02	Issue for use	23/12/20		G.Guarini	A.Cammerieri	A.Cammerieri
01	Issue for use	23/11/20		G.Guarini	A.Cammerieri	A.Cammerieri
00	Issue for Comments	10/09/20		G.Guarini	A.Cammerieri	A.Cammerieri
REVISION	**DESCRIPTION**	**DATE**	**PROJ.**	**EXEC.**	**CHECK.**	**APPR.**

VENICE LNG
FEED – Venice LNG Terminal (Porto Marghera)

TECHINT ENGINEERING & CONSTRUCTION

HSE Engineering

Environmental Management Plan

0469-TITA-H-PR-000-001

ESC.: JOB: **0469**

2
REVISION

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1. SCOPE OF THE DOCUMENT

This is the Environment Management Plan to be implemented in Venice LNG Terminal - Porto Marghera (herein after the Project).

This plan complies with the requirements set forth by HSE Design Philosophy of the Project. Furthermore this documents meets the requirements defined by Competent Authorities in authorization documents listed in chapter 3 of this document.

The purpose of the this document is to:

- outline environmental protection measures to be followed during EPC
- ensure that commitments to minimize environmental effects are met;
- document environmental concerns and appropriate protection measures;
- provide instructions to Project personnel regarding procedures for protecting the environment and minimizing environmental impact;
- provide a reference document for personnel when planning and/or conducting specific activities;
- provide a reference to applicable legislative requirements

The HSE activities, with reference to environmental aspects, are aimed at ensuring that all the hazards related to the engineering, construction, commissioning and operation of the Project are identified, their risks and environmental impact quantified and appropriate control and mitigation measures taken to manage them and to prevent environmental impact on site.

Company, Contractor and Sub-Contractor are committed to continuously ensure safe working and environmental conditions in the job site and furthermore, ultimate protection of life, health or property during execution of the works.

By the formal introduction and application of this Environmental Management Plan, Contractor aim at ensuring that Project work is executed to the safest possible feasible standards, and progress towards an injury and illness free work place.

This Environmental Management Plan identifies the activities and measures that will be undertaken by Company, Contractor and Sub-Contractor to fulfill this objective.

2. DEFINITION AND ABBREVIATIONS

Company:	Venice LNG S.p.A.
Contractor:	EPC Contractor
Project	FEED – Venice LNG Terminal (Porto Marghera)
HSE	Health, Safety and Environmental (same as "Responsible Care").
HSE Standards	ISO, EN, OSHA, OHSAS, NFPA, AMSI or other equivalent standards applicable to construction work.
HSE rules	All the instruction detailed in the HSE procedures, applicable to the Project
HSE procedures	All the documents, posters and notices that detail responsibilities and define preventative, protection, mitigation measure and control related to the HSE. The main are: - Company Responsible Care Minimum Requirements; - Contractor HSE Management Plan; - Contractor HSE procedures; - Sub-Contractor HSE plans and work instructions
Accident	Means an undesired event giving rise to death, illness, injury, damage or other loss.
ARPA	Agenzia Regionale Prevenzione Ambiente
Contaminant	Means a harmful or irritant substance, or nuisance dust, foreign to the normal composition of a substance or a material that varies the normal proportions of components in a mixture such as air.
CR	Commitment Register
Environmental aspect	Element of an organization's activities or products or services that interacts or can interact with the environment and that can cause (an) environmental impact(s)

Hazard	Means source of situation with potential for harm in terms of injury or illness, damage to property, damage to the workplace environment or a combination of these.
Hazard identification	Means process of recognizing that a hazard exists and defining its characteristics.
Incident	Means an event that gave rise to an accident or had the potential to lead to an accident (as unplanned interruption of an orderly process involving the motion of people, objects or substances).
Injury	Means an abnormal condition or disorder and is any wound or damage to the body resulting from an event in the work environment and including case as, but not limited to, a cut, fracture, sprain or amputation, puncture, laceration, abrasion, electrocution, burn, etc.. (refer to OSHA form 300). The injury is recordable if it is new and work related.
Medical treatment and First aid	If the injury or illness did not involve death, one or more days away from work, one or more days of restricted work, or one or more days of job transfer, where the employee received medical treatment but remained at work and was not transferred or restricted.
MSDS	Material Safety Data Sheet, means a document disclosing the information of the chemicals and hazardous products.
Near Miss	Means an incident where no illness, injury, damage, or other loose occurs.
Occupational Illness	A condition that results from the exposure in a workplace to a physical, chemical or biological agent to the extent that the normal physiological mechanisms are affected and the health of the worker is impaired, and includes an industrial disease as defined by the law.
Objectives	Goals, in terms of HSE performance, that an organization sets itself to achieve.
PSC	Piano di sicurezza e coordinamento
Qualified	Means being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof

Restricted work activity	Occurs when, as a results of a work related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work.
Risk	Means the combination of the likelihood and consequence(s) of a specified hazardous event occurring.
Risk assessment	Overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable.
Supervisor	Means a person who instructs, directs and controls workers in the safety and work performance of their duties.
Waste	Any material that is not used and is disposed off. It includes but not limited to wood, concrete, metal scrap, plastic, oil filter from construction activities etc.. Waste will be categorized into two different groups: (a) Hazardous waste. (b) Non-Hazardous waste.

3. REFERENCE DOCUMENTS

The local legislation, Project specifications, International codes and standards shall be followed during the design, construction and other Project activities. Wherever any work item is not fully or partially covered by the Project specifications, such work shall be designed to internationally accepted codes and standards, or relevant Vendor's standards and recommendations, subject to prior written approval by COMPANY.

Project Documents

- 0469-TITA-H-DC-000-001 HSE Design Philosophy

Authorization Documents:

- Doc. No. P0008501-5-H2 Rev.0, Novembre 2018, Studio di Impatto Ambientale
- Studio di Impatto Ambientale – Aggiornamento Novembre 2018 Doc. No. P0008501-5-H2 Rev. 0 – Novembre 2018
- Verbale. n. 1679 della seduta del 19 settembre 2018, Comitato Tecnico Regionale del Veneto
- Parere n. 3019 of 31/05/2019 - "Commissione Tecnica di Verifica per l'Impatto Ambientale"
- Determinazione N. 797 / 2017. Certificazione del completamento e della conformità al progetto di bonifica del sito "ex Italcementi" via della Geologia 9 Marghera (VE) di proprietà della Decal S.p.A.
- Determinazione N. 84/2015. Certificazione del completamento e della conformità al progetto approvato con Decreto del Ministro dell'Ambiente e della Tutela del Territorio e del Mare prot. N. 8439 del 31.07.2009 di autorizzazione in via provvisoria all'avvio dei lavori relativi al Progetto contenuto nel documento "Elaborato tecnico complessivo del progetto preliminare e definitivo dei suoli dell'area deposito DECAL S.p.A – Giugno 2008" ricadente nel sito di interesse nazionale di "Venezia-Porto Marghera".

