as EMRP, is greater than or equal to 50 µg / m3, if applicable according to what is indicated in the point.</p>	
				<p>DS 12 (PM 2,5)</p> <p>Ministry of Environment</p>	<p>Art 4. The primary standard of air quality standard for breathable fine particulate matter MP2.5 shall be considered surpassed, in the following cases:</p> <p>a) When the 98 percentile of the daily averages recorded during a year is greater than 50 (µg / m3), in any monitoring station qualified as EMRP; or</p> <p>b) When the three-year annual average of the annual concentrations is greater than 20 (µg / m3), in any monitoring station qualified as EMRP.</p> <p>If the measurement period in a monitoring station does not begin on January 1, the first three periods of 12 months from the starting month of the measurements will be considered, until three successive calendar years of measurements.</p>	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Maxibags (Soda Ashes - Bicarbonate): Unloading and Consolidation of Maxibags (Soda Ash - Bicarbonate)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Movement of Maxibags (loading / unloading, Consolidation in containers)	Generation of torn Maxibags (for replacement work)	Soil Contamination	TMO Environmental Advisor	DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Load handling of Soda Ash - Bicarbonate in Maxibag
				DFL 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
	Generation of solid industrial waste (beams, wood, plastic and empty Maxibags)	Soil Contamination	TMO Environmental Advisor	DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Load handling via forklift operated by licensed driver
				DFL 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Maxibags (Soda Ashes - Bicarbonate): Unloading and Consolidation of Maxibags (Soda Ash - Bicarbonate)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of Truck and Forklift for Cargo Movement with oil and / or hydrocarbon leakage	Fuel Consumption	Depletion of Natural Resources	TMO Environmental Advisor	-----	-----	Technical Inspection up to date
	Gas emissions	Atmospheric pollution	TMO Environmental Advisor	LAW 18290 Transit Law	Art 1. Motorized vehicles must be equipped, adjusted or carbonated so that the engine does not emit polluting materials or gases at a higher rate than allowed.	Technical Inspection up to date
				DS 144 MINSAL	Art 1. Gases, vapors, fumes, dust or pollutants of any nature produced in any factory or workplace must be captured, disposed in a manner that does not cause damage or discomfort to the neighborhood.	
	Noise	Acoustic Pollution	TMO Environmental Advisor	DS 38 Ministry of Environment	<b>Article 6°:</b>  <b>28. Zone I:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows exclusively the use of Residential land or this land use and any of the following land uses:  Public Space and / or Green Area.  <b>29. Zone II:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone I, Equipment of any scale.  <b>30. Zone III:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone II, Productive and / or Infrastructure Activities.  <b>31. Zone IV:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows only Productive and / or Infrastructure Activities.  <b>32. Rural Zone:</b> that zone located outside the urban limit established in the corresponding Territorial Planning Instrument.	Perform Noise study

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Maxibags (Soda Ashes - Bicarbonate): Unloading and Consolidation of Maxibags (Soda Ash - Bicarbonate)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of Truck and Forklift for Cargo Movement with oil and / or hydrocarbon leakage	Spills of oil and / or hydrocarbon	Soil Contamination	TMO Environmental Advisor	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management	<b>Art 6:</b> During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	Emergency Procedure  Training in Emergency Procedure Emergency Drill



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Ulexite Handling: Transport, Storage and Shipping of Ulexite (Bulk Cargo)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Entrance of wagons and weighing	Noise	Acoustic pollution	Responsible of Integral Security Management of the Port	DS 38 Ministry of Environment	<p><b>Article 6°:</b></p> <p><b>28. Zone I:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows exclusively the use of Residential land or this land use and any of the following land uses: Public Space and / or Green Area.</p> <p><b>29. Zone II:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone I, Equipment of any scale.</p> <p><b>30. Zone III:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows in addition to the land uses of Zone II, Productive and / or Infrastructure Activities.</p> <p><b>31. Zone IV:</b> that zone defined in the respective Territorial Planning Instrument and located within the urban boundary, which allows only Productive and / or Infrastructure Activities.</p> <p><b>32. Rural Zone:</b> that zone located outside the urban limit established in the corresponding Territorial Planning Instrument.</p>	Perform Noise study
	Leak of Ulexite	Air and Soil Contamination	TMO Environmental Advisor	DS594 MINSAL	<p>DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.</p>	<p>1. Seal Control of Cart by the exporter (Coupling_ Bolivia)</p> <p>2. Cleaning in case of Spill</p>

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Ulexite Handling: Transport, Storage and Shipping of Ulexite (Bulk Cargo)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRON-MENTAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Position of Cars in the Warehouse	Leak of Ulexite	Air and Soil Contamination		DS725 Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	1. Seal Control of Cart by the exporter (Coupling_ Bolivia) 2. Cleaning in case of Spill
Unloading and Collection of Ulexite	Ulexite dust	Fugitive emissions		DS59  Ministry General Secretariat of the Presidency; National Environment Commission	<p>Art 2. The primary standard of air quality for the contaminant Breathable Particulate Matter MP10 is one hundred fifty micrograms per normal cubic meter (150 µg / m3N) as a 24-hour concentration.</p> <p>The air quality standard for breathable particulate matter shall be considered exceeded when the Percentile 98 of the 24-hour concentrations recorded during an annual period at any monitoring station classified as EMRP is greater or equal to 150 µg / m3N.</p> <p>Likewise, the standard will be considered surpassed, if before the end of the first annual period of measurements certified by the competent Health Service it is registered in one of the monitoring stations for Breathable Particulate Matter MP10 classified as EMRP, a number of days with measurements over the value of 150 µg / m3N greater than seven (7).</p> <p>From January 1, 2012, the DTO 45, primary standard of air quality for the contaminant SEC. GRAL. PRES.</p> <p>Breathable Particulate Matter MP10, shall be one hundred Art. First No. 3 twenty micrograms per normal cubic meter (120 µg / m3N) D.O. 11.09.2001 as a concentration of 24 hours, unless in that date NOTE has entered into force an environmental quality standard for Fine Particulate Matter MP2.5, in which case the value of the standard established in the first paragraph will be maintained.</p>	1. Development of Ulexita Unloading and Collection activity in a closed warehouse 2. Safety Data Sheet

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Ulexite Handling: Transport, Storage and Shipping of Ulexite (Bulk Cargo)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<p>The primary standard of air quality for the Breathable Particulate Matter MP10 is fifty micrograms per normal cubic meter (50 µg / m3N) as an annual concentration.</p> <p>The annual primary standard of air quality for breathable particulate matter MP10 will be considered surpassed, when the annual concentration calculated as an arithmetic average of three consecutive calendar years in any monitoring station classified as EMRP, is greater than or equal to 50 µg / m3, if applicable according to what is indicated in the point.</p>	
Shipment of Ulexite by ship	Ulexite dust	Air, sea and soil contamination		DS 12  Ministry of Environment Establishes primary environmental quality standard for breathable fine particulate material MP 2.5	<p>Art 4. The primary standard of air quality standard for breathable fine particulate matter MP2.5 shall be considered surpassed, in the following cases:</p> <p>a) When the 98 percentile of the daily averages recorded during a year is greater than 50 (µg / m3), in any monitoring station qualified as EMRP; or</p> <p>b) When the three-year annual average of the annual concentrations is greater than 20 (µg / m3), in any monitoring station qualified as EMRP.</p> <p>If the measurement period in a monitoring station does not begin on January 1, the first three periods of 12 months from the starting month of the measurements will be considered, until three successive calendar years of measurements</p>	<ol style="list-style-type: none"><li>1. Closing of Warehouse Gates not associated with operation</li><li>2. Partial Closing of the Gate associated with the operation</li><li>3: Conveyor Belt Tightly Closed</li><li>4. Installation of Ship Cover to Dock</li><li>5. Waterproof installation to achieve the encapsulation of the ship's warehouse.</li><li>6. Permanent floor cleaning and in case of spillage.</li></ol>



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Ulexite Management: Operation of Vehicle Equipment, Transfer Equipment and Support Equipment (Ulexita Bulk)

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Operation of Front End Loader and Mini Loader	Gases derived from the combustion of the equipment	Air Contamination	TMO Environmental Advisor	AW 18290 Transit Law  DS 4 Ministry of Transportation and lecommunications It establishes pollutant emission standards applicable to motorized vehicles and sets the procedures for their control	<b>Art 1.</b> All holders of fixed sources of emission of air pollutants that are established in this decree, must deliver to the Regional Secretary Ministry of Health (Seremi) competent of the place where they are located, the necessary background to estimate the emissions from each of its sources, in accordance with the standards indicated below.  <b>DS 4:</b> Set the maximum emissions of CO and HC by the exhaust pipe	1. Technical Inspection up to date 2. Permit to Access the Port
	Fuel consumption for equipment operation	Consumption of Natural Resources	TMO Environmental Advisor	-----	-----	Maintenance of equipment up to date
Conveyor belt movement with remains of ulexite	Ulexite dust	Soil and Air Contamination	TMO Environmental Advisor	DS 59 Ministry General Secretariat of the Presidency; National Environment Commission	Art 2. The primary standard of air quality for the contaminant Breathable Particulate Matter MP10 is one hundred fifty micrograms per normal cubic meter (150 µg / m3N) as a 24-hour concentration. The air quality standard for breathable particulate matter shall be considered exceeded	1. Cleaning of conveyor belt inside the Warehouse before and / or after each shipment 2. Floor cleaning in case of spillage

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Empty Container

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
					<p>when the Percentile 98 of the 24-hour concentrations recorded during an annual period at any monitoring station classified as EMRP is greater or equal to 150 µg / m3N.</p> <p>Likewise, the standard will be considered surpassed, if before the end of the first annual period of measurements certified by the competent Health Service it is registered in one of the monitoring stations for Breathable Particulate Matter MP10 classified as EMRP, a number of days with measurements over the value of 150 µg / m3N greater than seven (7).</p> <p>From January 1, 2012, the DTO 45, primary standard of air quality for the contaminant SEC. GRAL. PRES.</p> <p>Breathable Particulate Matter MP10, shall be one hundred Art. First No. 3 twenty micrograms per normal cubic meter (120 µg / m3N) D.O. 11.09.2001 as a concentration of 24 hours, unless in that date NOTE has entered into force an environmental quality standard for Fine Particulate Matter MP2.5, in which case the value of the standard established in the first paragraph will be maintained.</p> <p>The primary standard of air quality for the Breathable Particulate Matter MP10 is fifty micrograms per normal cubic meter (50 µg / m3N) as an annual concentration.</p> <p>The annual primary standard of air quality for breathable particulate matter MP10 will be considered surpassed, when the annual concentration calculated as an arithmetic average of three consecutive calendar years in any monitoring station classified as EMRP, is greater than or equal to 50 µg / m3, if applicable according to what is indicated in the point.</p>	
				DS 594 MINSAL	<p>DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest</p>	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Minor Maintenance

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
				DFL 725 Sanitary Code	<b>Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
Uso of Generator	Gases derived from the combustion of the equipment	Air Contamination	TMO Environmental Advisor	DS 138 MINSAL	Art 1. All holders of fixed sources of emission of air pollutants that are established in this decree, must deliver to the Regional Secretary Ministry of Health (Seremi) competent of the place where they are located, the necessary background to estimate the emissions from each of its sources, in accordance with the standards indicated below.	1. Emissions Certificate.
	Fuel consumption for equipment operation	Consumption of Natural Resources		-----	-----	
Use of Truck and Crane Fork for Cargo Movement with oil and / or hydrocarbon leakage	Oil spill and / or hydrocarbon	Soil Pollution	TMO Environmental Advisor	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management	Art 6: During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different stages of handling such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	Emergency Procedure  Emergency Procedure Training  Emergency Drill



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Empty Container

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Unloading / loading and Positioning of containers	Fuel Consumption	Depletion of Natural Resources	TMO Environmental Advisor	-----	-----	Preventive Maintenance, Technical Inspection up to date.
	Gas Emissions	Atmospheric Pollution		LAW 18290 Transit Law	Motorized vehicles must be equipped, adjusted or carbonated so that the engine does not emit polluting materials or gases at a higher rate than allowed.	Preventive Maintenance Technical Inspection up to date
Unloading or loading of Mty / full containers. MTY / FULL container packaging Collection or disassembly of mty / full containers in storage or in works and heavy packages	Fuel Consumption	Depletion of Natural Resources	TMO Environmental Advisor	-----	-----	Preventive Maintenance Technical Inspection up to date
	Gas Emissions	Atmospheric Pollution		LAW 18290 Transit Law	Motorized vehicles must be equipped, adjusted or carbonated so that the engine does not emit polluting materials or gases at a higher rate than allowed	Preventive Maintenance Technical Inspection up to date
				DS 4  Ministry of Transportation and Telecommunications  It establishes pollutant emission standards applicable to motorized vehicles and sets the procedures for their control	<b>DS 4:</b> sets the maximum emissions of CO and HC through the exhaust pipe.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Collection in the Port: Handling of Empty Container

