

# ENVIRONMENTAL STATEMENTS

2021

**PORT TERMINALS** 

BARCELONA BI

BILBAO

TARRAGONA

VALENCIA

INCLUDES OCCUPATIONAL HEALTH AND SAFETY APPENDIX









#### **TERMINALES PORTUARIAS, S.L**

Muelle de Inflamables, s/n 08039 Barcelona Phone number: 93.289.55.40 Fax: 93.223.45.79

E-mail: tepsa@tepsa.es

#### **Document scope**

With the aim of providing the public with detailed information on the environmental impact and performance of Terminales Portuarias, S.L. (TEPSA), this document is issued as a grouping of the four Environmental Statements corresponding to the Terminals of Barcelona, Bilbao, Tarragona and Valencia and for the period 2021. It represents the sixteenth Environmental Statement for each of the aforementioned terminals.

The information included has been validated in compliance with the provisions of Regulation (EC) No. 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), as well as its amendments issued by Regulation (EU) 2017/1505, Decision 2017/2285/EU and Regulation 2018/2026/EU.



In accordance with Annex IV, section B. h) on documentary integration of the Statements in other documents, this report includes a section on Occupational Health and Safety annexed to the Statements.

Total number of pages including front and back cover: 148.

This environmental statement update document is prepared as part of the second follow-up process of the European EMAS registration. Next update: June 2023.

#### **Editorial support**

**ECOMUNDIS COMMUNICATION & SUSTAINABILITY** 







## TEPSA

TEPSA. INTRODUCTION	
	6
INTEGRATED MANAGEME	.NT
	18
STAKEHOLDERS	
	22
BA RCELONA	
	27
BI LBAO	
	55
TA RRAGONA	
	85
VALENCIA	
	115
HEALTH AND SAFETY	
	141



















## Index

ORGANISATION AND ACTIVITIES					06
Introduction				06	
Mission, values and commitment				08	
General information, product cycle perspective and glob	al indica	ators		12	
INTEGRATED QUALITY, SAFETY, OCCUPATIONAL HEARONMENT SYSTEM.	ALTH AN	ND ENV	[-		18
A history of best practices in sustainability				16	
Corporate structure, functions and environmental management	gement_			18	
Environmental aspects. Risks and opportunities				19	
STAKEHOLDER ENGAGEMENT					22
Stakeholders				23	
Participation, collaboration and communication				24	
ENVIRONMENTAL STATEMENTS					27
OF PORT TERMINALS	BA	BI	TA	VA	<b>~</b> I
Location and facilities	29	57	87	115	
Major operations	31	59	89	117	
Environmental protection and monitoring	32	60	90	118	
Environmental aspects and impacts	33	61	91	119	
Planning for improvement	35	63	93	121	
Indicators and evolution of environmental performance	36	64	94	122	
Good practices	51	81	109	137	
Environmental legislation and voluntary requirements	52	82	110	138	

**OCCUPATIONAL HEALTH AND SAFETY REPORT** 



# Committed to safety, occupational health and the environment





The year 2021 continues to be marked by a global pandemic scenario, with a return to pre-pandemic normality during the year's second half. Our activity has remained very high, contributing value to our society.

Our leading environmental indicators: electricity and water consumption and waste generation, have decreased compared to the previous year in their values weighted by the outgoing movement.

The integration with the RUBIS TERMINAL group has been carried out very satisfactorily. In this respect, I would like to highlight the contribution of TEPSA to the platform for reporting and analysis of unsafe situations, equipment malfunctions, and incidents or accidents that the RUBIS TERMINAL group already had in place in other countries.

This reporting and analysis of TEPSA started in 2021, allows us to witness the state of our Health and Safety culture and therefore, also in the Environment. 63% of the reported incidents are unsafe, compared to 2% of accidents.

As in previous years, TEPSA has verified and validated its environmental management under the European EMAS Regulation, making the most pertinent environmental and safety information available to all stakeholders.

Aware of the new demands of the markets and their evolution in the context of potential climate emergency, we are fully committed to energy efficiency.

This objective is only possible thanks to the commitment and actions of all those who are part of TEPSA, who, guided by our Safety, Health, Environment, and Quality Policy, have begun a decade of transformation that mobilises us to comply with the Sustainable Development Goals of the 2030 Agenda drawn up by the United Nations.

Hoping that this Environmental Statement will contribute to a better understanding or future collaboration with our organisation, I convey my gratitude to all the workers who are part of the TEPSA team in Barcelona, Bilbao, Tarragona, and Valencia.



#### **TEPSA**



Arturo Ricarte
Director of Health, Safety, Environment
and Quality (HSEQ\*)

In the 2021 financial year, we reported our environmental performance to the RUBIS TERMINAL group together with the rest of the countries. The first Corporate Social Responsibility Report has been prepared.

In line with our Carbon Footprint Improvement and Reduction Policy, energy efficiency audits have been carried out at all our terminals, and new opportunities for improvement in this area have been detected.

We have continued to maintain an excellent level of environmental performance, and health and safety standards. And that is why we can be delighted and very proud of our team.

Thanks to this team, our knowledge, and our experience in managing this crisis, we can face the future challenges that our society demands of us with enthusiasm and confidence.

Reducing our carbon footprint is, and will continue to be, our most significant environmental challenge; aware of the importance of contributing to our society in the fight against climate change.

At TEPSA we give the highest priority to the fight against climate change, as a baseline element in our management. The scope of activities includes the reception, storage and re-dispatch of liquid, flammable, corrosive, toxic and unclassified products.

NACE rev. 252.10 (Warehousing and Storage)





## Mission and values...

TEPSA's mission is to be the supplier of choice for the reception, storage and re-dispatching of bulk liquids, contributing to a better management of our clients' resources.

With 55 years of experience, TEPSA has established itself as the leading company in the storage of bulk liquid chemical products in the Spanish market, with a current capacity of more than 900,000 m3.

The company began operating in 1964 in the Port of Barcelona. During the 55 years since the company has continually invested in expanding its facilities - TEPSA Tarragona recently completed the first phase of its expansion project - as well as in innovation and technology, the automation of loading processes, and new operational monitoring and safety systems.

However, TEPSA has not only invested in capacity and facilities, but also in sustainability, with projects aimed at reducing the consumption of natural resources and the adoption of clean technologies.

We have more than 20 years of experience working with petroleum products. We provide flexible solutions for the storage of hydrocarbons.

We operate in four key ports in Spain: Barcelona, Tarragona, and Valencia on the Mediterranean coast and Bilbao on the Atlantic coast. Our ports have new wharves and deep draft berths.

We provide services to traders, operators and distributors.

Our terminals in Barcelona and Bilbao are connected to the national pipeline network.

Automation in the loading of tanks: 30 minutes from entry into TEPSA's facilities to departure with the reception of administrative and customs documentation.

We are a strategic ally for the logistics of our clients, due to our flexibility and our commitment to quality service.





#### **COMMITTED** TO QUALITY AND SERVICE!

Our values are our guiding principles, the guarantees that support our commitment to the future: to generate the best solutions for each client.



#### Long-term vision

Our determination to the long-term contributes responsibly to the development of the sector.



#### Respect

We are committed to the conservation of the environment and the safety of our staff and the people who visit us or work at our facilities.



#### **Flexibility**

We adapt to the needs of our clients, and always provide agile and effective solutions.



#### Commitment

We promote the development of our team and share a vision of the future, which we pass on to our clients by involving them in it.



#### Innovation and creativity

We promote ideas and initiative. We anticipate future needs so as to be pioneers in the market.



#### Integrity

We ensure maximum rigour in the performance of our work. Our credibility with our clients is based on trust in our work.



Barcelona



Tarragona



Bilbao



Valencia



## Safety, Health, Environment and Quality Policy

**TEPSA's mission** is to be the supplier of choice for the reception, storage and re-dispatching of bulk liquids, contributing to a better management of our clients' resources.

We deliver the quality of our activities and operations through full collaboration with our clients and by ensuring maximum compliance with their specific needs.

Meeting their expectations and those of our stakeholders is a strategic factor for sustainability and our success as a value-added services company.

#### **MAXIMUM SAFETY AND RISK PREVENTION**

We assume a Commitment to Progress that implies rigorous legal compliance, continuous analysis and planning for continuous improvement in the areas of Quality, Safety, Health Protection and the Environment. These disciplines are the fundamental principles of action for all TEPSA personnel, led by senior management.

All our own activities as well as those which are subcontracted are carried out according to the criteria of preventing personal injury, in safe and healthy conditions so as to avoid any damage to the health of both internal and external staff.

The elimination of hazards, the reduction of risks and the protection of our facilities and our IT systems are also objectives of our organisation.

We continuously identify, evaluate and minimise risks in our own and external operations and activities that could lead to serious accidents.

#### **ENVIRONMENTAL PROTECTION** AND SUSTAINABILITY

Our team is also committed to pollution prevention, which is a priority in all our activities and facilities.

Aware of the need to contribute to sustainability, at TEPSA we aim to minimise and recycle waste and reduce the consumption of resources such as water and energy.



















## All TEPSA's personnel and partners pursue excellence in our functions and tasks.

#### CONTINUOUS IMPROVEMENT

We apply an approach based on efficiency, analysing opportunities to implement continuous process improvement and organisational progress.

#### **TRAINING**

Our human resources are incredibly important to us and so we promote optimal training for staff, stable employment, continuous professional development and maximum involvement, in order to comply with the Mission, Policies and corporate codes of conduct.

#### **EQUAL OPPORTUNITIES**

We encourage equal opportunities, always seeking to develop the personal and professional skills of all employees.

#### **BEST AVAILABLE TECHNOLOGIES**

We consider the feasible application of the best available technologies, or the best practices of the sector, for a progressive reduction of the environmental impact and the risk of its activities.

#### TRANSPARENCY & PARTICIPATION

We practice a policy of transparency, communicating to employees, external personnel and authorities the risks associated with products and facilities, as well as the prevention measures available for their reduction.

We promote the consultation and participation of staff and their representatives.

#### REGULATORY COMPLIANCE

TEPSA strives to ensure compliance with the legal and regulatory requirements that apply to it, in addition to other requirements that it voluntarily adheres to as an added value. Our organisation acts in accordance with the guidelines and *Good Practice Agreements* signed with the Port Authorities where we operate.

Management Committee Barcelona, September 9th, 2020

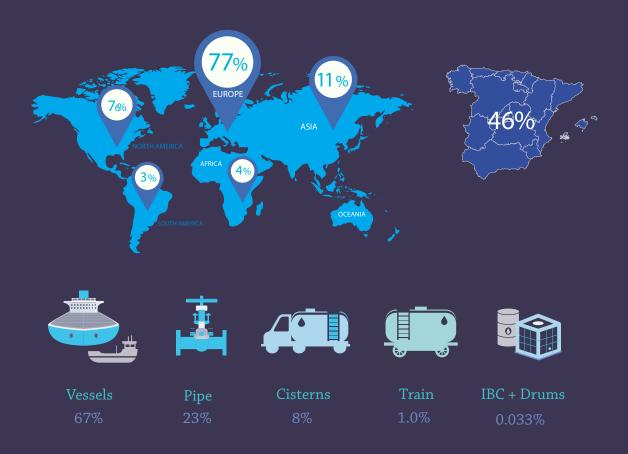




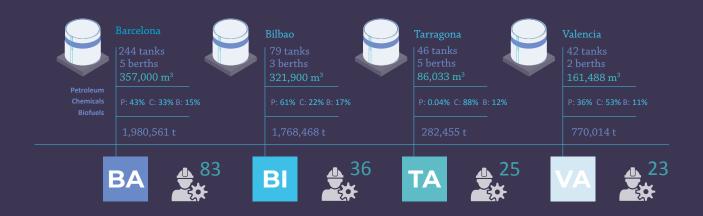


# General information and life cycle perspective

#### ORIGIN OF PRODUCTS RECEIVED

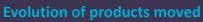


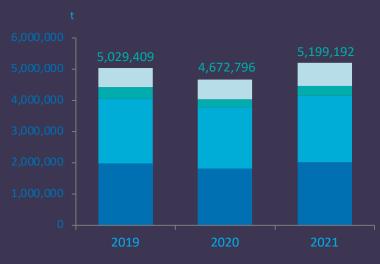
#### STORAGE AND BERTHING CAPACITIES

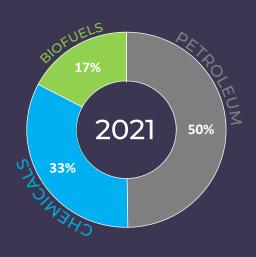


## TEPSA

#### TYPE AND PRODUCTS MANAGED

















Vessels

Pipe 13% Cisterns 54%

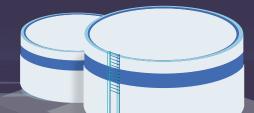
Train

IBC + Drums 0.1%

#### **DISPATCH DESTINATIONS**









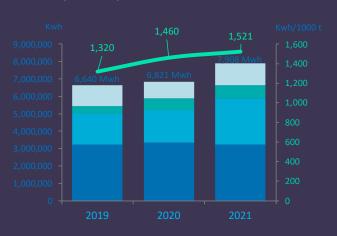




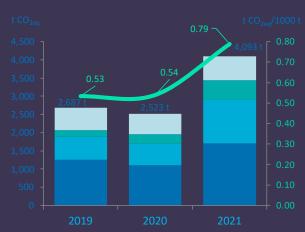


# Main environmental indicators of the organisation

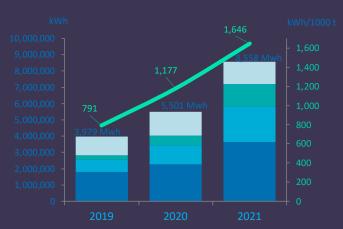
#### **Electricity consumption**



#### **CO2** emissions



#### Diesel consumption



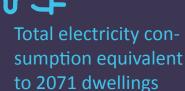
#### Water consumption by center





Reference: Average consumption 132 litres of water per inhabitant per day. Average occupancy of 2.54 persons per dwelling - INF 2017



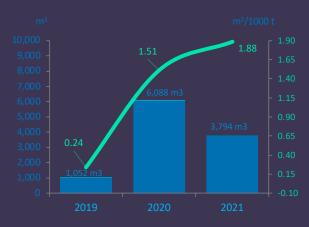


Reference: Average consumption 1.503 kwh per inhabitant per year. Average occupancy of 2.54 persons per dwelling - IDAF 2017

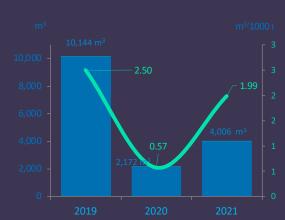


### TEPSA

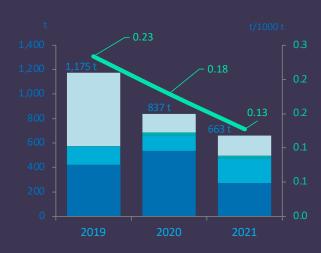




**Treated water at API** 



#### **Hazardous waste generation**











Renewable energy consumed: 44%



# A history of best practices in prevention and sustainability

TEPSA handles the goods owned by its clients according to the instructions given by them, in accordance with the service and its specifications contractually agreed, not carrying out any trade with such goods.

TEPSA has been able to attract and develop new projects, resulting in a progressive increase of the storage capacity and movement carried out at the various terminals.

TEPSA's philosophy is therefore based on its Commitment to Progress, which implies an obligation to its clients to ensure a service in accordance with their needs; an obligation to its employees, external personnel and the port community to protect Health and Safety at work; and finally an obligation to society and the environment in which it operates, to respect and protect the Environment.

To this end, TEPSA has always taken the initiative to manage its terminals in accordance with the highest standards of Quality,
Occupational Health and Safety, and the Environment.

As evidence of this commitment, in 1994 TEPSA became the first storage terminal company in Spain to obtain UNE EN ISO 9002:1994 certification, renewed in 2017 according to the UNE EN ISO 9001:2015 standard.

In 1998, it was also the first company in Spain, and the third in Europe, to pass the CDI-T SQAS audit, while in 2003 it was the first company in the sector to obtain ISO 14001 certification, renewed in 2017 according to the UNE EN ISO 14001:2015 standard.

In 2007, TEPSA signed up to the EMAS regulation, confirming its commitment in environmental matters thanks to one of the most prestigious registers in this field.

TEPSA is also certified in occupational health and safety according to the ISO 45001:2018 standard.

#### **Contact information**

#### **TERMINALES PORTUARIAS, S.L**

Avgda. Moll de l'Energia, 4 08039 Barcelona Phone number: 93.289.55.40

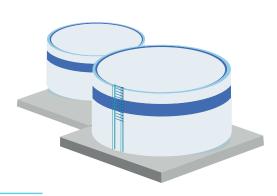
Fax: 93.223.45.79

E-mail: tepsa@tepsa.es

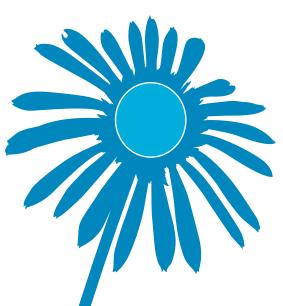


#### TEPSA

# 



- Energy audits at all terminals
- 2021 First CSR Report
- Implementation of the RTOP application
- 2020 Acquisition of TEPSA by the Rubis group
- Celebration of World Environment Day
- 2019 Safety Day
- Expansion of the Tarragona Terminal
- UIC gauge rail loading dock
- Automatic loading of chemicals
- IEA at the Valencia Terminal
- 2012 OSHAS 18001 certification
- Environmental Best Practices Agreement (GBPA)
- Expansion of the Bilbao Terminal
- IEA at the Tarragona Terminal
- 2008 IEA at the Bilbao Terminal
- Expansion of the Barcelona Terminal
- EMAS certification
- Expansion of the Bilbao Terminal
- IEA at the Barcelona Terminal
- 2003 ISO 14001 certification
- Expansion of the Bilbao Terminal
- Expansion of the Barcelona Terminal
- 1993 ISO 9001 certification
- Expansion of the Tarragona Terminal
- Start of operations at the Tarragona Terminal
- Start of operations at the Bilbao Terminal
- Start of operations at the Valencia Terminal
- Start of operations at the Barcelona Terminal

















## Corporate structure, functions and environmental management

TEPSA's concern for our surroundings and the environment is constant and is implicit in each and every one of our operations.

Compliance with environmental legislation is the starting point of our commitment and is the basis on which objectives and goals are established with the purpose of reducing the consumption of energy and raw materials, minimising waste, as well as for improving our liquid effluents and atmospheric emissions, among other environmental concerns.

TEPSA invests and makes improvements, in cleaner technologies and efficient treatment systems, thereby reducing its environmental impacts.

The involvement of our personnel is of vital importance and for this reason we continually promote their proactive participation through awareness campaigns.

#### Structure and duties

Below is a diagram of our organisational structure with respect to the environment.



#### **HSEQ Scope (SSMAC)**

The Quality, Safety, Occupational Health and Environment System is structured according to an integrated Manual upon which Operating Procedures and Technical Instructions, common or specific to each discipline, are based.

This document consists of a combination of the four Environmental Statements concerning the Barcelona, Bilbao, Tarragona and Valencia Terminals. These Statements take into account both direct environmental aspects and indirect aspects related to the analysis of the context, the life cycle perspective and the needs and expectations of the stakeholders identified as relevant by the Management Committee.





# Identification and assessment of significant environmental impacts

#### **Direct environmental aspects**

Every year TEPSA identifies the environmental aspects of its activity that it may have an influence or control over or may influence within the scope of its Environmental Management System. These are evaluated in accordance with the criteria established in the Procedure for the Identification and Evaluation of Environmental Aspects and, as far as possible, those that are significant in order to establish annual, present and future objectives are taken into account.

The system established by TEPSA makes it possible to:

- Identify all the activities with a potential impact on the environment (direct and indirect aspects), from a service life cycle perspective, under normal, abnormal or emergency operating conditions. In addition, environmental impacts generated by past, present and future situations are identified.
- Use objective criteria to evaluate the environmental aspects identified, such as frequency of occurrence, severity, magnitude and legislative compliance (for direct aspects) and severity, stakeholders and purchasing requirements for indirect aspects.
- Periodically update all information on its environmental impacts.

## **DIRECT ENVIRONMENTAL ASPECTS** RESOURCE AND ENERGY CONSUMPTION WASTEWATER WASTE GENERATION ACOUSTIC IMPACT ATMOSPHERIC EMISSIONS **BIODIVERSITY** SOIL DISTURBANCE INDIRECT ENVIRONMENTAL ASPECTS WASTE GENERATION ATMOSPHERIC EMISSIONS **ENVIRONMENTAL DEGRADATION** RISKS / EMERGENCY ASPECTS TANK OVERFILLING CISTERN OVERFILLING SPILLS TO THE SEA FIRE AND EXPLOSION











#### **Indirect environmental aspects**

Indirect environmental aspects, related to resource consumption, atmospheric emissions, soil disturbances and waste generation, are the aspects over which TEPSA does not have full management control and which are related to stages of the service life cycle that are not directly dependent on management.

The company has a contracting policy that includes environmental criteria when it comes to contracting partner companies.

In terms of construction works, indirect aspects of safety and the environment are monitored during evaluations and visits to contractors.

Controls and monitoring of such contractors have been increased in the islets remodelling project, as well as the training of contractors. Coordination manuals have been drawn up for different collectives or groups of contractors that include environmental management standards and aspects.

No significant indirect environmental aspects were identified in 2021.

As a consequence of the adaptation to the ISO 14001:2015 standard, TEPSA has begun the analysis of aspects considering the perspective of the life cycle of the products managed, paying special attention to the origin and destination of the products managed, as well as the different types of transport used by clients.

#### **Risks and opportunities**

The section for each terminal includes a list of environmental aspects for which risks and opportunities have been identified.

#### Mitigation of spills by zone

Berthing area: Arms with "BREAK AWAY" connections that allow the quick watertight separation between the ship manifold and the loading arm in case of emergency or disconnection.

