



LÁZARO CÁRDENAS

COORDINACIÓN GENERAL DE
PUERTOS Y MARINA MERCANTE



ENVIRONMENTAL SOCIAL RESPONSIBILITY REPORT 2017

Lazaro Cardenas' Integral Port
Administration S.A. de C.V.

A.- DESCRIPTION

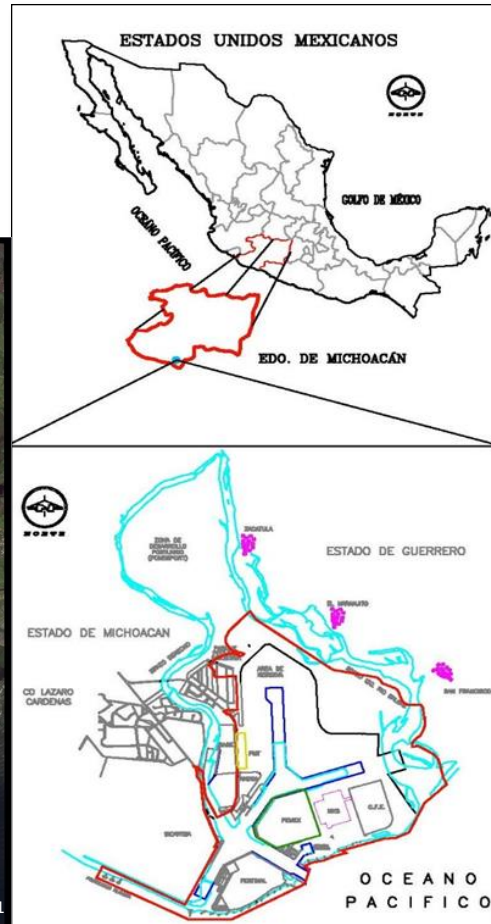
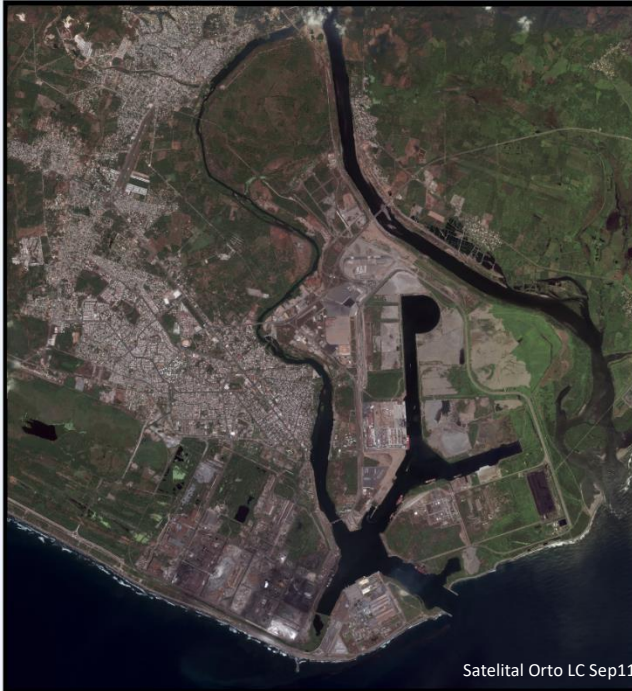


The Port Administration of Lázaro Cárdenas, SA de C.V. (APILAC), is part of the Federal Government Parastatal, as evidenced by Articles 1, 3, Section II, and 46, section II, of the Organic Law of the Federal Public Administration; 2, 6 and 28 of the Federal Law of Parastatal Entities; 2, Section III of the Rules of the Federal Law of Parastatal Entities.

The aforementioned, obeys to a joint venture majority state, constituted the content of the deed 30.117 of 15 December 1993. In that company, all the shares of capital stock (except one, which is holder the Banobras, National Credit Society) belong to the Federal Government.

Geographic location:

Lazaro Cardenas' Port is located on the coast of the Pacific Ocean in the state of Michoacan, Mexico Country with 2149.05 hectares of land and 2020.52 hectares of water.



The port area of Lazaro Cardenas is comprised of nineteen estates of land and buildings with a total area of 4,156 hectares.

So the port is classified:

I. By its navigation:

- a) **High**, as it caters sailing boats and goods between national and international ports.

II. By its facilities and services, enunciatively in:

- a) **Commercial**, management of goods in maritime traffic.
- b) **Industrial**, handling of goods related to industries based in the harbor and terminal areas.

Its main functions:

- I. The use, development and exploitation of public property of the Federation making up the port area of the port of Lazaro Cardenas.
- II. The use, development and exploitation of the works and installations of the Federal Government located in the port area.
- III. The construction works, maritime terminals and port facilities on the premises in question, and
- IV. The provision of port services.
 - Services provided by the organization:

In response to customer needs and reference models to the Ports Act, the services provided are:

Service	Description
Ships Service	It refers to all necessary services of infrastructure to enable the arrival of ships to port.
Assignees service	It refers to the allocation of areas for business development through a partial transfer of rights.
Service to Service Providers	It refers to the granted right for the provision of services to the cargo ships and people for a certain time.
Third Party Service	It refers to all cargo operators, which provide services to companies operating in the port and that essential for proper operation, this through four lines of business: automotive, containers, general cargo and industrial.

Chart 1

Lazaro Cardenas' Port manages 6 lines of business:

- Containers
- Automobiles
- General Cargo Release
- Mineral Bulk
- Agricultural bulk
- Fluids



Port Infrastructure

Public terminals	
1.	Specialized Container I
2.	Multipurpose I
3.	Multipurpose II
4.	Multipurpose III
5.	Agricultural bulks
6.	Bulk minerals and steel products
7.	Specialized Container II (In construction)
8.	Specialized in Automobile (project)
Private terminals	
9.	Coal
10.	Metals and Minerals
11.	Fertilizers
12.	Old Fluids
13.	Ship Dismantling and fluid handling.
Facilities	
14.	Phytosanitary Inspection Point
15.	Vehicle Patios
16.	Receipt and storage of vegetable oils
17.	Strategic fiscal area (project)
Infrastructure Trade Facilitation	
18.	Automobile Logistics Services Area
19.	Pension Port for trucking
20.	Local Maritime Customs Lazaro Cardenas
21.	Control Tower of Maritime Traffic
22.	Edificio Corporativo y Centro de Negocios APILAC



Capacity and Equipment Facilities

Port Terminals for Public Use Commercial:



Public terminals for receiving, loading, unloading, storage and delivery of goods product of foreign trade: import, export or transshipment.

<p>Specialized Container Terminal I:</p> <ul style="list-style-type: none"> ✓ Berths: 4 ✓ Overall length with 2nd Phase: 930 mts ✓ Capacity ships: 150 thousand tons displacement. ✓ Depth: 15m ✓ Equipment: ✓ Quay cranes 11 Super Post Panamax <p>Cranes Patio: 30 RTG, 31 lift truck, 62 truck tractor, 6 Reachstacker, 38 Spreader, 57 Yard tractor and 28 Yard Cranes.</p> <p>Operated by: Lazaro Cardenas Port Container Terminal SA de C.V.</p>	<p>Agricultural Bulk Terminal:</p> <ul style="list-style-type: none"> ✓ Berths: 3. ✓ Spring Length: 528 and 150 meters ✓ Capacity ships: 55,000 tons displacement. ✓ Equipment: 4 scales, 2 conveyor belts, 3 air compressors, five bucket elevators, 2 front loader, 1 Mobile tower, 3 skidders and 15 chain conveyors. <p>Operated by: Port Infrastructure Gulf, SA de C.V.</p>
<p>Multipurpose Terminal I:</p> <ul style="list-style-type: none"> ✓ Berths: 1 ✓ Dock Length: 253m ✓ Capacity ships: 80,000 tons displacement. ✓ Warehouses: warehouse of 3,420m² and 20,344m² playground ✓ Equipment: 7 lifts <p>Operated by: Port Arcelormittal, S.A. de C.V.</p>	<p>Multipurpose Terminal II:</p> <ul style="list-style-type: none"> ✓ Berths: 1 ✓ Spring Length: 253 mts ✓ Capacity ships: 80,000 tons displacement ✓ Equipment: 20 lifts, 8 platforms, 3 van type trucks, tractor trailers August 1 trackmovil 1 gorve crane, 2 reach stacker crane. <p>Operated by: Promotora Inmobiliaria SA Balsas de C.V.</p>
<p>Multipurpose Terminal III:</p> <ul style="list-style-type: none"> ✓ Berths: 1 ✓ Spring Length: 286 mts ✓ Capacity ships: 80,000 tons displacement ✓ Equipment: 1 empty handler, 2 mobile cranes LIEBHER (104 ton capacity c / u), 30 lifts, 10 volts, one skidder, rail, 4 telescopic bands 8 tractor trailers, 4 Reach Stacker. <p>Operated by: Hutchinson Port Holdings.</p>	<p>Terminal Decommissioning Ships:</p> <ul style="list-style-type: none"> ✓ Berths: 1 marginal and one lock for dismantling. ✓ Spring Length: 30 mts ✓ Equipment: 1 Crane Pettibone type 1 Terex crane type, 3 Lifts 1 Senebogn, 1 milling machine. <p>Operated by: Gen Manejo Integrales, S.A. de C.V.</p>

<p>Bulk Terminal Minerals and Steel products:</p> <ul style="list-style-type: none"> ✓ Berths: 1. ✓ Capacity ships: 150 thousand tons displacement. ✓ Total length of the springs: <ul style="list-style-type: none"> • Pier 1 180 m. ✓ Equipment: 2 Liebherr LHM 550 crane 1 Tractor 1 excavator, 6 loaders, 3 clams 1 shuttle, 2 pipes, 1 octopus. <p>Operated by: Port Terminals del Pacifico, SA P.I. de C.V.</p>	<p>Specialized Container Terminal II</p> <ul style="list-style-type: none"> ✓ Berths: 2 ✓ Total length of the springs: 750 mts. ✓ Capacity ships: 1.2 millions of TEU'S annual. ✓ Equipment: 7 Cranes of pórtico Ship-to-shore (STS), 22 cranes ARMG (automated patio) and 5 railroad track. <p>Operated by: APM Terminals Lázaro Cárdenas, S.A. de C.V.</p>
<p>Specialized Automobile Terminal</p> <ul style="list-style-type: none"> ✓ Berths: 2 ✓ Capacity: 660,00 annual units ✓ Total length of the springs: 600 mts. <p>Operated by: SSA México, S.A. de C.V.</p>	