4. HSE COMMITMENT AND POLICY STATEMENT

Company, Contractor and Sub-Contractor are committed to effectively manage HSE matters as an integral part of their business. The goal is that operations should cause no harm to employees or others while minimizing damage to the local and global environment. Working together, Company, Contractor and Sub-Contractor are committed to achieve the highest standards of HSE through:

- Incorporating HSE considerations in planning/development stage of plants, services and processes;
- Complying with or exceeding all applicable directives, laws, regulations and codes of practice.

Contractor **HSE commitment** is as follows:

We the Management and employees:

- ***Will relentlessly pursue our ultimate objective of an injury, illness and environmental accident free work place.***
- ***Will not compromise our focus on health, safety and environment in order to achieve any other business objective.***

And we believe:

- ***Our health, safety and environmental actions are most effective when we genuinely care about each other.***
- ***Each of us has a personal responsibility for our own health and safety, the health and safety of other, and for the environment – both on and off the job***
- ***All injuries, illnesses and environmental accidents con be avoided when we practice safe behaviors.***

This **HSE Commitment** will be posted and made visible in Home Office as well as in the Project work site, together with:

- HSE Organization chart;
- Incident report and HSE summary date and HSE performance of the month.
- Lesson learned and corrective action taken.

4.1. Project Targets

The Project targets, with reference to environmental aspects, are the following:

- **Maintain compliance with ISO 14001;**
- **Commitment Register drafting and continuous updating;**
- **Achieve zero chemical or oil spills on water or land;**
- **Achieve zero property damage incidents.**

5. PROJECT HEALT, SAFETY AND ENVIRONMENTAL RULES

5.1. Duties of all Employees

As a member of the Project construction team, all the employees have an obligation to perform the work in a safe and efficient manner. The following HSE rules are there for the protection of all employees. All project personnel are expected to conduct themselves in a professional manner at all times whilst on the construction site and to respect and co-operate with others.

1. It is employee's duty to co-operate to environment care and shall raise environmental-related problems with their Foreman or Supervisor.
2. Every employee has to assist in maintaining the safe, healthy and environmental sound conditions on the construction site for everyone. This includes proper disposal of chemicals, assist management and supervision in the investigation of accidents, etc.
3. Be familiar with Project Procedures and policies and local Laws, practice and enforce them.
4. Segregate the wastes to allow efficient and effective disposal. Use the waste storage containers provided. Don't mix the wastes. Use raw materials as efficiently as possible.

5.2. Regulatory Compliance

It is the Contractor and Sub-Contractor obligation and policy to fully adhere to national legislation applicable to works performed in Italy.

Environmental legislation management will take place as follow:

- collection of updated legislation;
- recording;
- identification: evaluation of applicability to the project;
- information management: information to the persons who are responsible for the application of the law;
- check for legislation application.

Contractor Project Manager are ultimately responsible for the updating and for the collection of legislation and regulations applicable for the project.
As soon as the project starts up, Contractor HSE Manager and Contractor Engineering Manager will acquire the legislation applicable to the project. Contractor Site HSE Manger will keep update the legislation file.

Sub-Contractor will be responsible to apply the HSE laws and regulations applicable to its own, under Contractor supervision.

From HS point of view, particular attention must be given to emergency coordination plan (PSC) .

5.3. Risk assessment and hazard identification

The following section sets out a qualitative risk assessment methodology that can be applied to the environmental risks associated with a wide range of projects. It is provided as an example of one approach to risk assessment

5.3.1. Likelihood and consequence

For each environmental risk a rating in terms of likelihood and consequence is given using the criteria in the tables below. These ratings are then combined using the table in section 5.3.2 to generate a risk rating of low, medium, high or severe.

Qualitative measure of likelihood (how likely is it that this event/issue will occur after control strategies have been put in place)	
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the project
Possible	Might occur during the life of the project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Qualitative measure of consequences (what will be the consequence/result if this issue does occur rating)	
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

5.3.2. Risk rating

Each of risks should have a likelihood rating and a consequence rating. Using the rating table below it is possible to determine if the risk is low, medium, high or severe.

The risk rating generated using the above table can be used as a guide to the amount of time and resources that will be required to manage each risk. Risks with 'low' risk ratings will usually require significantly less management than 'medium', 'high' and 'severe' risks.

	Consequence				
	Minor	**Moderate**	**High**	**Major**	**Critical**
Highly Likely	Medium	High	High	**Severe**	**Severe**
Likely	**Low**	Medium	High	High	**Severe**
Possible	**Low**	Medium	Medium	High	**Severe**
Unlikely	**Low**	**Low**	Medium	High	High
Rare	**Low**	**Low**	**Low**	Medium	High

This is usually reflected in the environmental management plan where issues with higher risk ratings require more detailed information regarding:

- the description of the risk;
- the measures and commitments to minimise and manage the risk;
- the performance objectives and monitoring programs;
- trigger values for additional action, review and reporting.

Selection of suitable Risk Reduction Measures

Risk reduction process must address the means of providing a solution in the following order:

- eliminate the risk by removing the hazard "engineer out" the problem at source;
- reduce the risk by substitution of a less hazardous process, activity or substance;
- Isolate (protect everyone) by effective engineering control such as enclosing the hazard, removing the person from the hazard or reducing the person's exposure time to the hazard.
- Enforce special rules and procedures to closely control the hazard(s).
- Provide proper supervision, supported by training, instruction and relevant information.

5.4. Supply, handling and storage of Materials

Careful planning must be given information on how materials should be loaded, transported, unloaded, stacked and used.

Fourteen days before any chemicals are brought to the site for use during the works, Material Safety Data Sheet (MSDS) in English shall be provided to assess the risks due to storage, handling, use and disposal in compliance with international standard.

A copy of the MSDS shall be sent to the Contractor HSE Department and Contractor Material Manager.

The MSDS will contain assessments of the risks due to the storage, handling, use and disposal of each substance, together with all necessary control measures required so as to reduce risks to a residual level.

All personnel will be trained and instructed on specifications and other information reported on the MSDS about the use, storage and disposal of the hazardous substance used. All the necessary PPE will be provided.

An unbreakable outer covering should protect materials in fragile containers. This is especially true when the material is toxic, flammable or poisonous. Materials will always be stacked with availability in mind. Ample space will always be provided and should be wide enough for handling the materials stored. Ramps will be used where necessary to transport materials over obstacles that cannot be removed. The use of mechanized equipment requires wider access than manual handling. Turning radius of mechanical equipment will be considered.

Storage areas will be distinctively marked to discourage any other use at these areas. Materials should be secured to prevent shifting or rolling.

Hazardous materials can not be stored in the 8.000 m^3 area.

Mechanical lifting devices will be used wherever possible. Palletizing of drummed or stacked materials will be incorporated into work practices.

Materials stored on racks with shelves will never extend beyond the edge of the shelves. Heavy material will be stored near the bottom, lighter material on top of the racks.

General storage

Containers with sharp edges and pointed wiring will be stored with sharp edges toward the inside of the stack. It is advisable to provide supports between each row when storing boxes, cartons, drums on end, timber and bar stock. Timber will be stacked to allow free passage of air over it and ample supplies of water should be available in the vicinity.
Containers such as bins will be securely seated or anchored to prevent overturning.
Hazardous materials will be stored on impermeable pads with full containment.