We also have our own means for combating marine pollution in case of an accidental spill of oils and hydrocarbons:

- Containment barriers.
- Pull boat.
- Skimmer and auxiliary material such as pump, hoses, etc.





**Loading/unloading area:** In this area there are manhole covers to prevent any possible spillage from reaching the terminal's water collection system.

Absorbent material is also available to deal with small drips or spills (in the form of water-repellent fibres and sepiolite-type absorbent powder).

To help in the collection or minimisation of spills, special containers are made available.

**Storage area:** The area where the tanks are located is surrounded by a retention basin as required by the APQ standard for the storage of chemical products.

As a preventive measure to avoid overflows, each of the storage tanks has a high precision measurement system and a High-High alarm system connected to the transmitters of each operator in the facility.

Pump pit area: The area where the pumping equipment is located is enclosed in a receptacle where, in the event of a product spill in this area, it would be contained.

API and treatment plant: The hydrocarbon and oil storage area has a specific treatment system and, in case of accidental spills, the Barcelona and Bilbao terminals also have a flotation product recovery system (API). The outflow of water from this station is monitored by means of a float detection system.

This component makes it possible to treat the water with flotation product in order to recover the spillage. The treatment plant is where water susceptible to rain and certain water from tank and line cleaning processes is handled. Water released into the authorised discharge point is monitored during this process by float, oil and hydrocarbon detectors and chemical oxygen demand.























## Stakeholder engagement

#### **Stakeholders**

Over the last two years TEPSA has incorporated in its management system the identification of needs and expectations of stakeholders.

Of the 64 stakeholders or interest groups identified, most of the material or significant issues that require direct attention by the organisation are those relating to the following aspects:

- Transparency and legal compliance.
- Occupational health and safety.
- Environmental protection.

Although TEPSA has been working on these aspects internally for years, it should be noted that in recent years the organisation has undertaken substantial projects in these areas in a participatory or cooperative manner with stakeholders.

As an example, it is worth highlighting the campaigns carried out in 2019 in the areas of Occupational Health and Safety and the Environment, as well as TEPSA's participation in the promotion of the European EMAS Regulation within the framework of the 3rd Conference on Sustainable Action in the Company held at the head office of the Port Authority and organised by Ecomundis.

The main interest groups on which TEPSA focuses its relations on an ongoing basis are the following:



- Workers and their representatives.
- Port Authorities and Communities.
- Competent environmental and occupational health and safety control bodies.
- Suppliers.
- Nearby businesses operating in the port.
- Clients.
- Shareholders and investors: PETROFRANCE
- Certification Bodies (AENOR, SGS, SCHEME, ISCC/RBSA).
- Associations and entities to which TEPSA belongs.

In addition, and as a result of the risk and opportunity assessment, the organisation carries out training actions for personnel by means of awareness campaigns that incorporate new visual materials and encourage their participation and involvement.









### Participation and collaboration

#### **Equipment and personnel**

Historically, TEPSA has involved personnel with projects for the promotion of pro-activity, creativity and efficiency in the management areas of maximum interest to the organisation (operational, productivity and efficiency and cost reduction).

As an example, in 2015 it awarded the initiative of the Tarragona terminal for its plan for the construction of a bypass and a collector/ MANIFOLD covering eight tanks, for the loading and unloading of ships, and the Bilbao terminal, for its improvement in the operational loading of petroleum products.

In 2019, a major campaign on occupational health and safety was carried out in which all the workers from the four terminals were also involved in making suggestions for improvements.

#### Organisations and entities

It is worth mentioning that TEPSA partnered with Puertos del Estado in 2017 in order to draw up the Guide to Good Environmental Practices for the storage of liquid products, as well as its partnership with the ASTERQUIGAS association for the development of a sectorial MIRAT (model environmental risk report) for the assessment and monetisation of environmental risks in compliance with (Spanish) Law 26/2007 on Environmental Responsibility.

Moreover, every year the Barcelona Terminal, from its central offices, participates and collaborates closely with the Port Authority in the calculation of GHG emissions and in drawing up the Port of Barcelona's sustainability, providing information from TEPSA on environmental, economic and social matters.

TEPSA actively participates in the environmental forums of the port communities in the four terminals, and is a member of some of the working groups set up in the areas of Occupational Risk Prevention and the Environment

Another example is our participation in forums such as the Port of Valencia's ECOPORT, where the values of environmental respect are promoted, which are included in the APV's own business strategy, or in other cases, also collaborating with local administrations such as the City Council of Zierbena.

Furthermore, TEPSA supports the events and actions carried out in the field of environmental awareness carried out by CLUB EMAS, thanks to our organisation's membership of this entity.





We also highlight the fact that, in 2016, the Barcelona and Bilbao terminals were awarded the bronze EMAS certificate in recognition of companies that have been on the European EMAS register for more than five years.



#### **Communication**

TEPSA has ensured internal communication channels between all levels and functions of the terminals. In addition, in order to keep all its clients, suppliers, contractors and stakeholders informed, TEPSA voluntarily edits and submits for validation and verification the Environmental Statements of its four Terminals within the framework of the European EMAS Regulation.

These documents are accessible via the website www.tepsa.es.

In 2020, TEPSA published for the first time an integrated document of the four Environmental Statements with a view to also integrating it with other subjects such as Occupational Health and Safety, or in the future, with the Sustainable Development Goals (SDGs) promoted by the United Nations through the 2030 Agenda.

In 2021, TEPSA is promoting actions to involve personnel in prevention and environmental matters.

### The 2030 Agenda

This report marks the beginning of TEPSA's connection to the 2030 Agenda, listing the SDGs that have an impact on the different subjects and contents featured therein.











































## 



#### **Health, Safety & Environment**

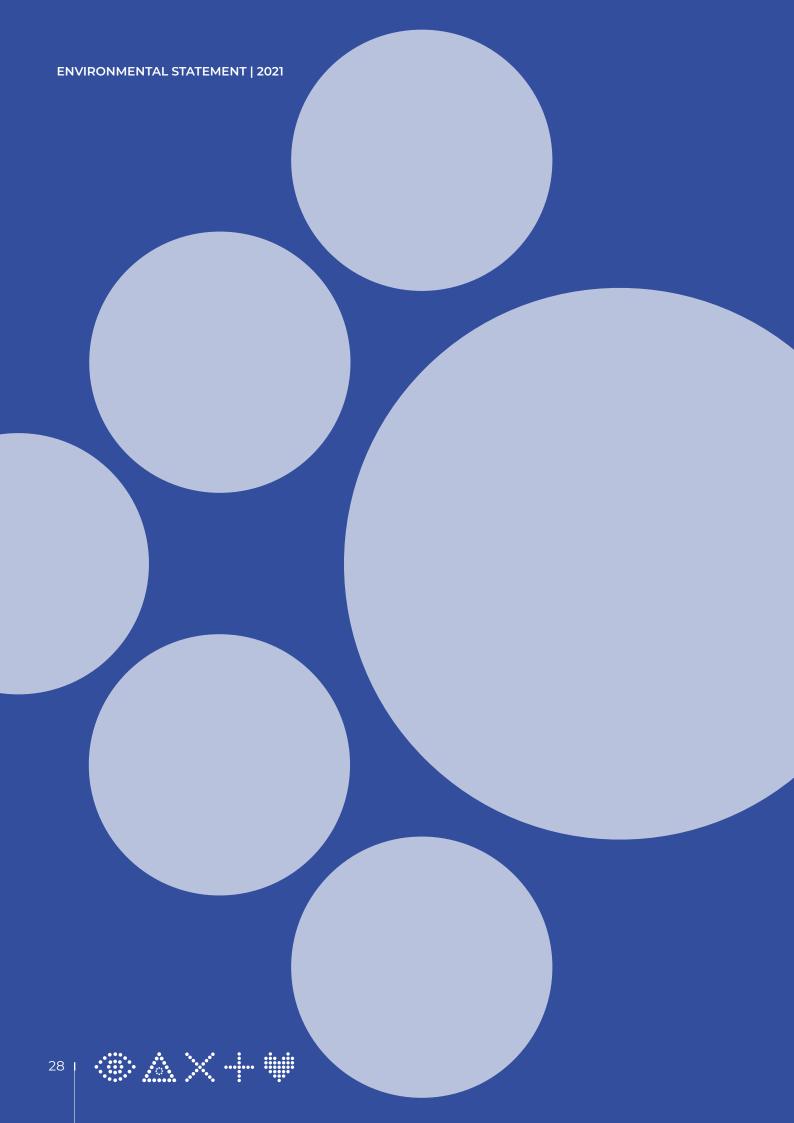
Barcelona Terminal

Our priority is always to guarantee the health and safety of our team and community.
Sustainability is also a key factor in protecting and preserving the environment.

BARCELONA

Ignasi Marí Gimeno Barcelona Terminal Director





## Barcelona Terminal

## **General information**

TEPSA's Barcelona Terminal allows the access and reception of goods by sea, rail, road and pipeline, providing the services in the facilities shown below.

#### Services available

- Storage.
- Loading and unloading of ships, trucks and tank cars.
- Product transfer to other terminals.
- Product heating.
- Nitrogen supply.
- Weighing.
- Sealing.
- Drum filling line.
- Storage of packaged products.
- Waste management (E-1117.09).
- Phosphoric acid dilution in lines.
- Alcohol denaturation in line.
- Management of services for the reception of pre-washes according to Marpol Annex II.
- Management of Customs Warehousing and Non-Customs Warehousing.
- Management of goods under the tax warehouse system for hydrocarbons and alcohols.
- Transfer between vessels via proprietary ground lines.
- Dilution of products in tank.

#### **Facilities**

TEPSA has been able to attract and develop new projects, resulting in a progressive increase in storage capacity and movement carried out at the various terminals.

#### **Chemicals & Petrochemicals**

- Carbon steel tanks.
- Tanks with special interior coatings.
- Heated and coil tanks.
- 316L stainless steel tanks and piping.
- Automatic drum filling line.
- Physical-chemical treatment and wastewater purification plants.
- Vapour return system.
- Maximum filling alarm.
- Temperature control system.
- Steam and thermal oil heating system, recirculation system and cooling system.
- Silica gel cartridges in the tank vent.
- Tank level monitoring by radar.
- In-tank product dilution.
- In-line alcohol denaturation.



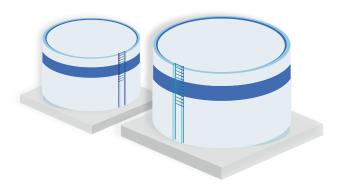
## Barcelona Terminal

#### Petroleum Products

- Tanks with internal floating screen.
- Vapour return system.
- Hydrocarbon vapour recovery unit.
- Automatic tracer additivation system.
- Automatic multi-product loading.
- Maximum filling alarm.
- Temperature control system.
- Tank level monitoring by radar.
- API separation of water with hydrocarbons.
- Connection to the national pipeline network.

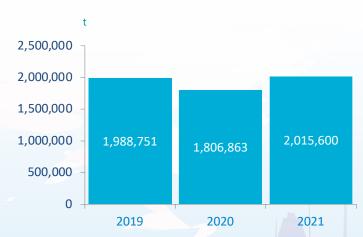
#### Storage capacity

The flexibility and storage capacity of TEPSA's Barcelona Terminal has allowed for an increase in product movement in recent years.



#### 244 tanks / 357,000 m3 5 berths

Product movements Barcelona Terminal









### **Main operations**

#### **Vessel unloading**

This is the most common operation for the reception of goods. The ship's own pumping equipment is used to pump the product contained in the ship's tanks into the facility's storage tanks.

TEPSA connects the ground line(s) to the ship's manifold and supervises the operation from the connection at the berth to the interior of the Terminal; TEPSA does not carry out any analysis of the goods or determine the quantities unloaded, with this responsibility falling to an independent Control Entity designated by the client.

#### **Vessel loading**

The operation is identical to unloading, but in this case the product is pumped using the Terminal's pumping equipment.

#### **Tank loading**

This is the most common operation for the re-dispatch of goods. The product contained in the Terminal's storage tanks is pumped using its own pumping equipment to the cistern truck compartments. TEPSA carries out and supervises the operation and checks the re-dispatched quantity.

#### Cistern unloading

Goods reception operation. The product contained in the cistern compartments is suctioned in using the terminal's pumping equipment and pumped into the storage tanks. TEPSA performs and supervises the operation and checks the quantity received.

#### **Cistern loading**

These product re-dispatch/reception operations are identical to those used for the loading/ unloading of cistern trucks, described above, except that the vehicle is the rail car. This operation is only possible in facilities with rail sidings.

#### Drum filling

Re-dispatch of goods operation. The product contained in the tanks is pumped using the terminal's pumping equipment into mobile containers (drums, containers, etc.).

## **Environmental protection and monitoring**

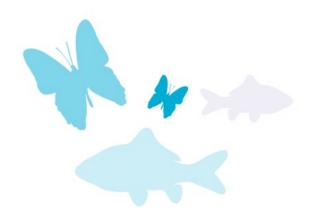
## **Environmental protection equipment**

TEPSA's facilities have the following environmental protection equipment:

- Wastewater treatment plants.
- API type hydrocarbon separators.
- Waste storage tanks.
- Vapour recovery units.
- Interior floating screens in gasoline tanks.
- Floating barriers and marine pollution control equipment for accidental spills.
- Automated cistern loading systems with vapour recovery for petroleum products.
- Bottom loading with vapour recovery.

#### **Environmental checks**

- Quality of discharge water.
- Atmospheric emissions.
- Status of temporary waste storage.
- Soil quality.



## Environmental aspects and impacts

#### Significant aspects

The significant direct environmental aspects resulting from the 2021 identification and assessment (with 2020 data) are as follows:

- Electricity consumption.
- Diesel oil consumption in boilers.

Energy consumption is significant due to the large volume of consumption and the fact that it comes from loo% non-renewable sources (for electricity, the supply company certifies that only part of it comes from renewable sources).

No significant indirect environmental aspects specific to the terminal have been identified.

#### **Risks and opportunities**

As a result of the analysis of risks and opportunities associated with environmental aspects, those that repeatedly prove to be significant for the environment and the organisation are assessed. The risks identified will be those associated with the environmental impacts they generate.

- Depletion of natural resources
- Atmospheric pollution

Among the resulting actions for their monitoring and minimisation are the following:

- The application of operating instructions for the optimisation of water consumption in tank cleaning operations.
- 2. Energy efficiency programme.
- Application of operational instructions for the optimisation of diesel consumption.
- 4. Linking VOC emissions to storage tanks.

Activity / Process	Direct Aspects	Conditions	Impacts / Risk
Chemical Storage (T-1, T-2, T-3 and Oilfield)	Electricity Consumption	NORMAL	Natural resource depletion Atmospheric pollution
Chemical Storage	Diesel oil consumption in boilers	NORMAL	Natural resource depletion

#### Potential aspects associated with emergencies

At the Barcelona terminal, no significant potential environmental aspects were detected, or regarding those related to possible emergency situations such as:

- Tank overfilling.
- Cistern overfilling.
- Spills in the filling line.
- Spills in pump pits and tanks.
- Spills in the sea.
- Fire / explosion.

As of 2017, the impacts associated with environmental aspects are considered within the analysis of risks and opportunities in the planning of improvement actions.

#### Influence of client activity on the environmental aspects and objectives of the organisation.

Overall consumption depends directly on the client's needs in terms of the type of products stored. Thus, the environmental improvement actions implemented are sometimes obscured by the fluctuations derived from these needs.

However, it should be noted that many of the improvement projects carried out annually by TEPSA are done within the framework of increasing the safety of the facilities and, therefore, are aimed at avoiding potential leaks and spills from the loading and storage facilities, thus preventing potential environmental impacts.

The degree of compliance with certain objectives related to the environmental aspects identified can be determined based on the achievements or success in the planned actions and does not always represent the percentage of reduction of the parameter or the global magnitude, since the latter can be influenced by circumstances of the activity or by the mix of services requested by the client.

# Planning of objectives and actions for environmental improvement

As established in its Environmental Policy, TEPSA periodically establishes objectives and actions aimed at the continuous improvement of its EMS.

In order to define these objectives, significant environmental aspects are considered as far as possible, or others that, although not significant, it has been considered appropriate to improve, as well as the risks and opportunities of the business in reference to its management system.

The Programme of improvement objectives and strategic projects determines for each objective and action the necessary resources, the responsible personnel and the schedule for its achievement. To establish its environmental objectives, TEPSA considers actions that lead to a reduction of the risk of accidents and a minimisation of its environmental impact.

For 2020, TEPSA Barcelona Terminal programmed and approved a series of objectives that include actions at the level of Safety and Environment.

OBJECTIVE	PROJECTS/ACTIONS	COMPLIANCEOI ACTIONS	F ENVIRONMENTAL ASPECT OF IMPROVEMENT	ACHIEVEMENT OF OBJECTIVES
REDUCTION OF ENVIRONMENTA VOLUMES DUE TO ENVIRONMEI	The state of the s	N OF SPILL		2021
Maintain environmental frequency and severity rates below the <b>Target Values.</b> IFA ≤ 1.15 IGA ≤ 0.08	Replacement pipes supports in jetties (cont. 2020) pmmi. 100936	100%	SOIL CONTAMINATION Environmental aspects in emergency conditions	Values obtained IFA: 0.405 IGA: 0.081  Achievement of the objective: 100 %
IMPROVEMENT OF FACILITIES AGAINST ACCIDENTAL SOIL CONTAMINATION				
Maintain the environmental severity index below the <b>Target Value</b> .	Holding capacity bucket 20 (cont. 2020) pmmi. 10127	100%	SOIL CONTAMINATION Environmental aspects in emergency	Values obtained IGA: 0.081
<b>IGA</b> ≤ 0.08	Improved watertightness of tanks and pits. Phase I pmmi. 101272	100%	conditions	Achievement of the objective: 100 %
IMPROVING ENERGY EFFICIENC	'			2021
Reduction of electricity consumption by 10%.	Frequency converter pmmi 101397	Postponed	ELECTRICITY CONSUMPTION Environmental aspects under normal conditions	Value 2.020: 1.86 MWh/t moved Value 2.021: 1.61 MWht/ moved
	Office thermal insulation	100%	•	Achievement of the objective: 100 %
ASSESSMENT OF THE EFFECTIVENE programme have succeeded in achie		ME: The actions	planned for the achievement of the	ne target

SIGNIFICANT ASPECT

# Operational monitoring and environmental management indicators

In order to evaluate TEPSA's environmental performance, operational and environmental management indicators have been selected to monitor the organisation's performance. For this purpose, the basic indicators outlined by the EMAS Regulation have been considered, as well as those specific indicators necessary for the evaluation and monitoring of significant direct and indirect environmental aspects.

It should be noted that no Sectoral Reference Documents have been published by the European Commission in the field of chemical product storage, which could provide new specific indicators for the sector or establish good management and operating practices.

With regard to the Sectoral Reference
Document published for the waste
management sector (COMMISSION DECISION
(EU) 2020/519 of April 3, 2020), the management
or treatment of industrial waste that is not part
of municipal solid waste (MSW) is not included
in this document

TEPSA acts as a collection and transfer centre for industrial waste only, so its activity will not be included in the scope of this SRD.

#### **Operational checks**

- I.1. Total energy consumption (Mwh/1000 t moved).
- I. 2. Fresh water consumption (m3/1000 t moved).
- I. 3. Quality of liquid effluents with respect to the limit value.
- I. 4. Quantity of hazardous waste generated (kg of waste/1000 t moved).
- I. 5. Quantity of non-hazardous waste generated (kg of waste/1000 t moved).
- I. 6. Atmospheric emissions (reported occurrences and periodic checks).
- I. 7. Acoustic immission (periodic check).
- I. 8. Greenhouse gas (GHG) emissions (t CO2/1000 t moved).
- I. 9. Environmental Accident Rate. Environmental Frequency Index (IFA in the Spanish) and Environmental Severity Index (IGA).
- I. 10. Biodiversity (m3 occupied/1000 t moved).
- I. 11. Soil contamination.
- I. 12. Environmental training.





# **Consumption of natural resources**

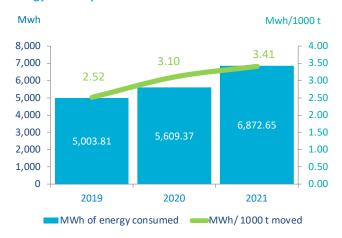
TEPSA's main consumption of natural resources is energy consumption and process water consumption (washing and boiler).

#### **Energies**

#### I.1. ENERGY CONSUMPTION

Total energy consumption and per ton of products moved (MWh/1000t moved). The total energy consumed is obtained from the sum of electrical energy consumed and diesel consumed in boilers.

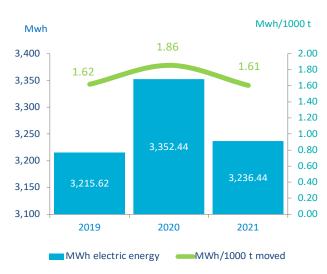
#### **Energy Consumption TOTAL Barcelona Terminal**



This year, the total energy consumption indicator has increased by more than 10%, due to a greater need for product heating. This increase is mainly attributable to an increase of more than 40% in the diesel consumption indicator.

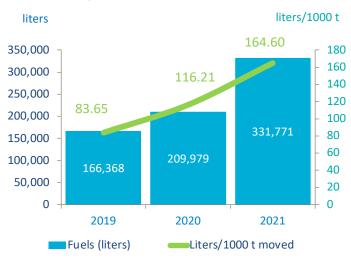
The terminal currently has no renewable energy production.

#### **Electricity Consumption. Barcelona Terminal**



The indicator and the absolute value of electricity consumption shows a clear reduction in 2021 thanks to the actions implemented to improve the energy efficiency of the facilities.