Port Terminals of Industrial private use:

Terminals for exclusive or private use for the installed industry, where the import or reception of raw material for its production process within the same port is made and, where applicable, by the same its finished products are exported



<p>Metals and Minerals Terminal:</p> <ul style="list-style-type: none"> ✓ Berths: 2 ✓ Dock Length: 650 mts ✓ Capacity ship 165 tons of displacement. ✓ Equipment: 2 quay gantry cranes, 14 clams, octopus and 2 hoppers September 10 lifts, 2 bulldozers and 2 bulldozers ➤ Operated by: Balsas Corporation, S.A. de C.V. 	<p>Fluid Oil Terminal:</p> <ul style="list-style-type: none"> ✓ Berths: 2 ✓ Spring Length: 650 m ✓ Depth: 16.5m ✓ Reception capacity ships: 60,000 tons (displacement). ✓ Equipment: 14 unloading Herons. ➤ Operated By: Petroleos Mexicanos.
<p>Coal Terminal:</p> <ul style="list-style-type: none"> ✓ Berths: 1 ✓ Spring Length: 411 m ✓ Depth: 16.5m ✓ Reception capacity of vessels: ✓ 165,000 tons (displacement) ✓ Equipment: 2 continuous unloaders, 3 loaders and one elevator. ➤ Operated by: Comision Federal de Electricidad. 	<p>Fertilizer Terminal:</p> <ul style="list-style-type: none"> ✓ Berths: 2 ✓ Spring Length: 497 mts ✓ Capacity ships: 60,000 tons displacement. ✓ Equipment: 2 chargers boat, ship type 1 surge clam, 4 lifts, 3 tractors shovel 7 7 bands of hoppers and unloading. ➤ Operated by: Sadcom Western S.A. de C.V. Fertil Group, S.A. de C.V.

Commercial areas of public use without water front:

Public use areas within the Port without water front storage for inspection including verification of foreign trade merchandise imported or exported through some of Port Terminals for Public Use Commercial.



<p>Reception Terminal and Storage of vegetable oils:</p> <ul style="list-style-type: none"> ✓ Storage capacity: 17,000 tons in 9 tanks. ✓ Equipment: Direct download storage tanker, filling ferrotanque or pipes. ➤ Aarhus Karlshamn, S.A. de C.V. 	<p>Punto de Inspección Fitozoosanitaria:</p> <ul style="list-style-type: none"> ✓ Equipment: 20 positions to review tractor, chambers of refrigeration, freezing, fumigation. ➤ UT TSA, S.A. de C.V
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Patios.

Area:

- 10.06 hectares Middle Island.
- 14.64 hectares Cayacal Island.

Static Load: 480 vehicles per hectare.



Movimiento de carga operada: Tons operated 2017: 29,790,277 (5% general cargo, 26% Cargo containerized, 9% Fluids petróleoos, 54% granel mineral, 1% bulk Agrícola, 3% Fluids and 2% vehicles).

Infrastructure of Protection.

To ensure the safe navigation of vessels, cargo safety and terminals and facilities, the Port of Lazaro Cardenas has the following infrastructure of protection:

- Two jetties: the northern 300 m long and 350 m south.
- T Protection: 9,919 m.
- Protection marginal Balsas River: 1,300 m.
- Ceno southern breakwater 604 m long.
- Ceno northern breakwater 140 m long.
- 8 Breakwaters with a total of 570 m.

Environmental protection through a green cord and Environmental Improvement Unit.



Lazaro Cardenas' Port has 18 berths with a total length of 6,358 m, making up 15 port terminals, the access channel has a length of 1,740 m and internal channels have a total length of 7,818 m. It has an anchorage of 1330.32 hectares.

Infrastructure for Trade Facilitation.

Railway infrastructure and road connectivity, hinterland:

- Center, Bajío and North of the country of Mexico.
- Southeastern United States.



Railway: The Port has 62.5 km of tracks which allows connection to domestic and foreign markets. 57% load using this mode of transport for inexpensive and environmentally friendly.

Trucking: 43% of the cargo handled in this way

Within the port area is the area of Logistics Services Automobile in order to streamline the entry and exit times of carrier so that they are less than two hours to avoid traffic jams that cause environmental damage and noise pollution.

Pension Port, to transport federal charge that provides security for the unit, goods and operator, while waiting its turn to income for cargo delivery or receipt. Area of 17.5 hectares and a static capacity of 500 trailers.



Local Maritime Customs Lazaro Cardenas:



- ✓ Total Area: 48.14 hectares.
- ✓ Customs Import: 43 hectares.
- ✓ Customs export: 5.14 hectares.
- ✓ Dynamic Capacity: 2 million TEUs annually.
- ✓ 1st. Rating: 30 positions reviews.

Tower Maritime of Traffic Control:



- ✓ Tower to control maritime traffic of 38 meters high and 360 ° visibility.
- ✓ Support Center navigation strategically located opposite the port access channel.

Corporate and Business Center Building APILAC:

- ✓ The terrain of these facilities covers an area of 31,020.00 square meters.
- ✓ Administrative offices API (Corporate).- Building of three levels for administrative offices APILAC.
- ✓ Business Center 32 representative offices of the various port services, multipurpose room with capacity for 250 people, an auditorium for 45 people, a lobby for temporary exhibitions.
- ✓ Equipment. - It has a treatment plant sewage, treatment plant and fire systems, lightning protection system, air conditioning system based on chilled water handlers, LED lighting lamps and solar panels.



Port Services.



Watercraft Services

<p>General services: Supplies and providers. Drinking water supply. Supply of fuel and lubricants. Laying booms. Repair afloat. Garbage collection. Fumigation. Cargo inspection.</p>	<p>Aids to Navigation: Piloting. Lighterage. Trailer. Mooring ropes. Vessel Traffic Control Center.</p>	<p>Cargo Services: Loading and unloading. Stash. Stowage. Hauling. Storage.</p>
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Maritime connectivity.

Global influence: Our area of influence extends to different latitudes we are in the coordinates: 17 ° 56 '22 "north latitude and 102 ° 10'42" west longitude, where we connect through commercial shipping services shipping lines arriving to this port and the extensive rail and road connectivity within the country.



Foreland - Hinterland

NORTH AMERICA: Estados Unidos y **Canadá**

CENTRAL AMERICA: Panamá, Costa Rica, Nicaragua, Guatemala, El Salvador y Honduras.

SUDAMÉRICA: Chile, Colombia, Venezuela, Perú, Argentina, Ecuador Trinidad y Tobago.

EASTERN PACIFIC: China, Japón, Corea del Sur, Korea, Taiwán, Australia, Indonesia, India, Tailandia, Singapur, Pakistán, Vietnam Malasia, Filipinas y Nueva Zelanda.

EUROPE: Rusia, Holanda, España, Bulgaria, Polonia, Ucrania, Bélgica y Francia.

The internal area of influence of the Port of Lázaro Cárdenas or hinterland, is circumscribed through railroad connections and roads to the States of Michoacán, Jalisco, San Luis Potosí, Morelos, Puebla, Veracruz, Tamaulipas, Federal District, Querétaro, Edo. from Mexico, Guerrero, Guanajuato and Nuevo León; area that covers more than 60 million inhabitants of the country and generates more than 60% of GDP; States that are located in most of the production plants in the country and with the greatest demand for products for domestic consumption.

Customers.

APILAC makes segmenting of its market by offering services (see Table 1, p.3), depending on the type of client as shown in the following table:

Ships (shipping lines)	Assignees
Port services providers	Third (cargo owners and end users)

It is important that once the client is legally defined as client, APILAC team develops various committees and subcommittees, which are aimed to comply with contractual provisions besides solving through a close relationship with the customer and different actors in the supply chain, and opportunity areas that may arise.

Efficiency Strategic Partnership with the Port Logistics Community:

- ✓ Port Authorities.
- ✓ Terminals
- ✓ Associations.
- ✓ Shipping Lines.
- ✓ Carriers.
- ✓ Rail Operator.
- ✓ Service Provider



Partnerships and twinning

Lazaro Cardenas' Port is affiliated with the following associations and organizations in which participates actively: American Association of Port Authorities, North America's Super Corridor Coalition, Inc., Mexican Association of Port Infrastructure, Coastal and Marine BC Mexican Association of Intermodal Transport, AC

Lazaro Cardenas' Port has signed the following twinning in order to establish a systematic and diversified cooperation for mutual benefit and the communities around them, through the boost to trade between the signatories and promoting the development and growth of their logistics corridors: San Antonio Port, TX, USA, Brownsvfile.TX.EE.UU Port, Long Beach Port-SCT.EE.UU, Dalas, TX, USA, Ningbo Port. China., Port of Los Angeles. EE. W., Kashima Port, Japan, Port Valparaíso Chile.

PEOPLE:

Total employees APILAC 2017:

No. of employees in the organization: 92
No. Of Service Providers: 20

SOCIETY:

The harmonious growth of the community around us is one of our key objectives to maximize value contribution of port activities of Lazaro Cardenas, benefits that translate into the following results.

Employment generation:

Thanks to all services installed and aggregates businesses within the port, today more than 32,000 direct and indirect jobs that affect the economic and social development of the town are generated.

Public Benefit Work in the Community:

- Maintenance and Rehabilitation of Pedestrian Traffic Circuits in the Port of Lázaro Cárdenas, Mich.



- Maintenance and Conservation of Ecological Areas of the Port of Lázaro Cárdenas, Mich.



- Maintenance, Rehabilitation and Conditioning of Access Tower 5 in the Port of Lázaro Cárdenas, Mich.