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of Truck and Forklift for Cargo Movement with oil and / or hydrocarbon leakage	Oil and / or hydrocarbon spillage	Soil Contamination	TMO Environmental Advisor	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management	Art 6: During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	Emergency Procedure  Emergency Procedure Training  Emergency Drill

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Minor Maintenance

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Replacement of light bulbs and Fluorescent Tubes	<b>Hazardous Waste</b> Light bulbs, fluorescent tubes	Soil Contamination	Responsible of Integral Security Management of the Port	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management	<b>Art 6:</b> During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	“Waste Management Procedure for Administration Area, P-A-03”.  Dispose of waste in the Hazardous Waste warehouse and authorized disposal
				DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725 MINSAL Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
Maintenance of Generators	<b>Hazardous Waste Peligrosos</b> Filters and oils, batteries		Responsible of Integral Security Management of the Port	DS 148 MINSAL	Art 6: During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	“Waste Management Procedure for Administration Area, P-A-03”.  Dispose of waste in the Hazardous Waste warehouse and authorized disposal



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Emergency Situations

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
				DS 594 MINSAL	DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725 MINSAL Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
Maintenance of Forklift and Vehicles (van - pickup trucks)	<u>Hazardous Waste</u> Filters and oils, batteries  <u>Industrial Waste</u> Tires		Responsible of Integral Security Management of the Port	DS 148 MINSAL	Art 6: During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment	“Environmental Standard D-A-02”  Perform Maintenance with Supplier that has authorization according to DS 148, otherwise Recover Hazardous Waste, store in Hazardous Waste Warehouse and authorized disposal
				DS 594 MINSAL	DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	
				DFL 725 MINSAL Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Emergency Situations

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Maintenance of Air Conditioning Equipment	<b>Industrial Waste</b> Waste of the equipment	Soil Contamination	Head of Environment	DS 594 MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Waste Management Procedure for Administration Area, P-A-03”.  Dispose as E-waste
				DFL 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Access of Visitor and/or TMO Personnel

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of transportation vehicles (pickup trucks)	Diesel Consumption	Depletion of Natural Resources	Responsible for Minor Maintenance	-----	-----	Preventive Maintenance, Technical Inspection up to date
	Emission of Gases derived from the combustion of the Vehicle	Atmospheric pollution	Responsible for Minor Maintenance	Ley 18.290 Transit Law	Motorized vehicles must be equipped, adjusted or carbonated so that the engine does not emit polluting materials or gases at a higher rate than allowed.	Preventive Maintenance, Technical Inspection up to date
				DS 131 MINSAL	Art 1. Gases, vapors, fumes, dust, fumes or pollutants of any nature produced in any manufacturing establishment or workplace must be captured, disposed in a way that does not cause damage or discomfort to the neighborhood.	Inspection up to date
				DS 144 MINSAL	<b>Art 7.</b> The circulation of any motor vehicle that emits visible smoke through its exhaust pipe is prohibited	Inspection up to date



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Emergency Situations

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Use of Generator due Power shutdown	Gas Emission from the combustion of the generator	Air Contamination	Responsible for Minor Maintenance	DS 138 MINSAL	Art 1. All holders of fixed sources of emission of air pollutants that are established in this decree, must deliver to the Regional Secretary Ministry of Health (Seremi) competent of the place where they are located, the necessary background to estimate the emissions from each of its sources, in accordance with the standards indicated below.	Annual communication of emission in website <a href="http://www.declaracionemision.cl">www.declaracionemision.cl</a>
Fire; Dock and Soil Contamination	Generation of fumes and burned waste	Air and Soil Contamination	Responsible for Integral Security Management of the Port			“Emergency Preparedness and Response Procedure, P-A-06”  Training on procedure
Spills of Waste and / or Liquid Hazardous Substances	Spill to the floor	Soil Contamination	Responsible for Integral Security Management of the Port	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management	Art 6: During the handling of hazardous waste, all necessary precautions must be taken to prevent its inflammation or reaction, including its separation and protection against any source of risk capable of causing such effects. In addition, during the different handling stages of such waste, all necessary measures must be taken to avoid spills, discharges or emanations of hazardous substances into the environment.	““Emergency Preparedness and Response Procedure, P-A-06”  Training on procedure
				DFL 725 MINSAL Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Corporate Building: Emergency Situations

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
				DS 594  MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	Río Loa vacuum machine
				Resolution N° 1001 MINSALHealth Service of the Antofagasta Region  Establishes the obligation to notify the Antofagasta Health Service of accidents due to chemical spills	It establishes to the natural and legal persons that handle chemical products, of the II Region, the obligation to communicate to the Health Service of Antofagasta, within 24 hours of the occurrence, any spill or other type of accident, in which there are involved chemical substances, which occur both inside industrial facilities or premises, as well as outside, or during transportation to and from the industry.	

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Minor Contractors: Cleaning Services

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
General cleaning of facilities	<b>Domestic Waste</b> Containers of cleaning products, cleaning gloves, rags, cleaning papers, food scraps, etc.	Soil Contamination	TMO Environmental Advisor	DS 594 MINSAL	DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	"Waste Management Procedure for Administration Area, P-A-03".  Resolution of the garbage truck
				DFL 725 Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	
Cleaning of Port Esplanades	<b>Domestic Waste</b> General garbage (paper, plastic, cardboard, minor pieces of wood)	Soil Contamination	TMO Environmental Advisor	DS 148 MINSAL  Sanitary Regulations on Hazardous Waste Management:	Art 8. Hazardous waste containers must comply with the following requirements: a) have a suitable thickness and be constructed with materials that are resistant to stored residue and leak-proof, b) be designed to be able to withstand the efforts produced during handling, as well as during loading and unloading and transfer of waste, ensuring at all times that they will not be spilled, c) be at all times in good condition, replacing all those containers that show deterioration of their containment capacity, d) be labeled clearly indicating the hazard characteristics of the waste contained in accordance with Chilean Standard NCH 2190 of. 93, the process in which the waste originated, the identification code and the date of its location at the storage site. Containers may only be moved manually if their total weight including content does not exceed 30 kilograms. If this weight is higher, they must be moved with mechanical equipment. Containers may only be reused when they are not incompatible waste, unless they have been previously decontaminated.	"Waste Management Procedure for Administration Area, P-A-03".  Resolution of the garbage truck
				DFL 725 MINSAL Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Minor Contractors: Gardening Service

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Fumigation activities	<u>Hazardous Waste</u> Remains of containers with fumigation products, PPE contaminated with fumigation products	Soil Contamination	Responsible for Integral Security Management of the Port	DS 148 MINSAL Sanitary Regulations on Hazardous Waste Management:	Art 9 Hazardous waste may only be mixed or contacted when they are of a similar or compatible nature. For these purposes, the “Table of Incompatibilities” of article 87 shall be referenced. However, in the elimination processes, waste of groups A and B of such Table may be mixed, once it is demonstrated that the reaction effects they generate are under control	“Waste Management Procedure for Administration Area, P-A-03”.
				DS 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	SIDREP certificate of external company
Pruning Activities - Plant Replacement – Weeding	<u>Hazardous Waste</u> Plants remainings; Leaves; weed, etc		TMO Environmental Advisor	DS 594  MINSAL	<b>DS 594. Art 11:</b> The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Waste Management Procedure for Administration Area, P-A-03”.
				DFL 725 Sanitary Code	<b>Sanitary Code 725. Art78:</b> The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	Store in Domestic Waste Deposits and dispose in an Authorized Landfill.

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Minor Contractors: External Vacuum Service

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Vacuuming of esplanade	<u>Hazardous Waste</u> Particulate Matter	Air Contamination	TMO Environmental Advisor	DS 59 Ministry General Secretariat of the Presidency; National Environment Commission	<p>Art 2. The primary standard of air quality for the contaminant Breathable Particulate Matter MP10 is one hundred fifty micrograms per normal cubic meter (150 µg / m3N) as a 24-hour concentration.</p> <p>The air quality standard for breathable particulate matter shall be considered exceeded when the Percentile 98 of the 24-hour concentrations recorded during an annual period at any monitoring station classified as EMRP is greater or equal to 150 µg / m3N.</p> <p>Likewise, the standard will be considered surpassed, if before the end of the first annual period of measurements certified by the competent Health Service it is registered in one of the monitoring stations for Breathable Particulate Matter MP10 classified as EMRP, a number of days with measurements over the value of 150 µg / m3N greater than seven (7).</p> <p>From January 1, 2012, the DTO 45, primary standard of air quality for the contaminant SEC. GRAL. PRES. Breathable Particulate Matter MP10, shall be one hundred Art. First No. 3 twenty micrograms per normal cubic meter (120 µg / m3N) D.O. 11.09.2001 as a concentration of 24 hours, unless in that date NOTE has entered into force an environmental quality standard for Fine Particulate Matter MP2.5, in which case the value of the standard established in the first paragraph will be maintained.</p> <p>The primary standard of air quality for the Breathable Particulate Matter MP10 is fifty micrograms per normal cubic meter (50 µg / m3N) as an annual concentration.</p> <p>The annual primary standard of air quality for breathable particulate matter MP10 will be considered surpassed, when the annual concentration calculated as an arithmetic average of three consecutive calendar years in any monitoring station classified as EMRP, is greater than or equal to 50 µg / m3, if applicable according to what is indicated in the point</p>	Rio Loa vacuum machine

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Minor Contractors: External Vacuum Service

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
				DS 12  Ministry of Environment;  Establishes primary environmental quality standard for breathable fine particulate material MP 2.5	Art 4. The primary standard of air quality standard for breathable fine particulate matter MP2.5 shall be considered surpassed, in the following cases: a) When the 98 percentile of the daily averages recorded during a year is greater than 50 (µg / m3), in any monitoring station qualified as EMRP; or b) When the three-year annual average of the annual concentrations is greater than 20 (µg / m3), in any monitoring station qualified as EMRP.  If the measurement period in a monitoring station does not begin on January 1, the first three periods of 12 months from the starting month of the measurements will be considered, until three successive calendar years of measurements.	



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Transversal Processes: Minor Contractors: Fumigation, Disinfection and Pest Control (extermination) Service

SUB-ACTIVITY	ENVIRONMEN-TAL ASPECTS	ENVIRONMEN-TAL ASPECTS	RESPONSIBLE PERSON / ORGANIZATION	APPLICABLE REGULATION	LEGAL REQUIREMENT	CONTROL MEASURES
Service and Maintenance of the Pest Control Program	Domestic Waste Containers of extermination products (generated in own facilities of contractors)	Soil Contamination	Responsible of Integral Security Management of the Port	DS 594 MINSAL	DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Requirement to the supplier of ISO 14001 Certification.
				DFL 725 MINSAL Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	Requirement to the supplier of ISO 14001 Certification
Fumigation, Pest Control and Disinfection Service	Domestic waste Plastic containers for fumigation product, Disinfection with triple washes and perforations according to DFL 725		Responsible for Integral Security Management of the Port	DS 594 MINSAL	DS 594. Art 11: The work areas must be maintained in good cleaning and housekeeping conditions. Also, effective measures must be taken to avoid the access and eliminate the presence of insects, rodents and other pests of sanitary interest.	“Waste Management Procedure for Administration Area, P-A-03”.
				DFL 725 MINSAL Sanitary Code	Sanitary Code 725. Art78: The regulation will set all the conditions regarding the accumulation, selection, industrialization, commerce or final disposal of trash and waste.	Requirement to the supplier of ISO 14001 Certification

# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

## 2.4 Environmental Performance Indicators

EPA identifies the following relevant environmental indicators for its main environmental aspects, its environmental policy and related to the main environmental objectives of the port in order to facilitate the monitoring of the environmental performance.