#### **Fuel consumption. Barcelona Terminal**





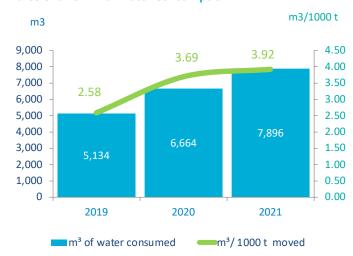
#### Water

#### I.2. WATER CONSUMPTION

Water consumption per tons of products moved (m3/1000 t moved).

In 2021, water consumption increased by 6% in its indicator relative to 1000 tonnes of product moved. This increase is associated with a greater need for water used in tank cleaning.

#### **Barcelona Terminal Water Consumption**









# Wastewater generation

At the Barcelona Terminal, there are four main discharge points that collect water susceptible to contamination and which are properly treated before being discharged into the sewage system of the Port of Barcelona.

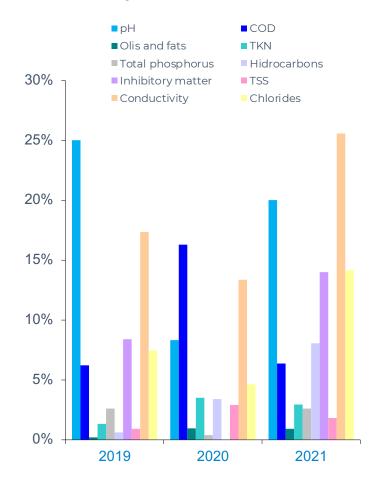
TEPSA has a Discharge Authorisation (Ref. Exp. 1099/06) granted in July 2007 by the Entitat Metropolitana de Serveis Hidràulics i Tractament de Residus (EMSHTR). Renewal was requested on June 20, 2012. The discharge authorisation is integrated in the resolution of the Environmental Authorisation review after its adaptation to the Industrial Emissions Directive (IED).

The discharge data are presented, for each parameter, in average value of the analyses carried out in a year and in percentage relative to the respective legal limit (100%) considering the limits established in the Discharge Authorisation.

#### **I.3. DISCHARGES**

Average liquid effluent quality of the four discharge points with respect to the limit value of pH, COD, oils and fats, total kjedhal nitrogen, total phosphorus, hydrocarbons, inhibitory matter, TSS, conductivity and chlorides.

#### **Effluent Quality Barcelona Terminal**



In this last exercise, the averages of the conductivity and chloride parameters show a significant increase but with values always below the regulatory limits.

It should be noted that during 2021 no legal non-compliance was identified in each of the analyses performed.

Parameters	evaluated (units)	2019	2020	2021
	Average value	7.75	7.25	7.6
pH (pH units)	Legal limit	6-10	6-10	6-10
	Relative to legal limit (%)	25.00%	8.33%	20.00%
	Average value	93.16	244.00	95.25
COD <sub>1</sub> (ppm)	Legal limit	1,500.00	1,500.00	1,500.00
	Relative to legal limit (%)	6.21%	16.27%	6.35%
	Average value	0.52	2.40	2.28
Oils and fats (ppm)	Legal limit	250.00	250.00	250.00
	Relative to legal limit (%)	0.21%	0.96%	0.91%
	Average value	1.21	3.15	2.66
TKN <sub>2</sub> (ppm)	Legal limit	90.00	90.00	90.00
	Relative to legal limit (%)	1.34%	3.50%	2.96%
	Average value	1.31	0.19	1.31
Total phosphorus (ppm)	Legal limit	50.00	50.00	50.00
	Relative to legal limit (%)	2.62%	0.38%	2.62%
	Average value	0.09	0.51	1.21
Hydrocarbons (ppm)	Legal limit	15.00	15.00	15.00
	Relative to legal limit (%)	0.60%	3.40%	8.07%
	Average value	2.10		3.50
Inhibitory matter (Equitox/m³)	Legal limit	25.00	25.00	25.00
	Relative to legal limit (%)	8.40%	0.00%	14.00%
	Average value	6.78	21.9	13.73
TSS (ppm)	Legal limit	750.00	750.00	750.00
	Relative to legal limit (%)	0.90%	2.92%	1.83%
	Average value	1,041.25	801.67	1,533.04
Conductivity (µs/cm)	Legal limit	6,000.00	6,000.00	6,000.00
	Relative to legal limit (%)	17.35%	13.36%	25.55%
	Average value	186.75	115.5	353.69
Chlorides (mg/l)	Legal limit	2,500.00	2,500.00	2,500.00
	Relative to legal limit (%)	7.47%	4.62%	14.15%

1. COD: Chemical Oxygen Demand 2. TKN: Total Kjedhal Nitrogen

AVERAGE VALUES IMPROVING ON THE PREVIOUS YEAR







# **Waste generation**

TEPSA has waste producer codes P-11150.1 and P-11150.3, and it also has waste manager code E-1117.09.

TEPSA does not have full management of its activities, as this is subject to the needs of its clients in terms of the type of products to be stored and changes in tanks, therefore, the main consignments of hazardous waste come exclusively from these changes subject to the needs of our clients. This makes it very difficult to establish waste reduction actions.

TEPSA has submitted the annual waste declaration as waste manager and waste producer for the year 2021 (10789/0137/2022), en fecha 04.03.2022).

TEPSA submitted the update of the Waste Minimisation Plan (Hazardous Waste Minimisation Study) dated April 17, 2020 (registration number: Q0617/2017/1709).

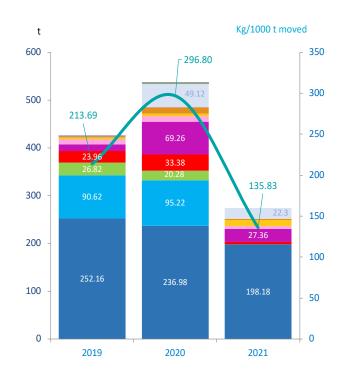
In 2015, the calculation methodology for the conversion of waste generation units from volume to weight is improved. This ensures better control and monitoring of the waste generated.

#### **I.4. HAZARDOUS WASTE**

The amount of hazardous waste generated reduced by 49% compared to 2020 and the indicator associated with the 1000 tons of products moved has also reduced by more than 54%.

Among the wastes with the greatest reduction, those associated with waste containing hydrocarbons, solvents, bases, sulphuric acid and other acids, mainly due to a greater need for tank cleaning, stand out.

#### **Hazardous waste. Barcelona Terminal**



 $<sup>^{*}</sup>$  The graph shows the data labels with the highest value. See attached table for greater detail.



HAZARDOUS WASTE	20	19	20	20	2021	
HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Other Solvents	90.62	45.57	95.22	52.70	-	-
Hydrocarbon waste	252.16	126.79	236.98	131.16	198.18	98.32
Other acids	26.82	13.49	20.28	11.22	-	-
Empty containers contaminated	9.726	4.89	11.27	6.24	5.63	2.79
Contaminated clothing and absorbent materials	1.46	0.73	12.96	7.17	2.51	1.25
Sulphuric and sulphurous acid	23.96	12.05	33.38	18.47	5.075	2.52
Fluorescents	0.062	0.03	0.12	0.07	-	-
Batteries and accumulators	0.061	0.03	-	-	-	-
Phosphoric and phosphorous acid	4.1	2.06	5.62	3.11	12.73	6.32
Other bases	14	7.04	69.26	38.33	27.36	13.57
Other halogenated solvents	2	1.01	-	-	-	-
Organic wastes hazardous substances	-	-	2.08	1.15	-	-
Wastes with other hazardous substances	-	-	49.12	27.19	22.3	11.06
TOTALS	424.969	213.69	536.29	296.81	273.785	135.83

KG/1000t<sub>MOVED</sub> VALUES IMPROVING ON THE PREVIOUS YEAR.







#### **I.5. NON-HAZARDOUS WASTE**

Quantity of non-hazardous waste generated (Kg. of waste/1000 t moved), including scrap metal, paper and cardboard, solid waste assimilable to urban waste and wooden pallets, among other waste.

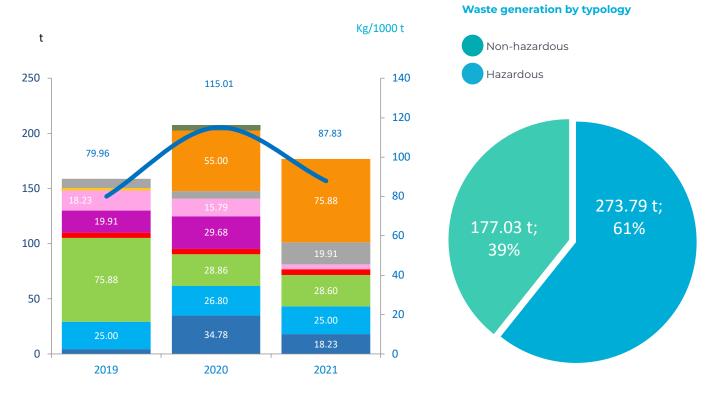
The value of the indicator shows a reduction in the last year due to a lower generation of nonhazardous waste associated with tank cleaning.

NON HAZADDOUG WASTE	20	19	2020		2021	
NON-HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Scrap	4.34	2.18	34.78	19.25	18.23	9.04
Paper and cardboard	25.00	12.57	26.80	14.83	25.00	12.40
Solid waste assimilable to urban waste	75.88	38.16	28.86	15.97	28.60	14.19
Wooden pallets	5.07	2.55	4.94	2.73	5.07	2.51
Wood	18.23	9.17	15.79	8.74	4.34	2.15
Water that does not accept sewage treatment plant	19.91	10.01	29.68	16.43	-	-
Mixed waste generated by manufacturing	2.20	1.11	-	-	-	-
Plastic	8.39	4.22	6.96	3.85	19.91	9.88
Edible oils and fats	-	-	55.00	30.44	75.88	37.65
Composite packaging	-	-	5.00	2.77	-	-
TOTALS	159.02	79.96	207.81	115.01	177.03	87.83

KG/1000t<sub>MOVED</sub> VALUES IMPROVING ON THE PREVIOUS YEAR.



#### **Non-hazardous waste Barcelona Terminal**



 $<sup>^{\</sup>ast}$  The graph shows the data labels with the highest value. See table above for greater detail.







# **Atmospheric emissions**

#### I.6. AIR POLLUTION

TEPSA currently has eight emitting sources registered, five corresponding to boilers for vapour generation, one corresponding to the unit for the recovery of organic vapours in the loading of gasoline tanks and two corresponding to the packaging line.

These last two sources were registered during the 2018 fiscal year together with a third unit that was registered in 2019 (premix extractor unit - non-substantial change ref. B-2ACNS190614).

The corresponding logbooks are available at the Direcció General de Qualitat Ambiental i Canvi Climàtic.

In the last periodic check (year 2018) carried out through Accredited Environmental Entity (TÜVRheinland), these three new sources were added to the regulatory check.

The results of the values of concentrations in blue show an improvement compared to the previous measurement of the periodic check. The parameters analysed are those established according to the A.A. resolution (BA20040091).

For the premix tank extractor, since the VOC measurement exceeded the established emission limits, the emissions have been transferred to the storage tank.

All emission parameters associated with the five combustion boiler sources reflect values below the limits established by the A.A. None of them exceeds 25% of the limit value.

Calculations of total annual emissions indicators for the pollutants of SO2, NOx and PM pollutants from boilers and organic C from exhaust fans and recovery units have not been carried out because the checks are performed on a specific measurement every five and three years and therefore the calculation would provide an estimate with a very large error. A qualitative assessment of this environmental aspect is made through the emission values obtained in the regulatory controls.



Parameters eva	luated (units)	2013	2018	LEGAL LIMIT	% Limit
	CO (mg/Nm3)	18	6.30	500	1%
Boiler G. 944/2724 Logbook. 27777	SO2 (mg/Nm3)	40.33	48.73	700	7%
<b>209</b> 000 <b>2</b> 7777	Bacharach Opacity	1	-	4	0%
	CO (mg/Nm3)	30	6.30	500	1%
Boiler G. 1800R Logbook. 13238	SO2 (mg/Nm3)	53.57	43.57	700	6%
	Bacharach Opacity	1	-	4	0%
	CO (mg/Nm3)	33	14.73	500	3%
Boiler núm. 199 Logbook. 0321	SO2 (mg/Nm3)	76	18.70	700	3%
	Bacharach Opacity	1	-	4	0%
	CO (mg/Nm3)	13.6	18.50	500	4%
Boiler núm. 53002 Logbook. 30655	SO2 (mg/Nm3)	65.7	28.77	700	4%
	Bacharach Opacity	1	-	4	0%
	CO (mg/Nm3)	17.80	4.27	500	1%
Boiler G. 181 Logbook. 31776	SO2 (mg/Nm3)	40	41.37	700	6%
	Bacharach Opacity	1	-	4	0%
URV Logbook. 15723	Average value	7.74	-	35	22%
Extractor 1 Logbook. 014015	Average value	-	0.16	(1) 0.05	(1) Does not exceed 0.5 kgC/h
Extractor 2 Logbook. 014016	Average value	-	0.47	(1) 0.05	(1) Does not exceed 0.5 kgC/h
Premix tank extractor Logbook. 014017	Average value	-	2.62	(1) 0.05	(1) Limits are exceeded

VALUES THAT IMPROVE WITH RESPECT TO THE PREVIOUS CHECK

 $According \ to \ Maximum \ Values \ for \ Emissions \ to \ the \ Atmosphere \ of \ the \ Environmental \ Authorisation \ (Exp. \ BA20040091).$ 

(1)  $0.05 \, gC/Nm3$  if  $0.5 \, kgC/h$  is exceeded.









### **Acoustic immission**

#### I.7. ACOUSTIC IMMISSION

TEPSA has had an acoustic immission monitoring system in place since 2011 to assess the environmental impact of noise. All sampling points showed immission values below the legal limit.

Since the operating conditions of the activity do not change substantially, the sampling period chosen was at night, which is the strictest limit.

#### Environmental noise immission values.

NIGHT SCHEDULE	VALUE
Average Noise Value	58.3 dB(A)
Maximum Noise Value	60.9 dB(A)
% of Legal Limit*	94 %

<sup>\*</sup> According to OGMAUB Maximum Values for zone type IV. Legal limit: 65 dB(A).

# **Climate change**

#### I.8. CLIMATE CHANGE

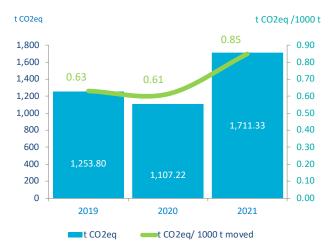
GHG emissions from the Barcelona Terminal have been increased in the last year mainly due to the increase of diesel consumption of boilers and the increase in the value of GHG emissions per kWh of electricity consumed according to the conversion factor published fby the Spanish Office of Climate Change for the marketer Iberdrola.

The conversion factors used are:

EMISSION FACTORS	VALUE
1 Kwh. Electric Power <sup>1</sup>	0.232 Kg. CO <sub>2</sub>
1 litre Diesel <sup>2</sup>	2.87817 kg. CO <sub>2</sub>
1 Kg of R410A <sup>3</sup>	1,924 kg. CO <sub>2</sub>

183- Spanish Climate Change Office Calculator (version 2022 for the year 2021). 2- Oficina Catalana del Canvi Climàtic. GHG calculator for 2020 calculation version 2021.

#### **GHG** emissions. Barcelona Terminal



GHG tonnes cover emissions of all greenhouse gases of all identified greenhouse gases (including  $CH_4$ ,  $N_2O$  gases and fluorinated gases), expressed as CO2eq. In 2021, a leakage of 2.9 kg of R410A is recorded.

# **Environmental** incidents

#### I.9. ENVIRONMENTAL SAFETY

All incidents, regardless of their number and environmental impact, are analysed and considered for corrective and preventive actions.

The total number of accidents, as well as the total amount spilled or leaked and not recovered, weighted by the movement of the terminal, constitute the calculation of the "Environmental Frequency Index" (IFA in the Spanish) and "Environmental Severity Index" (IGA) indicators.

It should be noted that in this calculation more importance is given to cistern movement, since it presents a greater risk of spills or leaks compared to movement by pipeline.

#### **Environmental incidents. Barcelona Terminal.**

YEAR	IFA Environmental Frequency Index	IGA Environmental Severity Index
2019	1.152	10.388
2020	2.596	6.933
2021	0.405	0.081

At the Barcelona terminal, a single incident was recorded with a total volume of 200 litres of spilled product.

# **Biodiversity**

#### **I.10. OCCUPIED SURFACE**

Surface area (m<sup>2</sup>) granted to TEPSA by the competent Port Authority, according to the agreement formalised in the concession specifications.

The available surface area at the Barcelona terminal has remained constant over the last three years, so the variations in the biodiversity index are directly related to developments in the volume of product movement.

#### Surface area (m2). Barcelona Terminal

YEAR	TOTAL SURFACE	m2 total/ 1000t moved	SEALED SURFACE	m2 sealed/ 1000t moved
2019	162,171	81.54	129,771	65.25
2020	162,171	89.75	129,771	71.82
2021	162,171	80.46	129,771	64.38

As of 2018, the indicator of sealed surface area in the facilities is calculated. For TEPSA, a high value of this ratio is an indicator of a larger area of soil protection against possible accidental chemical spills.

Currently no areas oriented to the conservation or restoration of nature for the promotion of biodiversity are identified.









# Soil impact

#### I.11. EFFECT ON THE SOIL

The preliminary soil report was submitted on January 30, 2007 (Reference 1392).

In 2008, the Soil Remediation Plan was begun at the Barcelona Terminal. For this purpose, there is a piezometric check and extraction network of more than 70 pits connected to three remediation units that act simultaneously on the area of influence. This project was submitted to the competent authorities in relation to soil: the Catalan Waste Agency, Catalan Water Agency and Port Authority of Barcelona.

In 2013, after five years of active extraction of the free supernatant phase, the results of a second, less intensive and more localised extraction were submitted to the administration.

Moreover, and in compliance with Law 20/2009, and the IED Directive, TEPSA drew up the base soil report that was submitted to the OGAU of Barcelona in order to incorporate the soil vector in the new Integrated Environmental Authorisation of the Barcelona Terminal.

In 2020, the free phase extraction activities continued, significantly increasing the thicknesses of free phase supernatant at the site. Free phase was only detected in two monitoring devices at Terminal 1.

### **Training**

#### 1.12. ENVIRONMENTAL TRAINING

TEPSA has a wide and extensive Training
Programme for all the activities carried out by
its own personnel at the Terminal. Each year,
the Training Plan establishes the coursespersonnel that the Training Programme
launches according to the periodicity of each
course in its delivery.

The training courses of the Training Plan are understood to be the short courses that are planned and given annually to TEPSA personnel. The training courses of the Training Programme are considered at a more general level from the company's point of view, that is to say, they are courses planned for the long term and of flexible duration.

#### Percentage of execution as regards the Training Plan

YEAR	2019	2020	2021
Scope	74 %	66 %	69 %

In 2018, as a result of the analysis of the external context, the safety courses that are part of the Training Programme were substantially expanded, and the training classroom in the e-learning system was expanded and implemented.

Last year, a slight increase in the percentage of execution of the programmed courses, but below the target value, as in 2021 there are still difficulties in the programming of courses due to the COVID-19 pandemic..



# **Good environmental practices**

TEPSA has informative material on Safety and Environmental Standards that it provides to all its contractors, as well as to external personnel not directly contracted by TEPSA.

Drivers operating at the Barcelona Terminal receive training in safety and good environmental practices and must take the corresponding aptitude test before starting any operation at the terminal.

In November 2012, TEPSA was awarded the 2012 ATLANTE prize for its driver training programme, which has seen more than 2,500 drivers trained at the Barcelona Terminal since its launch.

TEPSA rewards its workers for proactive behaviour in terms of Safety and Environment and for this purpose establishes an annual award that is proposed by Terminal management and accepted by the Extended Management Committee.

### **Control of contractors**

In order to monitor contractors, TEPSA contracted the services of a document exchange platform. The main objective is to simplify and guarantee the proper coordination procedures, and they must be registered on the platform and upload all the required documentation before beginning their activity.

Prevention as a tool for occupational health and the protection of our environment.









# Applicable environmental legislation and voluntary requirements

TEPSA employs a system to ensure the identification, access, maintenance and evaluation of applicable legal requirements and others considered relevant to its activities.

In 2017, TEPSA contracted a new legal outsourcing service for the identification and evaluation of its legal requirements.

In addition, TEPSA voluntarily adheres to the Responsible Care programme and CDI-SQAS.

TEPSA has signed the Compliance Agreement for the Guide to Good Environmental Practices of the Port Authority of Barcelona.

TEPSA Barcelona monitors compliance with the legal requirements applicable to its activity, facilities and processes.

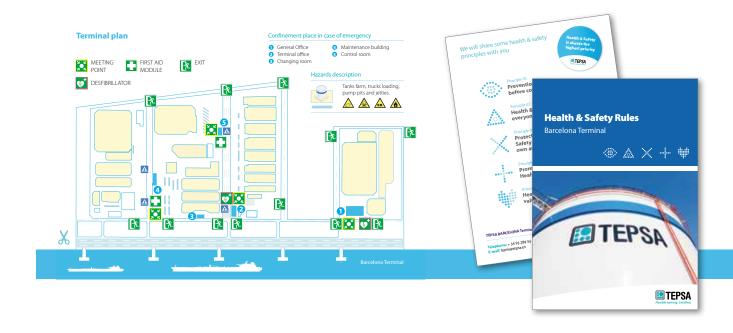
# Legal compliance assessment

TEPSA fulfils the legal requirements established for the IEA, in compliance with Law 20/2009, of December 4, 2009, on prevention and environmental monitoring of activities.

TEPSA periodically evaluates compliance with all environmental legislation applicable to its activity. Once this evaluation and all the voluntary requirements have been carried out, it can be concluded that TEPSA complies with all the legal provisions concerning environmental matters.

TEPSA complies with the IED Directive and since July 2016 it has Environmental Authorisation (Ref. OGAU B2RP130324) according to the resolution of January 19, 2016 of the Departament de Territori i Sostenibilitat (Ministry of Climate Action, Food and Rural Agenda)

During October 2020, the third integrated environmental inspection of the Environmental Authorisation took place as regulated in RD 815/2013 of October 18.