- Maintenance of the Pier of Culture and Arts of the Port of Lázaro Cárdenas, Mich.

B.- ENVIRONMENTAL POLICY OF LAZARO CARDENAS PORT

The Integral Port Administration of Lazaro Cardenas S.A. de C.V., responsible for administering and conserving the port infrastructure for the provision of port services of Lazaro Cardenas Michoacan port, it is committed to caring for and protecting the environment, mitigating adverse and significant environmental impacts arising from our activities and operations fulfilling at all times with legislation and other applicable requirements, through continuous improvement of environmental performance.

To minimize the effect and the impact to the environment shall be implemented:

- To maintain an environmental management program that guides and improves our environmental performance, which focuses on the reduction of pollution, with due regard the nature conservation.
- To maintain the compliance report and while it justifies itself economically, overcome the environmental requisites to which we subscribe
- Working continuously to prevent environmental accidents and maintain a high level of preparation to reduce the effects of accidents or incidents that may occur, identifying and evaluating significant environmental aspects.
- To maintain the rational use of our resources as efficiently as possible, such as energy consumption, water consumption and fuel consumption, working for the following specific objectives:
 - To maintain a garbage separation system, for control its generation.
 - To minimize water use as long as it is technically possible.
 - To minimize CO2 particulate emissions.
 - We monitor the quality of water and air.
- To specify the requirements and the synergy with clients, suppliers, authorities and other participants, to comply with our environmental policy, as well as those of the local community and relevant organizations.
- To demand products and services that in their production, use and destruction/recycling they minimize the negative environmental effects.
- To provide the training and information necessary to employees about environmental issues and raise awareness to promote a healthier environment and the care of the resources in their daily chores.
- Environmental Policy shall be reviewed periodically, based on the results of the audits and projecting the changes that the organization will have, according to the strategic planning of the entity.
- The organization shall allocate the necessary resources for the maintenance of our Environmental Policy.
- Environmental results shall be published annually and shall be available to the public on the entity's website.

Signature: J. Jesús Orozco Alfaro. – Managing Director
Rev. 2, 12/01/2017

C.- ENVIRONMENTAL IMPACTS AND PERFORMANCE

APILAC identifies significant environmental aspects of its processes, activities and / or offered services which have some involvement (contractors and suppliers to Transferees and port service providers have influence on the latter two and no direct control on their operations), and record the effects. It also identifies the legal requirements and other measures that are applicable to the environmental aspects. Likewise, the environmental aspects are elements of the activities or services of the organization that can interact with the environment. Significant environmental aspects are those that can interact negatively, for which it has operational controls, in order that the processes do not generate deviations that may affect environmental performance.

Likewise, the relevant environmental aspects identified are those associated with the activities of the entity with greater duration and frequency.

Next, the "Criteria" are described, which are used for the evaluation of the identified environmental aspects.

DURATION: It is a lapse in which an activity is developed or executed.

DURATION	
Very Low (1)	May last from one day to a week.
Low (2)	May last more a week to 3 months.
Medium (3)	May last 4 months to 8 months.
High (4)	May last 9 months to a year.
Very High (5)	Permanent / May last a year or more.

FREQUENCY: Number of times that the activity is repeated a year

Value	Frequency of the activity during the year.
1	Once or twice a week.
2	At least once a trimester.
3	At least once to a month.
4	At least once a week.
5	Daily.

PROBABILITY:

It is the level of operational controls that are counted to mitigate the environmental impact.

PROBABILITY	
Very high (5)	Operational control does not exist.
High (4)	Operational control exists, but it is not formally defined.
Medium (3)	Operational control exists and is formally defined.
Low (2)	Operational control exist, is formally defined and monitored.
Very low (1)	Operational control exists, is formally defined, monitored, tested and continuously improved.

SEVERITY:

Grade which an environmental aspect affects to the environment, taking into consideration the following qualification criteria:

SEVERITY	
Very mild (1)	The severity of the damage caused to the environment is irrelevant.
Mild (2)	Environmental damage is caused and is completely remedied within a period of less than 3 years.
Moderate (3)	Environmental damage is caused and remedied, but imply a high cost and time.
Grave (4)	Environmental damage is caused and partially remedied.
Critical (5)	Occur irreversible damage to the environment.

From the following formula, from the combination of the above criteria, the Significance of the Environmental Aspect is obtained, as long as the result of this is equal to or greater than 22 points.

Significance: $((Probability \times .6) \times Severity \times (Duration \times Frequency) \times .4) / 3$

Not significant (0 - 21)

Significant (22 - 50)

The combination of Probability and Severity, yields the result of the Risk Level, is considered High Risk as long as the result of this is equal to or greater than 12 points, as shown in the table below:

RISK: Severity x Probability

RIESGO					
Severidad	Probabilidad				
	Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
Very mild (1)	1	2	3	4	5
Mild (2)	2	4	6	8	10
Moderate (3)	3	6	9	12	15
Grave (4)	4	8	12	16	20
Critical (5)	5	10	15	20	25

The companies Assigned or Port Terminals, identify their aspects and environmental impacts generated from the perspective of the life cycle, and according to their environmental management system, the Port Authority Integral of Lázaro Cárdenas S.A. of C.V. (APILAC), verify its identification and follow-up twice a year.

The review and update of the Environmental Aspects is carried out at least once a year, or after a change has been reported and carried out.

Format 1.2 Registration of Environmental aspects, legal requirements and performance indicators.

Register of Environmental Aspect		Port:		Lazaro Cardenas		
1	2	3	4	5	6	7
Ref. Nr.	(sub) department, Tenant, Operators	Impact on	Person responsible / Organisation	Applicable legislation	Legal Requirements	control measures
	Aspect					
	Administration					
A1	Vehicle Use-Gas Emission	air / soil	APILAC	Regulation of the General Law of Ecological Balance and Environmental Protection on the Prevention and Control of Atmospheric Pollution. / Rule NOM-041-SEMARNAT-2006.	Article 10 and 13 fraction II, and Article 28 / Maximum permissible emission limits of polluting gases from the exhaust of motor vehicles in circulation that use gasoline as fuel.	Monitoring air quality in the port area and levels of contaminants in the environment according to the type of substance or gas present in order to prevent contingencies.
	CCPDO (CONTRACT OF PARTIAL TRANSFER OF RIGHTS AND OBLIGATIONS) AND PSP (CONTRACT OF PROVISION OF PORT SERVICES)					
O1	Towing-Hazardous Waste Generation	water / soil / Flora / Fauna	Service Provider	General Law for the Prevention and Management of Waste / Rule NOM-052-SEMARNAT-2005.	Article 45/Article 35 and 39 fraction I, identification, classification, and lists of hazardous wastes; Regulations of the General Law for the Prevention and Management of Waste.	Prevention measures necessary are taken during the fuel supply to avoid contingencies.

O2	Shipment-potential spill of hazardous materials	water/ soil	Assignee	Rule NOM-005-SCT-2008.	Numeral 4.1 Emergency information for the transport of substances, materials and hazardous wast.	Contingency plans established by the institution in conjunction with port terminals.
O3	Stowage-Noise generation	affection to human being	Assignee	Law of Ecological Balance and Environmental Protection of the State of Michoacan de Ocampo / Regulations of the Law of Ecological Balance and Environmental Protection of the State of Michoacan de Ocampo.	Article 158 / Article 148.	Assessment studies perimeter noise in the port area are made periodically.
O4	Hauling in the port-Fuel consumption	Scarcity of natural resources	Assignee	Law for the Sustainable Use of Energy	Efficient Use of Energy.	Inspection of the Environmental programs for efficient use of energy, including fuel to optimize its consumption are carried out.
O5	Technical inspection-Fuel consumption	Scarcity of natural resources	Assignee	Law for the Sustainable Use of Energy	Efficient Use of Energy.	Inspection of the Environmental programs for efficient use of energy, including fuel to optimize its consumption are carried out.
O6	Rent of Equipment-Fuel consumption	Scarcity of natural resources	Assignee	Law for the Sustainable Use of Energy	Efficient Use of Energy.	Inspection of the Environmental programs for efficient use of energy, including fuel to optimize its consumption are carried out.

O7	Stash or Discharge- Wastewater Discharge	water /ground	Assignee	LAW OF HARBOR /LAW OF THE SEA / NATIONAL WATERS LAW / LAW OF DEPUTIES	Article 44/ Article 17/ Article 3/ Article 3.	Authorization Inspection to supplier for the removal of wastewater / treatment plants / studies to treatment plants every 3 months and daily routines for verification of PH AND SLUDGE.
O8	Stash or Discharge- Potential Hazardous Materials Spill	water ground /	Assignee	Rule, NOM- 005-SCT-2008	Numeral 4. 1 Emergency information for the transport of substances, materials and hazardous waste.	Contingency plans established by the institution in conjunction with port terminals.
O9	Stash or Discharge- Generation Of Waste Management Special	water ground / /affectation to human being	Assignee	REGULATIONS OF THE GENERAL LAW FOR THE PREVENTION AND INTEGRAL MANAGEMENT OF WASTE	Article 11, 12, 14 y 15.	Special container to store the hazardous waste that is generated and collection through authorized supplier.
O10	Stash or Discharge- Dust Emission	air	Assignee	Rule, NOM- 085- SEMARNAT- 2011	Maximum permissible emission levels of indirect heating combustion equipment and its measurement.	Masks, dust collector, grill, hopper, bands with covers.
O11	Stash or Discharge- Electric Power Consumption	scarcity resources of	Assignee	Law for the Sustainable Use of Energy	Efficient Use of Energy.	Led luminaires, awareness through administrative control for efficient use of energy consumption.
O12	Stash or Discharge- Water Consumption	scarcity resources of	Assignee	National Water Law and its Regulations article /General Law of Ecological Balance and Protection of the Environment / Federal Rights Law article.	Article 20/ article 92 / article 225 fraction I.	Awareness program for the use of resources / water saving keys.