### a. Operational Performance Indicators (OPI):

- Domestic waste (paper recycling)
- Hazardous and industrial waste
- Energy consumption
- Water consumption

### b. Management Performance Indicators (MPI):

- Resources available for the environmental management
- Agreement for Clean Production

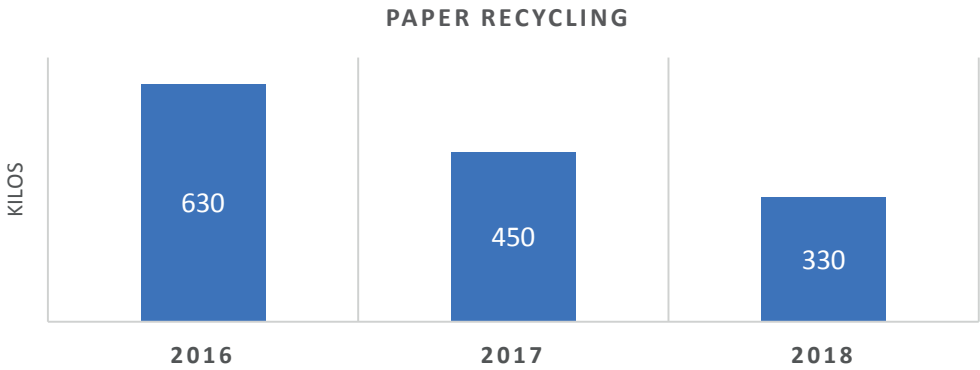
### c. Environmental Conditions Indicators:

- Particulate matter 2,5
- Particulate matter 10
- Emissions of aerial and fixed sources
- Concentration of total hydrocarbon
- Water column
- Fauna
- Green areas
- Noise levels

## 2.4.1 Operational Performance Indicators

### Domestic waste (paper recycling)

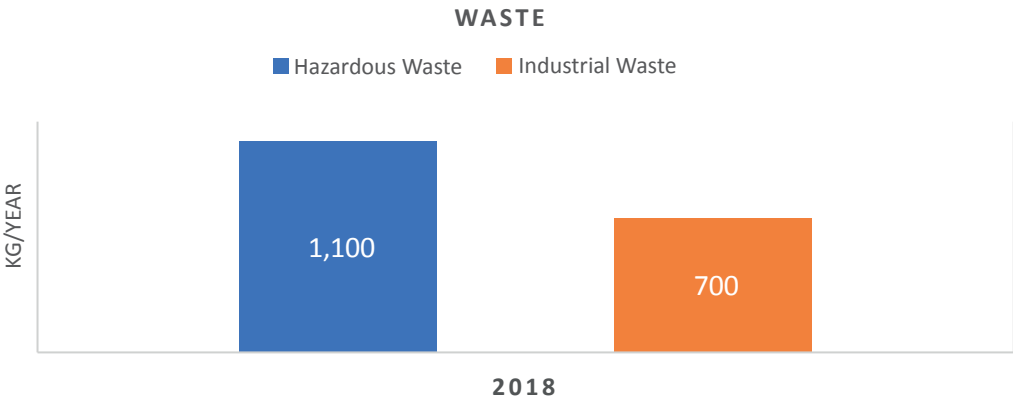
Empresa Portuaria Antofagasta recycles the paper used in administrative procedures, donating it to a Chilean foundation. In this way it is possible to control the kgs. of paper delivered annually for recycling. It is important to highlight that during 2018 the consumption of paper decreased in a 48% compared to 2016, due to the automation of the processes, therefore the total kgs. recycled also showed a reduction during the last years.



### Hazardous and Industrial Waste

Since 2018 the total of hazardous and industrial waste generated annually by the company is measured.

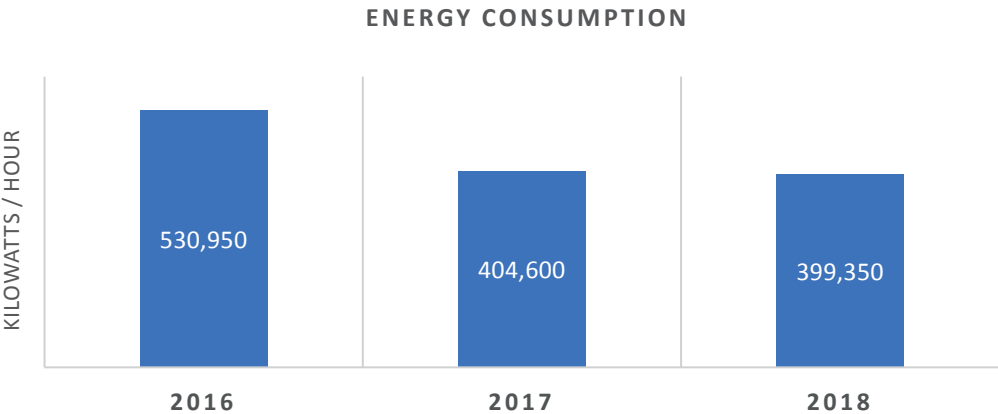
The main hazardous waste comes from the administration area, and the industrial waste comes from the maintenance area, which generally generates junk waste.



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

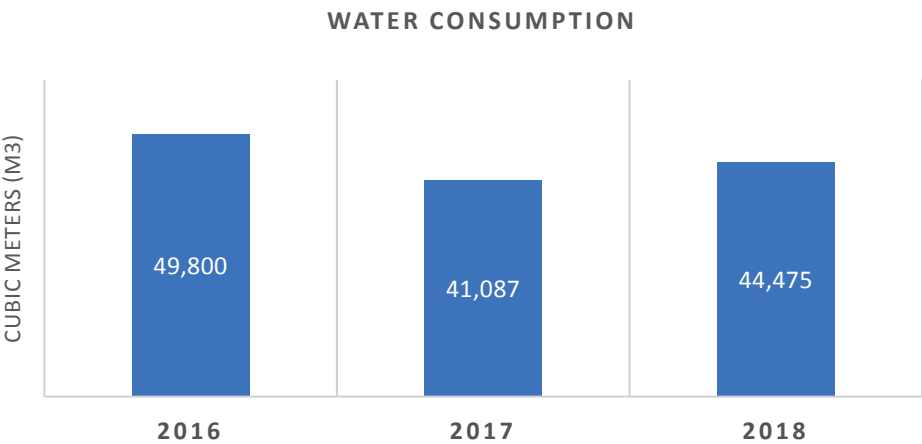
## Energy Consumption

The energy consumption decreased in a 25% during 2018 compared with 2016.



## Water consumption

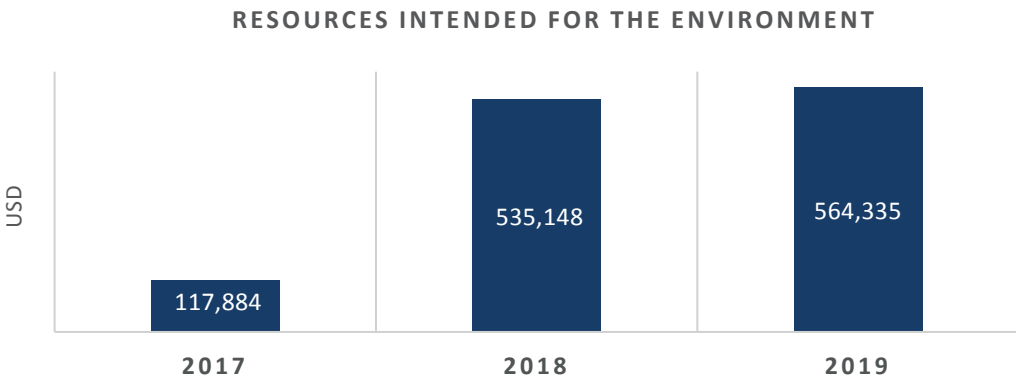
The water consumption in the port decreased in an 11% during 2018 compared to the consumption from 2016.



## 2.4.2 Management Performance Indicators

### Resources available for the environmental management

From 2017 to 2019, the resources allocated to the environmental management of the port were increased by 4.5 times, due to the increase in staffing in the environmental area, to the implementation of actions to eliminate negative externalities, such as; vacuuming in the port terminal, purchase and installation of warehouses for hazardous waste, cleaning of the dock, etc. In addition to the incorporation of the company to the Ecoports network and the implementation of the PERS standards in environmental procedures.



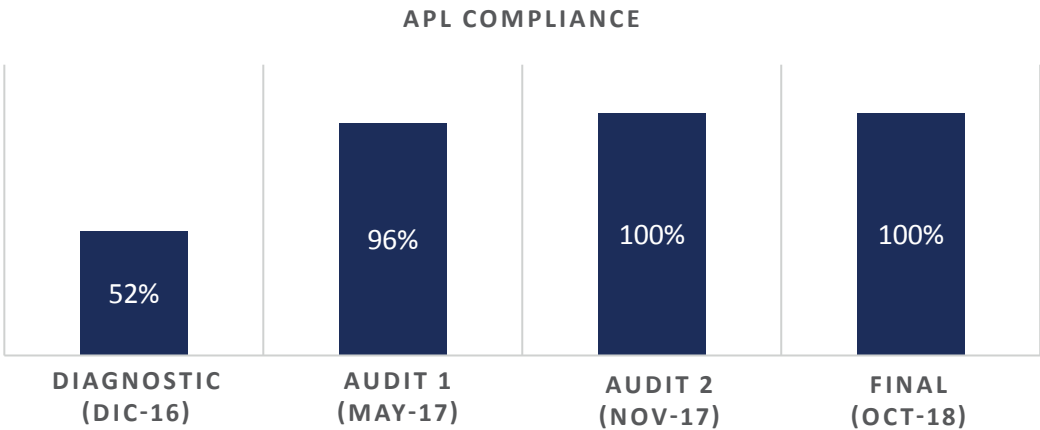


# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

## Agreement for Clean Production

In accordance with the guidelines and milestones defined in the Agreement for Clean Production, EPA had the obligation to measure and monitor the progress of the goals and actions committed in that agreement. Therefore, it was necessary to carry out 4 audits: i) diagnosis, ii) compliance per month 8, iii) compliance per month 14 and iv) final.

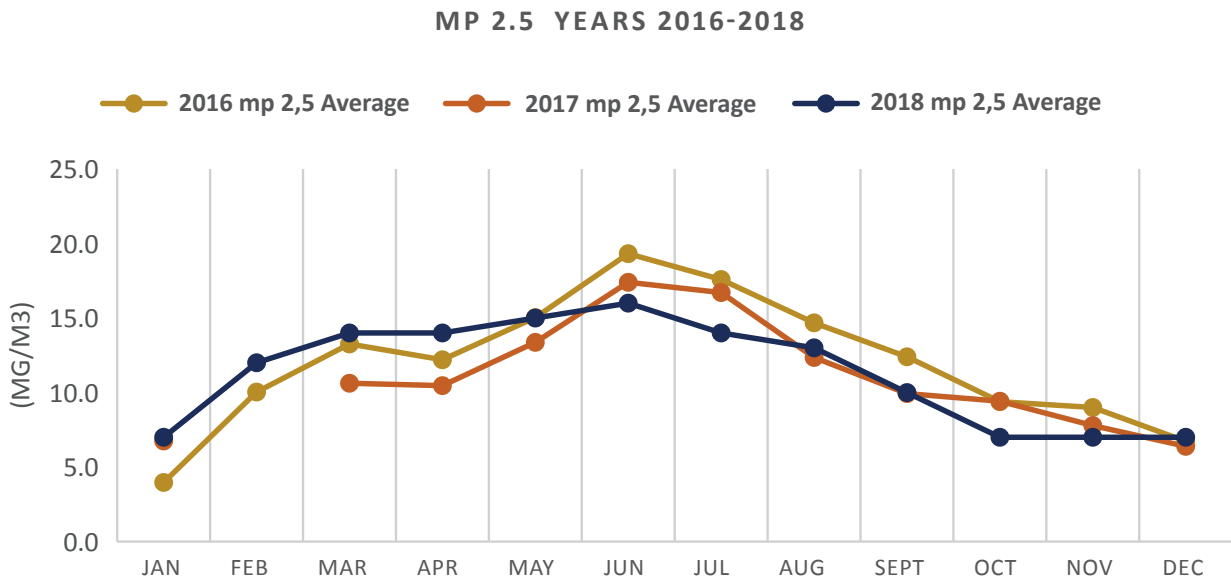
The graph below shows the management performance indicator of the Agreement for Clean Production, where it is possible to observe that EPA began with a 52% weighted progress between its facilities subscribed in the agreement, and by November 2017 (month 14) EPA had already complied with the 100% of Agreement’s goals and actions.