TEPSA fulfils the legal requirements regarding SEVESO, complying with Royal Decree 1196/2003, of September 19, which approves the Basic Civil Protection Guideline for monitoring and planning relating to major accidents involving hazardous substances; with Royal Decree 840/2015, of September 21, which approves measures to supervise the risks inherent to major accidents involving hazardous substances.

On June 21, 2021, the Annual Report on Serious Accidents by the Environmental Control Entity (ECA in the Spanish acronym) (report. 08-08-S2C-0-000555) with a favourable result without defects.

On July, 2021, the fourth revision of the Safety Report (Ref.1035/15180) was presented in compliance with the five-yearly periodicity according to Royal Decree 840/2015.

Finally, the Explosion Protection Document was updated in March 2016.





# 



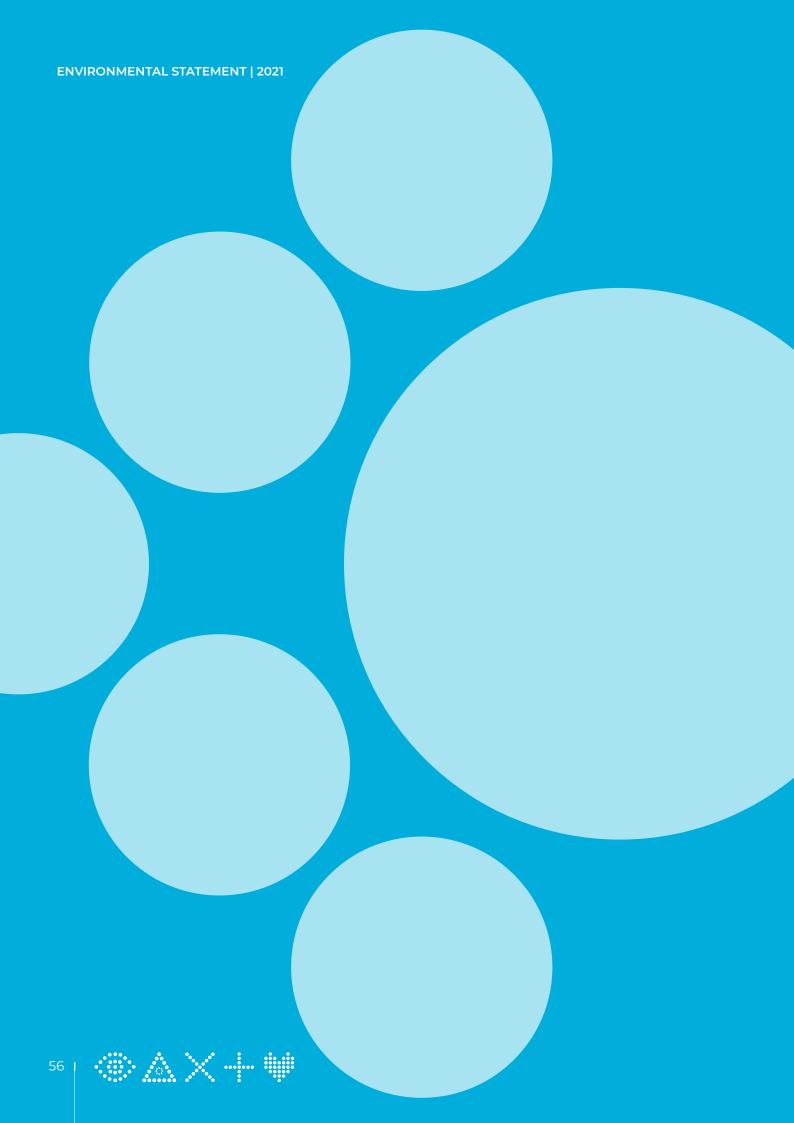
### **Health, Safety & Environment**

Bilbao Terminal

Our priority is always to guarantee the health and safety of our team and visitors. Sustainability is also a key factor in protecting and preserving the environment.

Igor Salguero
Bilbao Terminal Director





# Bilbao Terminal

# **General information**

The Bilbao Terminal allows the access and reception of goods by sea, rail, road and pipeline, providing the services in the facilities shown below.

#### Services available

- Warehousing.
- Loading and unloading of ships and trucks.
- Product transfer to other terminals.
- Product heating.
- Nitrogen supply.
- Weighing.
- Sealing.
- Sample extraction / shipment.
- Waste management by Authorised Manager.
- Services for the reception of pre-washes according to Marpol Annex II.
- Management of Customs Warehousing and Non-Customs Warehousing.
- Management of goods under the tax warehouse system for hydrocarbons.
- Transfer between vessels via proprietary ground lines.
- Dilution of products in tank.

#### **Facilities**

TEPSA has been able to attract and develop new projects, resulting in a progressive increase in storage capacity and movement carried out at the various terminals.

#### Chemicals and Petrochemicals

- Carbon steel tanks.
- Maximum filling alarm.
- High precision tank level monitoring by radar, probe.
- Silica gel cartridges in the tank vent.
- Heating system with vapour and thermal oil, recirculation system and cooling system.
- Product dilution in tank.
- Blanketing or inerting.

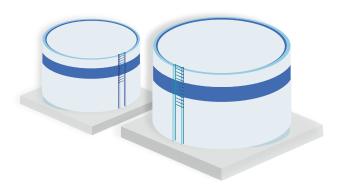
# Bilbao Terminal

#### Petroleum Products

- Tanks with internal floating screen.
- Vapour return system.
- Hydrocarbon vapour recovery unit.
- Automatic tracer additivation system.
- Automatic multi-product loading.
- Maximum filling alarm.
- Temperature control system.
- Tank level monitoring by high precision radar.
- API separation of water with hydrocarbons.
- Connection to the national pipeline network.
- Receptions / shipments by pipeline from the refinery.

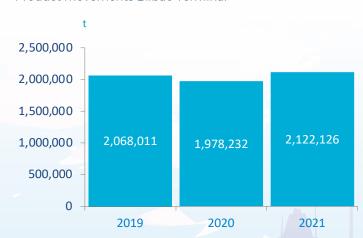
#### Storage capacity

The flexibility and storage capacity of the TEPSA Bilbao Terminal has allowed for an increase in product movement in recent years.



# 79 tanks / 321,900 m3 3 berths

Product movements Bilbao Terminal









# **Main operations**

#### **Unloading of vessels**

This is the most common operation for the reception of goods. The ship's own pumping equipment is used to pump the product contained in the ship's tanks into the facility's storage tanks.

TEPSA connects the ground line/s with the ship's manifold and supervises the operation from the connection at the berth to the interior of the Terminal. TEPSA does not perform any analysis of the goods nor does it determine the quantities unloaded. This is the responsibility of an independent Monitoring Entity appointed by the client.

#### **Vessel loading**

The operation is identical to unloading, but in this case the product is pumped using the Terminal's pumping equipment.

### Cistern loading

This is the most common operation for the re-dispatch of goods. The product contained in the Terminal's storage tanks is pumped using its own pumping equipment to the cistern truck compartments. TEPSA carries out and supervises the operation and checks the redispatched quantity.

#### Cistern unloading

Goods reception operation. The product contained in the cistern compartments is suctioned in using the terminal's pumping equipment and pumped into the storage tanks. TEPSA performs and supervises the operation and checks the quantity received.

### Rail tank car loading

Certain products are loaded by this means of transportation.

As in the case of cistern loading, the Terminal's own pumping equipment is used to pump the product contained in the Terminal's storage tanks into the tank car compartments. TEPSA carries out and supervises the operation and checks the re-dispatched quantity.

This mode of transport has an environmental advantage in terms of the volume of transport emissions per ton moved.

# **Environmental protection and monitoring**

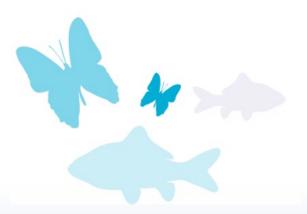
# **Environmental protection equipment**

TEPSA Bilbao Terminal facilities have the following environmental protection equipment:

- Wastewater treatment plant.
- API type hydrocarbon separators.
- Waste storage tanks.
- Vapour recovery units.
- Interior floating screens in gasoline tanks.
- Floating barriers and marine pollution control equipment for accidental spills.
- Automated cistern loading systems with vapour recovery for petroleum products.
- Bottom loading with vapour recovery.
- Flammable vapour detector.

### **Environmental monitoring**

- Quality of discharge waters.
- Quality of the marine receiving environment.
- Atmospheric emissions.
- Status of temporary waste storage.
- Soil quality.



# Environmental aspects and impacts

#### Significant aspects

Direct environmental aspects are considered to be those aspects over which TEPSA has direct management control.

Among the significant direct environmental aspects resulting from the identification and evaluation of the year 2021 (on 2020 environmental data), electricity and diesel fuel consumption is identified, because the associated consumption indicator is estimated to be high according to the established evaluation criteria.

An energy efficiency project in which LED lighting is installed will make it possible to reduce electricity consumption.

In addition, CO emissions from one of the boilers are identified as significant because of the increase in emission values compared to the previous monitoring.

If the emission values for CO are analysed, they are always well below the regulatory limits, so that although the emission value has increased for this boiler between the last two controls, no corrective action is deemed necessary.

For these boilers, periodic self-checks and preventive maintenance checks are carried out, as well as checks by the administration's partner entity every five years. In 2020, the last periodic regulatory check was carried out in accordance with the APCAS resolution dated September 19, 2014.

Activity / Process	Direct Aspects	Conditions	Impacts / Risks
Chemical Storage	Electricity consumption	NORMAL	Consumption of natural resources
			Atmospheric pollution
Chemical Storage	Diesel consumption	NORMAL	Consumption of natural resources
Spotlight 4800003125-03 Boiler GARIONI250T	Atmospheric emissions (CO)	NORMAL	Atmospheric pollution



#### Risks and opportunities

As a result of the analysis of risks and opportunities associated with environmental aspects, those that repeatedly prove to be significant for the environment and the organisation are assessed. The risks identified will be those associated with the environmental impacts they generate.

- Depletion of natural resources
- Atmospheric pollution

Among the resulting actions for their monitoring and minimisation are the following:

- Application of operating instructions for the monitoring of atmospheric emission parameters.
- 2. Energy efficiency programme.

# Potential aspects or aspects associated with emergencies.

At the Bilbao terminal, no significant potential environmental aspects were detected, or regarding those related to possible emergencies such as:

- Tank overfilling.
- Cistern overfilling.
- Spills in pump pits and buckets.
- Spills in the sea.
- Fire / explosion.

### Influence of client activity on the environmental aspects and objectives of the organisation.

Overall consumption depends directly on the client's needs in terms of the type of products stored. Thus, the environmental improvement actions implemented are sometimes obscured by the fluctuations derived from these needs.

However, it should be noted that many of the improvement projects carried out annually by TEPSA are done within the framework of increasing the safety of the facilities and, therefore, are aimed at avoiding potential leaks and spills from the loading and storage facilities, thus preventing potential environmental impacts.

The degree of compliance with certain objectives related to the environmental aspects identified can be determined based on the achievements or success in the planned actions and does not always represent the percentage of reduction of the parameter or the global magnitude, since the latter can be influenced by circumstances of the activity or by the mix of services requested by the client.



# Planning of objectives and actions for environmental improvement

As established in its Environmental Policy, TEPSA periodically establishes objectives and actions aimed at the continuous improvement of its EMS.

In order to define these objectives, significant environmental aspects are considered as far as possible, or others that, although not significant, it has been considered appropriate to improve, as well as the risks and opportunities of the business in reference to its management system.

The Programme of improvement objectives and strategic projects determines for each objective and action the necessary resources, the responsible personnel and the schedule for its achievement. To establish its environmental objectives, TEPSA considers actions that lead to a reduction of the risk of accidents and a minimisation of its environmental impact.

For 2021, TEPSA Bilbao Terminal programmed and approved a series of objectives that include actions at the level of Safety and Environment.

OBJECTIVE	PROJECTS/ACTIONS	COMPLIANCE OF ACTIONS	ENVIRONMENTAL ASPECT TO BE IMPROVED	ACHIEVEMENT OF OBJECTIVE
ENERGY EFFICIENT LIGHTING	G (ENGINEERING)			2021
	LED lighting Phase I (cont. 2020) pmmi. 101298	100%		Starting value 928.74 Kwh / 1000 t moved
Reduction in the electricity consumption indicator by 10%.	Adaptation of lighting to LED technology pmmi. 101437	100%	ELECTRICITY CONSUMPTION Direct environmental aspects. under normal conditions	Values obtained 1,243.25 Kwh / 1000 t moved
	LED lighting pmmi. 101410	100%		Achievement of the objective: 0%

#### EFFECTIVENESS ASSESSMENT OF THE OBJECTIVES PROGRAMME:

The actions implemented have not achieved the expected result of reduction in the electricity consumption indicator. The increase of loads on ships and in electrical tracing led to the increase in this indicator.

SIGNIFICANT ASPECT

# Indicators of operational monitoring and environmental management

In order to evaluate the environmental performance of the TEPSA Bilbao Terminal, operational and environmental management indicators have been selected to monitor the organisation's performance. For this purpose, the basic indicators outlined by the EMAS Regulation have been considered, as well as those specific indicators necessary for the evaluation and monitoring of significant direct and indirect environmental aspects.

It should also be noted that no Sectoral Reference Documents have been published by the European Commission in the field of chemical product storage, which could provide new specific indicators for the sector or establish good management and operating practices.

With regard to the Sectoral Reference Document published for the waste management sector (COMMISSION DECISION (EU) 2020/519 of April 3, 2020), the management or treatment of industrial waste that is not part of municipal solid waste (MSW) is not included in this document.

TEPSA acts as a collection and transfer centre for industrial waste only, so its activity will not be included in the scope of this SRD.

#### **Operational checks**

- I. 1. Total energy consumption (Mwh/1000 t moved).
- I. 2. Fresh water consumption (m3/1000 t moved).
- I. 3. Quality of liquid effluents with respect to the limit
- I. 4. Quantity of hazardous waste generated (kg of waste/1000 t moved).
- I. 5. Quantity of non-hazardous waste generated (Kg. of waste/1000 t moved).
- I. 6. Atmospheric emissions (reported occurrences and periodic checks).
- I. 7. Acoustic immission (periodic check).
- I. 8. Greenhouse gas (GHG) emissions (t CO2/1000 t moved).
- I. 9. Environmental Accident Rate. Environmental Frequency Index (IFA in the Spanish) and Environmental Severity Index (IGA).
- I. 10. Biodiversity (m3 occupied/1000 t moved).
- I. 11. Soil contamination.
- I. 12. Environmental training.





# **Consumption of natural resources**

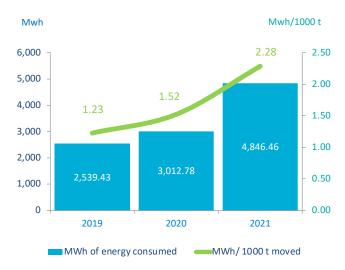
The main consumption of natural resources at the TEPSA Bilbao Terminal is energy consumption and water consumption for the process (washing and boiler), irrigation and sanitary purposes.

#### **Energies**

#### I.I. ENERGY CONSUMPTION

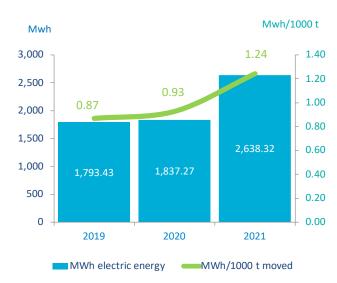
Total energy consumption and per ton of products moved (MWh/1000 t moved). The total energy consumed is obtained from the sum of electrical energy consumed and diesel consumed in boilers.

#### **Energy Consumption TOTAL Bilbao Terminal**



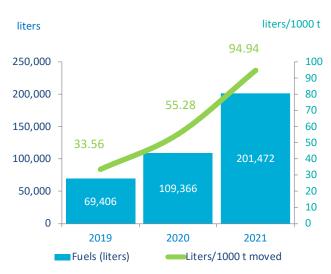
In 2021, the energy consumption indicator will increase by 50% due to a significant increase in the consumption of diesel oil in boilers for tank heating.

#### **Electricity Consumption. Bilbao Terminal**



The electricity consumption ratio also shows an increase of 34%, due to the terminal's operating mix.

#### Fuel consumption. Bilbao Terminal



The diesel consumption indicator shows a significant increase with respect to the previous year (72%). The specific temperature conditions required for the storage of some products determine the need for diesel consumption.

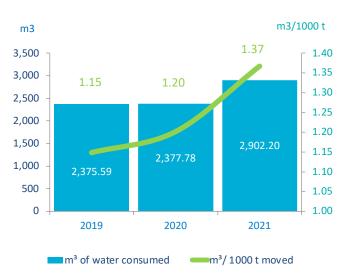


#### Water

#### **I.2. WATER CONSUMPTION**

Water consumption per ton of products moved (m3/1000 t moved).

#### **Bilbao Terminal Water Consumption**

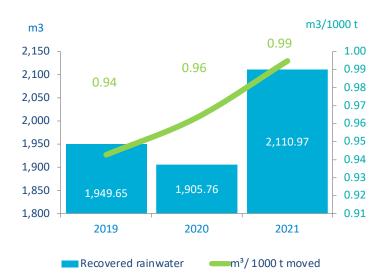


The consumption of mains water shows an increase of 14% in its indicator per tonne of product moved, compared to the previous year.

Variations in water consumption are determined by tank cleaning requirements.

Recovered rainwater shows a slight increase over the previous year, with an increase in its indicator of 3%. Part of this water is recovered for maintenance of the DCI network, tests and drills, as well as cleaning of facilities.

#### **Recovered rainwater Bilbao Terminal**









# **Wastewater generation**

At the Bilbao Terminal, the wastewater produced comes mainly from rainwater runoff from areas susceptible to contamination, as well as, to a lesser extent, from washing and cleaning.

The data are presented, for each parameter, in average value of the analyses performed in a year and in percentage relative to the respective legal limit (100%), in accordance with the Discharge Authorisation included in the Integrated Environmental Authorisation of November 2016 (AAI00379).

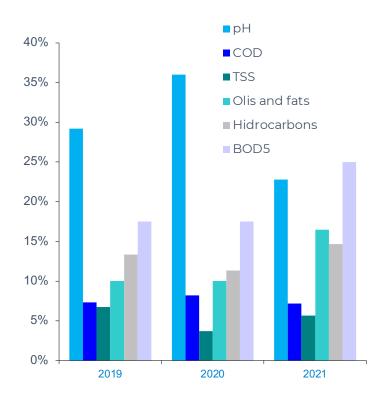
#### I.3. DISCHARGES

Average liquid effluent quality with respect to the limit value of pH, COD, TSS, Oils and Fats, Hydrocarbons and BOD5.

In 2021 there have been no non-compliances with respect to the legal limits. In the following table, the results that improve their value with respect to the previous year have been highlighted in blue.

The average of the parameters analysed shows small variations in the different years, and with values always below or equal to 25% of the of the discharge limit value.

#### **Effluent Quality Bilbao Terminal**



Paramete	ers evaluated (units)	2019	2020	2021
	Average value	7.73	7.9	7.57
pH (pH units)	Legal limit	5.5-9.5	5.5-9.5	5.5-9.5
	Relative to legal limit (%)	29.20%	36.00%	22.80%
	Average value	11.70	13.10	11.47
COD <sub>1</sub> (ppm)	Legal limit	160.00	160.00	160.00
	Relative to legal limit (%)	7.31%	8.19%	7.17%
	Average value	5.40	2.97	4.53
TSS <sub>2</sub> (ppm)	Legal limit	80.00	80.00	80.00
	Relative to legal limit (%)	6.75%	3.71%	5.66%
	Average value	2.00	2.00	3.30
Oils and fats (ppm)	Legal limit	20.00	20.00	20.00
	Relative to legal limit (%)	10.00%	10.00%	16.50%
	Average value	2.00	1.70	2.20
Hydrocarbons (ppm)	Legal limit	15.00	15.00	15.00
	Relative to legal limit (%)	13.33%	11.33%	14.67%
	Average value	7	7	10
BOD5(mg/l)	Legal limit	40.00	40.00	40.00
	Relative to legal limit (%)	17.50%	17.50%	25.00%

**1. COD:** Chemical Oxygen Demand **2. TSS:** Total suspended solids

AVERAGE VALUES IMPROVING ON THE PREVIOUS YEAR





# **Waste generation**

The TEPSA Bilbao Terminal is subject to the needs of its clients in terms of the type of products to be stored and tank and product changes, so depending on these factors, one type of waste or another is generated.

The following tables and graphs show the hazardous and non-hazardous waste generated.

TEPSA is authorised by the Basque Government as a producer of Hazardous Waste according to the resolution of the Vice-Ministry of the Environment of January 12, 2001.

In December 2010 a request for modification/ extension of the Authorisation was submitted, which includes changes in both typology and quantities of waste generated.

The waste management is based on the fundamental precept of minimisation at source. From this point on, any waste generated is segregated, identified and stored at collection points close to where it may be produced.

Subsequently, when the container is filled and closed, it is temporarily stored (max. six months) in the waste storage area, an area specifically for this type of storage, covered and watertight with a collection system for potential leaks or spills.

Among the wastes from the activity itself, we could mention the following:

- Absorbents, filtering materials, rags, etc. impregnated with hydrocarbons.
- Empty glass containers for chemical substances.
- Empty metal containers for chemical substances.
- Empty plastic containers for chemical substances.

Moreover, waste is generated when the storage tanks are opened for maintenance and/or periodic inspections.

This also occurs when the contracted storage period comes to an end. This results in the need to extract the bottoms with the non-recoverable remains of the product contained. This type of operation is carried out directly in a tanker truck (self-priming). Some of these residues are:

- Sludge from hydrocarbon tanks.
- Concentrated sulphuric acid.
- Emulsions and oils.