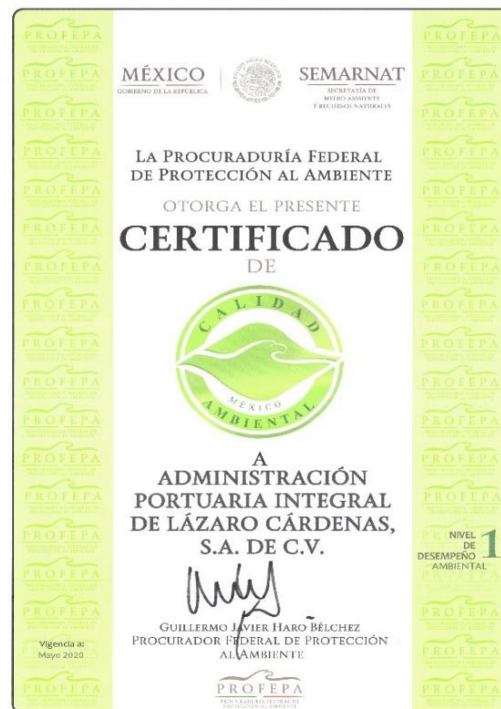
O13	Stash or Discharge-Gas Emission	air	Assignee	NOM-045-SEMARNAT-2006	Maximum permissible limits of opacity, test procedure and technical characteristics of the measuring equipment.	Technology to know the conditions of the stationary tank in real time. / Verification of the connection of the dispatching pumps, exclusive area to store gas tanks.
O14	Stash or Discharge-Consumption Of Wood And Its Derivatives	scarcity of resources	Assignee	REGULATIONS OF THE GENERAL LAW FOR THE PREVENTION AND INTEGRAL MANAGEMENT OF RESIDUES	Article 11, 12, 14 y 15.	Provider for disposal and recycling of generated paper.
Construction and maintenance						
C1	Civil Works - Special handling waste generation	water / air/soil/affectation to human being, flora and fauna	Contractor	REGULATIONS OF THE GENERAL LAW FOR THE PREVENTION AND INTEGRAL MANAGEMENT OF WASTE.	Article 15 and 19.	Authorization Inspection to deposit the solid urban waste and special handling. Photographic report of the evidence of the final destination of the RME.
C2	Civil Works - Water consumption	water/ Scarcity of natural resources	Contractor	National Water Law / Regulation of the Law on National Waters / General Law of Ecological Balance and Protection of the Environment.	Article 20/ article 30/ article 92	Inspection of the sanatorium logbook, List of the talk on rational use of water.
Done by: Department of Quality Assurance and Environmental		Aproved: Submanager of Ecology				Date: 10 / November / 2017
ECOSLC Doc P1						Pag. 1 of 1

Objectives, Goals and Environmental Programs

ENVIRONMENTAL PROGRAM CLEAN INDUSTRY OR ENVIRONMENTAL COMPLIANCE

Objective 1:		Strategy		Goal:	Environmental element:	
To obtain and / or maintain clean industry certification or environmental compliance of the Port.		Compliance with the required actions and the results of the environmental audit in APILAC.		To have the current Clean Industry Certificate.	✓	Air
					✓	Water
					✓	Soil
					Does not apply	Other Resources
Activity		Time limit	Status	Observations		
1	Verification and compliance with the action plan	February-December 2017	compliment	Seguimiento al plan de acción.		
2	Reports requested by the PROFEPA	May-December 2017	compliment	The reports are sent to PROFEPA.		
3	Indicators report	July-December 2017	compliment	Indicator reports are sent.		

- ✓ The Federal Attorney's Office for Environmental Protection (PROFEPA) grants the 2017 Clean Industry certification endorsement to the company, since it demonstrated satisfactory compliance with the legal requirements in terms of the environment, so that the established goal is met.
- ✓ The certification audit was carried out on July 11 and 12 2017, once the observations detected during the audit were attended.



**ENVIRONMENTAL PROGRAM TO
 POLLUTION PREVENTION AND PRESERVATION OF THE ENVIRONMENT.**

Objective 2:		Strategy		Goal:	Environmental element:	
To ensure that the transferees and service companies implement measures to prevent pollution and preserve the environment.		Inspection visits of the Commission of Security and Hygiene CHS, and Working Environment Port and visits to service providers and facilities of the company, in order to prevent environmental pollution.		Perform at least three actions with the transferees and / or service providers during the year.	✓	Air
					✓	Water
					✓	Soil
					Does Not Apply	Other Resources
Activity		Time limit	Status	Observations		
1	Visits to service providers.	According to program	Accomplished	All service providers were visited being completed this activity.		
2	Visits to transferees.	Bimonthly	Accomplished	The trip with the Port CSH to the terminals ended according to its program of visit.		
3	Work together in training the CHS Port.	According to program	Accomplished	Training is given to internal CSH and the port according to the program established.		
4	Carry out reforestation.	JANUARY-OCTOBER 2017	Accomplished	About 15 thousand plants were planted.		

- ✓ The monitoring program for internal environmental monitoring committee is met, which shapes the area of engineering personnel, operations and quality of the organization, which inspected the compliance with the provisions of the draft resolution.



- ✓ Port Lazaro Cardenas carried out successfully Reforestation Campaign 2017 in order to promote the protection and conservation of the environment thereby commemorating World Tree Day, which it was held, arousing interest in children, youth and adults about the importance of maintaining and caring nature.



- ✓ Around 15,000 native plants in the region were planted as parota, cedro rojo, roble, rosa morada, frijolillo and palma of cayaco, as like mangle rojo negro and blanco this in different areas of the city and within the Port.






ENVIRONMENTAL PROGRAM

EFFICIENT THE RESOURCES OF THE ORGANIZATION

Objective 3:		Strategy	Goal:	Environmental Element:	
To promote efficient use of resources (electricity, water and fuel) of the organization.		Achieve an efficient consumption of Water, Electric Power and Fuel.	Perform at least 2 sustainable activities, which lead to efficient use of electricity and fuel this year.	✓	Air
				✓	Water
				✓	Soil
				Does not apply	Other resources
Activity		Time limit	Status	Observations	
1	Dissemination of the rational use of resources.	April-december 2017	compliment	The System for the Separation of Urban Solid Waste is disseminated.	
2	Supervision of water pipes in the APILAC.	monthly 2017	compliment	The supervision of water conduits of the APILAC is carried out.	
3	Supervisory tours in APILAC Wastewater Treatment Plants (sampling, wastewater quality).	January-december 2017	compliment	Supervisory tours are carried out to contractors who take samples of wastewater in the installed plants.	
4	Installation of LED luminaires on the roadways of the Port Precinct and on the Malecón de la Cultura y las Artes.	January-december 2017	compliment	LED luminaires are installed in the Malecón of culture and the arts.	
5	Project supervision Automation of administrative facilities of the APILAC corporate building.	January-october 2017	compliment	The activities for the Automation of Administrative Installations of the APILAC Corporate Building are supervised, it is worth mentioning that the completion dates of the automation of the corporate building are out of date.	

Performance indicators are based on an environmental analysis of the port to control the present or potential impacts:

Significant environmental issues of the Port Lazaro Cardenas	Index element	Method of calculation	Objective value	Presentation of the indicator (details of the calculation)	
				2016	2017
Energy consumption.	Terminals Installed in the Port of Lázaro Cárdenas, administrative areas and the Port Precinct (roads, tilt and access towers).	KW / H consumed energy in the Port of Lazaro Cardenas.	Less than or equal to the previous year's consumption.	Annual consumption of 49,444,270 KW / H in the Port of Lazaro Cardenas (administrative offices, port terminals and common areas).	Annual consumption of 58,402,292.32 KW / H in the Port of Lazaro Cardenas (administrative offices, port terminals and common areas).
Water consumption	Use of water in irrigation in common areas of the harbor, sanitary ware and offices in the APILAC.	Water consumption 2017	Less than or equal to the previous year's consumption.	6106.70 m3(cubic meters) of water consumption in administrative activities and activities in common areas of the port area.	4845 m3 of water consumption in administrative activities and activities in common areas of the port area.
Fuel consumption	Use of fuel in the APILAC vehicle fleet (40 vehicles)	Fuel consumption 2017	Less than or equal to the previous year's consumption.	2,253 liters of fuel.	2,118 liters of fuel.
AIR QUALITY	Monitor the quality of ambient air generating	It consists of carrying out 2 samplings a year on a semi-	2 air quality monitoring services according to Mexican official standards, NOM-052-	Parameters evaluated 2016 and 2017  Total suspended particles  Sulfur dioxide  Nitrogen dioxide	

	reliable information, comparable and representative, for application in national strategies for the protection of the environment and the health of the users of the port precinct.	annual basis to determine air quality and investigate pollution sources and their impacts in order to implement new ways to reduce air pollution inside the port precinct.	SEMARNAT-1993 NOM-035-SEMARNAT-1993 NOM-037-SEMARNAT-1993 NOM-038-SEMARNAT-1993 and method No. 1920 from the electrochemical corrosion section of the EPA and compare results with ambient air quality criteria established by the Health Secretary	<ul style="list-style-type: none"> Ammonia Sulphuric acid Chlorides Sulphates Nitrates Silica Magnesium Calcium Corrosivity in particles 	
Analysis of the discharge of wastewater	Are analysis that establishes the maximum permissible limits of pollutants in the discharges of residual waters to national goods, for each discharge of residual waters two samplings will be taken for each quarter (11 discharges and 3 discharges that are internal control of APILAC)	In the Download Sampling Procedure, the following shall be understood as: Monthly Average: The value that results from calculating the weighted average based on the flow, of the values that result from the analysis of at least two average daily composite samples.	The samplings were performed each quarter, according to the Official Mexican Norm NOM-001-SEMARNAT, where it establishes the maximum permissible limits of pollutants in wastewater discharges to national assets, the parameters to evaluate are:	<ul style="list-style-type: none"> Arsenic Cadmium Cyanides Copper Total chrome Biochemical Oxygen Demand Total phosphorus Weighted average fats and oils Mercury Nickel Total nitrogen Lead Sedimentables solids Total suspended solids Zinc Fecal coliforms 	
				2016	2017
PERIMETER NOISE	Evaluation of perimeter noise in the environment emitted by fixed sources in the Port precinct of Lázaro Cárdenas	The official Mexican standard NOM-081-SEMARNAT-1994 establishes the maximum permissible limits of emission of noise by fixed sources and its measurement method.	ZONE. - Industrial and Commercial. SCHEDULE. - Day 06:00 to 22:00 Night 22:00 to 06:00 LIMIT MAXIMUM PERMISSIBLE (dB). - Day 68 dB Night 65 dB	DAY North - 53.58 South - 55.12 East - 34.32 West - 65.55 NIGHT North - 51.14 South - 50.16 East - 52.60 West - 52.93	