## 2.4.3 Environmental Conditions Indicators

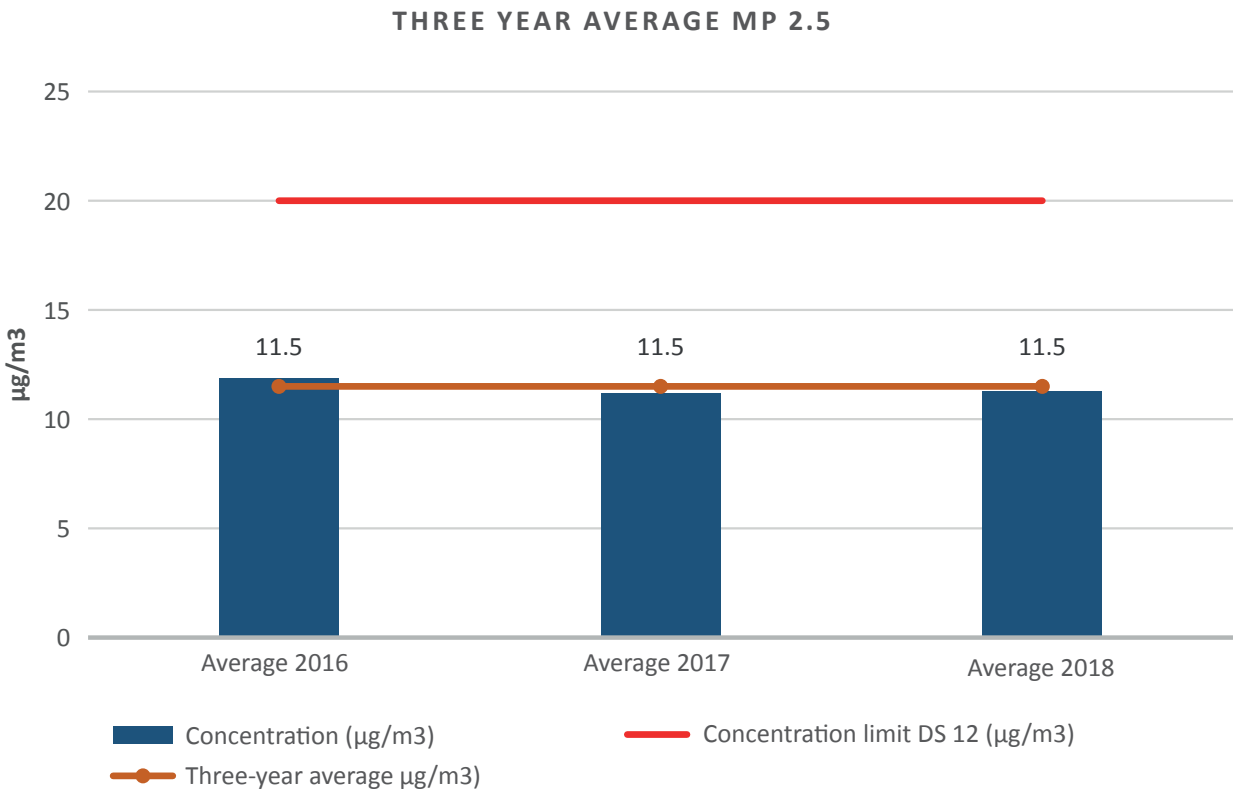
### Particulate Matter 2.5

The graph below shows the measurements of the daily monthly averages.



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

As it is possible to appreciate in the following graph, the measurements of MP 2.5 are below the standard for the daily averages registered during the three-year period. This means that it complies with DS 12 of the Chilean Regulations.

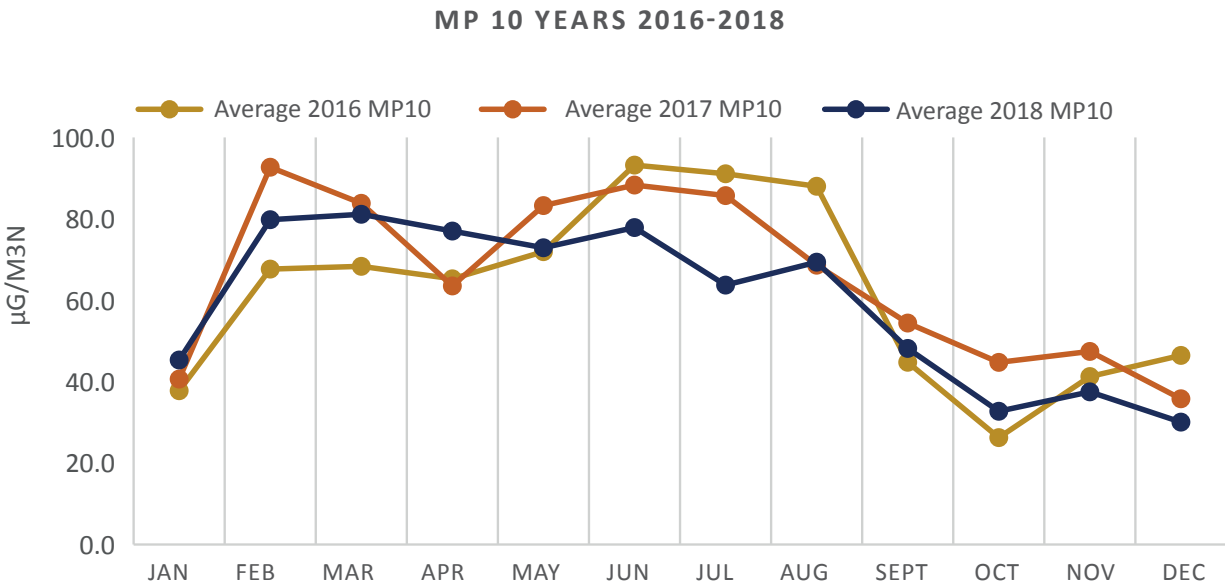


### Particulate Matter 10

The “Club de Yates (Yacht Club)” monitoring station was enabled with equipment for measuring the environmental concentration of breathable particulate matter, and meteorology. All equipment is owned by Antofagasta Terminal Internacional.

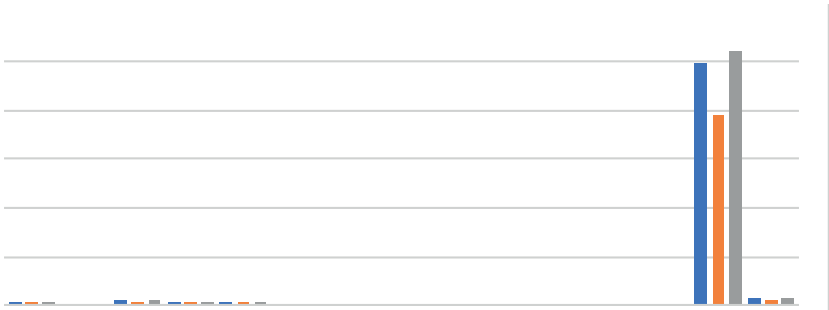
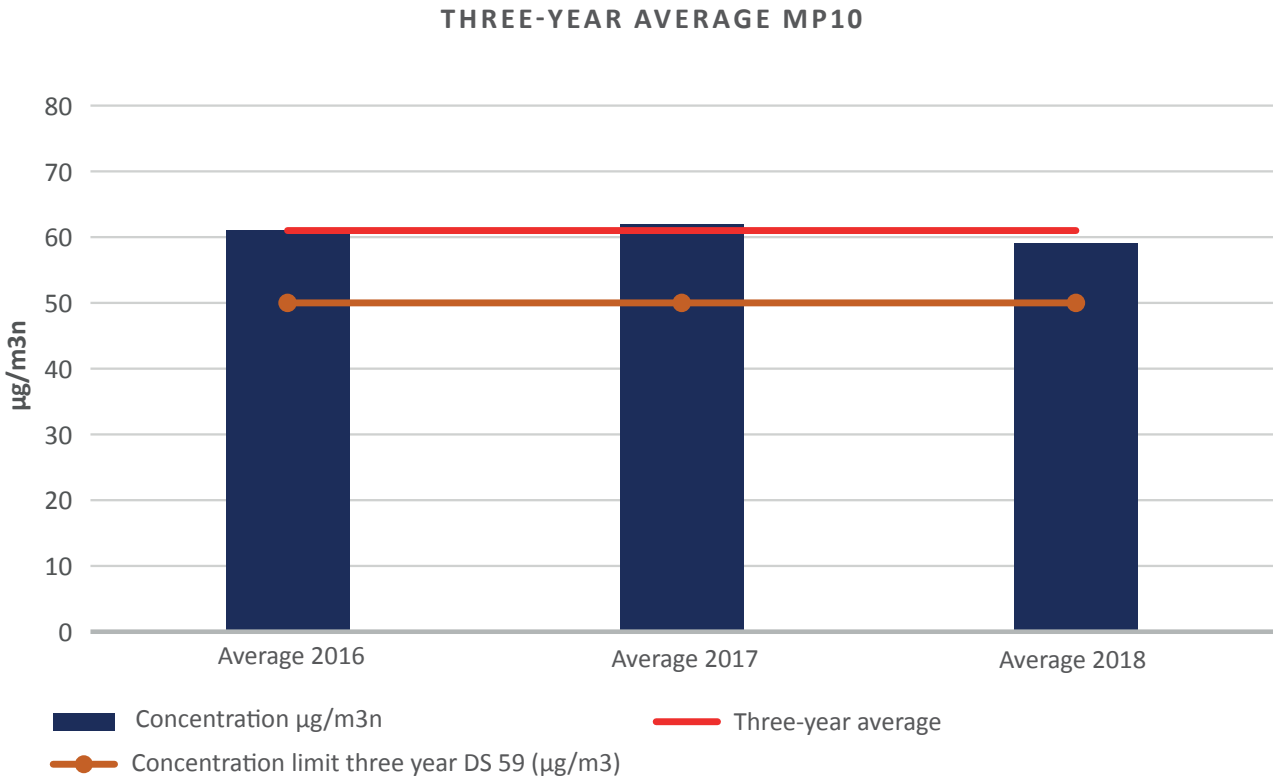
The function and operation of the station complies with DS 61/08 “Regulation of Measurement Stations for Atmospheric Pollutant”.

The graph below shows the average monthly measurements made at the “Club de Yates” station.



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

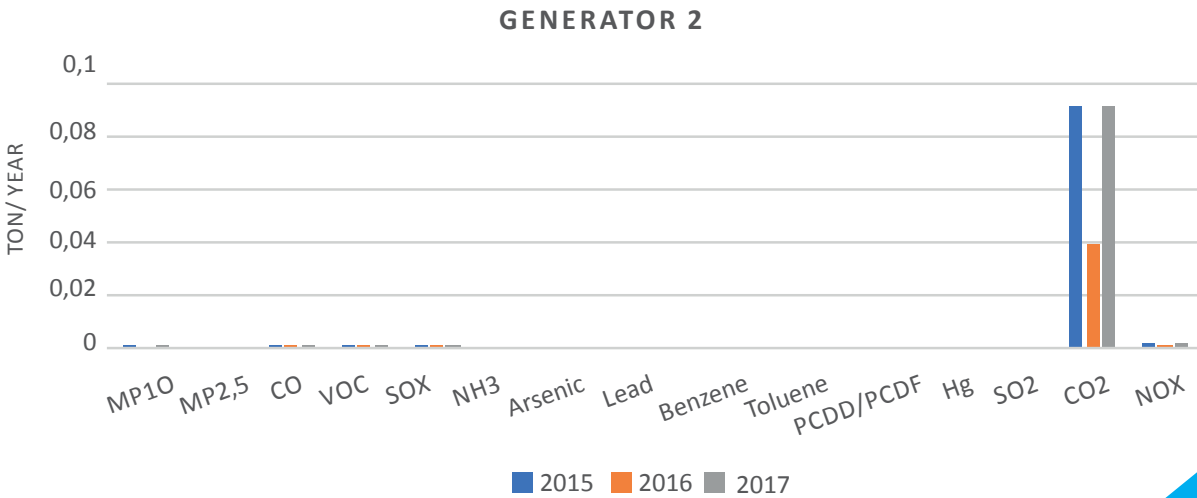
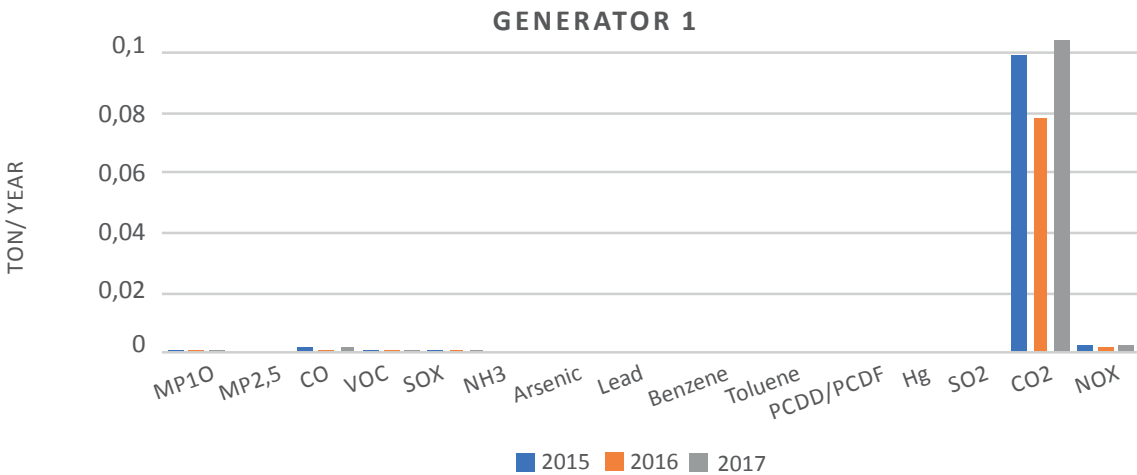
In this moment the measurements of particulate matter PM10 are below the standard. During 2019, measures will continue to be taken to maintain compliance with Chilean regulations.