Storage/Handling of dangerous chemicals

Persons employed on work involving the handling or use of dangerous substances such as flammable, toxic, or caustic liquids, or liquids having of strong acid or alkaline nature will be aware of the hazards associated with them and the preventive measures necessary to avoid accidents.
Men employed in mixing paints, etc. will be equipped with appropriate PPE in accordance to the manufacturer information and recommendation.

5.5. Reporting and Documentation

The executive project will include technical specifications which will specify all actions defined in ESIA and subsequent additions; all contractor charges have to be identified in order to respect law requirements and to pay particular attention to:

- surface water and ground water, with adequate procedures to convey rainwater, their treatment and treatment of waters coming from service areas, Officine and cement mixers washing; all works which cause water discharge will have to be defined and planned in order to collect samples to verify the compliance with law limits for water discharges;
- public health and disturbance to residential areas, including local traffic through a specific plan for work phase; acoustic environment, using machines with CE label and compliant to noise emission predicted and to Attachment n. 1 of Dlgs 262/2002 pursuant to Directive 2000/14/CE about noise emissions of machines that work outdoor;

- air quality, using heavy duty vehicle homologated according to two most recent EURO categories, and machinery homologated according at least to stages IIIB and V as per Regulation UE 2016 n. 1628.

All the technical specifications listed have to be prepared for plant construction phase, control phase and management.

Beside technical specifications, as regards the environmental aspects, the following reports, information and documents will be maintained constantly updated by Contractor and Sub-Contractor, everyone for his own scope:

- Accident / incident / near miss reports (n. of damage, n. of spill, n. of environmental incidents);
- Housekeeping and waste disposal records;
- Audit and inspection reports;
- Environmental monitoring reports;
- Lead and trailing indicators and HSE statistics;
- Insurance certificates.

Environmental Incidents

Contractor and Sub-Contractor will maintain records and data regarding environmental incidents along guide lines established by Local regulations and Project requirements.

All accidents / incidents will be reported to Contractor HSE Manager.

Contractor Site HSE Manager will transmit the overall monthly accident report to Project HSE Manager that will attach it to the Construction Monthly report.

As for environmental incident dealing with spill on water, it will be provided by the Company a specific emergency procedure.

Contractor will submit to Company the Accident / Incident Reports that will meet the requirements of Company, in the case of serious Environmental incident.

6. Environment

6.1. Project Environmental policy

Contractor and Sub-Contractor will design, construct and operate its facilities in a manner that protects human Health and minimizes the impact of its operations on the environment.

Strive for an injury-free work force and minimize environmental impact through implementation of programs in our facilities and the surrounding communities that reduce risks to employees, neighbors, the public at large and the environment.

Contractor and Sub-Contractor encourage and promote waste minimization, the sustainable use of natural resources, recycling, energy efficiency, resource conservation and resource recovery.

Contractor and Sub-Contractor will actively participate with local government agencies and other appropriate groups to ensure that the development and implementation of environmental policies, laws, regulations and practices serve the public interest and are based on sound scientific judgment.

The implementation of the Project Environmental Policy is accomplished through organized environmental management systems.

The Project Team will encourage and expect each employee to be environmentally responsible.

Each component will comply with or exceed all applicable Environmental local laws and regulations.

Policy and program effectiveness and compliance will be regularly assessed.

Safe and environmental behavior and judgment will be considered essential measures of performance at all levels.

One of the most important components of these management systems is the Environmental Performance Review. The true significance of a frequent performance review is that it goes beyond compliance with local government requirements and Responsible care / Contractor Policy.

The Project Team (Contractor, Sub-Contractor) will recognize and respond to the community's questions about its operations.

The following actions will have priority:

- Recycle
- Reuse

before

- Treatment
- Disposal

6.2. Site Environmental Protection Plan

Before the beginning of the work the Site Environmental Protection Plan will be issued by Contractor to cover environmental impact control of site activities, definition of all environmental aspects related to the site activities that have or can have significant environmental impact and for which it is required to take adequate protection actions and environmental laws compliance at the work site.

The Table of Contents of the Site Environmental Protection Plan will be as follows:

- Generality;
- Organisation;
- Environmental legislation, and applicable SGA procedures;
- Surrounding environment;
- Identifications of the environmental aspects related to the site activities:
  - Logistic
  - Building and construction:
- Evaluation of environmental aspects;
- Objectives and targets;
- Operative control;
- Surveillance and measurement;
- Sensitisation, formation and competences;
- Communications;
- Documents and recordings;
- Verifies and corrective actions;
- Management review;
- Exclusions;
- Annexes.

6.3. Site construction plan

Before the beginning of works, a construction site plan have to be sent to Environmental Minister, Regione Veneto and ARPA Veneto which will have to express for each matter.
The plan will include:

a) the general EPC Project Schedule of all works and their specific activity periods (see 0469 - EPC Project Schedule).

b) the emergency management plan;

This plan will be developed for construction phase considering different operation/work types (e.g. excavating operations, materials handling) and identifying pollution prevention measures for environmental aspects generated during this phase. Mitigation measures will be defined for aspects like dust emissions, air emission by vehicles and machineries, washing waters, noise and vibrations, water supply, hydrotest water etc. (see section 6.5, 6.6, 6.7 of this EMP)
In particular, the plan will arrange procedures to follow in case of accidental spills. The plan will define the management measures necessary to ensure that:

- the possibility of spill occurrence is reduced, prevented or avoided to as low as reasonably practicable;
- in case of spill, the effects are mitigated as far as possible by providing appropriate and efficient response procedures, carried out by trained personnel;
- equipment is readily available to deal with a spill during the construction phase.

Furthermore, the emergency plan sets out the specific actions that need to be developed to ensure compliance with the commitments.
More specifically, the scope of the emergency plan will be:

- to identify the relevant types of spill and the scenarios which could possibly lead to environmental harm;
- to identify the prevention strategies in order to avoid spills (e.g. correct storage and management of hazardous substances, defined refueling operations);

- to identify preparedness activities in order to be ready to act in case of a spill minimizing the consequences;
- to identify response actions to be adopted during and immediately after the release of contaminants;
- to describe the organization, in compliance with the project site organization, both during the prevention and response phases;
- to define roles and responsibilities to manage emergency scenarios.

The following actions shall be considered as priorities:

- carrying out all the necessary operations for the protection of health and safety of all people present where the spill occurs, both employees and others;
- control and minimization of spill magnitude;
- minimization of environmental harm due to spill;
- plan activities of avoidance, prevention, control, monitoring, audits, inspections and corrective actions to ensure compliance with prescribed measures.