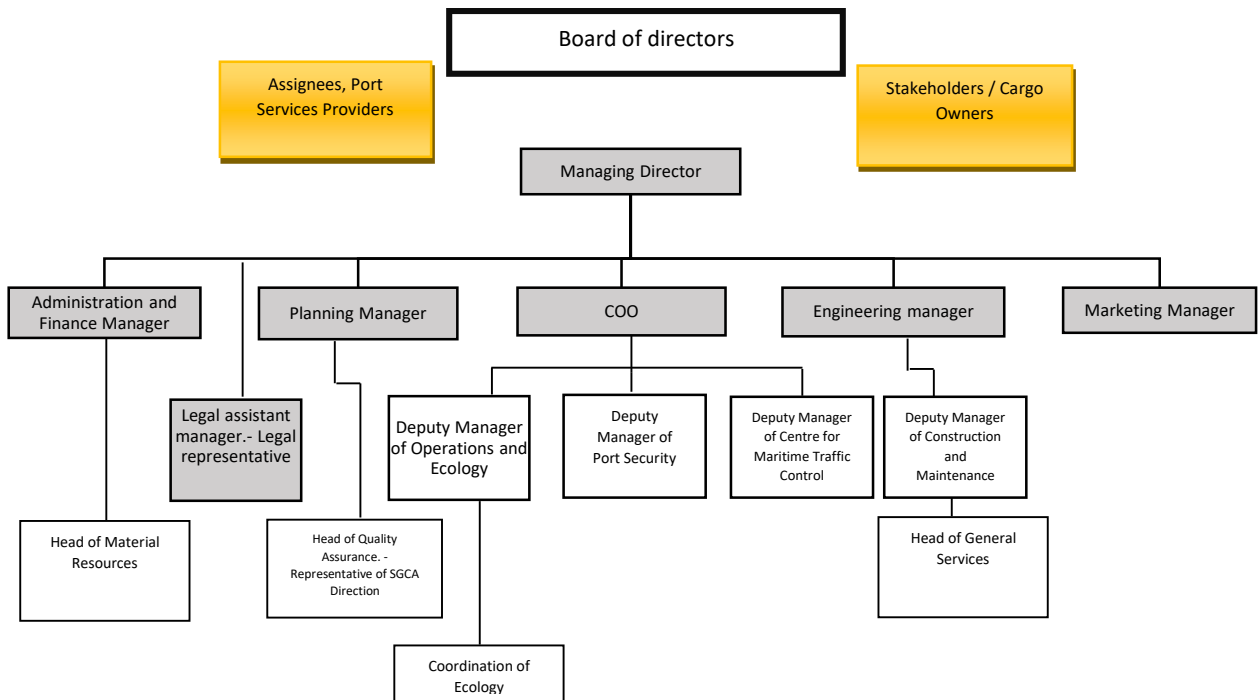
- Actions taken regarding the indicator Consumption of electrical energy in the Control Tower, which does not achieve the established goal, is authorized in the portfolio of investment projects of the entity the project; Photovoltaic systems for the generation of electric power Phase II Maritime Traffic Control Tower of the Port of Lázaro Cárdenas, Mich., To be executed in 2018, expecting with this results that ensure minimizing the consumption of conventional electric energy, and consuming more energy clean

D.- ORGANIZATIONAL DESCRIPTION OF ENVIRONMENTAL MANAGEMENT

The institution has mechanisms that provide human resources according to the needs of the organization through an efficient organizational structure, adequate recruitment, training, continuous improvement, performance evaluations and teamwork that allows to make appropriate decisions.

The highest authority of APILAC is the Board of Directors (Federal Government and shareholders), which chooses in Council meetings a managing Director and managers, who in turn select and form the key personnel such as assistant managers, heads of Department and Coordinators.

The organizational structure with the senior management (Director and Deputy Managers and Legal) and personnel whose functions or activities are directly related to environment are shown:



Lazaro Cardenas' Port allocates the necessary resources (human and financial) to facilitate the management of the environment.

APILAC's managing Director appoints a Management Representative, who coordinates the environmental management of the port ensuring compliance with the environmental policy of port running, reviews and updates the environmental management program. Monitors environmental issues in general inside and outside the organization with assignees and service providers and ensures quarterly review of Environmental Management System.

environmental issues) Certifications (Clean Industry ISO 14000, ECOPORT), Environmental Consulting, Broadcasting (environmental), studies of monitoring water, air and noise, Maintenance of Plants Treatment of wastewater and maintenance of green areas.

BUDGET PORT AUTHORITY OF LAZARO CARDENAS S.A. DE C.V., ASSIGNED TO ENVIRONMENTAL THEME		
DEPARTMENT	ACTIVITIES	BUDGET EXERCISED (NATIONAL CURRENCY)
QUALITY / ENVIRONMENTAL	MAINTENANCE OF CERTIFICATION IN INTEGRAL MANAGEMENT SYSTEM ISO 9001: 2008 and ISO 14001: 2004	\$ 12,950.00
HUMAN RESOURCES	STAFF TRAINING. - STRATEGIC RISK MANAGEMENT	\$ 108,000.00
HUMAN RESOURCES	STAFF TRAINING. - INDUSTRIAL SECURITY AND RISK ANALYSIS	\$ 18,500.00
HUMAN RESOURCES	STAFF TRAINING.-INTERNAL AUDITOR IN ISO 14001 STANDARD AND OHSAS 18001	\$ 202,575.00
HUMAN RESOURCES	STAFF TRAINING.-RISK EVALUATION TECHNIQUES AND INTERPRETATION OF ISO 31000 STANDARD	\$ 68,500.00
ECOLOGY	CLEAN INDUSTRY (ENDORSEMENT OF THE CERTIFICATE)	\$ 300,000.00
ECOLOGY	REFORESTATION PROGRAM	\$ 250,000.00
ECOLOGY	ENVIRONMENTAL IMPACT STUDIES	\$ 150,000.00
ECOLOGY	MONITORING AIR QUALITY	\$ 379,072.00

ECOLOGÍA	ANALYSIS OF THE DISCHARGE OF SEWAGE	\$ 1,568,000.00
ECOLOGÍA	PERIMETER NOISE STUDY	\$ 75,000.00
ENGINEERING	MAINTENANCE AND CONSERVATION OF ECOLOGICAL AREAS	\$ 4,291,809.98
ENGINEERING	MAINTENANCE OF BLACK WATER TREATMENT PLANTS IN THE PORT HARBOR OF LÁZARO CÁRDENAS, MICH	\$ 1,100,547.00
ENGINEERING	GENERAL MAINTENANCE OF THE ELECTRICAL AND LIGHTING SYSTEM IN COMMON AREAS OF PUERTO DE LÁZARO CÁRDENAS, MICH.	\$ 4,450,031.31
ENGINEERING	CONSTRUCTION, INSTALLATION AND COMMISSIONING OF PHOTOVOLTAIC SYSTEMS FOR THE GENERATION OF ELECTRICAL ENERGY IN CORPORATE OF APILAC OF PUERTO DE LÁZARO CÁRDENAS, MICH. "	\$ 21,097.056.67

It is promoted among the employees of APILAC, through the awareness to carry out environmental actions in their place of work, and in this way to collaborate in the achievement of the Environmental Policy and its objectives.

- ✓ Diffusion and awareness of the 10 ecological principles, the information is disseminated on the reception screen so that it is visualized by all the people who enter APILAC and a card with the 10 ecological principles was given to all the staff.



- ✓ There is constant dissemination with the staff of how to classify our urban solid waste. Dissemination is done through different forms: posters are stuck near the classification boats indicating how to separate each of the waste generated is also disseminated through internal newsletters Of the entity.



- ✓ For APILAC, it is very important to promote the reuse of materials in order to reduce the generation of Urban Solid Waste. Note pads are made with reused material and it is given to all personnel, in the same way small presents made with material are delivered reused accompanied by relevant information.

✓ The staff is made aware of the proper destination of the batteries, in the same way there is a special container to deposit the batteries in order to give the appropriate final destination.



CONCIENCIACIÓN DE PLANTAS DE TRATAMIENTO DE AGUAS RESIDUALES

¿SABIAS QUE?

La APILAC, cuenta con **12 PLANTAS DE TRATAMIENTO DE AGUAS RESIDUALES**; ubicadas en diferentes áreas del puerto, y que una de ellas se encuentra instalada en este **EDIFICIO CORPORATIVO**, la cual realiza el proceso de tratar el agua que usan tanto los colaboradores de la Entidad, clientes, visitantes etc.

✓ También sabías que es importante contar con tu apoyo para que esta planta de tratamiento realice su proceso de manera efectiva; ¿y esto como sería?

Contribuyendo al uso correcto de los cestos de basura de los baños, es decir evitar tirar el papel o toalla sanitaria por el inodoro.



REUSO=AHORRO

✓ The staff is made aware of the proper destination of the batteries, in the same way there is a special container to deposit the batteries in order to give the appropriate final

DESTINO ADECUADO DE LAS PILAS

¡Alto! Si las tiras, Contaminas!

Las pilas usadas no se deben tirar a la basura, al agua ni enterrarlas. Son residuos tóxicos que contaminan el ambiente. Sepáralas y deposítalas en contenedores especiales para su confinamiento especial.

En la APILAC contamos con un contenedor especial para pilas, ayudemos al medio ambiente depositando las pilas que ya no utilices en la oficina y si en casa conservas pilas también las puedes traer al contenedor especial el cual se encuentra en la entrada de recepción de este edificio corporativo a mano derecha.