## Emissions of aerial and fixed sources

EPA has two generators, which are subject to annual measurements for the declaration of contaminants from fixed sources regulated by DS 138.

The measurements of the last three years indicate that the contaminants are all below the detection limit, as can be seen in the graphs presented below.





## 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Empresa Portuaria Antofagasta has two generators which classify as fixed emission sources. The measurements show low emissions in the last three years. From 2018 there is no data yet, since the complete cycle ends in October 2019.

Regarding mobile sources, specifically areal sources, the activity with the highest transfer of pollutants is the unloading of ulexite.

Emission Sources	Emission (Ton/year)				
	MPS	MP <sub>10</sub>	MP <sub>2,5</sub>	SO <sub>x</sub>	NO <sub>x</sub>
Re-suspended dust on paved road	55,3	10,6	2,6	N.C	N.C
Material transfer	13,2	11,2	3,9	N.C	N.C
Machinery	4,7	4,7	4,7	0,1	54,6
Ships	3,4	3,4	3,2	45,2	177,5
Combustion gases (Generator 1 and Generator 2)	0,1	0,1	0,1	0,1	2,5
Wind erosion of stockpiles	0,1	0,03	0,01	N.C	N.C
Total	76,6	30	14,4	45,4	234,6

Source: Seremi of Environment – Air Quality Study Antofagasta year 2015.

Emission Sources	Emission (Ton/year)				
	MPS	MP <sub>10</sub>	MP <sub>2,5</sub>	SO <sub>x</sub>	NO <sub>x</sub>
Re-suspended dust on paved road	17,2	14,6	5,2	N.C	N.C
Material transfer	8,2	1,6	0,4	N.C	N.C
Machinery	6,1	6,1	6,1	0,4	79,2
Ships	0,5	0,5	0,5	6,8	26,6
Combustion gases (Generator 1 and Generator 2)	0,2	0,2	0,2	0,1	5,6
Wind erosion of stockpiles	0,1	0,03	0,01	N.C	N.C
Total	32,2	23	12,3	45,4	111,4

Source: Seremi of Environment – Air Quality Study Antofagasta year 2016.

## 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

The Maritime Environmental Surveillance Program, which is carried out in the Puerto Antofagasta dock, aims to comply with the requirements of the Maritime Authority, who indicate the activities, parameters and frequencies with which the monitoring of physical-chemical and biological variables should be done in marine waters and sub-tidal sediments in the maritime area adjacent to the activities carried out by Puerto Antofagasta.

The table details the parameters analyzed in each station and the analysis methodologies for each of them.

PARAMETER	ANALYTICAL METHOD
pH (in the field)	pH meter (electrometric)
Temperature (in the field)	Digital thermometer (electrometric)
Salinity (in the field)	CTDO - Salinometer (electrometric)
Dissolved Oxygen (in the field)	CTDO - Modified Winkler Method
Transparency (in the field)	Secchi disk
Suspended Solids	SM 22nd Edition Method 2540 D
Dissolved Solids	SM 22nd Edition Method 2540 C
Total Solids	SM 22nd Edition Method 2540 B
Total Hydrocarbons	Calculation
Fixed Hydrocarbons	SM 22nd Edition Method 5520 F
Volatile Hydrocarbons	Gas Chromatography (C-5 to C-12) NCh2313 / 7 OF.97 B
Greases and Oils	SM 22nd Edition Method 5520 D
Cadmium	SM 22nd Edition Method 3030K-3125 B
Copper	SM 22nd Edition Method 3030K-3125 B
Iron	SM 22nd Edition Method 3030K-3125 B
Lead	SM 22nd Edition Method 3030K-3125 B
Zinc	SM 22nd Edition Method 3030K-3125 B
Faecal Coliforms	SM 22nd Edition Method 9221 E
Total Coliforms	NCh 1620/1. Of 84.

Source: Chemical and Microbiological Physical Laboratory, Silob Chile Ltda.

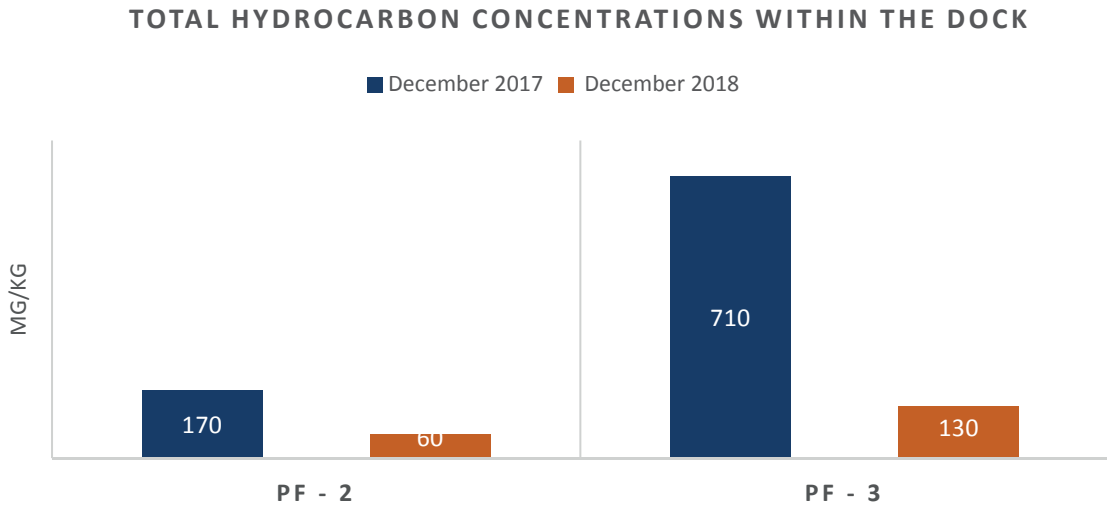
# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

The Total Hydrocarbons Concentrations, which are observed in the graph below, have shown a decrease in their concentration, compared to the previous campaign (2017).

In 2017, Empresa Portuaria Antofagasta began monitoring the levels of total hydrocarbon concentrations in two points within the dock. The measurement points are on a path with high shipping traffic. The measuring points are the PF-2 and the PF-3, which can be seen in the following image of the port dock.



In the following graph it is possible to observe a decrease of 65% in point PF-2 and 82% in point PF-3 of total hydrocarbon concentrations between 2017 and 2018.



### Water column

According to the results obtained in the 2017 and 2018 campaigns, the physical-chemical and microbiological analyzes performed on the samples of the marine water column are directly related to the optimal oxygenation of the water column, therefore, photosynthetic activity or Primary production, otherwise in all cases without exception the dissolved oxygen values are higher in surface than depth, which would confirm that in the surface layers there is a higher concentration of dissolved oxygen, a condition that allows marine organisms to provide oxygen to the surrounding surface water through its photosynthetic activity (primary productivity). In addition, related to primary productivity, this allows precisely the activity of microorganisms, which preserve a habitat without alterations mainly due to the absence of external contributions that could alter the levels of pH, salinity and / or temperature necessary for their survival. These parameters showed a state of normality, which allows a balance in the marine ecosystem adjacent to the port facilities. (Source: Chemical and Microbiological Physical Laboratory, Silob Chile Ltda. - Laboratory of Macrobenthos and Plankton, Applied Ecological Studies).



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Fauna

2017	2018
<p>This campaign, corresponding to the month of December 2017, describes a community structure composed of 22 taxa or related taxonomic units. The percentage composition of the groups, in terms of the number of species that comprise them, shows mollusks as the best represented group, with 50% of the total specific wealth of the study area.</p>	<p>During last campaign carried out in December 2018, a community structure composed of 64 taxa or related taxonomic units is described. The percentage composition of the groups, in terms of the number of species that comprise them, shows the annelids as the best represented group, with 36% of the total specific wealth of the study area.</p> <p>In the second order of importance, regarding the number of species, mollusks and Arthropodos contribute 34% and 22% of the total respectively, while the Nematoda, Nemertea, Equinodermata and Chordata groups together have the remaining 8%. This fauna composition is considered normal, regarding the historical data added to the date during the campaigns carried out by Silob Chile in the locality.</p>
<p>The ABC curve analysis indicated for all stations, a classification below the criteria of uncontaminated communities, presenting a strongly positive Warwick index, which is indicative of an undisturbed community. In this analysis, the recommendations of Carrasco et al. (1996), where indicated that in stations with a number equal to or less than 8 species, the results of these curves would not be entirely reliable, due to the low number of species, a situation that was observed in three of the seven monitoring stations.</p>	<p>Regarding the pollution indices, the ABC curve analysis indicated for 6 of the 7 monitoring stations considered, a classification under the criteria of uncontaminated communities, presenting a strongly positive Warwick index, which is indicative of an undisturbed community.</p>

Source: Chemical and Microbiological Physical Laboratory, Silob Chile Ltda. - Laboratory of Macrobenthos and Plankton, Applied Ecological Studies.

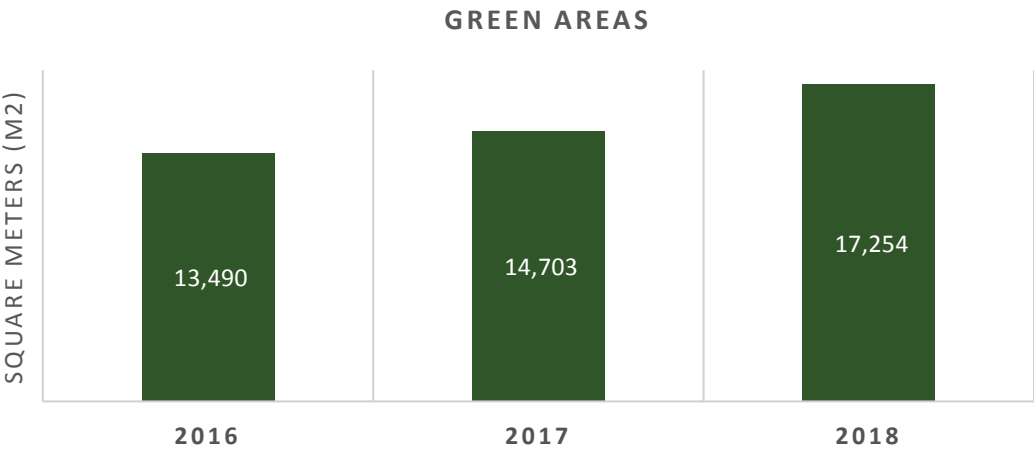
# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

## Green Areas

Every year Empresa Portuaria Antofagasta signs an agreement with the National Forestry Corporation (CONAF), under the Ministry of Agriculture of Chile, with the main objective of contributing to the welfare of the community by receiving approximately 100 trees of different species to be planted in the green areas belonging to the company.

In 2018, EPA received 120 trees, which were located on the bikeway of the port.

The graph considers all the green areas that EPA maintains in all its facilities, where it is possible to observe that from 2016 to 2018 the amount of square meters destined for green areas increased by 28%.