The maintenance of the facilities and equipment and their operation produce the following types of waste:

- Lead batteries.
- Used mono-ethylene glycol.
- Used motor oil.
- Fluorescents.
- Sewage sludge.
- Spent activated carbon from sewage treatment plant.



After managing a waste, TEPSA requests a document of admission of toxic and hazardous waste to an authorised manager and sending of sample.

When the waste is accepted by the manager, a document of acceptance is issued. Once the waste is generated, both the volume produced and the condition of the containers are checked on a monthly basis and information is periodically sent to the Vice-Ministry of the Environment and specifically to the Toxic and Hazardous Waste Service.

Once a sufficient quantity has been stockpiled for removal, prior notification is given for the transfer of Toxic and Hazardous Waste (ten days in advance).

On the day of the removal, the mandatory Control Document documents are issued to accompany the transport to its destination.

This entire documentary process is managed via the IKS computer application established by the Toxic and Hazardous Waste Service.

ACTIVITY	WASTE	CER	GENERATED IN 2021
Wastewater Treatment	Wastewater Treatment Sludge	190813	No
	Spent Activated Carbon	190899	No
General Services	Used Oils	130208	Yes
	Batteries Lead	160601	No
	Fluorescent	200121	Yes
	Hydrocarbon Oily Sludge	130802	Yes
	Empty Metal Containers	150110	Yes
	Empty Plastic Containers	150110	Yes
	Filter Cartridges Vegetable Oil	150202	Yes
	Solvent with Vegetable Oil	140603	No
Waste Grouping	Empty Glass Containers	150110	No
	Adsorbents with Hydrocarbons	150202	Yes
	Hydrocarbon impregnated materials	150202	Yes
Cleaning of Tanks	Non-Halogenated Oily Emulsions	130802	Yes
	Sulphuric Acid and Acid Waters	060101	No
	Wastes with other hazardous substances	160709	Yes
	Other bases	060205	Yes

WASTE	MANAGER	PRODUCTION t.	LER	DESTINATION
OILY SLUDGE	SADER	111.116	130802 Q5/R1/L9/C51/H5/ A163/B0010	Yes







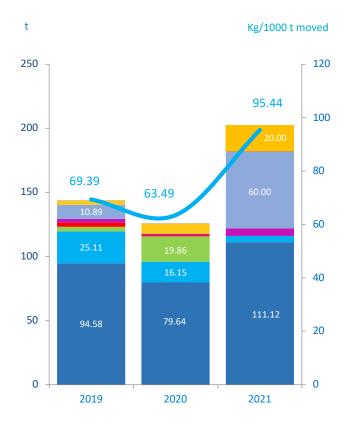
#### I.4. HAZARDOUS WASTE

The indicator relating to the amount of hazardous waste generated (kg of waste / 1,000 t moved) including the main wastes generated during the year is observed.

The total volume of hazardous waste generated has been increased by 50% in its indicator with respect to 2020.

This increase is associated with a higher generation of tank cleaning waste (bottom cleaning with non-recoverable debris), associated with a greater number of changes in the of stored products.

#### Hazardous waste, Bilbao Terminal



<sup>\*</sup> The graph shows the data labels with the highest value. See attached table for greater detail.



HAZADDOUG WASTE	20	19	2020		2021	
HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Other emulsions	94.58	45.73	79.64	40.26	111.12	52.36
Sulphuric and sulphurous acid	3.62	1.75	19.86	10.04	-	-
Contaminated absorbent material	25.11	12.14	16.15	8.16	5.00	2.36
Empty contaminated containers	2.93	1.42	1.05	0.53	5.81	2.74
Other bases	-	-	-	-	20.00	9.42
Fluorescent tubes	0.03	0.01	0.02	0.01	-	-
Hydrocarbon waste	3.17	1.53	1.08	0.54	-	-
Wastes with other hazardous hazardous substances	10.89	5.27	-	-	60	28.27
Filtration sludge and cakes with hazardous substances	3.17	1.53	7.63	3.86	-	-
Used motor oil	-	-	0.17	0.09	0.62	0.29
TOTALS	143.50	69.39	125.59	63.49	202.55	95.44

VALUES OF KG/1000t MOVED IMPROVING ON THE PREVIOUS YEAR.







### **I.5. NON-HAZARDOUS WASTE**

Quantity of non-hazardous waste generated (Kg. of waste / 1000 t moved).

The amounts of non-hazardous waste generation assimilable to urban waste are calculated based on the frequency of container collection.

The non-hazardous waste production indicator shows a significant increase in reference to the year 2020 due to the removal of a large amount of obsolete, non-recoverable product from the emptying and cleaning of tanks.

NON HAZARROUG WASTE	20	)19	2020		2021	
NON-HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Solid waste assimilable to urban waste	0.88	0.43	0.88	0.44	-	-
Paper and cardboard	1.22	0.59	0.47	0.24	0.79	0.37
Used containers	0.36	0.17	0.17	0.09	0.66	0.31
Wood	3.05	1.47	2.42	1.22	3.36	1.58
Obsolete products	-	-	-	-	83.52	39.36
Sludge	-	-	-	-	9.00	4.24
TOTALS	5.51	2.67	3.94	1.99	97.33	45.87

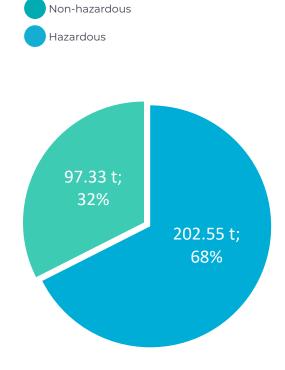
VALUES OF KG/1000t MOVED IMPROVING ON THE PREVIOUS YEAR.



### Non-hazardous waste Bilbao Terminal



### Waste generation by type



<sup>\*</sup> The graph shows the data labels with the highest value. See table above for greater detail.









## **Atmospheric emissions**

### **I.6. AIR POLLUTION**

The TEPSA Bilbao Terminal has five emitting sources registered (four of type C - frequency every five years corresponding to boilers for vapour generation, and one of type B frequency every three years corresponding to a unit for the recovery of organic vapours in the loading of gasoline cisterns).

In the last check carried out for the five sources (measurements from August 2020), all the

parameters analysed gave values below their legal limit.

Calculations of total annual emissions indicators of pollutants SO2, NOx, PM for boilers and organic C for exhaust fans and recovery units, because the checks are performed on a specific measurement every five and three years and therefore the calculation would provide an estimate with a very large error. A qualitative assessment of this environmental aspect is carried out.

Parameters evaluated (units)		2015	2018	2020	LIMIT	% Limit*
URV Source Reg. 4800003125-01	VOC's (gC/Nm3)	1.39	6.03	5.50	35**	16%
	CO (mg/Nm3)	24	-	19.8	624	3%
Boiler	SO2 (mg/Nm3)	14	-	< 14.3	850	2%
VAPORAX 2000 RR Reg. 4800003125-02	NO2 (mg/Nm3)	-	-	76.9	615	12%
	Bacharach Opacity	1	-	< ]	2	50%
	CO (mg/Nm3)	7	-	22.2	624	4%
Boiler GARIONI 250T Reg. 4800003125-03	SO2 (mg/Nm3)	14	-	< 14.3	850	2%
	NO2 (mg/Nm3)	-	-	61.7	615	10%
	Bacharach Opacity	1	-	< ]	2	50%
	CO (mg/Nm3)	10	-	6.7	624	1%
Boiler NOXMAN CL 750	SO2 (mg/Nm3)	14	-	< 14.3	850	2%
Reg. 4800003125-04	NO2 (mg/Nm3)	-	-	113.6	615	18%
	Bacharach Opacity	1	-	< ]	2	50%
Boiler ANINGAS DI Reg. 4800003125-10	CO (mg/Nm3)	-	-	7.0	700	1%
	SO2 (mg/Nm3)	-	-	< 15.0	700	2%
	NO2 (mg/Nm3)	-	-	130.3	200	65%
	Bacharach Opacity	-	-	< ]	2	50%

<sup>\*</sup> With respect to the last measurement. According to Maximum Values for Emissions to the Atmosphere of the Environmental Authorisation. (Exp. BA20040091).

<sup>\*\*</sup> According to Resolution 2014 APCAS Legalisation - Legal limit = 35 gC/Nm3



## **Acoustic immission**

### I.7. ACOUSTIC IMMISSION

The main areas of the terminal that contribute noise to the activity can be summarised as follows:

Pump pits: location of liquid transfer pumps. They are located inside the facilities and therefore away from the perimeter of these, so the impact is minimal. The operation of the main consumption pumps is monitored, as well as their bearing analysis.

Loading yard and circulation roads: the areas through which the cisterns move. Good environmental practices, such as limiting speed to 20 km/h, as well as checking the MOT certificates of all vehicles on the road, contribute to low noise levels.

An initial environmental noise evaluation was carried out in 2010, and all sampling points showed values below the legal limit.

### Environmental noise immission values

NIGHT SCHEDULE	VALUE
Average Noise Value	48.47 dB(A)
Maximum Noise Value	53.6 dB(A)
% of Legal Limit	80.78 %

<sup>\*</sup> According to Activity License issued by the City Council of Zierbena. Legal limit =

## **Climate change**

### I.8. CLIMATE CHANGE

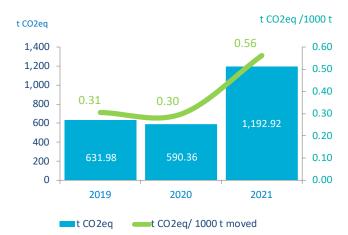
In 2021 the value of GHG emissions increases as a result of the increase in consumption of electricity and diesel and the increase in the value of GHG emissions per kWh of electricity consumed according to the conversion factor published for 2021 by the Spanish Office of Climate Change for the utility company Iberdrola.

The conversion factors used are:

EMISSION FACTORS	VALUE
1 Kwh. Electric Power <sup>1</sup>	0.232 Kg. CO <sub>2</sub>
1 litre Diesel <sup>2</sup>	2.87817 kg. CO <sub>2</sub>
1 Kg of R410A <sup>3</sup>	1,924 kg. CO <sub>2</sub>

1 & 3- Calculator of the Spanish Climate Change Office (version 2022 for the year 2021). 2-Catalan Office of Climate Change. GHG calculator (version 2022 for the year 2021).

### **GHG** emissions. Bilbao Terminal



GHG tonnes cover emissions of all greenhouse gases identified (including  $CH_4$ ,  $N_2O$  and fluorinated gases), expressed as  $CO_2$ eq. In 2021, a leakage of 0.5 kg of R410A is recorded.









## **Environmental incidents**

### I.9. ENVIRONMENTAL SAFETY

All incidents, regardless of their number and environmental impact, are analysed and considered for corrective and preventive actions.

The total number of accidents, as well as the total amount spilled or leaked and not recovered, weighted by the movement of the terminal, constitute the calculation of the "Environmental Frequency Index" and "Environmental Severity Index" indicators.

It should be noted that in this calculation more importance is given to cistern movement, since it presents a greater risk of spills or leaks compared to movement by pipeline.

**Environmental incidents. Bilbao Terminal** 

YEAR	IFA Environmental Frequency Index	IGA Environmental Severity Index
2019	1.498	1.457
2020	0.803	0.329
2021	0.750	0.060

As part of the Proactivity Awards for 2015, the candidacy presented by the Bilbao terminal for the improvement in the operation of the loading processes of oil products was awarded.

The implementation of this improvement action is expected to significantly reduce the number of incidents related to this operation.

In 2021, only two incidents were recorded at the Bilbao terminal with a spill of only 160 liters of product which significantly reduces the rate of severity compared to the previous year.



## **Biodiversity**

### I.10. OCCUPIED SURFACE

Surface area (m²) granted to TEPSA Bilbao Terminal by the competent Port Authority, according to the agreement formalised in the concession specifications.

The surface area available at the Bilbao terminal has remained constant over the last three years.

The reduction of the indicator in 2020 is a consequence of the increase in the volume of product moved in the last year.

As of 2018, the indicator of sealed surface area in the facilities is calculated. For TEPSA a high value of this ratio is an indicator of a larger area of soil protection against possible accidental chemical spills.

Currently no areas oriented to the conservation or restoration of nature for the promotion of biodiversity are identified.

### Surface area (m2). Bilbao Terminal

YEAR	TOTAL SURFACE	m2 total/ 1000t moved	SEALED SURFACE	m2 sealed/ 1000t moved
2019	89,045	43.06	62,545	30.24
2020	89,045	45.01	62,545	31.62
2021	89,045	41.96	62,545	29.47

## Soil impact

### I.11. EFFECT ON THE SOIL

In 2007, the TEPSA Bilbao Terminal submitted its Preliminary Situation Report in compliance with RD 9/2005, of January 14, which establishes the list of potentially soil contaminating activities and the criteria and standards for the declaration of contaminated soil.

The network of piezometers located at the terminal is monitored annually and analytical groundwater monitoring is carried out.

In 2015, a new preliminary soil contamination report was submitted as part of the Integrated Environmental Authorisation application process for the third-party waste storage activity (authorisation resolution of November 14, 2016).

In compliance with this authorisation, in May 2017 a new base report of subsoil quality was carried out, which entails the installation of new control piezometers (16 in total).

Additionally, a Quantitative Risk Analysis (QRA) has been performed, with results that do not show the need for corrective actions.







## **Training**

### **I.12. ENVIRONMENTAL TRAINING**

TEPSA has a wide and extensive Training
Programme for all the activities carried out by
its own personnel at the Terminal. Each year,
the Training Plan establishes the coursespersonnel that the Training Programme
launches according to the periodicity of each
course in its delivery.

The training courses of the Training Plan are understood to be the short courses that are planned and given annually to TEPSA personnel. The training courses of the Training Programme are considered at a more general level from the company's point of view, that is to say, they are courses planned for the long term and of flexible duration.

### Percentage of execution as regards the Training Plan

YEAR	2019	2020	2021
Scope	100 %	63.1 %	86.14 %

In 2018, as a result of the analysis of the external context, the safety courses that are part of the Training Programme were substantially expanded, and the training classroom in the e-learning system was expanded and carried out.

In 2021 the percentage is partially recovered implementation of the training plan after the COVID-19 pandemic.

## **Monitoring contractors**

In order to monitor contractors, TEPSA contracted the services of a document exchange platform. The main objective is to simplify and guarantee the proper coordination procedures, and they must be registered on the platform and upload all the required documentation before beginning their activity.



# **Good environmental practices**

TEPSA has informative material on Safety and Environmental Standards that it provides to all its contractors, as well as to external personnel not directly contracted by TEPSA.

Drivers operating at the Bilbao Terminal receive training in safety and good environmental practices, and must take the corresponding aptitude test before starting any operation at the terminal.

In November 2012, TEPSA was awarded the 2012 ATLANTE prize for its driver training programme, which has seen more than 1,100 drivers trained at the Bilbao Terminal since its implementation.

TEPSA rewards its workers for proactive behaviour in terms of Safety and Environment and for this purpose establishes an annual award that is proposed by Terminal management and accepted by the Extended Management Committee.









# Applicable environmental legislation and voluntary requirements

TEPSA employs a system to ensure the identification, access, maintenance and evaluation of applicable legal requirements and others considered relevant to its activities.

In 2017, TEPSA contracted a new legal outsourcing service for the identification and evaluation of its legal requirements. In addition, TEPSA voluntarily adheres to the Responsible Care programme and CDI-SQAS.

TEPSA has signed the Compliance Agreement for the Guide to Good Environmental Practices of the Port Authority of Bilbao.

TEPSA Bilbao monitors compliance with the legal requirements applicable to its activity, facilities and processes.

# Legal compliance assessment

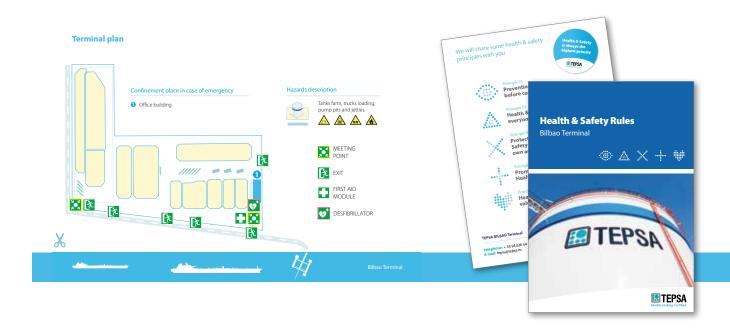
TEPSA has a Classified Activities License according to the Resolution of the City Council of Zierbena. In November 2012, the train siding facilities were included in the Activity License.

TEPSA complies with the legal requirements established for the IEA, complying with Law 3/98, of February 27, General Law for the Protection of the Environment of the Basque Country.

In September 2012, a Resolution was obtained from the Vice-Ministry of the Environment modifying the hazardous waste producer authorisation, number EU1/041/2001, in compliance with Law 3/1998 General Law on Environmental Protection of the Basque Country, Law 10/1998 on Waste, Law 22/2011 on Waste and Contaminated Soil, Royal Decree 833/1998 modified by Royal Decree 952/1997 and Royal Decree 367/2010.

The hazardous waste minimisation study was submitted in October 2019. Finally, in accordance with the provisions of the Basque Government, it is not required to submit the annual waste declaration in accordance with the provisions of Law 22/2011 as it is reported in an integrated manner to the integrated system platform IKS-eeM of the Basque Government (letter received on July 19, 2013).

Furthermore, on July 31, 2014, TEPSA requested



Integrated Environmental Authorisation in accordance with the provisions of Law 16/2002 for the storage of third party waste, hazardous and non-hazardous, for a capacity of 10,000 tons.

Finally, on November 14, 2016, the mandatory authorisation was granted (AAI00379).

TEPSA periodically evaluates compliance with all environmental legislation applicable to its activity.

Once the evaluation of the degree of compliance with applicable environmental legislation and all voluntary requirements has been carried out, it can be concluded that TEPSA complies with all legal provisions concerning environmental matters.

The electronic Environmental Declaration (eDMA in the Spanish acronym) (code 2022RTE00270989) was submitted on March 25, 2021 in accordance with AAI 00379.

The annual safety report was carried out by an accredited entity (ECA) in May 2021 with a positive result (Minutes: 48/48/S2C/2/002877).

TEPSA fulfils the legal requirements regarding SEVESO, complying with Royal Decree 1196/2003, of September 19, which approves the Basic Civil Protection Guideline for monitoring and planning relating to major accidents involving hazardous substances; with Royal Decree 840/2015, of September 21, which approves measures to supervise the risks inherent to major accidents involving hazardous substances.

In May 2017, a new baseline report (ref. 1218/33058) on soils was submitted in accordance with AAI00379. In November 2019, the activity was subject to an environmental inspection which had a positive result.





## 



## **Health, Safety & Environment**

Tarragona Terminal

Our priority is always to guarantee the health and safety of our team and visitors. Sustainability is also a key factor in protecting and preserving the environment.

**TARRAGONA** 

Leandro Crespo Tarragona Terminal Director





# Tarragona Terminal

## **General information**

The Tarragona Terminal allows the access and reception of goods by sea, rail, road and pipeline, providing the services in the facilities shown.

### Services available.

- Warehousing.
- Loading and unloading of ships and trucks.
- Product transfer to other terminals.
- Product heating.
- Nitrogen supply.
- Weighing.
- Sealing.
- Services for the reception of pre-washes according to Marpol Annex II.
- Management of Customs Warehousing and Non-Customs Warehousing.
- Management of goods under the tax warehouse system for hydrocarbons.
- Transfer between vessels via proprietary ground lines.
- Dilution of products in tank.
- Waste management by Authorised Manager.

### **Facilities**

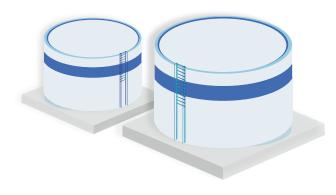
TEPSA has been able to attract and develop new projects, resulting in a progressive increase in storage capacity and movement carried out at the various terminals.

### Chemicals and Petrochemicals

- Carbon steel tanks.
- Tanks with special interior coatings.
- Heated and coil tanks.
- 316 L stainless steel tanks and piping.
- Physical-chemical treatment and water decanting plants.
- Vapour washing system.
- Maximum filling alarm.
- Temperature control system.
- Heating system with vapour and thermal oil, recirculation system and cooling system.
- Silica gel cartridges in the tank vent.
- Tank level monitoring by radar.



## Tarragona Terminal

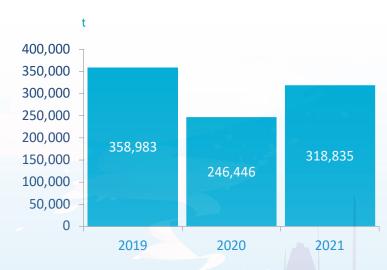


## 50 tanks / 86,033 m3 5 berths

Product movements Tarragona Terminal

### Storage capacity

The flexibility and storage capacity of the TEPSA Tarragona Terminal has allowed for an increase in movement in recent years. Last year the volume of stored product was reduced due to the fact that there were not so many transshipments. However, the plans were adhered to.









## **Main operations**

### **Vessel unloading**

This is the most common operation for the reception of goods. The ship's own pumping equipment is used to pump the product contained in the ship's tanks into the facility's storage tanks.

TEPSA connects the ground line(s) to the ship's manifold and supervises the operation from the connection at the berth to the interior of the Terminal; TEPSA does not carry out any analysis of the goods or determine the quantities unloaded, with this responsibility falling to an independent Control Entity designated by the client.

### **Vessel loading**

The operation is identical to unloading, but in this case the product is pumped using the Terminal's pumping equipment.

### **Cistern loading**

This is the most common operation for the re-dispatch of goods. The product contained in the Terminal's storage tanks is pumped using its own pumping equipment to the cistern truck compartments. TEPSA carries out and supervises the operation and checks the redispatched quantity.