¡¡NO DUDES CONTRIBUYAMOS AL MEDIO AMBIENTE!!



E. - ACTIONS (EXAMPLES) AND ENVIRONMENTAL PROJECTS:

The Port Authority Integral of Lázaro Cárdenas assumes its ecological-environmental commitment giving value and preponderance to the protection and improvement of the environment as an important factor of the social welfare and its environment, in the sense of what determines the pertinent parts related to its Environment and understanding of your needs and expectations:

INTERESTED PARTS	INTERNAL (I) OR EXTERNAL (E)	JUSTIFICATION	EXPECTATION OR NEED
API's Directorate	I	Implementation of strategies and sustainable activities.	Fulfillment of entrusted tasks and environmental programs, to achieve the expected results of the environmental management system.
API's Personal		Realization and collaboration in the execution of environmental programs.	Comply with environmental programs and participate in environmental practices.
Neighbors and citizens	E	Equity among environment, society and economy.	Not be affected by the activities and industrial operations of port/sustainable development of the port, transparency and social responsibility.
Regulatory Authorities (SEMARNAT/PROFEPA)	E	To control in accordance with environmental laws.	Comply with the environmental legislation established by the Government.
Assigns	E	To provide investment in the port and collaboration with its sustainable development.	Contractual compliance/working in conjunction with the API for compliance with environmental standards, policies and programs.
Service Providers	E	To provide services to ships and crew at the ships.	Work in conjunction with the API for compliance with environmental standards, policies and programs.
Contractors and Suppliers	E	To provide a service, goods or maintenance to the port.	Comply with the environmental policy and regulations of the entity.
Clients (shipping lines and cargo holders)	E	To maintain business activities.	Area to operate in the port.
DGFAP	I	To be aware of the administrative efficiency and rentability.	Positive management results.
Municipal Government	E		Law Enforcement.

		To be aware of the administrative efficiency and rentability.	
State Government	E	To be aware of the administrative efficiency and rentability.	Law Enforcement.
Federal Government	E	Implementation of the Law and environmental permits.	Law Enforcement.
Administration Council	I	Be aware of API's management and results.	Compliance with regulations, requirements, status, objectives and goals.
Maneuverers	E	Responsible for the transference of goods inside the port.	To avoid accidents that have an adverse environmental impact, during the manoeuvres/collaborating in the environmental practices of the port.
Harbor Master	E	Control and management of security in navigation and port facilities in national waters.	Enforce the vessels with environmental regulations and programs.
Customs Agent	E	To manage the dispatch of goods entering or leaving the port.	Comply with environmental regulations for merchandise entering the port.
Shipping Agents or Consignees	E	Provide services between cargo and ship.	Adhere to the requirements and laws applicable to the environment.
News Media	E	Dissemination of Puerto's social and environmental responsibility to society.	Maintain a good relationship with the media.

In this way and taking into consideration the needs and expectations of the interested parties is that environmental projects and environmental activities are developed that compromise the participation of the interested parties (see environmental programs pages 24, 25 and 26 of this report).

CARE OF THE FLORA AND FAUNA HABIT.

The mangrove seed collection is done in times of production, in the estuaries of the region that have mangle. The collection is done in coordination with the Secretary of the Navy for which it has a nursery within the enclosure. Once the plant is ready mangrove reforestation in areas authorized by the Secretariat of Environment and Natural Resources, (SEMARNAT) is performed.

API Lazaro Cardenas contributes to the preservation of mangrove.

Environmental Management Unit (EMU):

Isla San Francisco is located in the interior of the Port with an area of 34 hectares, designed to improve and preserve the environment and ecological balance of the surrounding ecosystem, including plants and natural elements.

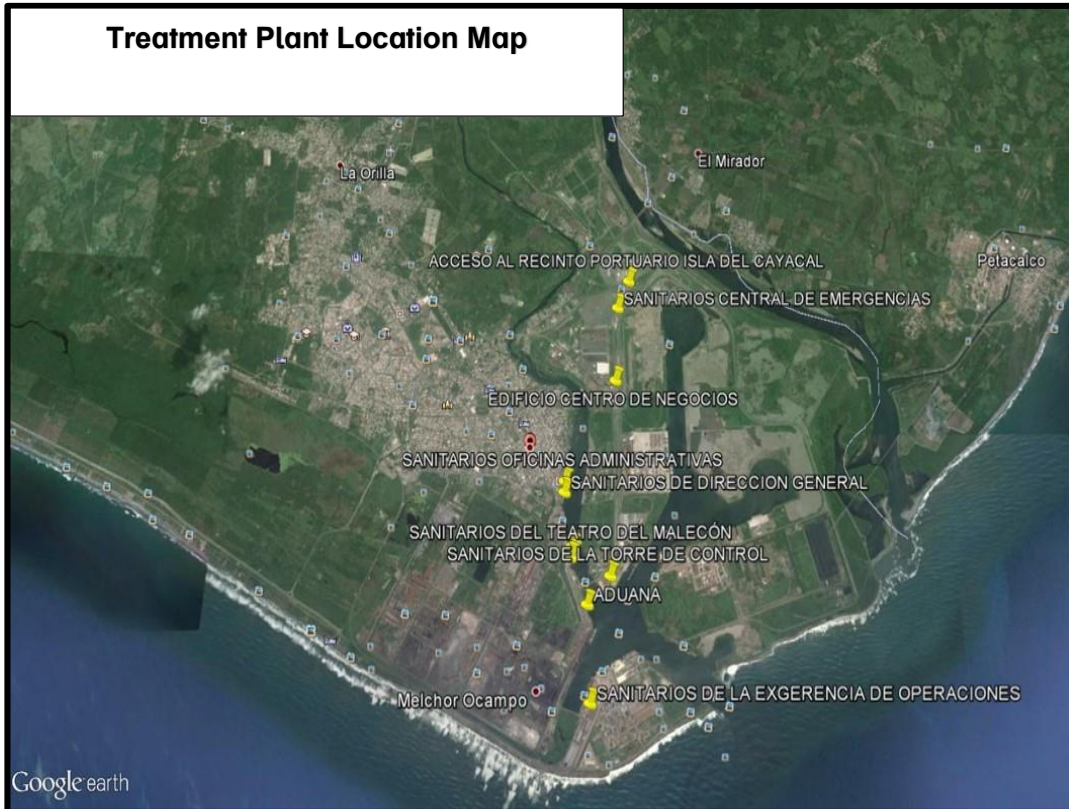
From the ecological point of view, it helps conserve natural habitats already established the conservation of plant and animal biodiversity, especially serving as a refuge for local wildlife. It is particularly keen to safeguard species subject to special protection, endangered, rare and especially the mangrove.




New development area for the conservation of natural resources.

In the port area to the northeast of the Cayacal island, an area of 138 hectares, designed to improve and preserve the environment and ecological balance of the surrounding ecosystem, including plants and natural elements was determined.

Water quality. In order to preserve water quality, plants are built to treat water before it is discharged into rivers and water bodies



LOCATION OF 11 WASTE WATER TREATMENT PLANTS IN THE PORT AREA.

1.- Toilets ex- operations management APILAC	
2.- Customs toilets	
3.- Jetty 1 toilets	
4.- Maritime Traffic Control Tower	
5.- Access shed middle Island Tower 1	
6.- Administrative offices toilets.	
7.- Jetty's theater toilets.	
8.- General management	
9.- Access to the port of the Cayacal island II	
10.- Business control offices Cayacal I	
11.- Emergency center toilets of the Cayacal island	

Complying with the regulations of the National Water Commission from 2006, wastewater treatment plants water have been installed in the port, by 2017 there is a total of 11 plants. Furthermore monthly monitoring in which calcium hypochlorite tablets are added, in order to maintain discharges below the permissible parameters, Mexican Official Standard NOM-001-SEMARNAT-1996 are made.

Use of Clean Energy.

Solar power is currently one of the sources most profitable and reliable to meet the energy demands of the planet clean, renewable energy. In addition, one of its major benefits is that the use does not emit polluting gases into the atmosphere, providing a sustainable ecological alternative, were implemented in the port area two modules of solar panels which are described below.



CENTRAL EMERGENCY CAYACAL ISLAND	
Occupied area:	485 M2
Installed capacity:	78 KWP
Energy produced :	7304.44 kwh/ month
Areas that powers:	Emergency Central



ALBATROSS BRIDGE AND ROADS	
Occupied area:	1000 M2
Installed capacity:	130 KWP
Energy produced :	5479.66 kwh/ mes
Areas that powers:	Albatross bridge and roadway lighting



✓ In the administrative offices of APILAC, solar energy will be consumed and thereby significantly reduce the environmental impact by taking advantage of the sun as an energy source.

Air Quality within the Port.

According to the official Mexican norms NOM-052-SEMARNAT-1993, NOM-035-SEMARNAT-1993, NOM-037-SEMARNAT-1993, NOM-038-SEMARNAT-1993 air quality inside the port area is monitored.



Valuation of Urban Solid Waste to avoid environmental contamination.

The comprehensive management of solid waste generated in the Organization are given the most appropriate destination by recovery.

The management scheme starts with the separation from the source; the staff of the institution and staff that gives the entity housekeeping perform this activity. Once separated urban solid waste is transported for evaluation and final destination.

1. Waste Classification System from 2012.

According to the type of waste generated, the following classification is defined:

Type of Waste:	Paper	Organic	Aluminum	No Detachable	Plastic
Color code:					



Soil Contamination Control, Integral Management of batteries waste, small generators of hazardous waste.

From 2007 batteries that are used at APILAC are 100% collected, the generation of such wastes are used in their administrative activities. Collected batteries are delivered under special management plan to company authorized by the Ministry of Environment and Natural Resources in compliance with the General Law of Ecological Balance and Environmental Protection for recycling, treatment or controlled confinement, delivering Delivery Manifest, Transportation and



Hazardous Waste Reception.

Environmental Social Responsibility, Public Works Benefit of the Community.