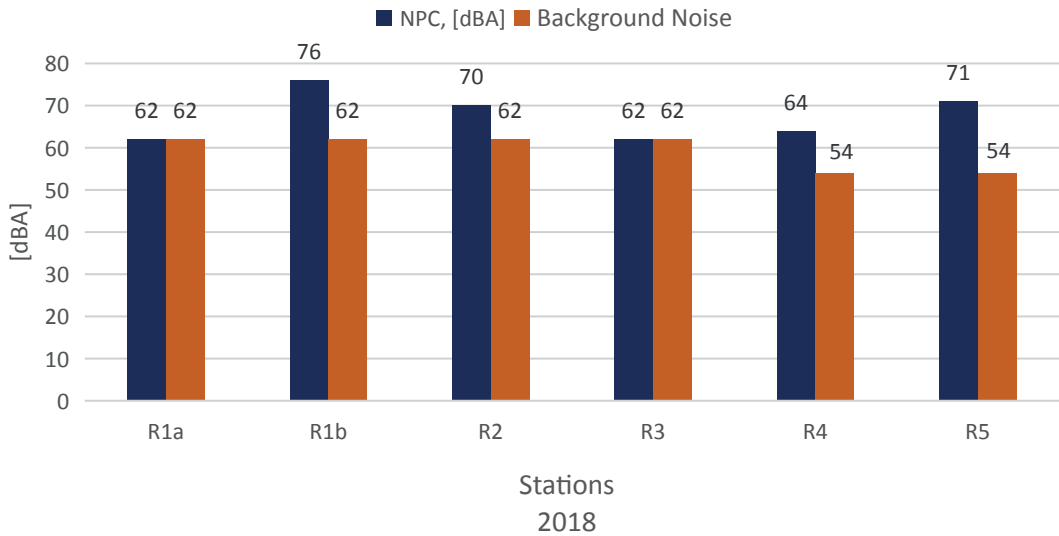


## Noise Levels

The Regulatory Plan considers Empresa Portuaria de Antofagasta as a “port area”, therefore, the following article of DS 38/2011 applies:

Article 5°.- This standard shall not apply to noise generated by:

- a. Circulation through transport infrastructure networks, such as vehicular, rail and sea traffic.
- b. Air traffic
- c. The activity of the use of housing and residential buildings, such as voices, circulation and gathering of people, pets, appliances, arrangements, domestic repairs and similar carried out in this type of housing.
- d. The use of public space, such as vehicular and pedestrian traffic, events, demonstrations, propaganda, free fairs, street trade, or similar.
- e. Alarm and emergency systems.
- f. Blasting.



# 2. ENVIRONMENTAL ASPECTS AND LEGAL REQUIREMENTS

Receiver	NPC, [dBA]	Background Noise[dBA]	Zone DS N°38
R1a	62	62	II
R1b	76	62	II
R2	70	62	II
R3	62	62	II
R4	64	54	II
R5	71	54	II

Datum		WGS 84		Spindle		19K	
Sources				Receivers			
Symbol	Name	Coordinates		Symbol	Name	Coordinates	
EPA	Empresa Portuaria Antofagasta	N	7383677	R1	Southeast neighbors	N	7383484
		E	356820			E	356962
Train	Ferrocarril	N	7383505	R2	Easte neighbors	N	7383550
		E	356907			E	356965
				R3	Sodimac	N	7383833
						E	356882
				R4	Sodimac	N	7384030
						E	356825
				R5	Mall	N	7384178
						E	356788



Source: Evaluation of noise emissions 2018 - Empresa Portuaria de Antofagasta. Made by Ecoingen.





# RESPONSIBILITIES

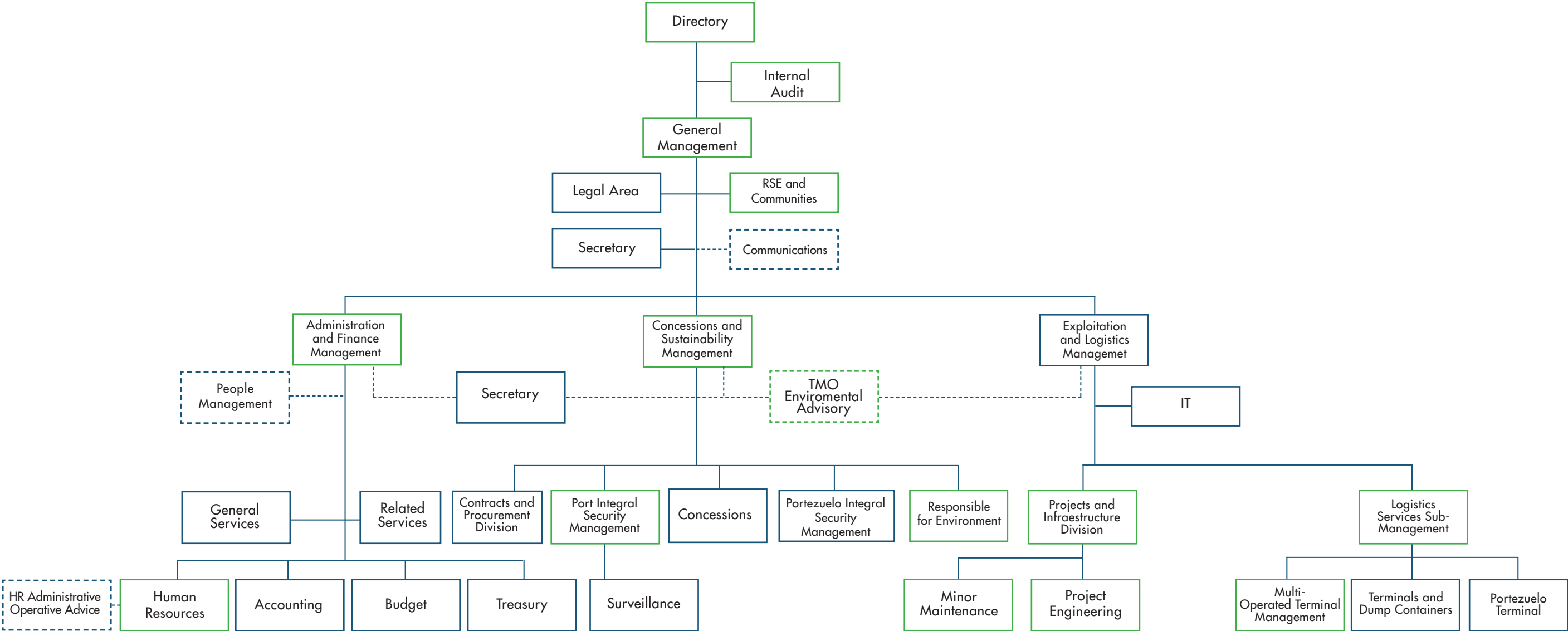
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# 3. RESPONSIBILITIES

## 3.1 Structure of the Organization of Empresa Portuaria Antofagasta

The structure of the organization of Empresa Portuaria Antofagasta (EPA) and its relationship with environmental management is shown in the following organization chart, the green positions are those that have direct implication with environmental management.



## 3. RESPONSIBILITIES

As of December 31, 2018, the provision of Empresa Portuaria Antofagasta was 34 people, composed as follows: Managers and Executives: 4, Professionals and Technicians: 18 and Administrative Employees: 12.

Empresa Portuaria Antofagasta is managed by a Board of Directors, composed of 3 members appointed by the Government and a labor representative elected by universal vote by the company's workers. The Board of Directors, on the one hand, monitors the performance of the Administration and meets twice a month to inform about the progress of the company, as well as to approve or reject the general guidelines and instructions for the development of EPA.

The board of EPA provides general guidelines for the conduct of the company, setting its annual objectives, medium and long-term objectives, the Business Plan and the Strategic Plan, always having as reference its Mission and Vision. Among its functions is also the monitoring of value creation and efficient use of resources, performance monitoring, risks and management control systems, among others.

### 3.1.1 Executive Team of Empresa Portuaria Antofagasta

The EPA Executive Team is composed by the company's Managements

#### General Manager

Carlos Escobar Olgún, Transportation Engineer (Pontificia Universidad Católica de Valparaíso), MBA graduated from the Adolfo Ibáñez University. Responsible for the management of the company according to the general guidelines emanating from the Directory of the company. He is responsible for the bidding and concession processes of the company's assets, executing the agreements of the Board of Directors and supervising all the productive, administrative and financial activities of the company. He is also responsible for defining and implementing an environmental policy and approving the environmental objectives for the port, as well as for the allocation of the necessary resources for the implementation and maintenance of the port's environmental management system.





# 3. RESPONSIBILITIES

## Administration and Finance Manager

Victor Alzamora Navarro. Commercial Engineer (Arturo Prat University), MBA University of Chile. Responsible for providing the necessary support in the areas of HR and to each of the business areas and the correct management of the company’s finances, according to the general requirements and policies established by the General Management. It must ensure the maintenance of a proper information system and records in the company, manage financial resources, accounting, budgetary, administrative and management control processes. He is responsible for ensuring the implementation of the environmental policy.

## Exploitation and Logistics Manager

Diego Herrera Hip, Civil Engineer (Universidad Católica del Norte), MBA Universidad Católica del Norte. Responsible for the development of investment projects in port infrastructure and port development, framed in the objectives indicated in the port legislation. Responsible for the preparation and maintenance of the master plan, reference calendar of investments and the corresponding regulations. Responsible for the security program, ensure the application of operating regulations, legal standards, procedures, infrastructure maintenance program that ensure the proper functioning of the system. All of the above, in compliance with the corresponding environmental legislation and policy.

## Concessions and Sustainability Manager

Alejandro Ahern Muñoz, Execution Engineer in Transportation (Pontificia Universidad Católica de Valparaíso), Master in Environmental Engineering Application at UCN. Responsible for proposing the bidding rules for the port berthing facilities, managing the bidding process for them and the execution of the concession contracts for each of them. Responsible for the development of the real estate project of the company, the necessary support and coordination operations for the proper development of the company’s business. He is also responsible for ensuring the implementation of the environmental policy, as well as the environmental performance and compliance with the environmental legalization of the port.

## Head of Environment of Empresa Portuaria Antofagasta:

The Head of Environment depends of the Concessions and Sustainability Management, who is responsible for overseeing the development and coordination of environmental management within the port, as well as monitoring and advice regarding environmental issues in general. Its responsibilities also include: Communicating environmental matters to management, coordinating environmental management at the port, responding to internal and external consultations, ensuring compliance with environmental policy, supervising the implementation of the environmental management system and reviewing environmental issues and environmental legislation applicable to the port.

### 3.2 Environmental Responsibilities of the Key Personnel

Operation	Name or Position of the Work	Management
Application, assignment and site preparation	Multi-Operated Terminal Management	Exploitation and Logistics Management
Use of dock to the ship (berthing facility area “berthing facility lease service”).	Minor Maintenance Responsible for Integral	Exploitation and Logistics Management
	Security Management of the Port	Concessions and Sustainability Management
Use of loading dock (warehouse area “covered or uncovered cargo storage”)	Multi-Operated Terminal Management	Exploitation and Logistics Management
	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
Port storage (covered or uncovered cargo storage)	Multi-Operated Terminal Management	Exploitation and Logistics Management
	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
Collection in port	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
	Environmental Advisor	Concessions and Sustainability Management

# 3. RESPONSIBILITIES

Operation	Name or Position of the Work	Management
Service settlement	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
	Environmental Advisor	Concessions and Sustainability Management
	Minor Maintenance	Exploitation and Logistics Management
Transversal Processes	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
	Environmental Advisor	Concessions and Sustainability Management
	Minor Maintenance	Exploitation and Logistics Management
	Environmental Advisor	Concessions and Sustainability Management
Strategic Planning	Directory	Directory
Procurement of supplies	Contract and Procurement Division	Administration and Finance Management
Licenses/ Permits	Environmental Advisor	Concessions and Sustainability Management
Quality Management	Internal Auditor	Directory
Contractor / Operators Management in the Field	Environmental Advisor	Concessions and Sustainability Management
Emergency Planning	Responsible for Integral Security Management of the Port	Concessions and Sustainability Management
Waste Management	Environmental Advisor	Concessions and Sustainability Management
Management of Environmental Documents	Internal Auditor	Directory

Operation	Name or Position of the Work	Management
Management of Environmental Data	Environmental Advisor	Gerencia de Concesiones y Sustentabilidad
Internal Audits	Internal Auditor	Directorio
Water Column Monitoring	Environmental Advisor	Gerencia de Concesiones y Sustentabilidad
Air Quality Monitoring	Environmental Advisor	Gerencia de Concesiones y Sustentabilidad
Noise Management	Responsible for Integral Security Management of the Port	Gerencia de Concesiones y Sustentabilidad
Management of Vehicle Traffic in the Terminal	Environmental Advisor	Gerencia de Concesiones y Sustentabilidad





# 3. RESPONSIBILITIES

## 3.3 Environmental awareness

Empresa Portuaria Antofagasta develops different activities to promote environmental awareness among workers, contractors and operators, regarding the importance of complying with the environmental policy and the possible environmental impacts of its activities.