Drip trays or suitable bunds shall be utilised by Contractor and its Sub-Contractor in conjunction with items of fixed and portable (mobile) plant, such as generators, to prevent contamination of surface soils and run-off. The drip trays shall be positioned away from any watercourse or drains and surrounded by an earth or sand bund with an impervious base of plastic sheet, and inspected daily and emptied as required. Any spillage shall be cleaned up and contaminated soil removed from site for proper disposal.
Marine works shall be performed with close attention to water contamination prevention; in case water contamination occurs, the emergency spillage kit has to be available and HSE Manager has to be warned.

c) transportation plan, mentioning structures involved, traffic volumes predicted, traffic flows, time slots to be respected in order to minimize the impact on regular traffic.
The transport plan will define and describe details of transportation activities using road vehicles. It will be submitted to competent authorities and once approved, it will be transmitted to all workers and all contractors who will take part to the construction phase, in order to inform about main rules to follow.

Content of the plan will concern:

- The legislation and legal requirements concerning the vehicle transportation; eventual local requirements to be respected, for example prescriptions in terms of time;
- Road vehicles involved in traffic and an estimate about the traffic generated by construction activity. The viability of the construction site will respect the following indications:
    - the main access road will be along the future access road to the deposit;
    - within the construction site, the road network will develop parallel to the border with the DECAL oil deposit and therefore along the border with the Ecoprogetto area on the east side of the future deposit, to then be arranged parallel to the quay and allow the connection with the 'Area 1;
    - Area 4 will be directly connected to the road system outside the site through dedicated access.
- Works scheduling will plan, if possible, eventual extraordinary transports during hours of minimal local traffic in roads involved;
- Assessment and definition of main routes and itinerary that will be used in the frame of construction phase. Main routes will be defined in order to minimize the impact on regular traffic, avoiding, if possible, the urban centre and choosing secondary roads. Times to drive will be defined avoiding peak hours. Main routes will be defined in order to minimize the impact on regular traffic, avoiding, if possible, the urban center and choosing secondary roads. Times to drive will be defined avoiding peak times. The plan will be accompanied by photos of main routes in order to be clear to all contractors and in general to all workers. All the precautions will be adopted to minimize the risk; driving during night-time will be at minimum or will be removed, if possible.
- Safety requirements and measures to adopt and respect while driving for scope of the work;
- Assessment of the risk associated with driving and provide general guidance and recommendations (regarding for example ban on smoking, using mobile phone or breaks, time to respect in case of night driving, speed limits to be observed, safety rules to follow for passenger onboard);
- Emergency procedure to follow in case of incident.

d) landfills for specific waste categories produced (see attachment 1);
e) all areas necessary for plant construction. (see 0469-TITA-G-LY-000-001_1_Construction facilities layout).

6.4. Environmental control and monitoring

There are a number of specific environmental issues to be considered during the Project:

- noise and vibrations;
- atmospheric pollution;
- water emission and discharge;
- control of potential spills;
- waste management.

The Project is subject to a number of planning consents .
The management / monitoring of these is the responsibility of Company and Contractor and its Sub-Contractors shall ensure that the value will not exceeded as required by Law and regulations. In case values are exceed, Contractor will make all efforts in order to mitigate the source of pollution.

6.5. Construction Noise and Vibrations

The general objective for the management of potential impacts in respect of noise and vibration shall be to control and limit noise and vibration levels from construction activities at source, by the use of Best Practicable Means (BPM) (e.g. by careful selection of plant, maintenance and location of plant, construction methods and programming, use of noise barriers/screening), ensuring compliance with relevant legislation and municipal/local noise limits and Environmental Impact Assessment.
Construction noise shall be controlled in accordance with Company procedure and with Environmental monitoring and measures plan.

During the construction phase the interactions with the environment can be summarized as follows:

- noise emissions from vehicles and machineries;
- emission of vibrations from vehicles and machineries;
- noise emissions from induced traffic.

The following table shows the noise characteristics (Sound Power: Lw [dB (A)]) of machineries that is expected to be used during the construction phases.

Vehicle/machinery	Lw dB(A)	Number
Exavator/Side Boom	106	2
Bulldozer	106	2
Truck	101	8
Cement mixer truck	97	4
Crane	91	4
Roller-Compactor	101	1
Mini Excavator	96	2
Finishing machine	101	1
Compressor	101	2
Generator Package	100	3
Tank truck	101	1
Pumps	101	1

The following measures shall be adopted in order to minimize the noise during the project works:

- noise sources positioning in a secluded zone from the receptors;
- keeping potentially noisy machinery in good condition;
- development of construction activities mainly during the day;
- checking of vehicle transit speeds;
- mitigation of fixed noises sources

In accordance with Parere n.3019 of 31/05/2019 - “Commissione Tecnica di Verifica per l'Impatto Ambientale - VIA e VAS”, as regards the induced traffic emissions, the following measures shall be adopted:

- The route of heavy vehicles will be defined to maximize the transit outside the urban areas;
- the traffics of the trucks will be limited to the period necessary for the supply of quarry material and transfer to landfill.

The following receptors constitute the noise sensitive elements:

- isolated houses, residential areas and continuous and discontinuous urban areas (anthropogenic receptors);
- protected natural areas, Natura 2000 areas, natural receptors.

The following table identifies the receptors potentially affected by the noise emission in the construction phase of the work:

Potential noise receptors	Acoustic class	Noise limits [dB(A)]			Minimum distance from project works
		Emission values (Daytime-Night)	input limit values (Daytime-Night)	Differential values (Daytime – Night)	
Ecoprogetto Venezia s.r.l. Offices	VI	65-65	70-70	-	150 m East of the plant area
Decal S.p.A. Offices	VI	65-65	70-70	-	Next to the project area
Via Moranzani – residential building	III	55-45	60-50	5-3	750 m South of the plant area

The following table shows the receptors potentially affected by the vibration emissions close to work areas.

Potential noise receptors	Minimum distance from project works
Decal and Ecoprogetto Industrial Structures	Next to the project Area

Besides national and local legislation the contractor should take into account all the commitments concerning noise emissions as listed in the Commitmment Register. The CR is attached. Specifically Contractor should protect acoustic environment through the use of CE certified vehicles, compliant to the requirements listed in ALL I, Directive n. 262/2002.

6.6. Atmospheric Pollution

The general objective for the management of potential impacts in respect of atmospheric pollution shall be to carry out the works in order to minimize dust emissions and other pollutants, including odor, in accordance with appropriate legislation and by the use of Best Practicable Means.

In general, to avoid the creation of a statutory nuisance Contractor and Sub-Contractor will take all reasonable steps to avoid the creation of dust nuisance, including:

- Switch off vehicles engines when not in use
- Making provision for the screening, enclosure and spraying of stockpiles of soil, rubble and construction materials, especially in dry, windy conditions
- Damping down soil / other materials before depositing
- Ensuring that adequate sheeting is provided on each spoil load to prevent spoil falling
- Minimizing the earth/soil time storing
- Employing dust controls for "special operations" for example, soil analysis and categorization and subsequent disposal soil transport, mixing operations

Contractor and its Sub-Contractor will also implement the following measures:

- Provision easily cleaned hard-standings for vehicles entering, parking on and leaving the site, where practicable.
- The implementation of mitigation measures resulting from regular inspections, executed by the Company (for further detail please refer to Parere 3019) for on and off-site activities;
- Liaise with the (Relevant authorities to be added), as necessary.