Families enjoy the free cinema functions in the Malecon Theater, every fortnight.



Construction of Central Emergency Port:

It supports the community with services such as prevention talks and fighting fires, assistance in control of swarms, medical services, vaccination campaigns, among others.



- **Environmental Policy.** - This was established voluntarily in 2015 to contribute to sustainable development of the port and it is reviewed periodically. The policy will include management, training, implementation, revision and publication of results of the actions the Port performs in environmental matters.

Compliance review of objectives.

1. Noise

Continuously, the Administration port de Lázaro Cárdenas executes projects to improve circulation around the perimeter of port facilities in order to mitigate the environmental impact of the noise element to nearby communities that may cause discomfort to citizens.

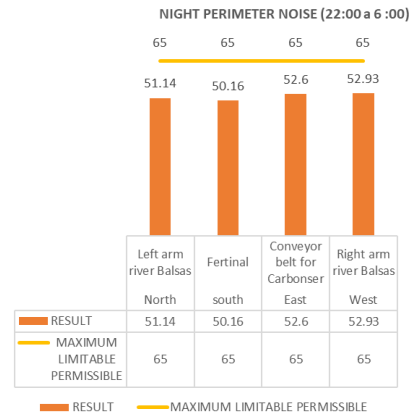
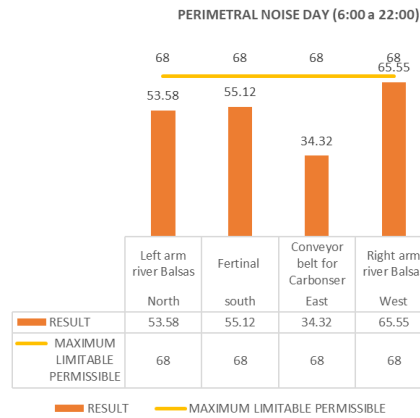
One of the most ambitious projects carried out in this regard was the construction of the albatross

lift bridge in the previous decade, a project that was thought to relieve the heavy truck traffic through the avenues of the city by directly connecting the Port area with the exit to the XXI century motorway, with which the detriment of the asphalt folder of the streets of the city was eradicated and, above all, the Environmental Impact of the noise element was reduced due to the precarious situation of some freight trucks that caused discomfort due to the antiquity of the units acoustic in particular at night in the area.

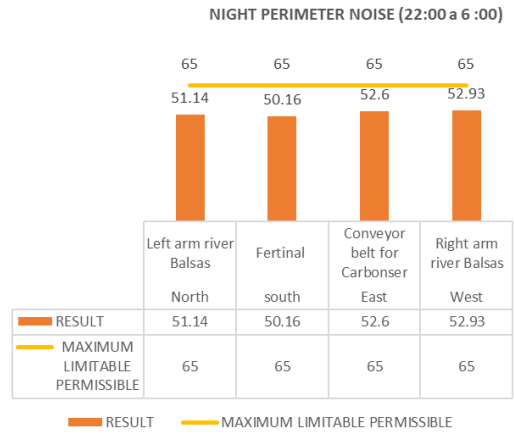
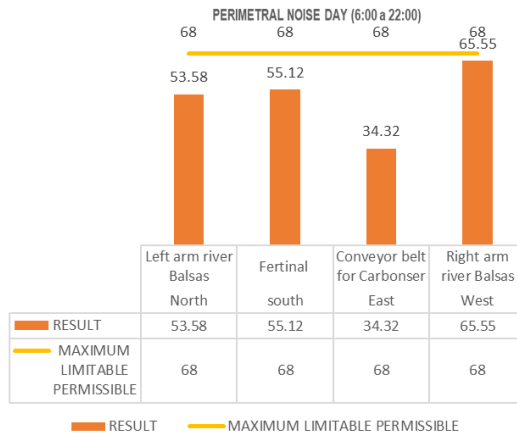
In addition to the above, in recent years the perimeter fence has been built in the Port, which, although it provides security to the facilities, is also a way to contribute to the reduction of Environmental Noise generated in the industries installed inside it; In addition, entities such as Carbonser and at various points within the enclosure have erected ecological damping buffer against dust that causes air pollution but at the same time they reduce noise pollution generated by the operation of machinery, equipment, transportation and general activity within the Port and its companies.

The Port of Lázaro Cárdenas, due to the type of companies installed, does not have a fixed station for noise pollution monitoring, however, periodic noise monitoring studies are carried out on an annual basis based on NOM-081-SEMARNAT-1994 in noise material. The recent studies of 2016 and 2017 show us that in the sound level emitted to the environment, APILAC is well below the permissible limits of the Mexican Environmental Regulation.

2016



2017



2. Improve air quality

It consists of carrying out samplings to determine air quality and investigate sources of contamination and their impacts in order to implement new ways to reduce air pollution inside the port area, with a firm commitment to protect the environment and human health. Two air quality monitoring is carried out every six months in accordance with the Official Mexican Standards, NOM-052-SEMARNAT-1993, NOM-035-SEMARNAT-1993, NOM-037-SEMARNAT-1993, NOM-038-SEMARNAT- 1993 and method No. 1920 of the corrosion electrochemistry section of the environmental protection agency (EPA) and compare the results against the criteria of air quality in the environment established by the Ministry of Health.

The objective of the established actions is to reduce the levels of air pollution inside the Port Precinct and guarantee a clean air. That is why actions are proposed on different sectors:

- Vehicle park maintenance program

- Port activity minimization of emissions in the different activities
- Industry: compliance with regulations and minimization of emissions

These actions are proposed with the objective of reducing emissions to the atmosphere. During the studies conducted in the 2016-2017 period, no deviations were recorded outside the parameters established in the monitoring points.

3. Improved analysis of wastewater discharges

With the aim of preserving water quality, 11 treatment plants are installed inside the port area to treat the water before being discharged to the river and water bodies are sampled twice per quarter (11 downloads and 3 discharges) which are internal control of APILAC, likewise, the National Water Commission (CNA) is informed about the results obtained in the quarter, according to the responsibilities that the Federal Law of Rights and applicable provisions in matters of national waters, if some of the parameters go out of regulation, another sampling should be made again at the point of the download that went out, taking into account that this will be done within the same quarter.

In order to promote the sensitivity of the transferees, by means of a partial cession of rights contract, environmental compliance is indicated taking into account the compliance of the treatment plants.

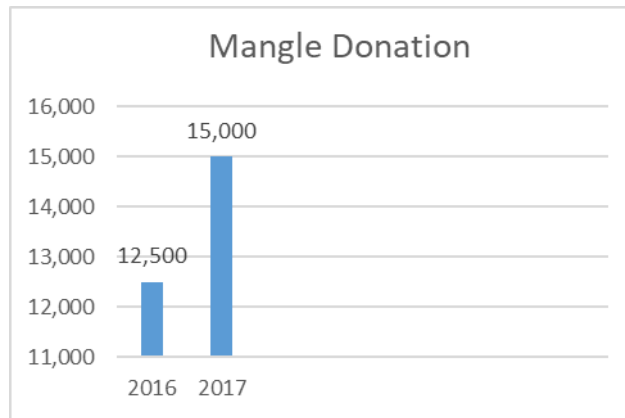
4. Ecosystem preservation

With the purpose of improving the green areas, wetlands and protected areas of the port precinct of Lázaro Cárdenas, Michoacán, there is a nursery with an area of 600 square meters, to currently have two nurseries of the same surface, equipped with a Sprinkler irrigation system each. Altogether it has the capacity to reproduce or cultivate up to 30,000 plants of different species. Thus, a greater reproduction of native plants of the region is achieved to be used in the reforestation campaigns in the interior of the port area and in the areas surrounding it. The Integral Port Administration of Lázaro Cárdenas, S.A de C.V. endorses its commitment to improving the environment and mitigating climate change.

Conservation and reproduction of species such as:

MANGLE	PLANTS	NATIVE PLANTS OF THE REGION
BLACK [CONOCARPUS ERECTUS]	CAYACO PALMS	PAROTA
RED [RHIZOPHORA]	EXORAS	ROSA MORADA
WHITE [LAGUNCULARIA RACEMOSA]	ALCALIFAS CAMELINAS	FRIJOLILLO

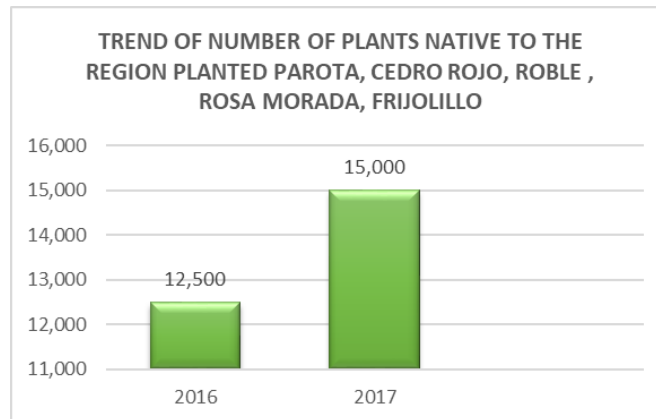
In addition, donations are made to companies, associations and educational institutions commemorating the International Day of Wetlands.



5. Relationship with the local Community

With the purpose of strengthening its program of social responsibility and inculcating the care of the environment that surrounds us, it carries out Reforestation Campaigns "Committed to the environment" inside the port area. With a space of more than 2 hectares, but not before making technical advice on how to carry out the planting of trees that were equipped to perform this ecological task.

Actions are established in favor of the environment and for this in the previous campaign around 12,500 native plants of the region were reforested in 2016 and in 2017 15,000 plants of different species such as purple rose, frijolillo, bocote and cayaco palm. With this activity that is part of the program to link the port city of Apilac.



6. Port development (related to the earth)

With the application of the works and activities developed in the Port precinct, of the authorized projects in Environmental Impact, for these works there is an Environmental Monitoring Committee, who supervises and verifies the application of the Environmental Monitoring Plan and compliance of the Terms and Conditions dictated by the Secretary of Environment and Natural Resources [SEMARNAT], in the respective authorizations of Environmental Impact of these projects.