The following activities developed can be mentioned:

I .Course “Training of internal auditors for quality and environmental management systems, based on ISO 9001: 2015 and ISO 14001: 2015”, held in July 2018, where 12 workers of the Port of Antofagasta participated. There are photos below of this training activity.



II.Training session regarding EPA “Environmental Standards” for Port Operators, held in January 2019. There is a photo below of this activity.



III. Communication or dissemination of environmental information through the port’s website for all employees contractors and operators. There is a screenshot below of the EPA website, with the communication and dissemination of the Integrated Management System Policy.





# 3. RESPONSIBILITIES

## 3.4 Environmental Budget

Empresa Portuaria Antofagasta annually prepares an environmental budget, which is reviewed and approved by the Board of Directors of the company.

Item	Budget	
	CLP	USD
Removal of industrial and hazardous waste	2.000.000	2.839
Final disposal of hazardous waste DS48	1.440.000	2.044
Removal of domestic trash	1.600.000	2.271
Monitoring of dock water column	16.000.000	22.708
Monitoring of particular matter	1.800.000	2.555
Certificate of contaminants emissions	700.000	993
TMO vacuuming	144.000.000	204.374
ISO 14001:2015 certification	17.000.000	24.128
EcoPorts certification	3.260.585	4.748
Purchase of warehouses for hazardous waste DS 148	4.500.000	6.387
Warehouse purchase for hazardous substances DS 43	4.500.000	6.387
Purchase of garbage cans	720.000	1.022
Cleaning of sea bottom	75.000.000	106.445
Training in environmental subjects	1.500.000	2.129
Cleaning of septic tank	2.000.000	2.839
Remodeling of TMO interior bathroom	65.000.000	92.252
Update of the TMO luminaires DS43	17.500.000	24.837
Environmental studies	25.000.000	35.482
Pest control	6.000.000	8.516
Cleaning of trees	4.720.000	6.699
Management Systems Advisor	3.300.000	4.684
TOTAL	397.540.585	564.335

Note: Exchange rate used on June 4, 2019. Dollar = \$ 704.59 and Euro = \$ 788.





# REVIEW OF COMPLIANCE

04



## 4. REVIEW OF COMPLIANCE

### 4.1 Review of environmental performance and environmental legislation

Empresa Portuaria Antofagasta has implemented different processes for the review of its environmental performance and compliance with the port environmental legislation. These processes are:

- External Audit
- Internal Audit
- Review of Legal Compliance
- Review by the Board
- APL

#### 4.1.1 External Audit

In March of 2019, Empresa Portuaria Antofagasta obtained the certification of its environmental management system in accordance with ISO 14001: 2015, the certification was granted by the company Bureau Veritas Certification Chile S.A. and it is valid until March of the 2022.

Bureau Veritas Certification Chile S.A. annually audits the organization's environmental management system with the following objectives:

- Verify that the organization's management system meets all the requirements of ISO 14001: 2015;
- Confirm that the organization has effectively implemented the planned provisions;
- Confirm that the management system is able to achieve the objectives of the organization in relation to environmental policy.

Next is the EPA ISO 14001: 2015 Certificate.





# 4. REVIEW OF COMPLIANCE

## 4.1.2 Internal Audit

Empresa Portuaria Antofagasta annually carries out internal audits of its Integrated Management System. The detail of the methodology for the execution of internal audits is described in the procedure “P-SIG-02 Internal Audit Procedure”, which is shown below:

### METHODOLOGY FOR THE PERFORMANCE OF INTERNAL AUDITS

#### Objective

To establish the methodology to be used to:

- The planning and implementation of Internal Audits to the Integrated Management System (IMS) for Quality, Environment and Security of Information of Empresa Portuaria Antofagasta (EPA).
- Define the criteria for the qualification of the company’s internal auditors.

#### Responsibilities

##### Internal Auditor:

- Prepare and manage the audit program
- Assign internal auditors
- Review the Audit Reports

##### Auditor Team:

- Plan the internal audit
- Execute the internal audit
- Issue the Audit Report
- Track audit findings

#### Responsible for areas or process owners:

- Perform cause analysis to non-conformities
- Define and implement corrective actions.

#### Description of the Activities

##### Preparation of the Internal Audit Program:

The Internal Auditor prepares the “Internal Audit Program” for the current year, this must include: process or aspects to be audited, requirement number, related document, document area, audit date, process or aspect owner, auditor team.

The preparation of the audit program considers at least:

- Status and importance of the processes and areas to be audited
- Significant company changes
- Results of previous audits.

The Internal Auditor designates internal auditors or external entities / persons that can perform internal audits based on any of the following criteria:

Internal Auditors:

- More than 1 year of work experience.
- Certificate of attendance to the internal auditor training course, relevant to the standards to be audited.
- Full high school education complete

External entities:

- More than two years conducting audits
- Certificate of attendance to the internal auditor training course, relevant to the standards to be audited.

## 4. REVIEW OF COMPLIANCE

### Planning of the internal audit:

The audit team, at least one week in advance, plans the development of the audit using the “Audit Plan” form, for which it must define: objective, criteria, scope, place, date, audit team and audit plan (schedule, process / aspect, responsible and auditor). This document will be valid to inform the organization of an internal audit. In addition, during this stage the checklists or questionnaires are prepared to be developed during the execution of the audit.

### Execution of the internal audit:

In accordance with the provisions of the Audit Plan, the audit is performed considering:

#### **a. Kick-off meeting**

The audit begins with the kick-off meeting, which is attended by the owners of the processes to be audited and the audit team. At the meeting, the lead auditor reviews the audit plan and validates it with the process owners.

#### **b. Development of the Audit**

The audit team is ruled according to plan and begins to develop the audit to the personnel involved.

### Detection of Findings:

Any deviation or non-compliance observed with respect to what is stipulated in the documentation of the Integrated Management System or in the requirements of the ISO 9001: 2015, ISO 14001: 2015 and ISO 27001: 2013 standards, is considered as audit non-conformity.

Any non-conformity found during the development of the audit interviews must be indicated by the auditors to the audited or the owner of the process, before leaving the area being audited.

#### **c. Auditors meeting**

Once the interviews of the audit are finished, the audit team meets to review and categorize the audit findings. The findings may lead to non-conformities or opportunities for improvement.

#### **d. Closing meeting**

The Audit Team has one week, from the execution of the audit, to prepare and submit to the Internal Auditor

### Elaboración de Informe de Auditoría:

El Equipo de Auditores dispone de una semana, desde la ejecución de la auditoría, para elaborar y enviar al Auditor Interno.

- the “Audit Report”,
- the records of “Request of Corrective Action”.

The Internal Auditor will have one more week for the review and subsequent distribution of the previous documentation to those responsible for carrying out the treatment of the findings.

### Treatment and follow-up of the findings:

Those responsible for the area or owners of the processes, within a period not exceeding two weeks, carry out the treatment of the findings, starting by establishing the reactions (or immediate actions) of the non-conformities. In addition, they analyze and respond to opportunities for improvement.

The process to carry out the treatment and follow-up of the findings is detailed in the Corrective Actions Procedure.

## 4. REVIEW OF COMPLIANCE

### 4.1.3 Review of legal compliance

Empresa Portuaria Antofagasta annually performs environmental legal compliance audits.

The detail of the methodology for the assessment of environmental legal compliance is described in the procedure “P-A-02 Procedure of Environmental Legal Requirements”, which is detailed in section 2.2.1 of this manual.

### 4.1.4 Review by the Senior Management

The Senior Management of Empresa Portuaria Antofagasta reviews the Integrated Management System at least once a year, which includes the environmental performance of the organization and the degree of compliance with environmental legislation.

The detail of the methodology for the review of the integrated management system is described in the procedure “P-SIG-07 Management Review Procedure”, which is detailed below.

#### Objective

Establish the methodology for periodic reviews of the Integrated Management System (IMS) for Quality, Environment and Security of Information, implemented by Empresa Portuaria Antofagasta (EPA), with the purpose of ensuring its continuous suitability, adequacy, effectiveness and alignment with the strategic direction of the organization.

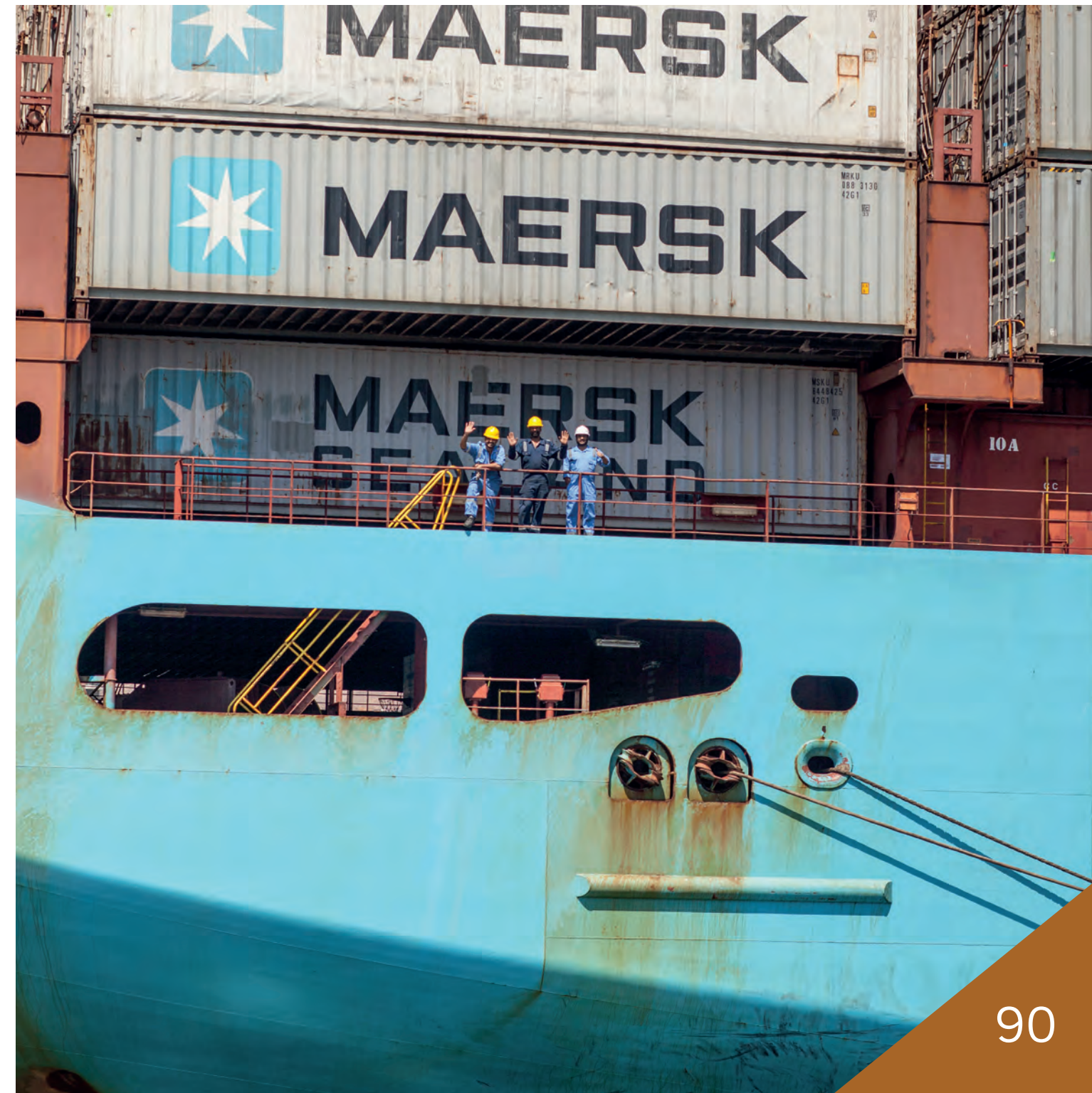
#### Responsibilities

##### Internal Auditor:

- Plan the IMS management review meeting
- Prepare “Management Review Report”
- Follow up on the agreements of the IMS management review meeting.

##### Managers:

- Review the IMS of EPA
- Define improvements and changes in the IMS
- Allocate resources for the implementation of the actions





# 4. REVIEW OF COMPLIANCE

## Description of the activities

### Planning of Management Review:

The Management Review is carried out at least once in the calendar year and the date is set by the Internal Auditor.