In accordance with Parere n.3019 of 31/05/2019 of “Commissione Tecnica di Verifica per l'Impatto Ambientale- VIA e VAS” the following further mitigation measures shall be adopted in order to minimize dust production:

- wetting of vehicle tires;
- humidification of soil in construction site areas;
- defining ground handling / unloading procedures;
- controlling and limitation of the vehicles speed in construction site areas;

- defining an adequate plan of activities.

Furthermore, as regards the exhaust fumes of the vehicles, these will be in compliance at least to Stage IIIB and IV and to two most recent EURO categories.
It is strongly recommended that contractor and sub-contractors favour most recent EURO category vehicles with lower emission sources.

In case of high wind, special protection measures shall be implemented on the surface subjected to excavation or filling: plastics sheets anchored to the ground shall be provided.

Besides national and local legislation, the contractor should take into account all the commitments concerning atmospheric pollution as listed in the Commitment Register. The CR is attached.

6.7. Water Emissions and Discharges

Water discharges during construction phase

The water discharges in the construction phase can be attributable to:

- production of sanitary water;
- stormwater collected in the construction site areas;
- water extracted during dewatering phase in excavations activities;
- water discharges necessary for pipelines and LNG tank commissioning.

The discharge of wastewater inside the lagoon is strictly forbidden in this phase. Specifically, the rainwater discharge will be closed and sealed (SP1).
During the first construction phase, any wastewater has to be collected and disposed without polluting soil and discharging in lagoon.

At the end of this first construction phase, n. 4 Fire Water Tanks will be available. Water from dewatering (extracted from excavation activities) and in general all water resulting from construction activities, along with the rain water, will be collected and directed

towards the n. 4 FW tanks (each with a capacity of 2500 m^3), built during the first phase of the construction.
The water collected inside the tanks (marine, ground water, etc..) will be treated in a water treatment skid, placed in proximity of the FW tanks and directed towards an existing water treatment plant located close to the new LNG Terminal.

The black water from the site facilities will be collected and disposed in a suitable way by sewage truck or directly in the Municipal/Company black water system. Contractor and Sub-Contractor will monitor the discharge from these systems each one for its own facilities. Contractor shall be in charge for the request to the local Authorities of the relevant discharge authorization.

Discharge of water used for testing and commissioning into lagoon must be authorized by local authority and has to be in compliance with thresholds of the current permit and legislation limits. Alternatively, in detail engineering of hydraulic test, the complete re-use of testing and commissioning water should be considered as preferred option.

The following table shows the estimated quantity of water discharges, with an indication of the expected quantities and the methods of control, treatment and disposal.

Discharge type	Control, treatment and disposal	Quantity (m^3)
Civil wastewater		5.4 m^3/ day
pipelines and LNG tank commissioning	Venice LNG Discharge network / tank truck/ re-use	20000 m^3

Both construction and commissioning phases, mitigation measures will be defined in order to minimize, where possible, environmental impacts due to water discharges (e.g. evaluation of hydrotesting water reuse).

Water discharges in operation phase

The water discharges in operation phase can be attributable to:

- waters from the first flush tank from the **"8000 m^2" area:** the water coming from the first flush (within 48 hours from the precipitation beginning) will be automatically sent to an external waste treatment plant through a pressure pipeline;
- water from first flush tank from the **terminal area**: the water coming from the first flush (within 48 hours from the precipitation beginning) will be sent to an external treatment plant through a pressure pipeline (see 0469-TITA-C-SP-001-003 Effluents segregation and treatment technical specification);
- second flush water from the **"8000 m^2" area**: the water will flow by gravity, through pipeline, towards the white water consortium network, present on site;
- second flush water from the **terminal area**: the water will flow through the same treatment plant that treats the terminal's first flush and at the exit of this plant, it will be sent to the lagoon and /or to the fire water tanks.

Second flush water discharge in “Canale Industriale” will respect requirements set out by Attachment 1 of DM 30/7/99. In order to execute chemical analysis, a sampling point is foreseen immediately upstream the gravity line outlet in Lagoon.

The Contractor is responsible for any pollution up to the delivery of the plant to the Venice LNG.

Besides national and local legislation, the contractor should take into account all the commitments concerning water emission and discharges as listed in the Commitment Register. The CR is attached.

Water supply

During the construction phase the water is supplied for the following uses:

- humidification of construction site areas in order minimize dust emissions;
- civil uses.

The table below shows the water consumption during the construction phase.

Uses	Supplying system	Notes	Quantity (m^3)

Civil uses	Aqueduct	90 workers maximum	5.4 m^3/ day
Construction phase	Re-use of rain water (after treatment)		400 m^3/ month

In order to reduce the water consumption, the humidification/wetting of construction site areas will be performed only when necessary.
During the commissioning phase, the water required will be mainly attributable to the hydraulic test of tank and pipelines.

Detailed procedures for activities of tanks cleaning and hydrotesting will be established, specifically;

- type of water used (fresh water); the tests will be carried out using preferably fresh water (for operating parameters please refer to BEDD); the Contractor shall obtain all the necessary authorization and bear all the relevant costs;
- eventual reuse of water for hydrotesting will be evaluated in order to minimize, as much as possible, water consumption.

Construction Materials

Washout from concrete mixing plant or the cleaning of ready mix concrete shall not be discharged, untreated, to drains or watercourses.
The washing out of any concrete mixing plant or cleaning of ready mix concrete lorries shall be carried out so as to prevent the effluent from such cleaning being allowed to flow into any drain or watercourse. Concrete shall not be placed into flowing water. Where it is necessary that concrete is placed into water, that water shall have been static for at least 24 hours following the placement. The resultant alkaline water shall not be discharged directly to a watercourse but treated and disposed of via the site drainage system.
All materials that can contaminate the soil will be stored in container or paved surface.

Fuel and Chemical Management

It is both Contractor and Sub-Contractor responsibility to ensure that all hazardous chemical substances on site are controlled in accordance with local regulations.
Guidelines for Fuel and Chemical Management will be provided in Contractor project procedure.

6.8. Control of Potential Spills

Contractor and Sub-Contractor shall maintain available at site during construction activities the emergency spillage kit. Workers must be trained to reduce and intervene in case of accident.
The content of the emergency spillage kit shall contain at least:

- Oil/chemical absorbent material (mats, booms, sand etc).
- Hand pump or Electric pump.
- Empty drums.
- Chemical resistant gloves.
- Chemical resistant overalls.
- Chemical resistant calf length boots.
- Chemical resistant face shield.
- Respirators with cartridges suitable for chemical mist.
- Hazard warning tape.

Drip trays or suitable bunds shall be utilised by Contractor and its Sub-Contractor in conjunction with items of fixed and portable (mobile) plant, such as generators, to prevent contamination of surface soils and run-off. The drip trays shall be positioned away from any watercourse or drains and surrounded by an earth or sand bund with an impervious base of plastic sheet, and inspected daily and emptied as required. Any spillage shall be cleaned up and contaminated soil removed from site for proper disposal.