### Cistern unloading

Goods reception operation. The product contained in the cistern compartments is suctioned in using the terminal's pumping equipment and pumped into the storage tanks. TEPSA performs and supervises the operation and checks the quantity received.



## **Environmental protection and monitoring**

# **Environmental protection equipment**

TEPSA Tarragona's facilities have the following environmental protection equipment:

- Wastewater treatment plant.
- Waste storage tanks.
- Floating barriers and marine pollution control equipment for accidental spills.
- Bottom loading with vapour recovery.
- Flammable vapour detector.

### **Environmental checks**

- Quality of discharge waters.
- Quality of the marine receiving environment.
- Atmospheric emissions.
- Status of temporary waste storage.
- Soil quality.



## Environmental aspects and impacts

### Significant aspects

Direct environmental aspects are considered to be those aspects over which TEPSA has direct management control.

The significant direct environmental aspects resulting from the identification and evaluation of 2021 (based on 2020 environmental data) are the consumption of fresh water, electricity and diesel.

Its significance is mainly due to the large volume of consumption and its origin from non-renewable or natural resources.

For indirect environmental aspects over which TEPSA has no direct control, associated with the service life cycle, no significant aspects are identified.

Activity / Process	Direct Aspects	Conditions	Impacts / Risks
Chemical Storage	Fresh water consumption	NORMAL	Consumption of natural resources
Chemical Storage	Electricity consumption	NORMAL	Depletion of natural resources / Atmospheric pollution
Chemical Storage	Diesel consumption	NORMAL	Depletion of natural resources

### Risks and opportunities

As a result of the analysis of risks and opportunities associated with environmental aspects, those that repeatedly prove to be significant for the environment and the organisation are assessed. The risks identified will be those associated with the environmental impacts they generate.

- Noise pollution.
- Depletion of natural resources.

Among the resulting actions for their monitoring and minimisation are the following:

- Application of operating instructions to optimise water consumption in tank cleaning operations.
- Regulation of the truck waiting area to minimise noise pollution by the Port Authority of the port of Tarragona.

## Potential aspects or aspects associated with emergencies

At the Tarragona terminal, no significant potential environmental aspects were detected, or regarding those related to possible emergencies such as:

- Tank overfilling.
- Cistern overfilling.
- Spills in pump pits and buckets.
- Spills in the sea.
- Fire / explosion.

As of 2017, the impacts associated with environmental aspects are considered within the analysis of risks and opportunities in the planning of improvement actions.

### Influence of client activity on the environmental aspects and objectives of the organisation.

Overall consumption depends directly on the client's needs in terms of the type of products stored. Thus, the environmental improvement actions implemented are sometimes obscured by the fluctuations derived from these needs.

However, it should be noted that many of the improvement projects carried out annually by TEPSA are done within the framework of increasing the safety of the facilities and, therefore, are aimed at avoiding potential leaks and spills from the loading and storage facilities, thus preventing potential environmental impacts.

The degree of compliance with certain objectives related to the environmental aspects identified can be determined based on the achievements or success in the planned actions and does not always represent the percentage of reduction of the parameter or the global magnitude, since the latter can be influenced by circumstances of the activity or by the mix of services requested by the client.



# Planning of objectives and actions for environmental improvement

As established in its Environmental Policy, TEPSA periodically establishes objectives and actions aimed at the continuous improvement of its EMS.

In order to define these objectives, significant environmental aspects are considered as far as possible, or others that, although not significant, it has been considered appropriate to improve, as well as the risks and opportunities of the business in reference to its management system.

The Programme of improvement objectives and strategic projects determines for each objective and action the necessary resources, the responsible personnel and the schedule for its achievement. To establish its environmental objectives, TEPSA considers actions that lead to a reduction of the risk of accidents and a minimisation of its environmental impact.

For 2021, the Tarragona Terminal programmed and approved a series of objectives that include actions at the level of Safety and Environment.

OBJECTIVE	PROJECTS/ACTIONS	COMPLIANCEO ACTIONS	F ENVIRONMENTAL IMPROVEMENT	ACHIEVEMENT OF OBJECTIVES
PREVENTING AND MINIMIS	SING LEAKS AND SPILLS			2021
Maintain environmental frequency and severity rates below the <b>Target Values.</b>	Installation flammable sensors in pump pit (phase 2)	s 100%	SOIL CONTAMINATION Direct environmental aspects under	Values obtained IFA: 0.00 IGA: 0.00
<b>IFA</b> ≤ 1.15 <b>IGA</b> ≤ 0.08	pmmi. 101451		emergency conditions	Achievement of the objective: 100%

**ASSESSMENT OF THE EFFECTIVENESS OF THE PROGRAM OF OBJECTIVES:** The actions implemented have been effective in achieving the programmed objectives.

# Operational monitoring and environmental management indicators

In order to evaluate the environmental performance of the TEPSA Tarragona terminal, operational and environmental management indicators have been selected to monitor the performance of the organisation. For this purpose, the basic indicators defined by the EMAS Regulation have been considered, as well as those specific indicators necessary for the evaluation and monitoring of significant direct and indirect environmental aspects.

It should also be noted that no Sectoral Reference Documents have been published by the European Commission in the field of chemical product storage, which could provide new specific indicators for the sector or establish good management and operating practices.

With regard to the Sectoral Reference Document published for the waste management sector (COMMISSION DECISION (EU) 2020/519 of April 3, 2020), the management or treatment of industrial waste that is not part of municipal solid waste (MSW) is not included in this document.

TEPSA acts as a collection and transfer centre for industrial waste only, so its activity will not be included in the scope of this SRD.

### **Operational checks**

- I. 1. Total energy consumption (Mwh/1000 t moved).
- I. 2. Fresh water consumption (m3/1000 t moved).
- I. 3. Quality of liquid effluents with respect to the limit value.
- I. 4. Quantity of hazardous waste generated (kg of waste/1000 t moved).
- I. 5. Quantity of non-hazardous waste generated (Kg. of waste/1000 t moved).
- I. 6. Atmospheric emissions (reported occurrences and periodic checks).
- I. 7. Acoustic immission (periodic check).
- I. 8. Greenhouse gas (GHG) emissions (t CO2/1000 t
- I. 9. Environmental Accident Rate. Environmental Frequency Index (IFA in the Spanish acronym) and Environmental Severity Index (IGA).
- I. 10. Biodiversity (m3 occupied/1000 t moved).
- I. 11. Soil contamination.
- I. 12. Environmental training.





## **Consumption of natural resources**

The main consumption of natural resources at the TEPSA Tarragona Terminal is energy consumption and water consumption for the process (washing and boiler), irrigation and sanitation.

### **Energies**

### I.I. ENERGY CONSUMPTION

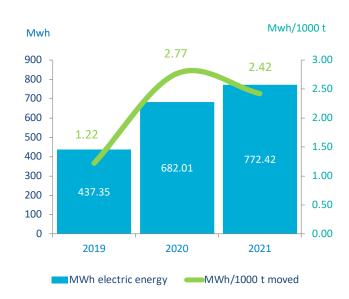
Total energy consumption and per ton of products moved (MWh/1000 t moved). The total energy consumed is obtained from the sum of electrical energy consumed and diesel consumed in boilers.

### **Energy Consumption TOTAL Tarragona Terminal**



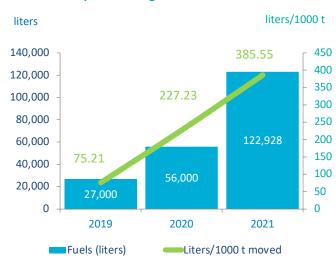
In the last three years there has been a trend towards an increase in energy consumption both in absolute value and in the indicator. This increase is associated with the need to heat more products, the variety of products stored, and the terminal expansion works.

### **Electricity Consumption. Tarragona Terminal**



Electricity consumption shows an increase in absolute value, but the volume-weighted indicator of activity decreases by 12.5%.

### **Fuel consumption. Tarragona Terminal**



The diesel consumption indicator is the one that shows a clear increase, with a 70% increase compared to 2020.



### Water

### I.2. WATER CONSUMPTION

Water consumption per ton of products moved  $(m^3/1000 \text{ t moved})$ .

### **Tarragona Terminal Water Consumption**



The consumption of mains water is reduced both in absolute value and as an indicator. Variations in consumption are conditioned by the need to clean the tanks according to our customers' requests for changes in the stored products.







## **Wastewater generation**

At the TEPSA Tarragona Terminal, the wastewater produced comes mainly from washing and cleaning facilities.

The data are presented, for each parameter, in average value of the analyses carried out in a year and in percentage relative to the respective legal limit (100%).

### I.3. DISCHARGES

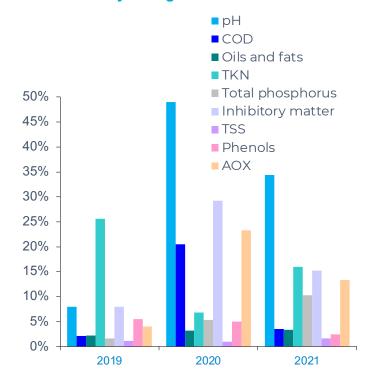
The quality of liquid effluents is analysed with respect to the limit value of pH, COD, oils and fats, TKN, Total Phosphorus, Inhibitory Matter, TSS, Phenols and AOX in the treatment plant.

In 2021, a one-off non-compliance was identified for the pH parameter, with favourable results being obtained in subsequent monitoring analyses.

In the following table, the results that improve their value with respect to the previous year have been highlighted in blue.

The average of the parameters analysed shows small variations in the different years, although the reduction in the last year of the parameters COD, inhibitory substances (IM) and halogenated organics (AOX) stands out.

### **Effluent Quality Tarragona Terminal**



Parameters evaluated (units)		2019	2020	2021
	Average value	7.24	8.47	8.38
pH (pH units)	Legal limit	6-10	6-10	6-10
	Relative to legal limit (%)	8.00%	49.00%	46.00%
	Average value	15	143.3	24.5
COD (ppm)	Legal limit	700	700	700
	Relative to legal limit (%)	2.14%	20.47%	3.50%
	Average value	1.10	1.60	1.70
Oils and fats (ppm)	Legal limit	50.00	50.00	50.00
	Relative to legal limit (%)	2.20%	3.20%	3.40%
	Average value	20.5	5.5	12.8
TKN (ppm)	Legal limit	80	80	80
	Relative to legal limit (%)	25.63%	6.88%	16.00%
	Average value	0.5	1.6	3.1
Total phosphorus (ppm)	Legal limit	30.00	30.00	30.00
	Relative to legal limit (%)	1.67%	5.33%	10.33%
	Average value	2.00	7.30	3.80
Inhibitory Matter (Equitox/m³)	Legal limit	25.00	25.00	25.00
,	Relative to legal limit (%)	8.00%	29.20%	15.20%
	Average value	2.93	2.55	4.13
TSS (ppm)	Legal limit	250	250	250
	Relative to legal limit (%)	1.17%	1.02%	1.65%
	Average value	0.11	0.1	0.05
Phenols (ppm)	Legal limit	2.00	2.00	2.00
	Relative to legal limit (%)	5.50%	5.00%	2.50%
	Average value	0.06	0.35	0.2
AOX (ppm)	Legal limit	1.50	1.50	1.50
	Relative to legal limit (%)	4.00%	23.33%	13.33%

**1. COD:** Chemical Oxygen Demand **2. TSS:** Total suspended solids









## **Waste generation**

TEPSA Tarragona Terminal has waste producer code P-11150.2 and waste manager code E-1259.11.

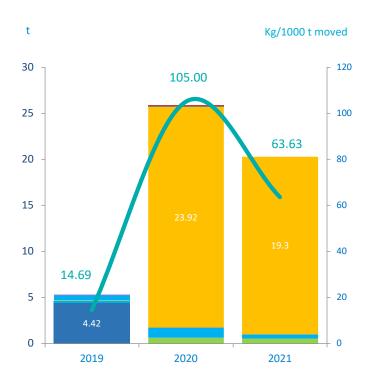
In 2022, it submitted the waste manager's declaration for the financial year 2021 with registration number 13457/0137/2022.

### I.4. HAZARDOUS WASTE

The indicator relating to the amount of hazardous waste generated (kg of waste / 1,000 t moved) includes the main wastes generated in the year.

In 2021, the volume of hazardous waste generation is reduced both in absolute value and in value relative to the product moved, mainly associated with a reduction in the generation of waste from tank cleaning. Fewer product changes lead to fewer cleaning and therefore to a reduction in the generation of this waste.

### **Hazardous waste. Tarragona Terminal**



<sup>\*</sup> The graph shows the data labels with the highest value. See attached table for greater detail.



	20	019	2020		2021	
HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Contaminated Containers	0.54	1.49	1.11	4.52	0.437	1.37
Absorbents, Contaminated Rags	0.12	0.33	0.62	2.52	0.551	1.73
Wastes with other hazardous substances	-	-	23.92	97.06	19.3	60.53
Conchlorofluorocarbon equipment	-	-	0.05	0.20	-	-
Fluorescent tubes	0.02	0.04	0.01	0.04	-	-
Aqueous liquids hazardous substances	4.42	12.32	-	-	-	F
Sludges with hazardous substances	0.18	0.50	-	-	-	-
Other fuels (including blends)	-	-	0.16	0.65	-	-
TOTALS	5.28	14.69	25.88	105.00	20.29	63.63

VALUES OF KG/1000t MOVED IMPROVING ON THE PREVIOUS YEAR.







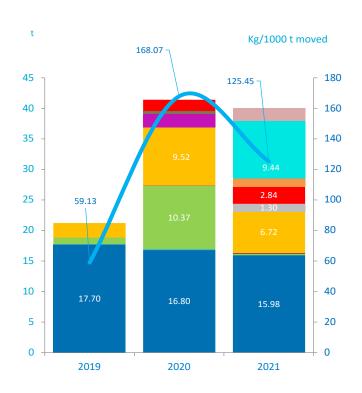
### **I.5. NON-HAZARDOUS WASTE**

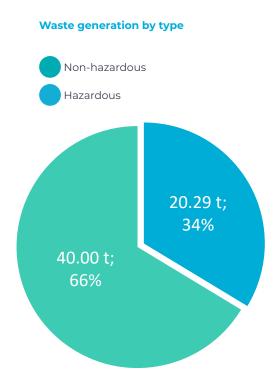
Quantity of non-hazardous waste generated (Kg. of waste / 1000 t moved).

In the last year the volume of non-hazardous waste has remained constant in absolute value, although the indicator has decreased by 25%.

NON HAZARROUG WASTE	20	19	2020 20		)21	
NON-HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Scrap	17.70	49.31	16.80	68.17	15.98	50.12
Paper and cardboard	-	-	0.10	0.41	0.22	0.70
Solid waste assimilable to urban waste	1.12	3.12	10.37	42.08	0.16	0.50
Insulation material	0.07	0.18	0.13	0.53	-	-
Cables	-	-	-	-	1.30	4.08
Concrete mixes	2.34	6.52	9.52	38.63	6.72	21.08
Foamogen	-	-	2.20	8.93	-	-
Batteries	-	-	0.42	1.70	-	-
Diphoterine	-	-	0.03	0.12	-	-
Greases	-	-	1.85	7.51	2.84	8.89
Wooden packaging	-	-	-	-	1.30	4.08
Wood	-	-	-	-	9.44	29.61
Mixing of construction waste	-	-	-	-	2.04	6.40
TOTALS	21.23	59.13	41.42	168.07	40.00	125.45

### **Non-hazardous waste Tarragona Terminal**







 $<sup>^{\</sup>ast}$  The graph shows the data labels with the highest value. See table above for greater detail.







## **Atmospheric emissions**

### **I.6. AIR POLLUTION**

TEPSA Tarragona Terminal has nine emission sources registered, of which three are boilers and the other six correspond to the tanks of the new bucket, which are exempt from measurements for their monitoring.

In 2015, periodic environmental monitoring was carried out by ECA and later, in 2019, the emission checks were updated, observing significant improvements in the CO parameter. In 2020, emission checks were performed for the thermal oil boiler.

In all the checks, the results are below the legal limit.

No calculations have been made for the total annual emission indicators for the pollutants SO2, NOx and PM for boilers and organic C for extractors and recovery units, due to the fact that the controls are carried out on a one-off measurement every five and three years and therefore the calculation would provide an estimate with a very large error. A qualitative assessment of this environmental aspect is made through the emission values obtained in the regulatory controls.

Parameters evaluated (units)		2015	2019	2020	LIMIT	% Limit*
Boiler GMT 200	CO (mg/Nm3)	71.3	8.6		500	2%
Reg. 27482	SO2 (mg/Nm3)	43.4	35.8		180	20%
Boiler 1200 MR	CO (mg/Nm3)	247.3	30.0		500	6%
Reg. 3539	SO2 (mg/Nm3)	50.8	51.7		180	29%
Thermal oil boiler	CO (mg/Nm3)			12.5	500	3%
Reg. 021324	SO2 (mg/Nm3)			28.6	180	16%

 $^*$ According to Maximum Values for Emissions to the Atmosphere in accordance with AA Resolution TA20060073



## **Acoustic immission**

### I.7. ACOUSTIC IMMISSION

The main areas of the terminal that contribute noise to the activity can be summarised as follows:

Pump pits: location of liquid transfer pumps. They are located inside the facilities and therefore away from the perimeter of these, so the impact is minimal.

**Loading yard and circulation roads:** the areas through which the cisterns move.

The TEPSA Tarragona Terminal conducted an initial environmental noise assessment in 2009 and all sampling points showed values below the legal limit.

In the inspections of the Environmental Authorization that have been made subsequently, the administration has not been required to carry out new acoustic controls, given the location of the installations and the non-existence of sensitive receptors.

### Environmental noise immission values

NIGHT SCHEDULE	VALUE
Average Noise Value	57.20 dB(A)
Maximum Noise Value	62.4 dB(A)
% of Legal Limit*	90 %

On the other hand, TEPSA is a member of the Chemical Business Association of Tarragona (AEQT), which plans to carry out an acoustic study in the South Petrochemical Park of Tarragona in the period of 2022-2023...

## **Climate change**

### I.8. CLIMATE CHANGE

GHG emissions from the Tarragona Terminal show a significant increase in both absolute value and indicator.

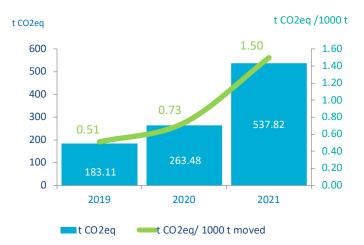
This increase is a consequence of the increase in energy consumption (electricity and diesel) recorded in 2021.

The conversion factors used are:

EMISSION FACTORS	VALUE
1 Kwh. Electric Power <sup>1</sup>	0.232 Kg. CO <sub>2</sub>
1 litre Diesel <sup>2</sup>	2.86767 kg. CO <sub>2</sub>
1 Kg of R410A <sup>3</sup>	1,924 kg. CO <sub>2</sub>

18 3- Calculator of the Spanish Climate Change Office (version 2022 for the year 2021). 2- Catalan Office of Climate Change. GHG calculator (version 2022 for the year 2021).

### **GHG** emissions. Tarragona terminal



GHG tonnes include emissions of all identified greenhouse gases (including CH4, N2O and fluorinated gases), expressed as CO2eq. 2.5 kg of R410A leakage is recorded in 2021.









### **Environmental incidents**

### I.9. ENVIRONMENTAL SAFETY

All incidents, regardless of their number and impact on the environment, are analysed and considered for corrective and preventive actions. In 2008, the Accident and Incident Investigation Procedure was redefined as a result of the RA Plan improvement process.

The total number of accidents, as well as the total amount spilled or leaked not recovered from them, weighted by the terminal's movement, constitute the calculation of the "Environmental Frequency Index" and "Environmental Severity Index" indicators.

It should be noted that in this calculation more importance is given to the movement of tanks, since it is understood that this involves a greater risk of spillage or leakage.

### **Environmental incidents. Tarragona Terminal**

YEAR	IFA Environmental Frequency Index	IGA Environmental Severity Index		
2019	0	0		
2020	2.884	0.288		
2021	0	0		

In 2021, no environmental incidents took place at the Tarragona Terminal, so the two indices take the value 0.



## **Biodiversity**

### I.10. OCCUPIED SURFACE AREA

Surface area (m<sup>2</sup>) granted to TEPSA Tarragona Terminal by the competent Port Authority, according to the agreement formalised in the concession specifications.

In 2020, the area occupied by the facilities was increased, thus increasing the land occupancy indicator.

The reduction in 2021 is a consequence of the increase in the volume of product moved.

As of 2018, the indicator of sealed surface area in the facilities is calculated. For TEPSA, a high value of this ratio is an indicator of a larger area of soil protection against possible accidental chemical spills.

Currently no areas oriented to the conservation or restoration of nature for the promotion of biodiversity are identified.

### Surface area (m2). Tarragona Terminal

YEAR	TOTAL SURFACE	m2 total/ 1000t moved	SEALED SURFACE	m2 sealed/ 1000t moved
2019	30,872	86.00	26,172	72.91
2020	42,598	172.85	37,898	153.78
2021	42,598	133.61	37,898	118.86

## Soil impact

### I.11. EFFECT ON THE SOIL

In 2007, TEPSA submitted its Preliminary Situation Report in compliance with RD 9/2005, of January 14, 2005, which establishes the list of potentially soil contaminating activities and the criteria and standards for the declaration of contaminated soils.

TEPSA has been carrying out periodic checks of the piezometric network and up to 2008 had not detected any free phase at the phreatic level. In 2009, the network of wells was expanded in order to have access to a better study of the area of influence and, based on this study, to be able to determine a remediation project.

In 2010, the remediation project was submitted to the authorities with the ultimate objective of eliminating the free phase. In July 2010, remediation began with a good free phase removal performance. Finally, in July 2012, the remediation project concluded, achieving the expected results.

Subsequently, the wells and water quality are monitored every four months. The checks carried out every four months did not detect in any case the appearance of free phase. In November 2013, the Catalan Waste Agency visited the facilities in order to complete the dossier, which was definitively closed in November 2014. In the fourth quarter of 2016, the contaminated water dossier was definitively closed by the Catalan Water Agency.