The following topics are analyzed in the Management Review meeting, according to the table of contents indicated below:

### Input Elements ISO 9001:2015:

- The status of previous management review actions;
- Changes in external and internal issues that are relevant to the quality management system;
- Information on the performance and effectiveness of the quality management system, including trends related to;
  - Customer satisfaction and feedback from relevant stakeholders;
  - The degree to which the quality objectives have been achieved;
  - Process performance and conformity of products and services;
  - Non-conformities and corrective actions;
  - The monitoring and measurement results;
  - The results of the audits;
  - The performance of external suppliers;
- The adequacy of resources;
- The effectiveness of actions taken to address risks and opportunities;
- The opportunities for improvement

### Input elements ISO 14001:2015:

- The status of previous management review actions;
- The changes in:
  - external and internal issues that are relevant to the environmental management system;
  - the needs and expectations of interested parties, including legal requirements and other requirements;
  - its significant environmental aspects
  - the risks and opportunities;
- Degree to which environmental objectives have been achieved;
- Information on the environmental performance of the organization, including trends related to:
  - non-conformities and corrective actions;
  - monitoring and measurement results;
  - compliance with legal and other requirements;
  - audit results;
- Adequacy of resources;
- Relevant communications from stakeholders, including complaints;
- The opportunities for continuous improvement.

## 4. REVIEW OF COMPLIANCE

### Input elements ISO 27001:2013:

- The status of the actions, from the previous management reviews;
- Changes in external and internal matters that are relevant to the information security management system.
- Comments on the performance of information security, including trends in:
  - Non-conformities and corrective actions;
  - Monitoring and measurement results;
  - Results of audits; and
  - Compliance with information security objectives;
- Comments from stakeholders
- Results of the risk assessment and the status of the risk treatment plan, and
- The opportunities for continuous improvement.

The topics to be discussed are previously prepared by the Internal Auditor, who prepares the “Management Review Report” (ppt) with the information issued by the different areas, in addition, programs and sends summons to the participants through: email, or other means that ensure communication to all attendees.

The following positions participate in management review meetings, as applicable:

- General Management or who designates on its behalf
- Area Managers or Responsible of the Area
- Internal Auditor
- Information Security Officer
- Environmental Manager
- Other charges that the Manager deems appropriate.

### Execution of the reviews:

Participants in the management review meeting report on the performance of the Integrated Management System, by presenting, analyzing and evaluating information on the issues they are responsible for.

The results of the Management Review must include:

- The decisions and actions related with:
  - The opportunities for improvement,
  - Changes in the EPA Integrated Management System (IMS),
  - Need for resources,
- The conclusions on the continuing suitability, adequacy and effectiveness of the IMS.
- Necessary actions when the objectives of the IMS have not been achieved.
- Opportunities to improve the integration of IMS in the business processes of the organization.
- Any implication for the strategic direction of the organization.

The Internal Auditor records the results of the meeting by issuing the “Minute of the Meeting” within a maximum period of 2 business days after the date of the meeting. The management review document is sent to all participants and includes, among others, the following items:

- List of Participants,
- Topics discussed
- Conclusions, agreements, measures for improvement and resources.

### Follow-up of agreements:

The Internal Auditor monitors the agreements made at a management review meeting and informs, accordingly, by email, memo or other means.

# 4. REVIEW OF COMPLIANCE

## 4.1.5 Agreement for Clean Production

n September 2016, Empresa Portuaria Antofagasta signed a “Clean Production Agreement (APL by its Spanish abbreviation) Logistic Mining Port of Antofagasta”, which includes the following milestones:

-Diagnostic: Subscribing companies must carry out an evaluation of each of their facilities operated by the Agreement, with external staff, to specify the initial status of each of them, regarding the goals and actions committed.

-Follow up and control of progress: it must be carried out for each installation or process involved in the area of management of the Agreement, through independent audits and that account for the progress status of goals and actions established in the agreement. Subscribing companies must carry out a follow-up and control audit report in month eight and fourteen, counted from the signing of the APL document.

-Final compliance evaluation: after the deadline established in the APL to comply with the established goals and actions, the final compliance evaluation will be carried out, through the corresponding audit.

-APL Certificate of Compliance: after the final compliance audit is completed, a report is issued indicating the percentage of final compliance achieved by the installation. In case of obtaining 100% compliance, the company can access the granting of the APL Certificate of Compliance. En mayo del 2019 EPA obtuvo la certificación del cumplimiento de las metas y acciones comprometidas en el APL, dicha certificación es válida hasta mayo del año 2022.

In May 2019, EPA obtained the certification of compliance with the goals and actions committed in the APL, such certification is valid until May of 2022.

The Certificate “Clean Production Agreement (APL) Logistic Mining Port of Antofagasta” is shown below.





# 4. REVIEW OF COMPLIANCE



CERTIFICADO  
LA AGENCIA DE SUSTENTABILIDAD Y CAMBIO CLIMÁTICO

Por el presente otorga a la instalación:

**ANTEPUERTO PORTEZUELO**

Ruta 5 Norte s/n, Km. 1366, Antofagasta, Región de Antofagasta,  
de la Empresa:

**EMPRESA PORTUARIA ANTOFAGASTA**

La cual ha sido auditada y certificada en conformidad con los requisitos de:

**NCh2796.Of2009, NCh2797.Of2009, NCh2807.Of2009 y NCh2825.Of2009**

Dando cumplimiento a las metas y acciones para Incorporar las Mejores Técnicas Disponibles (MTD), en la logística asociada al transporte, acopio, embarque y desembarque del concentrado mineral a granel, desde y hacia el Puerto de Antofagasta, específicamente para prevenir y minimizar las potenciales emisiones atmosféricas de material particulado, Contribuir a la construcción de un diagnóstico ambiental en calidad de aire (MPS y MP10) y establecer iniciativas que permitan mejorar la comunicación con la comunidad; todas establecidas en el **Acuerdo de Producción Limpia Logístico Minero Puerto Antofagasta**. Este certificado es válido desde el 9 de mayo de 2019 hasta el 9 de mayo de 2022, sujeto al cumplimiento de lo establecido en la NCh2807.Of2009.

El informe de cumplimiento de este Acuerdo de Producción Limpia ha sido validado por las Secretarías Regionales Ministeriales del Medio Ambiente, Minería y Transportes.



REG.ASCC: 3051-2019  
9 de mayo de 2019



# 4. REVIEW OF COMPLIANCE

## 4.2 Improvement Plans

Based on the revisions made to the environmental management system, the following improvement plans have been defined.

Findings	Improvement Plan	Responsible	Status
<b>Non-Conformity:</b>  It is evident that the organization does not comply with the provisions of its procedure P-A-02 “Procedure of environmental legal requirements, rev.01”, regarding the identification, update and applicability of legal requirements, in addition to unidentified and obsolete legislation.	The matrix of legal requirements is updated with the missing legislation.	Head of Environment	Executed
	Upload legal requirements to EPA intranet for staff Access	Internal Auditor	Executed
<b>Non-Conformity:</b>  It is evident that the hazardous waste warehouse does not comply with the provisions of DS 148 and DS 43, regarding its identification, handling, storage and disposal of Hazardous Waste.	Purchase by the port of warehouses for storage of waste and hazardous products.	Head of Environment	Executed
	Execute training courses on hazardous substances to EPA staff and operators.	Head of Environment	In process
<b>Non-Conformity:</b>  There is evidence of non-compliance with what has been declared as controls and planned activities in the procedure P-A-04 Environmental Management for Clients and Contractors, ver.01	Purchase by port operators of: warehouses for storage of hazardous waste and warehouses for the storage of hazardous substances, plastic drawers for non-hazardous industrial waste and for domestic waste.	Operators	In process
	Development and handover of “Environmental Standard” for EPA operators.	Head of Environment	Executed

# 4. REVIEW OF COMPLIANCE

Findings	Improvement Plan	Responsible	Status
<p><b>Non-Conformity:</b></p> <p>It is evidenced in the IMS risk matrix that assesses high contamination risk due to maintenance of customer equipment with oil spill, hydraulic fluid, grease, wood residues, suspended particles as a result of contaminating the soil, air and shelter pond</p>	<p>Removal of waste from the port by the generating company, making final disposal of these in accordance with current legislation.</p> <p>Removal of waste from ulexite warehouse, making final disposal according to current legislation.</p>	<p>Operators</p> <p>Operators</p>	<p>Executed</p> <p>Executed</p>
<p><b>Non-Conformity:</b></p> <p>It is evidenced in generator of the Perkins administrative office in its interior oil containers, HX5 oils and other, paint without its containment and wood, among other materials. Electric Substation Generator is Olympin GEP 110-1 series CL3B63117 and in addition, a drum of 200 liters of CT36 oil for transformer without its containment means, cartons, among others.</p>	<p>Perform cleaning of generator rooms eliminating hazardous waste in accordance with current legislation.</p>	<p>Head of Project and Infrastructure Division</p>	<p>Executed</p>





# ENVIRONMENTAL REPORT

05



## 5.ENVIRONMENTAL REPORT

Empresa Portuaria Antofagasta provides environmental information to the public or other stakeholders about its environmental impact and the performance of the main environmental aspects of the port through the publication on its website of an “Environmental Management Report”, which contains the same information compiled in this manual, which includes:

- A description of the nature and size of port activities (Chapter 1).
- The declaration of the Environmental Policy (Chapter 2).
- An overview of the main environmental aspects, impacts and performance of the port on these issues, based on the results of its monitoring of environmental performance indicators (Chapter 2).
- A brief description of the environmental management organization (Chapter 3).
- Identification of relevant stakeholders related to the port environment, their needs and expectations and the commitment of those stakeholders in environmental port activities (Chapter 1).
- Some examples of environmental objectives, actions and projects (Chapters 1, 4 and 6)
- Contact information (Chapter 1).

The “Environmental Management Report” is published every two years and details the progress in the environmental performance of the port in recent years.

Additionally to the elaboration and publication of the “Environmental Management Report”, Empresa Portuaria Antofagasta gives an account of its environmental management in the “Sustainability Report”, based on the methodology of the Global Reporting Initiative (GRI), and the “Financial Report”. These documents are made available to stakeholders through its publication of the EPA website.







BEST PRACTICES



# 6.BEST PRACTICES

Empresa Portuaria Antofagasta can demonstrate its competence in environmental management by providing examples of successful approaches to environmental problems, or solutions to environmental problems that it has developed. The following are examples of good practices or environmental solutions.

## 6.1 Purchase of dump containers for the transfer of mineral concentrates from Portezuelo to Antofagasta

**Port of:** EMPRESA PORTUARIA ANTOFAGASTA

**Country:** CHILE

**Contact person:** CARLOS ESCOBAR

**Position:** GERENTE GENERAL

**Email:** CESCOBAR@PUERTOANTOFAGASTA.CL

**Environmental issue:**

Air Quality / Relationship with local community

**Relevance to the 5 Es framework of the ESPO Green Guide:**

Exemplify / Enable / Encourage / Engage / Enforce

**Title of the best practice example/solution:** PURCHASE OF DUMP CONTAINERS TO OPTIMIZE THE LOGISTIC CHAIN OF ZINC CONCENTRATE.

**Description:**

Due to the increased concern from the community regarding environmental issues, EPA incorporated shared value in its operations by implementing state-of-the-art and world-class technology, through the acquisition of 407 dump containers between 2016 and 2018. In conjunction with our Port concessionaire, Antofagasta Terminal Internacional, modified the logistics chain for the transfer of zinc concentrate from Bolivia, incorporating dump containers and spreaders; in the process of transferring the mineral through the city and direct shipping to the warehouse of the ship, minimizing fugitive emissions from the cargo.

**Links:** Link video dump containers, subtitled in English.

[https://youtu.be/7A01G\\_kuQ-0](https://youtu.be/7A01G_kuQ-0)





# 6.BEST PRACTICES





# 6.BEST PRACTICES

**Port of:** EMPRESA PORTUARIA ANTOFAGASTA

**Country:** CHILE

**Contact person:** CARLOS ESCOBAR

**Position:** GERENTE GENERAL

**Email:** CESCOBAR@PUERTOANTOFAGASTA.CL

**Environmental issue:**

Relationship with local community

**Relevance to the 5 Es framework of the ESPO Green Guide:**

Exemplify / Encourage / Engage

**Title of the best practice example/solution:** ELABORATION AND IMPLEMENTATION OF AN ANNUAL STAKEHOLDERS RELATIONSHIP PLAN

**Description:**

In order to improve the relationship with the community, Empresa Portuaria Antofagasta annually elaborates a plan of relationship with the stakeholders, which consists of approximately 20 activities and includes activities with the community, such as: circus in your port, Christmas in your port, support for entrepreneurs through the facilitation of site O, approach to Puerto Antofagasta by coordinating guided student visits and university students to our facilities, among others.

**Links:** Link for the news regarding Empresa Portuaria Antofagasta  
<https://www.anfport.cl/noticias/>