6.9. Waste Management Plan

The target of waste management is to ensure that:

- disposal of waste is conducted in compliance with Directive 152/06 and in a safe and environmental friendly manner;
- all options are considered to minimize, eliminate, prevent and reuse waste materials;
- method of disposal is suitable and sufficient for the waste generated;
- prevention of soil and aquifer contamination

The correct identification, segregation and storage of waste is fundamental to proper waste management in order to identify which of the waste disposal options is best suited to the waste generated by the operation undertaken. Contractor and Sub-Contractor, as for Italian legislation, are wastes producers and responsible for the management and disposal of its wastes following the instructions detailed below.

Potential sources of waste generation are:

- construction activities;
- provision and maintenance of accommodation and services;
- pre-fabrication workshops;
- materials store.

The main types of waste produced during the construction phase are:

- liquid waste from civil uses (approximately 170 m^3 / month in the period of maximum number activities of construction);
- paper and wood from equipment packaging, etc.;
- plastic residues;
- soil and rocks excavated (not reusable on the site);
- concrete resulting from the decommissioning of existing buildings;
- ferrous residues;
- insulating materials;
- oils.

Non-reusable waste will be disposed in an authorized landfills after assigning the C.E.R. and in full compliance with current regulations.

Identification, segregation and storage of waste

The Contractor is responsible for the correct management of waste, dangerous and other, produced by him or its Sub-Contractor, in observance of the legislation in force – local law - and of the Company and Contractor procedures in force in the construction site.
Hazardous and non-hazardous waste shall be stored separately and in separate containers with designated colours are preferred if possible, and clearly marked for each recyclable and non-recyclable waste.
The hazardous waste shall be stored in tightly closed, leak proof containers made of or lined with materials which are compatible with the hazardous waste to be stored. Containers shall be marked with warning labels to accurately describe their contents or specific colour and detail appropriate safety precautions. Any other incompatible hazardous wastes shall not be stored and transported in the same container.
Incompatible hazardous waste shall not be stored in the same storage or transportation container. Flammable substances must be kept separate from sources of ignition or oxidizing agents. Wastes of different kinds must not be mixed, in particular it is forbidden to mix oils with other type of waste, that could compromise their recycling/reuse or disposal.
Appropriate temporary storage areas will be necessary for waste storage prior to treatment/disposal.
Periodic inspections shall be conducted on the storage areas in order to verify the conditions of the area.
Such areas will have to adhere to the following requirements:

- Clear demarcation into hazardous and non-hazardous areas with clear signage to indicate the designated areas;
- Hazardous wastes shall be stored in closed containers compatible with the typology of Hazardous wastes;

- The features of storage areas and waste containers will have to be compliant with the applicable requirements and national regulations. (e.g.: Section Four of the Legislative Decree 152/2006).
- The waste storage area will be covered from rain water by means of an appropriate shelter;
- Suitable spill clean-up materials and other emergency equipment (as applicable) must be kept available on or close to the designated storage area in order to deal with any accidental spillages/leakages; technical data sheets of the waste will have to be posted on the facilities for each hazardous waste present;
- Fire protection and first aid equipment must be provided.

Contractor shall transport waste using approved disposal vehicles equipped to minimize windblown debris. Hazardous waste container shall be collected and transported in a manner which minimizes environmental, fire and explosion hazards and work exposure. Drivers shall have a specialized training related to the handling and disposal of their cargo and shall have on board the relevant MSDS's.

All the documentation relating to the management of waste, from the copy of the transport/disposal authorizations to that testifying that disposal has taken place, must always be available on site.

Contractor and Sub-Contractor will maintain the area of the site for which he is responsible clean and tidy and must set aside a special area, segregated and made impermeable, with the characteristics specified by the legislation in force, for the separation and differentiated collection of waste, complete with appropriate labelled containers. Contractor and Sub-Contractor will also organize waste disposal activities in such a manner that they comply with the time and management conditions dictated by the regulations in force concerning temporary deposits.

The correct identification segregation and storage of waste prior to disposal is essential to ensure that the most suitable method of disposal is selected. Waste classification (Non-hazardous, Domestic and municipal, Hazardous waste will be in accordance with the local law:

- garbage, solid waste;
- scrap metal;

- hazardous wastes (drums and containers, oils, oily rags, filters, dry battery cells, paint wastes, solvents, aerosol canisters, chemicals, medical waste, contaminate soil, etc);
- sanitation;
- excavated material and inert waste.

Contractor and Company shall collaborate to issue a procedure to inform Regional Environmental Agency before waste disposal

Garbage

This includes wood, plastic, paper, food waste, packaging materials, etc. These wastes will be collected in different containers: one for plastic and metal, one for wood, one for glass, and one for the other ones.

- All garbage will be placed in general waste collection bins located at various points around the site, to facilitate material re-use and recycling to their maximum extent.
- Collection of garbage, at high generation points, must be on a daily basis. At no time garbage must be allowed to overflow the waste collection bins or blow across the site.
- All garbage waste must be transported to dump site or recycling site.

Scrap metal and wood

Scrap metal and wood must be placed in a designated area in the materials yard prior to disposal at the approved landfill site, as non-hazardous waste.

Hazardous waste

Proposed methods for storage and disposal:

- Waste oil must be placed in metal containers located at worksite, and subsequently transferred to a waste oil Contractor;
- Oily rags must be placed in a separate metal container provided within each workspace. They must not be mixed with other combustible materials or stored in direct sunlight;
- Used oil filters must be drained into a waste oil container, placed in the waste collection bin marked as “filters” and subsequently transferred for disposal;

- All used batteries must be returned to the materials yard. Arrangements for disposal must be made with the local landfill site;
- Oily dirt must be dumped in pre-arranged State dump area;
- The hazardous waste will be transported to an authorized dump site, maintaining a manifest system in place;
- All soil/underground water that is contaminated will be treated and disposal as define in soil remediation study and plan, as indicated in local laws.

All the hazardous waste vehicle and treatment / disposal plant must have a specific authorization and site have to maintain a manifest system in place.

Drums and containers

This includes metal and plastic containers, crates and packaging. Metal and plastic containers, used for a wide range of lubricants and chemicals, can present problems for storage and disposal as they accumulate.

- All chemical and oil drums and containers (empty or part full), must be stored in a material yard in special designed storage area.
- All drums and containers must be securely closed to avoid any possible leakage of variable quantities of residues.
- Containers where appropriate should be refilled from bulk storage and reused.
- If transfer of materials is necessary, steps will be taken to identify the contents and any associated handling hazards and the suitable protective equipment worn, and precautions taken to minimize the risk.
- Non-refillable containers must be returned from supplier. Where this is impracticable, arrangements will have to be made for suitable disposal.
- Wherever possible crates and packaging may be reused.
  Damaged crates and unsuitable packing must be broken down and incinerated as garbage.

Medical waste

The amount of medical waste is usually low, however due to hazards associated with this type of waste the following precautions are proposed:

- All medical waste must be packaged for disposal in such a way so as not to cause a hazard to persons disposing of waste.
- Sharp things as needles, syringes and scalpels, should be placed in a container which must be puncture resistant and clearly marked (e.g “danger sharps”).
- All other medical waste must be double bagged, sealed with adhesive tape, labeled and put to designated container, under the control of the medical provider or the medical in charge, to await disposal.
- They are hazardous waste and will be transported to a authorized site maintaining a manifest system in place.