## **Training**

### **I.12. ENVIRONMENTAL TRAINING**

TEPSA has a wide and extensive Training
Programme for all the activities carried out by
its own personnel at the Terminal. Each year,
the Training Plan establishes the coursespersonnel that the Training Programme
launches according to the periodicity of each
course in its delivery.

The training courses of the Training Plan are understood to be the short courses that are planned and given annually to TEPSA personnel. The training courses of the Training Programme are considered at a more general level from the company's point of view, that is to say, they are courses planned for the long term and of flexible duration.

### Percentage of execution as regards the Training Plan

YEAR	2019	2020	2021
Scope	97 %	77.7 %	93.7 %

In 2018, as a result of the analysis of the external context, the safety courses that are part of the Training Programme were substantially expanded, and the training classroom in the e-learning system was expanded and carried out.

In 2021 the execution rate is recovered of the Training Plan after the pandemic by COVID-19.

## **Monitoring contractors**

In order to monitor contractors, TEPSA contracted the services of a document exchange platform. The main objective is to simplify and guarantee the proper coordination procedures, and they must be registered on the platform and upload all the required documentation before beginning their activity.



# **Good environmental practices**

TEPSA has published a Triptych of Safety and Environmental Standards that is delivered to all its contractors as well as external personnel not directly contracted by TEPSA.

In 2014, specific information dossiers were distributed to external companies on the coordination of business activities.

Drivers operating at the Tarragona Terminal receive training in safety and good environmental practices, and must take the corresponding aptitude test before starting any operation at the terminal.

In November 2012, TEPSA was awarded the 2012 ATLANTE prize for its driver training programme.

TEPSA rewards its workers for proactive behaviour in terms of Safety and Environment and for this purpose establishes an annual award that is proposed by Terminal management and accepted by the Extended Management Committee.









# Applicable environmental legislation and voluntary requirements

TEPSA employs a system to ensure the identification, access, maintenance and evaluation of applicable legal requirements and others considered relevant to its activities.

In 2017, TEPSA contracted a new legal outsourcing service for the identification and evaluation of its legal requirements. In addition, TEPSA voluntarily adheres to the Responsible Care programme and CDI-SQAS.

TEPSA has signed the Compliance Agreement for the Guide to Good Environmental Practices of the Port Authority of Tarragona.

TEPSA Tarragona monitors compliance with the legal requirements applicable to its activity, facilities and processes.

## Legal compliance assessment

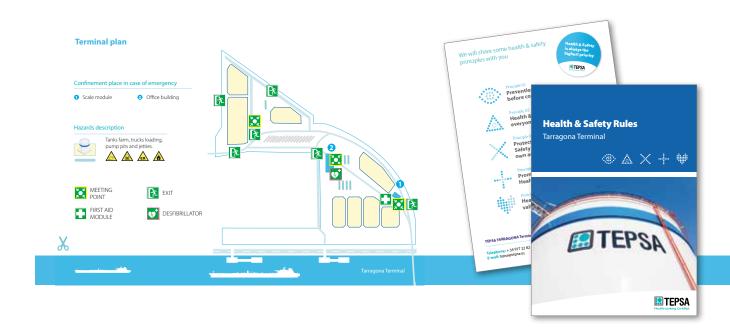
TEPSA periodically evaluates compliance with all environmental legislation applicable to its activity. Once the evaluation of the degree of compliance with the applicable environmental legislation and all the voluntary requirements has been carried out, it can be concluded that TEPSA complies with all the legal provisions concerning environmental matters.

TEPSA Tarragona Terminal obtained the Environmental Authorisation resolution (TA20060073) on November 10, 2008. In 2008, it also obtained the resolution of the Non-Substantial Change request TA20080080, for the expansion of the operations building (resolution without initial check).

The TEPSA Tarragona Terminal fulfils the legal requirements established for the IEA, in compliance with Law 20/2009, of December 4, on prevention and environmental monitoring of activities.

In 2015, periodic environmental monitoring was carried out (every four years) with a favourable result subject to the regularisation of the quantities of tank cleaning water waste (CER 160709) and diesel consumption in boilers (OGAU resolution T2ACP150130 of 12/02/2016).





In October 2016, a non-substantial change was submitted for the expansion of the terminal with a new bucket, as well as the withdrawal of the waste management activity and in the regularisations derived from the periodic environmental monitoring of 2015. In March 2017, the OGAU issued a resolution proposal, against which TEPSA filed an appeal for reconsideration of the requirements established for atmospheric emissions.

In regard to the latter aspect, the allegations submitted in terms of diffuse emissions (breathing storage tanks) have been favourably resolved.

Moreover, at the same terminal, a new nonsubstantial change (T2ACNS180116) has been submitted for the extension of bucket 7 bis, as well as extensions of quantities of classified substances. In December 2021 it has been carried out by entity accredited (Bureau Veritas) the annual opinion of safety with favourable result without defects (reference 43-43-S2C-0-000589).

TEPSA fulfils the legal requirements regarding SEVESO, complying with Royal Decree 1196/2003, of September 19, which approves the Basic Civil Protection Guideline for monitoring and planning relating to major accidents involving hazardous substances; with Royal Decree 840/2015, of September 21, which approves measures to supervise the risks inherent to major accidents involving hazardous substances.

Currently the integrated Environmental Authorisation is under review pending receipt of the proposed resolution.





#### 



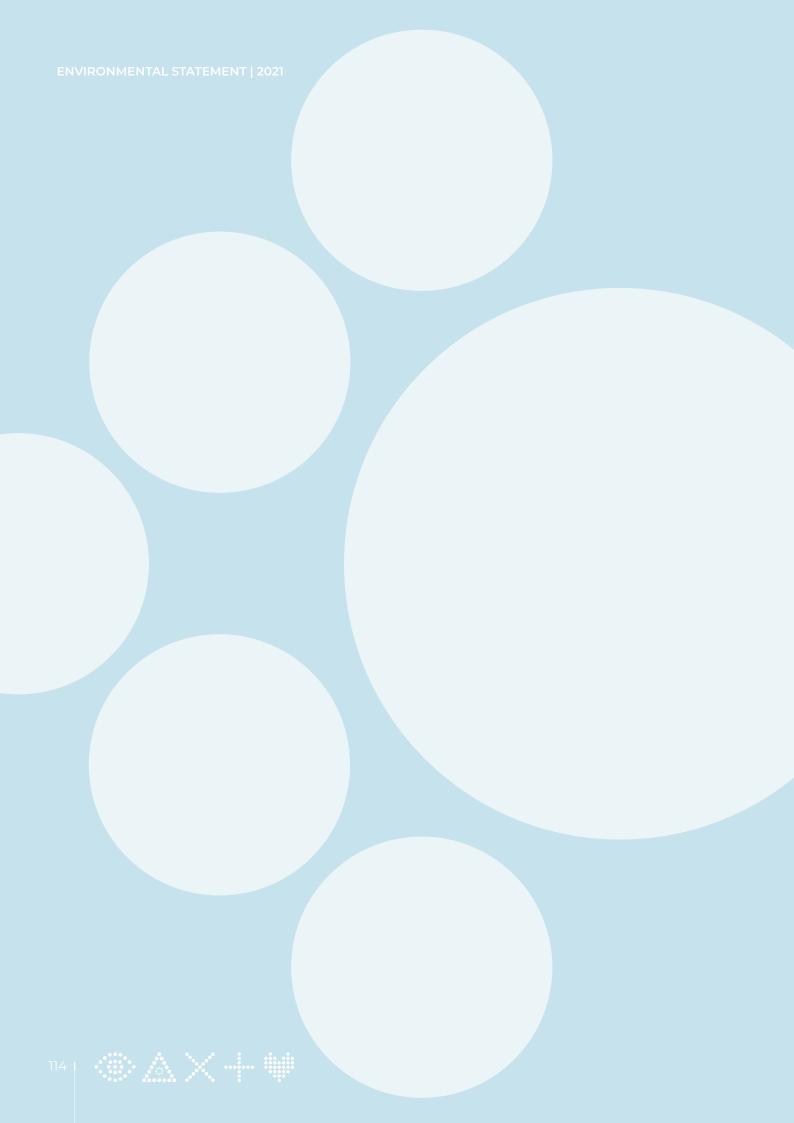
#### **Health, Safety & Environment**

Valencia Terminal

Our priority is always to guarantee the health and safety of our team and visitors. Sustainability is also a key factor in protecting and preserving the environment.

Javier Ares Valencia Terminal Director

# VALENCIA



# Valencia Terminal

#### **General information**

The Valencia Terminal allows the access and reception of merchandise by sea, road and pipeline, providing the services in the facilities shown below.

#### Services available

- Warehousing.
- Loading and unloading of ships and trucks.
- Product transfer to other terminals.
- Product heating.
- Nitrogen supply.
- Weighing.
- Sealing.
- Waste management by Authorised Manager.
- Bunkering service.
- Services for the reception of pre-washes according to Marpol Annex II.
- Management of goods under the tax warehouse system for hydrocarbons.
- Dilution of products in tank.

#### **Facilities**

TEPSA has been able to attract and develop new projects, resulting in a progressive increase in storage capacity and movement carried out at the various terminals.

#### Chemicals and Petrochemicals

- Carbon steel tanks.
- Tanks with special interior coatings.
- Heated and coil tanks.
- 316 L stainless steel tanks and piping.
- Physical-chemical treatment and water decanting plants.
- Vapour washing system.
- Maximum filling alarm.
- Temperature control system.
- Heating system with vapour and thermal oil, recirculation system and cooling system.
- Silica gel cartridges in the tank vent.
- Tank level monitoring by radar.

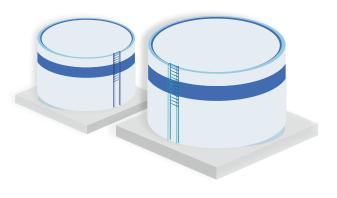
#### **Valencia Terminal**

#### Petroleum Products

- Tanks with internal floating screen.
- Vapour return system.
- Automatic tracer additivation system.
- Automatic multi-product loading.
- Maximum filling alarm.
- Tank level control by radar.

#### Storage capacity

The flexibility and storage capacity of the TEPSA Valencia Terminal has allowed for an increase in product movement in recent years.



#### 42 tanks / 161,488 m3 3 berths

Product movements Valencia Terminal













#### **Main operations**

#### **Vessel unloading**

This is the most common operation for the reception of goods. The ship's own pumping equipment is used to pump the product contained in the ship's tanks into the facility's storage tanks.

TEPSA connects the ground line(s) to the ship's manifold and supervises the operation from the connection at the berth to the interior of the Terminal; TEPSA does not carry out any analysis of the goods or determine the quantities unloaded, with this responsibility falling to an independent Control Entity designated by the client.

#### **Vessel loading**

The operation is identical to unloading, but in this case the product is pumped using the Terminal's pumping equipment.

#### **Cistern loading**

This is the most common operation for the re-dispatch of goods. The product contained in the Terminal's storage tanks is pumped using its own pumping equipment to the cistern truck compartments. TEPSA carries out and supervises the operation and checks the redispatched quantity.

#### Cistern unloading

Goods reception operation. The product contained in the cistern compartments is suctioned in using the terminal's pumping equipment and pumped into the storage tanks. TEPSA performs and supervises the operation and checks the quantity received.



#### **Environmental protection and monitoring**

#### **Environmental protection equipment**

TEPSA Valencia's facilities have the following environmental protection equipment:

- Wastewater treatment plants.
- Waste storage tanks.
- Floating inner screens in tanks.
- Floating barriers and marine pollution control equipment for accidental spills.
- Bottom loading with vapour recovery.

#### **Environmental checks**

- Quality of discharge water.
- Atmospheric emissions.
- Status of temporary waste storage.
- Soil quality.



#### Environmental aspects and impacts

#### Significant aspects

The significant direct environmental aspects resulting from the 2021 identification and assessment (on 2020 environmental data) are as shown in the following table.

The energy consumption of diesel and electricity are significant because of the great volume of consumption and by the origin of non-renewable sources (Iberdrola only certifies a percentage of renewable origin of the electricity supplied).

The CO emissions for boiler 3 are significant due to the increase of the emission value compared to the previous control, but within the established limits.

If the emission values for CO are analyzed, they are always well below the regulatory limits, so that although the emission value has increased for this boiler between the last two controls, there is no need to implement corrective actions.

Activity / Process	Direct Aspects	Conditions	Impacts / Risk
Chemical Storage	Diesel consumption	NORMAL	Natural resource depletions
Chemical Storage	Electricity consumption	NORMAL	Natural resource depletions
_			Atmospheric pollution
Boiler 3 Registration No: 40033056	CO emissions	NORMAL	Atmospheric environmental pollution

#### Risks and opportunities

As a result of the analysis of risks and opportunities associated with environmental aspects, those that repeatedly prove to be significant for the environment and the organisation are assessed. The risks identified will be those associated with the environmental impacts they generate.

- Contamination of the water environment.
- Atmospheric pollution.
- Depletion of natural resources.

Among the resulting actions for their monitoring and minimisation are the following:

- Application of operating instructions for the control of discharge and atmospheric emission parameters to ensure that legal limits are not exceeded.
- 2. Application of operating instructions to optimise water consumption.
- 3. Energy efficiency programme.

#### Influence of client activity on the environmental aspects and objectives of the organisation.

Overall consumption depends directly on the client's needs in terms of the type of products stored. Thus, the environmental improvement actions implemented are sometimes obscured by the fluctuations derived from these needs.

#### Potential aspects or aspects associated with emergencies

At the Valencia terminal, no significant potential environmental aspects were detected, or regarding those related to possible emergency situations such as:

- Tank overfilling.
- Cistern overfilling.
- Spills in the filling line.
- Spills in pump pits and buckets.
- Spills in the sea.
- Fire / Explosion.

In 2021, there were no incidents or accidents that triggered an emergency at the Valencia Terminal.

From 2017 onwards, the impacts associated with environmental aspects are considered within the analysis of risks and opportunities in the planning of improvement actions.

The degree of compliance with certain objectives related to the environmental aspects identified can be determined based on the achievements or success in the planned actions and does not always represent the percentage of reduction of the parameter or the global magnitude, since the latter can be influenced by circumstances of the activity or by the mix of services requested by the client.



# Planning of objectives and actions for environmental improvement

As established in its Environmental Policy, TEPSA periodically establishes objectives and goals aimed at the continuous improvement of its EMS.

In order to define these objectives, significant environmental aspects are considered within the possible or others that, although not significant, it has been considered appropriate to improve, as well as the risks and opportunities of the business in reference to its management system.

The Environmental Management Programme determines for each objective and goal the necessary resources, the responsible personnel and the schedule for its achievement. To establish its environmental objectives, TEPSA considers actions that lead to a reduction of the risk of accidents and a minimisation of its environmental impact.

For 2020, the Valencia Terminal programmed and approved a series of objectives that include actions at the level of Safety and Environment:

OBJECTIVE	PROJECTS/ACTIONS	COMPLIANCE OF ACTIONS	ENVIRONMENTAL IMPROVEMENT	ACHIEVEMENT OF OBJECTIVES
PREVENTING AND MINIMIS	SING LEAKAGE AND SPILLAGE INC	CIDENTS IN PUMP	PITS AND SUMPS	2021
Maintain environmental frequency and severity rates below the <b>Target Values.</b>	Environmental project 2021. Installation of spill detectors inside pump pits and pump sumps.	100%	SOIL CONTAMINATION Environmental aspects in	Values obtained IFA: 1.75 IGA: 0.35
<b>IFA</b> ≤ 1.15 <b>IGA</b> ≤ 0.08	pmmi. 101405		emergency conditions	Achievement of the objective: 0%

**ASSESSMENT OF THE EFFECTIVENESS OF THE PROGRAM OF OBJECTIVES:** The actions implemented have not been effective in achieving of the expected results.

# Operational monitoring and environmental management indicators

In order to evaluate the environmental performance of the Valencia terminal, operational and environmental management indicators have been selected to monitor the performance of the organisation. For this purpose, the basic indicators defined by the EMAS Regulation have been considered, as well as those specific indicators necessary for the evaluation and monitoring of significant direct and indirect environmental aspects.

It should also be noted that no Sectoral Reference Documents have been published by the European Commission in the field of chemical product storage, which could provide new specific indicators for the sector or establish good management and operating practices.

With regard to the Sectoral Reference
Document published for the waste
management sector (COMMISSION DECISION
(EU) 2020/519 of April 3, 2020), the management
or treatment of industrial waste that is not part
of municipal solid waste (MSW) is not included
in this document.

TEPSA acts as a collection and transfer centre for industrial waste only, so its activity will not be included in the scope of this SRD.

#### **Operational checks**

- I. 1. Total energy consumption (Mwh/1000 t moved).
- I. 2. Fresh water consumption (m3/1000 t moved).
- I. 3. Quality of liquid effluents with respect to the limit value.
- I. 4. Quantity of hazardous waste generated (kg of waste/1000 t moved).
- I. 5. Quantity of non-hazardous waste generated (Kg. of waste/1000 t moved).
- I. 6. Atmospheric emissions (reported occurrences and periodic checks).
- I. 7. Acoustic immission (periodic check).
- I. 8. Greenhouse gas (GHG) emissions (t CO2/1000 t moved).
- I. 9. Environmental Accident Rate. Environmental Frequency Index (IFA in the Spanish acronym) and Environmental Severity Index (IGA).
- I. 10. Biodiversity (m3 occupied/1000 t moved).
- I. 11. Soil contamination.
- I. 12. Environmental training.





#### **Consumption of natural resources**

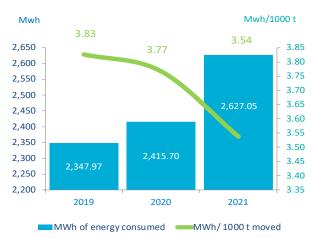
The main consumption of natural resources at the Valencia Terminal is energy consumption and water consumption for the process (washing and boiler), irrigation and sanitation.

#### **Energies**

#### I.1. ENERGY CONSUMPTION

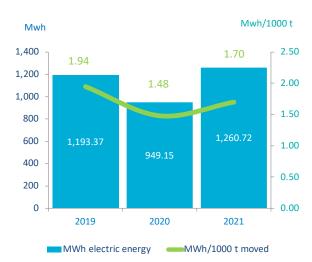
Total energy consumption and per ton of products moved (MWh/1000 t moved). The total energy consumed is obtained from the sum of electrical energy consumed and diesel consumed in boilers.

#### **Energy Consumption TOTAL Valencia Terminal**



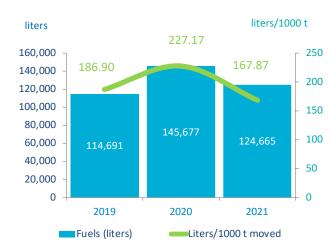
In 2021, despite a slight increase in absolute energy consumption, the indicator for tons of products moved has been reduced, as plant activity has increased.

#### **Electricity Consumption. Valencia Terminal**



However, in terms of electricity consumption, there is an increase in both the absolute value and the indicator.

#### **Fuel consumption. Valencia Terminal**



The consumption of diesel oil at the Valencia Terminal has been reduced in the last year as a result of a reduced need for our customers to heat the new products in storage.

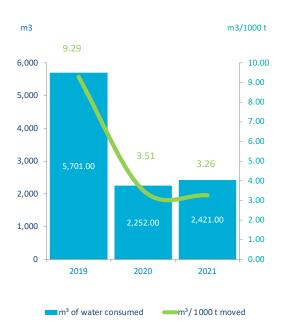


#### Water

#### **I.2. WATER CONSUMPTION**

Water consumption per ton of products moved (m3/1000 t moved).

#### **Valencia Terminal Water Consumption**



The consumption of mains water in absolute value has increased in the last year, although the indicator relative to the tons moved by the terminal shows a decrease of 7%. The reduction in this indicator is associated with a reduced need for water used in tank cleaning, which has been consolidated over the last three years thanks to the continuity of stored products.







#### **Wastewater generation**

At the TEPSA Valencia Terminal, the wastewater produced comes mainly from cleaning and washing of facilities.

For each parameter, the data are presented as the average value of the analyses carried out in a year and as a percentage of the respective legal limit (100%).

#### **I.3. DISCHARGES**

For better monitoring and compliance with the new environmental requirements regarding discharges, the Terminal is equipped with a system for continuous analysis of the hydrocarbon parameter in source number 2 of the new facilities.

For the same purpose, the Terminal has an API type wastewater treatment system suitable for the treatment of water containing hydrocarbons.

#### **Effluent Quality Valencia Terminal**



Paramete	rs evaluated (units)	2019	2020	2021
	Average value	7.84	7.9	7.85
pH (pH units)	Legal limit	6-9	6-9	6-9
	Relative to legal limit (%)	42.00%	45.00%	42.50%
	Average value	0.5	0.61	0.55
Oils and fats (ppm)	Legal limit	2.00	2.00	2.00
	Relative to legal limit (%)	25.00%	30.50%	27.50%
	Average value	0.50	0.50	0.50
Hydrocarbons (ppm)	Legal limit	1.00	1.00	1.00
	Relative to legal limit (%)	50.00%	50.00%	50.00%
	Average value	2.16	2.00	2.00
Toxicity (T.U.)	Legal limit	1.00	1.00	1.00
	Relative to legal limit (%)	216.00%	200.00%	200.00%

AVERAGE VALUES IMPROVING ON THE PREVIOUS YEAR

It should be noted that each of the analytical checks carried out during 2021 show values below the legal limits for each of the parameters analysed.

The limit of detection of the analytical method for the parameter toxicity is found above the discharge limit, so values above this are obtained. It cannot be concluded that there is an actual exceedance of the discharge limit, as this is determined by the sensitivity of the laboratory's method of analysis.

It is not considered necessary to establish new controls or improvement targets for this parameter.