OEUVRE WITH MANIFESTATION EXISTING ENVIRONMENTAL IMPACT	STATUS 2016	STATUS 2017
Expansion of the north channel and creation of the north and east docks of the port precinct of Lázaro Cárdenas.	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise
Areas of deposit areas for dredging material, in the port precinct of Lázaro Cárdenas	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise
Construction of Protection Playera in the port precinct of Lázaro Cárdenas	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise
Road access south to the island of En Medio of the port precinct of Lázaro Cárdenas	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise
Construction of the north road on the island of Cayacal, within the Port precinct of Lázaro Cárdenas.	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise
Regional modality for the development of port infrastructure of APILAC "La Paloma".	Are suspended the activities of this project until you release budget of this exercise	Are suspended the activities of this project until you release budget of this exercise

During the year of 2016 and 2017 some extensions were obtained, table is appended.

YEAR OF PROCESSING SEMARNAT	OEUVRE	REALIZED			VALIDITY			STATUS OF COMPLIANCE TO THE CONDITIONERS
		DAY	MONTH	YEAR	DAY	MONTH	YEAR	
2004	Expansion of the north channel and creation of docks north and east of the port precinct of Lázaro Cárdenas.	09	March	2017	26	March	2020	By official letter No.MICH / 04/2582/2017 The project has been extended for 3 years
2004	Access by road to the south to the island of In the middle of the port area of Lázaro Cárdenas. Maintenance and	29	October	2017	29	April	2020	By letter No. MICH / GA / 04/6801/2017. The extension is obtained for 2 years and 6 months counted from October 29, 2017, due April 29, 2020

2017	reinforcement of breakwaters in the access channel to the Port of Lázaro Cárdenas..	19	September	2017	18	September	2060	Through official letter S.GP.A./DGIRA. 06835 authorization is obtained for 60 years as of September 19, 2017.
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7. Soil Pollution (Urban Solid Waste)

The companies located within the Integral Port of Lázaro Cárdenas, have the obligation to minimize and revalue as much as possible the types of waste they generate: independently of giving an adequate management and the final disposal of the waste generated in their facilities. Under this premise there are two very marked stages, the internal management and the one that is sent externally, the first one consists in the identification, separation, packing and temporary storage; to then be delivered to external companies duly authorized to be transported to their final destinations where they will be valued, transformed, deposited or arranged in accordance with current legislation.

APILAC promotes and supervises that the Port Community adheres to the current regulations in the field of waste and that they have internal management procedures that promote the valuation of this type of waste.

8. URBAN SOLID WASTE

The handling of these residues begins with their classification and separation in containers with a lid, identified with the name of the residue, to later collect them for their separation, classification and valorization.

The following table shows the amounts of generation of urban solid waste that are generated in the organization.

TYPE OF RSU		Annual generation [KG]	
		2016	2017
ORGANIC		732	445
INORGANIC	PAPER AND PAPERBOARD	417	603
	ALUMINUM	40	17
	PLASTIC	600	700
	SANITARIES AND OTHERS	98	107
TOTAL		1,887 KG	1,872KG

Audit

- **ISO 9001:2008 and ISO 14001:2004.** - In APILAC SA de CV, a system of quality management and environmental has been implemented, based on the requirements of the international standard ISO 9001: 2008 and ISO 14001: 2004 from the year 2004, which allows the activities of the port, applying control measures for environmental protection in strict accordance with the requirements of its customers. The validity of both certificates expires on 14/09/2018.

In order to ensure our Environmental Management System, internal audits have been carried out, of which no findings of non-compliance with the standard were detected. Regarding the external audit, it will be a transition of the standards ISO 9001:2008 and ISO 14001:2004 both to the version 2015 and will be carried out in 2018 by company auditors BSI Group.

- **Clean Industry.-** To keep the Clean Industry Certificate granted by PROFEPA, Lazaro Cardenas' Port participated voluntarily in the National Environmental Audit Program 2017 in order to be evaluated on its performance and compliance with its environmental legislation, improve the efficiency of its production processes, its environmental performance and competitiveness, getting the Verification Unit Accredited by PROFEPA, where an observation with an applicable environmental legal basis was detected. Therefore, attention was given to corrective actions which solved the detected, so PROFEPA considered suitable Lazaro Cardenas' Port to continue certified as demonstrated environmental performance in accordance with applicable regulations to its direct and indirect environmental aspects.

- **Corrective actions**

<u>ENVIRONMENTAL ASPECT</u>	<u>ASSOCIATED ENVIRONMENTAL IMPACT</u>	<u>APPLICABLE LEGAL REQUIREMENT</u>	<u>FULFILLMENT</u>		<u>OBSERVATIONS</u>
			<u>YES</u>	<u>NO</u>	
Land-use change	Natural resources, wildlife and forest resources.	Articles 45 and 48 of the Regulation of the General Law of Ecological Equilibrium and Environmental Protection in the Matter of Environmental Impact Assessment Terms EIGHT and SIXTEEN of the Resolutive Office No. S.G.PA./DDGIRA.DG.4195.10 of date 30 of June 2010.	X		Corrective actions were carried out. The Delegation of the Federal Attorney for Environmental Protection in the state of Michoacán was given a dossier with the total of acknowledgments of receipt that certify the presentation of the compliance reports of the terms and conditions corresponding to the years 2011, 2012, 2013 and 2014, of the project called "Environmental Impact Manifesto, Regional Modality for the development of port infrastructure APILAC, for the site called La Paloma".

CERTIFICATES.



By Royal Charter

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2004

This is to certify that:

Dirección General de Fomento
y Administración Portuaria
Blvd. Adolfo Lopez Mateos No. 1990
Col. Tlacopac
6o Piso
Del. Alvaro Obregon
Distrito Federal
C.P. 01049
Mexico

Holds Certificate No: **EMS 601504**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2004 for the following scope:

Please see scope page.

For and on behalf of BSI:



Carlos Pitanga, SVP, System Certification and Compliance

Original Registration Date: 01/14/2014
Latest Revision Date: 01/12/2017

Effective Date: 01/14/2017
Expiry Date: 09/14/2018

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To be read in conjunction with the scope above or the attached appendix.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 399 Chiswick High Road, London W4 4AL, UK.
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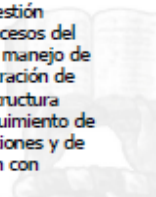
Location

Administración Portuaria Integral
de Lázaro Cárdenas, S.A. de C.V.
Prolongación Av. Lázaro Cárdenas No. 1
Col. Centro
Lázaro Cárdenas
Michoacán
C.P. 60950
Mexico

Registered Activities

Coordination of the Environmental Management System for API's activities of the processes of the environmental management system for the management of environmental risks associated with the administration of contracts and tenders for services of port infrastructure, port services and mapping and monitoring of contracts of partial transfer of rights and obligations and provision of port services which are held with authorities and companies services providers.

Coordinación del Sistema de Administración de Gestión Ambiental para las actividades en API's de los Procesos del Sistema de Gestión Ambiental designados para el manejo de los riesgos ambientales asociados con la Administración de Contratos y Licitaciones para Servicios de Infraestructura Portuaria, Servicios Portuarios y Asignación y Seguimiento de contratos de Cesión Parcial de derechos y Obligaciones y de prestación de Servicios portuarios que se celebran con empresas Cesionarias y Prestadoras de Servicios.



bsi.



By Royal Charter

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

Dirección General de Fomento
y Administración Portuaria
Blvd. Adolfo López Mateos No. 1990
Col. Tlacopac
6o Piso
Del. Álvaro Obregón
Ciudad de México
C.P. 01049
Mexico


Holds Certificate No:

EMS 601504

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

Please see scope page.

For and on behalf of BSI:


Carlos Pitanga, Chief Operating Officer Assurance – Americas

Original Registration Date: 2014-01-14
Latest Revision Date: 2018-07-30

Effective Date: 2017-01-14
Expiry Date: 2020-01-13

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: **EMS 601504**

Location	Registered Activities
<p>Administración Portuaria Integral de Lázaro Cárdenas, S.A. de C.V. Prolongación Av. Lázaro Cárdenas No. 1 Col. Centro Lázaro Cárdenas Michoacán C.P. 60950 Mexico</p>	<p>Coordination of the Environmental Management System for API's activities of the processes of the environmental management system for the management of environmental risks associated with the administration of contracts and tenders for services of port infrastructure, port services and mapping and monitoring of contracts of partial transfer of rights and obligations and provision of port services which are held with authorities and companies services providers.</p> <p>Coordinación del Sistema de Administración de Gestión Ambiental para las actividades en API's de los Procesos del Sistema de Gestión Ambiental designados para el manejo de los riesgos ambientales asociados con la Administración de Contratos y Licitaciones para Servicios de Infraestructura Portuaria, Servicios Portuarios y Asignación y Seguimiento de contratos de Cesión Parcial de derechos y Obligaciones y de prestación de Servicios portuarios que se celebran con empresas Cesionarias y Prestadoras de Servicios.</p>



LÁZARO CÁRDENAS
COORDINACIÓN GENERAL DE
PUERTOS Y MARINA MERCANTE



MÉXICO
GOBIERNO DE LA REPÚBLICA


SEMARNAT
SECRETARÍA DE
MEDIO AMBIENTE
Y RECURSOS NATURALES

LA PROCURADURÍA FEDERAL
DE PROTECCIÓN AL AMBIENTE

OTORGA EL PRESENTE


CERTIFICADO

DE




A

ADMINISTRACIÓN PORTUARIA INTEGRAL DE LÁZARO CÁRDENAS, S.A. DE C.V.



GUILLERMO JAVIER HARO BÉLCHEZ
PROCURADOR FEDERAL DE PROTECCIÓN
AL AMBIENTE



PROCURADURÍA FEDERAL DE
PROTECCIÓN AL AMBIENTE

NIVEL 1
DE
DESEMPEÑO
AMBIENTAL

Vigencia a:
Mayo 2020

This Environmental Report has been created by APILAC and is available for public consultation.

<http://www.puertolazarcardenas.com.mx>