Excavated material and Inert waste

Soil excavated from construction will be distinguished according to specific characteristics. During construction phase the total earth moving will be approximately 19000 m^3:

- Phase 1: stripping and demolition of floors, treated tank Waters - 9400 m2
- Phase 2: demolition of buildings, demolition of existing piling slabs, sewer pipes - 7330 m^2;
- Phase 3: Constr. rack plinths and building foundations - 3050 m^2

The topsoil is the upper layer of soil characterized by the highest concentration of organic matter and microorganisms, and where majority of biological soil activity occurs.
Excavation activities will be carried out in accordance with the following requirements:

- excavated subsoil will be placed separately from the topsoil to prevent mixing during storage;
- stockpiled will be no higher than 2 m along one side of the construction site to prevent degradation of the soil;
- to avoid erosion of topsoil stockpiles, silt fences along the sides of the heaps will be installed;

- the topsoil will be kept free from disturbance to reduce the possibility of physical damage and compaction by equipment/vehicles and will be stored separately from excavated soil;
- if necessary, topsoil will be provided with a cover to protect it from erosion or from potential mixing with subsoil or rock materials;
- topsoil will not be stripped from areas used for topsoil stockpiling.

The waste, generated during dredging and construction activities, which is not biologically or chemically active in the nature environment is regarded as inert, they must be characterized and disposed.
The soil and the earth produced during earthwork and excavation shall be conveyed to a suitable location defined by the Contractor and the Contractor/Sub-Contractor will dispose this earth (inclusive of the transport to a suitable final dump site or location for its reuse).

If contaminated soil should be found during the excavation, the activities shall be stopped, and Contractor must be informed immediately.
Contractor will perform the soil sampling around and underneath the area involved. The sampling shall identify any type of pre-existing contamination of the soil or groundwater, Contractor will not commence the soil removal works and will hand-over the area back to the Company. Company and Contractor will define the correct way to remove and dispose the contaminated soil.

Furthermore, EPC contractor, during excavation activities, must respect the following operational measures:

- use Personal Protective Equipment;
- identify safe and secure places for excavated materials, plant and other equipment;
- install mechanical ventilation to control airborne contaminants and air temperature/humidity and wetting the excavated soil to prevent dust emissions;
- inspecting to find out what might affect the stability of the excavation (an excavation face can appear stable for 24 hours, but may be unstable);
- stabilise the ground at the head of the shaft and remove spoil;

- provide appropriate fall protection (eg temporary work platforms);
- avoid overfilling material kibbles and clean kibbles before lifting;
- using lifting devices (eg hiabs, cranes, trolleys);
- manual handling training;
- noise and vibration reduction at source.

Others

Depending on the specific project requirements, the HSE site team must assess any wastes that are not included in the present paragraph.
Besides national and local legislation, the contractor should take into account all the commitments concerning waste management as listed in the Commitmment Register. The CR is attached.

6.10. Other Environmental Precautions

The Contractor and Sub-Contractor HSE Supervisors and Officers in conjunction with Site Supervisors and Company will take care in order to control possible Environmental impacts by following the time schedule regarding the size and nature of each activity according to the Environmental Impact Assessment Study.
Appropriate provisions will be taken to prevent air, soil and ground water contamination during the construction and commissioning phase such as:

a. Special care will be taken for vehicles and mechanical equipment service activities (ex. oil change, filters etc.) in order to all the used material be properly removed.
b. Special care will be taken for the installation of the septic tank and temporary site facilities.
c. Construction of spillage basin, where gasoline, fuels oils and lubricants are stored.
d. An air emissions inventory will be prepared and maintained including a site plan showing location of all major emission sources and points and type of pollution control equipment methods proposed for each major source.
e. Special care will be taken to minimize the environmental noise to respect the noise criteria for residential, business and industrial areas.

Precaution from natural events

All geotechnical parameters necessary for FEED design phase to appropriately identify the dynamic response characteristic of the site are implemented in the document “Geotechnical Interpretative Report and Conclusions”, in particular provided by:

- Design soil profile;
- Design soil parameters;
- Design rigid inclusion for BOG compressors and GNL tank areas;
- Bearing capacity evaluation for shallow foundations;
- Bearing capacity curves for pile foundations;

Based on the order of the president of the council of minister no. 3274 of 20/03/2003 regarding the seismic classification of the national territory, updated with the Resolution of the Regional Council of the Veneto Region n.67 of December 3rd, 2003, the territory of the Municipality of Venice falls within the Seismic Zone 4. This zone is defined as the least dangerous area which means that the probability of an earthquake is very low.

Considering the seismic characteristic of the project area, the minimum design criteria to be followed for civil, structural and building works are illustrated il detail in the “Civil and Structural Design Criteria”. Furthermore, the document specify in Chapter 5 the site and environmental data including the topography, rainfalls, wind, snowfall and seismic data.
Furthermore, in the following design phases, the detailed sizing of other systems, equipment and buildings will be carried out according to the following technical standards: earthquake verification of "critical" equipment and buildings according to EN 1473; earthquake verification of non "critical" equipment and buildings according to the NTC 2018.

Finally, for any subsequent design phases, marine levels will have to be considered the as stated by the Floods Directive 2007/60/EC (table 1 - annex I.1 of the PGRA).

6.11. Environmental monitoring and measures

Contractor Site HSE Manager, with the cooperation of the Supervisors involved and Sub-Contractor in straight cooperation with Company will identify the activities to put under monitoring and measurement in relation to their possible harmful effect on the environment, and to ensure the legislative compliance.

Monitoring and measurement of performance trend, of operative controls, and of objectives and targets conformity

The company carries out air quality and noise monitoring as agreed with Environmental Authorities. In case threshold are exceed Contractor shall apply best available techniques to be compliant with current regulations

The environmental monitoring plan will be evaluated and approved by ARPAV and during the executive design Venice LNG shall consider the indications, by different environmental compartments, described in the following paragraphs. Objectives and Targets monitoring will make according to the Contractor project procedure and Contractor shall follow it.

Monitoring and measurement instruments

All the instruments used for environmental monitoring and measurement executed by the Company, must be calibrated, maintained or used according to the manufacturer instructions.

Specifically, regarding **noise monitoring** the following aspects will be respected:

- instrumentation with high memory capacity and dynamic range will be used. This makes possible to capture sound phenomena with very different noise levels;
- a microphone protection system from atmospheric agents and birds will be used;
- for the outdoor measures, the height of the microphone for built-up areas and for other sites, will be chosen according to the real or supposed position of the receptor (as required by DM 16/03/98);
- before used, the instruments must be subject to conformity clearance by laboratories accredited by a national calibration service;

- measures will be held by competent technicians in acoustic with adequate certification;
- the measuring chains of Class 1 will have to be used, in compliance with current regulations and with commonly used standards (Ministerial Decree of 16 March 1998 and CEI EN 61672 standard).