#### **Waste generation**

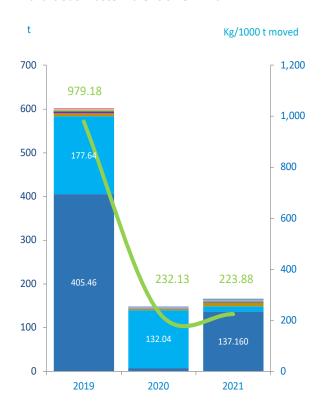
The Valencia Terminal is subject to the needs of its clients in terms of the type of products to be stored and tank and product changes, and therefore, depending on these factors, one type of waste or another is generated.

#### **I.4. HAZARDOUS WASTE**

The indicator relating to the amount of hazardous waste generated (kg of waste / 1000 t moved) is observed, which includes contaminated container waste, contaminated soil, absorbents, sludge and waste containing hydrocarbons, among other wastes.

In 2021, the total volume of hazardous waste generated increases slightly, although the value of the indicator is reduced by 5% due to the fact that more product has been stored at the plant.

#### Hazardous waste. Valencia Terminal



 $<sup>^{*}</sup>$  The graph shows the data labels with the highest value. See attached table for greater detail.



UAZARROUS WASTE	20	)19	20	)20	20	021
HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Contaminated containers	5.84	9.52	2.70	4.20	0.61	0.82
Sludges with hazardous substances	1.02	1.66	-	-	3.51	4.73
Absorbents	5.84	9.52	2.70	4.20	7.53	10.14
Absorbents + sludge	-	-	-	-	-	-
Hydrocarbon waste	177.64	289.47	132.04	205.91	11.58	15.59
Other fuels (including blends)	405.46	660.72	7.58	11.82	137.16	184.69
Laboratory chemicals	-	-	-	-	0.09	0.12
Fluorescents	0.01	0.01	0.003	0.005	-	-
WEEEs	-	-	-	-	0.003	0.004
Organic wastes with hazardous substances	-	-	5.36	8.36	4.18	5.63
Separator oils	2.96	4.82	-	-	-	-
Fuel oil and diesel	2.12	3.45	0.36	0.56	-	-
Mineral motor oils not chlorinated	-	-	-	-	1.6	2.15
TOTALS	600.89	979.18	150.73	235.06	166.26	223.88







#### **I.5. NON-HAZARDOUS WASTE**

As an indicator of this waste fraction, the Valencia Terminal observes the evolution of the amount of non-hazardous waste generated (kg of waste per 1000 t moved).

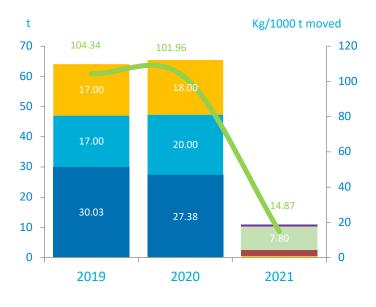
There has been a significant reduction in the generation of this type of waste, as a result of the non-generation of scrap waste in the last year.

NON-HAZARDOUS WASTE	20	19	20	2020		21
NON-HAZARDOUS WASTE	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>	t waste	Kg/1000t <sub>mov</sub>
Scrap	30.03	48.94	27.38	42.70	0.00	0.00
Paper and cardboard	17.00	27.70	20.00	31.19	0.00	0.00
Plastic	17.00	27.70	18.00	28.07	0.68	0.91
Wood	0.00	0.00	0.00	0.00	1.76	2.36
Expired chemical	0.00	0.00	0.00	0.00	0.09	0.12
Rags, sawdust, absorbents	0.00	0.00	0.00	0.00	7.80	10.50
Voluminous	0.00	0.00	0.00	0.00	0.72	0.97
TOTALS	65.03	104.34	65.38	101.96	11.04	14.87

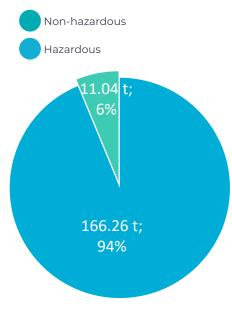
VALUES OF KG/1000t MOVED IMPROVING THEIR VALUE FROM THE PREVIOUS YEAR.



#### **Non-hazardous waste Valencia Terminal**



#### Waste generation by type





 $<sup>^{\</sup>ast}$  The graph shows the data labels with the highest value. See table above for greater detail.







#### **Atmospheric emissions**

#### **I.6. AIR POLLUTION**

The TEPSA Valencia Terminal has three emitting sources registered (type B - frequency every three years corresponding to boilers for vapour generation of similar characteristics). The last check took place in 2020 for boilers 3 and 4 and in 2019 for the new boiler 1 (which replaces the old boilers 1 and 2).

All the parameters analysed gave values below their legal limit.

Calculations of total annual total emission indicators of SO<sub>2</sub>, NOx and PM pollutants from the boilers and organic C for extractors and recovery units have not been carried out because the checks are performed on a specific measurement every five and three years and therefore the calculation would provide an estimate with a very wide error. A qualitative assessment of this environmental aspect is made through the emission values obtained in the regulatory controls.

Paran	neters evaluated (units)	VALUE	LIMIT	% Limit*
	CO (mg/Nm³)	20.1	100	20%
	SO <sub>2</sub> (mg/Nm³)	10.0	350	3%
Boiler 1 Reg. In progress	Opacity (Bacharach)	1.0	2	50%
Reg. III progress	NOx (mg/Nm³)	80.3	450	18%
	Particles (mg/Nm3)	1.3	30	4%
	CO (mg/Nm³)	10.8	100	11%
	SO <sub>2</sub> (mg/Nm³)	75.4	350	22%
Boiler 3 Reg. 40033056	Opacity (Bacharach)	1.0	2	50%
Reg. 10005000	NOx (mg/Nm³)	126.2	450	28%
	Particles (mg/Nm3)	0.7	30	2%
	CO (mg/Nm³)	5,0	100	5%
	SO <sub>2</sub> (mg/Nm³)	75.6	350	22%
Boiler 4 Reg. 40033057	Opacity (Bacharach)	1.0	2	50%
	NOx (mg/Nm³)	116.0	450	26%
	Particles (mg/Nm3)	0.9	30	3%

<sup>\*</sup> According to Maximum Values for Emissions to the Atmosphere of the Environmental Authorisation (Exp. 486/AAI/CV).





#### **Acoustic immission**

#### I.7. ACOUSTIC IMMISSION

The main areas of the terminal that contribute noise to the activity can be summarised as follows:

Pump pits: location of liquid transfer pumps. They are located inside the facilities and therefore away from the perimeter of these, so the impact is minimal.

**Loading yard and circulation roads:** the areas through which the cisterns move.

TEPSA Valencia Terminal conducted an environmental noise assessment in 2016 Ref: (ATISAE report no. VL-ACU-1600250/16-ACUS-141-999) in accordance with the guidelines established by Decree 266/2004, obtaining the following results:

#### Environmental noise immission values

	VALENCIA 1	VALENCIA 2	VALENCIA 3
NIGH	T SCHEDULE (Li	mit LE <= 60 dbA)	
A	=< 57.2 dB <sub>A</sub>	=< 54.4 dB <sub>A</sub>	=< 58.1 dB <sub>A</sub>
В	=< 53.9 dB <sub>A</sub>	=< 57.6 dB <sub>A</sub>	=< 55.5 dB <sub>A</sub>
С	=< 55.8 dB <sub>A</sub>		=< 58.2 dB <sub>A</sub>
DAY	SCHEDULE (Limit	LE <= 70 dbA)	
A	=< 53.6 dB <sub>A</sub>	=< 58.9 dBA	=< 59.5 dB <sub>A</sub>
В	=< 58.7 dB <sub>A</sub>	=< 54.1 dBA	=< 52.7 dB <sub>A</sub>
С	=< 58.0 dB <sub>A</sub>		=< 57.3 dB <sub>A</sub>

<sup>\*</sup> According to Limit Values Law 7/2002 of the Generalitat Valenciana

#### **Climate change**

#### I.8. CLIMATE CHANGE

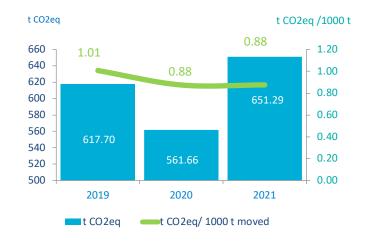
The value of GHG emissions has increased due to the increase in electricity consumption, to which has been added the increase in the value of the GHG emission factor per kWh of electricity consumed, according to data published for 2021 by the Spanish Climate Change Office for the electricity trader lberdrola.

The conversion factors used are:

EMISSION FACTORS	VALUE
1 Kwh. Electric Power <sup>1</sup>	0.232 Kg. CO <sub>2</sub>
1 litre Diesel <sup>2</sup>	2.87817 kg. CO <sub>2</sub>

<sup>1-</sup> Calculator of the Spanish Office for Climate Change for Iberdrola (version 2022 for the year

#### **GHG** emissions. Valencia Terminal



The GHG tonnes cover the emissions of all identified greenhouse gases (including CH4 / N2O), expressed as CO2eq. In 2021, no leakage of fluorinated gases (air conditioning) is identified.









<sup>2-</sup> Oficina Catalana del Canvi Climàtic. GHG calculator for the calculation 2021 version 2022.

#### **Environmental incidents**

#### I.9. ENVIRONMENTAL SAFETY

All incidents, regardless of their number and environmental impact, are analysed and considered for corrective and preventive actions.

The total number of accidents, as well as the total amount spilled or leaked not recovered from them, weighted by the terminal's movement, constitute the calculation of the "Environmental Frequency Index" and "Environmental Severity Index" indicators.

It should be noted that in this calculation more importance is given to cistern movement, since it presents a greater risk of spillage or leakage compared to movement by pipeline.

#### **Environmental incidents. Valencia Terminal**

YEAR IFA Environmental Frequency Index		IGA Environmental Severity Index
2019	0.00	0.00
2020	0.00	0.00
2021	1.75	0.35

In the last year there was one incident with a recovered spillage of 200 litres of product, which has led to increased monitoring indicators.

#### **Biodiversity**

#### I.10. OCCUPIED SURFACE AREA

The available surface area (m<sup>2</sup>) is that granted to TEPSA Valencia Terminal by the competent Port Authority, according to the agreement formalised in the concession specifications.

This surface area has remained constant over the last three years. However, as the movement of chemical and petroleum products has increased, there has been a reduction in the biodiversity index.

As of 2018, the indicator of sealed surface area in the facilities is calculated. For TEPSA, a high value of this ratio is an indicator of a larger area of soil protection against possible accidental chemical spills.

Currently, no areas oriented to the conservation or restoration of nature for the promotion of biodiversity are identified.

#### Surface area (m2). Valencia Terminal

YEAR	TOTAL SURFACE	m² total/ 1000t moved	SEALED SURFACE	m² sealed/ 1000t moved
2019	66,021	107.58	56,118	91.45
2020	66,021	102.96	56,118	87.51
2021	66,021	88.90	56,118	75.57

#### Soil impact

#### I.11. EFFECT ON THE SOIL

In 2007, the TEPSA Valencia Terminal submitted its Preliminary Situation Report in compliance with RD 9/2005, of January 14, which establishes the list of potentially soil contaminating activities and the criteria and standards for the declaration of contaminated soils.

In addition, several checks of the piezometric network have been carried out without detecting the presence of free phase in any of the installed wells.

On March 10, 2017, the Base Subsoil Quality Report was submitted to the Waste Management Service of the Generalitat Valenciana, as well as the 2016 inspection reports in accordance with the requirements established by the resolution of the Environmental Authorisation (486/AAI/CV) regarding the protection of soils and groundwater.







#### **Training**

#### **I.12. ENVIRONMENTAL TRAINING**

TEPSA has a wide and extensive Training
Programme for all the activities carried out by
its own personnel at the Terminal. Each year,
the Training Plan establishes the coursespersonnel that the Training Programme
launches according to the periodicity of each
course in its delivery.

The training courses of the Training Plan are understood to be the short courses that are planned and given annually to TEPSA personnel. The training courses of the Training Programme are considered at a more general level from the company's point of view, that is to say, they are courses planned for the long term and of flexible duration.

#### Percentage of execution as regards the Training Plan

YEAR	2019	2020	2021
Scope	100 %	46 %	60.1 %

In 2018, as a result of the analysis of the external context, the safety courses that are part of the Training Programme were substantially expanded. Furthermore, the training classroom in the e-learning system was developed.

In 2021, the percentage of compliance with the Training Plan is partially recovered, but still far from the pre-pandemic COVID-19 values.

#### **Monitoring contractors**

In order to monitor contractors, TEPSA contracted the services of a document exchange platform. The main objective is to simplify and guarantee the proper coordination procedures, and they must be registered on the platform and upload all the required documentation before beginning their activity.

# **Good environmental practices**

TEPSA has published a Safety and Environmental Standards Triptych, which is given to all its contractors as well as external personnel not directly contracted by TEPSA.

Drivers operating at the Valencia Terminal receive training in safety and good environmental practices, and must take the corresponding aptitude test before starting any operation at the terminal.

In November 2012, TEPSA was awarded the 2012 ATLANTE prize for its driver training programme.















# Applicable environmental legislation and voluntary requirements

TEPSA employs a system to ensure the identification, access, maintenance and evaluation of applicable legal requirements and others considered relevant to its activities.

In 2017, TEPSA contracted a new legal outsourcing service for the identification and evaluation of its legal requirements. In addition, TEPSA voluntarily adheres to the Responsible Care programme and CDI-SQAS.

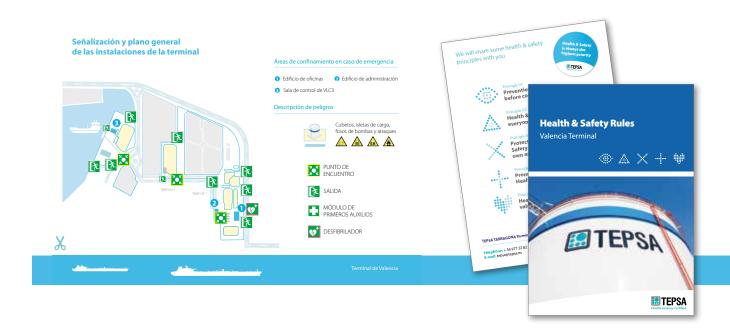
TEPSA has signed the Compliance Agreement for the Guide to Good Environmental Practices of the Port Authority of Valencia.

TEPSA Valencia monitors compliance with the legal requirements applicable to its activity, facilities and processes.

### Legal compliance assessment

TEPSA periodically evaluates compliance with all environmental legislation applicable to its activity. Once the evaluation of the degree of compliance with applicable environmental legislation and all voluntary requirements has been carried out, it can be concluded that TEPSA complies with all legal provisions concerning environmental matters.

TEPSA Valencia Terminal has Integrated Environmental Authorisation, according to resolution of the Conselleria de Medio Ambiente of December 22, 2015 (File 486/AAI/CV). The 2021 data has been submitted to the PRTR registry of the Spanish State.



On February 13, 2012, a letter was received from the General Directorate of Environmental Quality indicating that in application of Law 22/2011 of July 28, 2011, on Waste and Contaminated Soils, as an activity subject to the prior notification system, it will not be necessary to submit the Annual Waste Declaration.

The annual safety report was carried out by an accredited entity in March 2021 with a favourable result (Certificate 46/13/0002/21).

TEPSA fulfils the legal requirements regarding SEVESO, complying with Royal Decree 1196/2003, of September 19, which approves the Basic Civil Protection Guideline for monitoring and planning relating to major accidents involving hazardous substances; with Royal Decree 840/2015, of September 21, which approves measures to supervise the risks inherent to major accidents involving hazardous substances.

As a result of the new berthing, a new Self-Protection Plan (PAU in the Spanish acronym) and Maritime Interior Plan (PIM) will be submitted in 2020.





# OCCUPATIONAL HEALTH AND SAFETY

A matter of principle!



Principle 01

Prevention before correction



Principle 02

Health & Safety is everyone's concern



Principle 03

Protection of Health & Safety of all employees, own and external workers



Principle 04

Promotion of a positive Health & Safety culture



Principle 05

Health & Safety values of life



#### **Health and safety** are a priority

#### **Our commitment**

Since the beginning of our activities, TEPSA has been aware of the importance of Health and Safety in all the operations of the four Terminals.

For this reason, in 2008 we started an intense campaign based on five principles for the conduct of the entire team of personnel with the objective of accident prevention.

Our management system, initially certified in OHSAS 18001 since 2012 and since 2020 in ISO 45001, endorses a trajectory based not only on risk control, but also on consistently working towards preventing harm to people.

The welfare of workers and their health are also two elements linked to prevention, as well as communication and participation that must be strengthened in the coming years to ensure success and improvement in this vital area.

In addition, this necessary collaboration has been complemented by a modernisation of our facilities aimed at both the active and passive protection of workers as well as clients and suppliers who work at or visit our terminals.



#### Ayúdanos a detectar y evitar condiciones y actos inseguros

#### Prevenir antes que corregir

Podemos evitar que ocurran accidentes e incidentes prestando **atención a las condiciones de seguridad** y observando las pautas preventivas adecuadas.

#### La seguridad es cosa de todos

Las prácticas y comportamientos exentos de actos inseguros son un ejemplo para todo el equipo y contribuyen a la seguridad y la salud global.







#### **Accident rate**

In 2021 the frequency index was reduced(IF) and gravity (IG), since from that exercise the indices are calculated from according to API 754. 0 were registered TIER accidents, obtaining values of 0.00for IF and GI indices according to API 754for all terminals.

The average number of lost-time accidents over the last 18 years is 3.44 accidents per year, generally due to physical overexertion of the musculoskeletal system and shocks or blows against an object.

TEPSA has set as objectives for the global accident rates for the financial year 2021 the values of IF $\leq$  1.15 and IG $\leq$  0.08, meeting the established objective.

#### Preventive action

Our objective is to guarantee the health and safety of our staff and that of our partners who visit TEPSA's four terminals on a daily basis. To this end, our organisation develops activities in all areas of Occupational Health and Safety.

Some of the most notable actions are shown below.

#### Industrial hygiene programme

In 2021 the measurements hygienic were made exposure to contaminants chemicals whose aim is to ensure that maintain conditions of acceptability over time. The results obtained in the samples of the four terminal sare below the Environmental Limit Values for each substance.

For the Barcelona and Tarragona terminals in 2020, the statistical monitoring programme for inhalation exposure to chemical agents is also being implemented, where the acceptance status of the monitored products is verified by means of statistical processing of the history.

#### **Ergonomics**

Annual measurements of lighting levels have been carried out according to the Quality References of the different ports and according to RD 486/97 Workplaces for all Terminals.

#### Training and education

As a result of the organisation's drive to improve training, the following fact sheets were developed during 2021:

- Noise.
- Covid test.
- Explosimeter.
- Finger dislocation.
- RUBIS excavator accident.
- Splash accident UCO.
- Surveyor SGS Accident.
- Accident of overexertion.
- Thermal stress.
- Accident finger contusion.
- Accident fall with back contusion.
- Forklift truck.
- Calorifugated incident.
- Fatal accident Global Lake.
- Oil spill accident by tank base.
- European Centre for Process Safety.

On the other hand, improvements have also been made to the revisions of our technical safety instructions.

#### Self-protection plans, emergencies and drills

Serious accident drills and marine contingency plans have been carried out at all terminals.

In 2021, the Plans were not reviewed of Selfprotection of the terminals.

In order to identify the weak points of the facilities and, as a result, the most relevant accident scenarios in a plant, at the Barcelona terminal in 2021, a functional risk and operational risk and operability analysis (HAZOP) was carried out on transfer automation.

#### Health surveillance

Annual medical examinations have been carried out, including chemical analyses for comparison with the biological limit value (BLV).

In addition, serological COVID-19 tests were carried out for those workers who requested them.

The seasonal influenza vaccination campaign was carried out in 2021.



#### Well-being and psychosocial factors

In 2021, the evaluation of psychosocial factors at the Bilbao terminal was carried out.

#### **Risk assessments**

During 2021, a study was carried out to bring the Valencia berth into line with Royal Decree 1215.

#### Communications

In 2021, the HSEQ campaign was reactivated on World Safety and Health Day (Safety Day) under the slogan "Empower Nearmiss (Unsafe Situation) detection" and "Encourage the use of RTOP".

RTOP is the platform where safety events are reported. During the day, risk reporting checklists were distributed to staff.





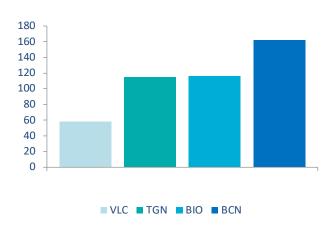
TEPSA and the involvement of workers in the identification and analysis of risks

#### **Consultation and participation**

At the beginning of 2021, the reporting of security events through the RTOP platform began. Weekly reports have been sent to staff on the detection of events.

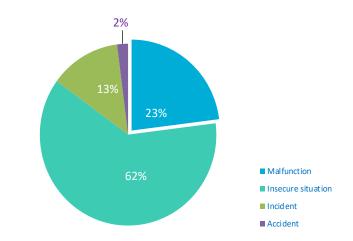
At the end of the year an annual report was sent, some of the data obtained were the following:

#### **Cumulative security events**



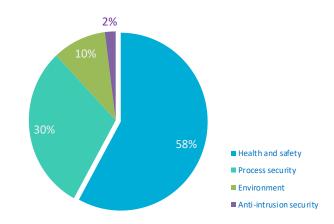
The average number of security events detected in 2021 per terminal was 113.

#### **Events by typology**



62% of the events recorded correspond to Unsafe Situations detected by staff.

#### **Events by area**



58% of the events recorded are related to the area of health and safety.





#### **TERMINALES PORTUARIAS, S.L**

Muelle de la Energía, 4 08039 Barcelona Phone: 93.289.55.40 Fax: 93.223.45.79

E-mail: tepsa@tepsa.es







TEPSA supports the Sustainable Development Goals