Furthermore, about **air emission monitoring** following aspects need to be specified:

- monitoring of air quality will be carried out through the use of detection units equipped with instrumentation for the measurement of chemical and meteorological parameters. The detection units will be installed at the receptors, identified in the vicinity of the location of the work project;
- equipment used for the air monitoring will satisfy the requirements described in D.Lgs. 155/2010;
- measurement of dusts (at least during construction) will be continuous.

Evaluation of legislation and other prescriptions compliance

The frequency of audits is determined by the complexity of the manufacturing operation and the potential environmental risk, as well as how critical are impacts coming from law constrains on the environmental aspects during construction phase. Audit teams consist of environmental professionals from corporate environmental affairs, legal, and plant sites other than the site being audited. This cross section of environmental professionals helps promote communication and awareness of important issues. Once the audit is completed, the team reports the findings to the site environmental management team and works with them to develop action plans to correct any deficiencies found.

Despite Company, Contractor and Sub-Contractor commitment to comply with every applicable regulation and conducting its own internal inspections, occasional violations are noted, some of which result in the assessment of penalties. When a violation is discovered, the Team works quickly to correct the situation.

Compliance with remediation obligations

During design and construction, compliance with Determination 84/2015 and Determination 797/2017 about soil and groundwater remediation must be granted at all times.

The Contractor shall provide to the Company all the technical support in terms of deliverables, studies, calculations etc. specifically required by the local Authorities, in order to verify the compliance with the relevant determination.

The Determination, given the presence of residual contamination near previous hotspots, impose severe cautions and limitations to excavation and underground structures in some areas.

Any modification to the Determination would take years, resulting in inacceptable delays, due to legal reasons. Thus, the imposed constraints have to be taken as an unchangeable project's boundary condition.

As per the Determination, 12 piezometers are installed in the area, to monitor freatimetric level of groundwater and hydrochemical parameters. They have to be preserved if possible, otherwise they have to be re located in the area on precise spot upon agreement with competent authorities.

Depth and technical details of relocated piezometers must be the same as the original.

Referring to the storage tank area and the relative access routes, a review of the risk analysis will be carried out by the Company, in the event of changes to the current state and conditions of the site, not foreseen in the previous risk analysis (approved within the remediation project – Decreto n.113 del 4.04.2014, Decreto n.5169 del 3.07.2014).

The Contractor shall provide to the Company all the technical support in terms of deliverables, studies, calculations etc. necessary during the project (for example during the Contruction phase).

An accurate report which shows full compliance with the Program Agreement for the environmental remediation and redevelopment of the SIN of Venice - Porto Marghera and neighboring areas, signed by the Ministry of the Environment and the Protection of the Territory and the Sea has with the local authorities on April 16, 2012, must be prepared.

In addition, the report must be in compliance to indications relating to the design choice and construction of deep foundations contained therein aimed at avoiding vertical filtration

paths which could make possible the migration of contamination between the different aquifer systems of that area.

Communication and interaction with authorities

The regional authority for the Habitat Assessment (Valutazione di Incidenza) will be informed about the executive phase of the work (communicating the time schedule, and related updates, and start and conclusion of individual operational phases, vector data produced to support the Habitat Assessment) and regarding the results of environmental monitoring.

The plant will be set up to allow safe access to the competent authorities for periodic control of emissions.

Monitoring plan

In accordance with Parere n.3019 of 31/05/2019 - "Commissione Tecnica di Verifica per l'Impatto Ambientale - VIA e VAS", not only the offices located in plant area shall be considered as receivers points subject to monitoring but also the external areas, potentially occupied by workers.

Suitable measurement positions must be identified in order to verify the impact of the various areas on these areas sources that will characterize the construction phase as well as the operation phase, including ships during unloading and loading.

The monitoring plan can be schematized as in the following table:

Component	Sampling points	Parameters	Method	Frequencies
Atmosphere	3	Chemical Parameters: - Sulphur dioxide (SO_2) - Nitric oxide (NO_X) - Carbon monoxide (CO) - Fine dust PM 10 and PM 2.5 - Benzo(a)pyrene Meteorological parameters: - Wind speed - Wind direction - Air temperature - Relative and absolute humidity	EMS (Emission Monitoring System)	Ante-operam (No. 2 monitoring campaign of No. 4 weeks one year before the start of construction phase – in two different seasons) Construction Phase (4-weeks monitoring campaign every six months during phases with greater impact)

		- Solar radiation - Atmospheric precipitation		Operative Phase No. 2 annually monitoring campaign of No. 4 weeks during the firsts 2 years of operative phase
Noise	4	Acoustic Noise L_{eq} in dB(A) Daytime/Night Ante-operam, and in operation phase Acoustic Noise L_{eq} in dB(A) Night during construction phase Acoustic parameters: - LAeq,TR - Sound Spectrum - Impulsive Components - Cumulative statistical levels: L95, L90, L50, L10, L1 Meteorological parameters: - Fog - Atmospheric precipitation - Mean humidity - Mean temperature - Wind speed and direction	EMS (Emission Monitoring System)	Ante-operam (No. 1 monitoring campaign) Construction Phase No. 2 annually monitoring campaign during phases with greater noise impact Operative Phase No. 1 annually monitoring campaign during the firsts 2 years of operative phase

Note:

Regarding the Noise monitoring, in addition to the 4 receptors identified in chapter 6.10 (Noise limits Table), the EPC contractor will consider as receivers subject to monitoring also the external areas of neighboring offices, potentially occupied by workers. Appropriate measurement positions will be identified, in order to verify the impact on these areas due to the various sources that will characterize the construction phase as well as the operating phase, including ships that are stationed during unloading and loading. Specific measures will also be expected for the operating phase aimed at assessing the noise emitted during the activation of the emergency flare.

Regarding the noise monitoring, the measurements will be carried out by continuous integration over 24 hours. Consequently, the total LAeq,TR will be considered over the 16 daily hours.

As regards the soil and water sectors (surface and underground), not specified in the table above, an integration of the PMA will be agreed with ARPAV, which includes monitoring before, durnig and post-construction.

6.12. Attachment 1- WASTE CATEGORIES

CER	descrizione rifiuto	recupero o smaltimento	qualità terreno (**)	note
170101	calcestruzzo	R13		se test di cessione al recupero entro i limiti
170101	calcestruzzo	D1		se entro i limiti della discarica per rifiuti non pericolosi
170302	asfalto	R13		se test di cessione al recupero entro i limiti
170504	terra	D1	ENTRO e OLTRE I LIMITI DELLA COLONNA B D. LGS. 152/06	se entro i limiti delle discariche per inerti
170504	terra	R13	ENTRO I LIMITI DELLA COLONNA B D. LGS. 152/06	se idoneo al recupero
170504	terra	D1	ENTRO e OLTRE I LIMITI DELLA COLONNA B D. LGS. 152/06	se entro i limiti della discarica per rifiuti non pericolosi

(**) il caso di rifiuti pericolosi non è contemplato e sarà gestito come variante