ISC 300 EMERGENCY PREPAREDNESS AND RESPONSE PLAN UNIFIED COMMAND

YECU-EHS-01-45_V3

DESIGNATIONS	DESIGN	APPROVAL	VALIDATION
Position	*EHS MANAGER*	*GENERAL MANAGER*	*REGIONAL MANAGER*
Date	*11-12-2020*	*NOT REVIEWED*	*NOT REVIEWED*

TABLE OF CHANGES

REV.	DATE	CONTENT OF MODIFICATION	AUTHOR
V1	*11/08/2018*	*Initial creation*	*J. VANEGAS*
V2	*05/11/2019*	*Update and Execution with Practice*	*J. VANEGAS*
V3	*11/11/2020*	*Update and expansion of NEIGHBORHOODS communication plan..*	*J. VANEGAS*

INDEX

TABLE OF FIGURES

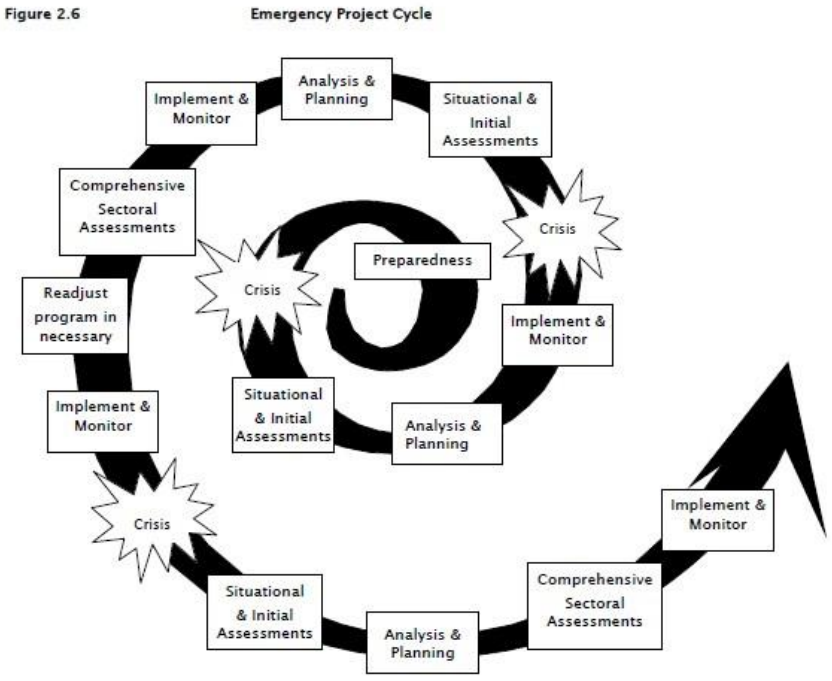
INDEX OF TABLES

1. INTRODUCTION

Risk is a complex process that merits the full attention of those responsible and of each person who carefully fulfills this EMERGENCY PREPAREDNESS AND RESPONSE PLAN to protect and safeguard each life, and second, the physical structures of the facility, and finally, the continuity of the business in all its areas; this requires linking all available resources at all levels, both horizontally and vertically, efficient planning, technological assistance, constant and effective training of its industrial brigade personnel and the fulfillment of its different activities to meet the objective completely with minimum losses.

This plan takes effect when a so-called OUTBREAK and/or accident acquires a MAJOR dimension; that is, when we can no longer control it with our resources and knowledge, we make a LINK between our leader or brigade chief and the control and emergency management professional, and we establish DIRECT communication with the neighborhoods and communities that surround our company, which could be affected by the effects of natural or man-made disasters.

Figure 1 Strategy Implementation Plan



SOURCE: OSALAM Emergency Plan, 2020

Our plan is the result of a prior analysis of all possible causes and their respective effects resulting from simulations and drills, and the possible impact of a shock wave if there is an explosion inside the premises of PUERTO BOLIVAR - YILPORTECU.

IMPORTANT NOTE: it should be highlighted that it is not YILPORTECU's responsibility to have external communications with possible affected people, because the control of communications during an emergency is derived from an order of the state to ECU 911, which is in charge of the respective communications with surrounding communities and it organizes possible evacuation routes to meeting points located in strategic places. However, this plan is designed for direct communications between neighbors possibly affected by an event and to maintain continuous and up-to-date communication between stakeholders.

From the standpoint of the emergency and considering that the first second is a valuable factor in the event of unexpected and undesired situations or events, areas of possible impacts have been analyzed and verified and possible impacts have been evaluated according to the length and respective range of the blast wave resulting from the possible explosion of "X" amount of fuel in a storage location.

Or if ECU 911 orders a global evacuation due to a natural catastrophe and there is a general order to EVACUATE towards meeting points located at strategic places.

2. JUSTIFICATION

Ecuador is considered to be one of the countries with the greatest diversity, soil fertility and natural resources of the Andean region. However, this enormous development potential contrasts with its situation as one of the countries with the highest potential for disasters, both due to conditions of increased vulnerability (inadequate land use, population density, extension of the agricultural frontier, etc.,) and the frequent occurrence of adverse geological and hydrometeorological phenomena, such as EL NIÑO and LA NIÑA.

The Risk Management Secretariat is the agency in charge of developing and leading the Decentralized National Risk Management System to ensure that individuals and communities are protected from the negative effects of natural or man-made disasters through policies, strategies and regulations that develop skills for identifying, analyzing, preventing and mitigating risks in order to address and manage disasters, and recover and rebuild social, economic and environmental conditions that are impacted by possible emergencies or disasters.

YILPORTECU is being established in a vulnerable area, so we must also be prepared for a catastrophic event at any time due to climatic conditions and the seasonal environment that make the southern Ecuadorian coast riskier due to natural events such as earthquakes, tsunamis, explosions, etc. For this reason, it is the duty of YILPORTECU to prepare its internal staff, and all users that carry out activities inside the port terminal, and coordinate evacuations efficiently and effectively to reduce the number of injuries and material losses due to destruction and crowding.

All strategies are completely reliable and ensure results as long as citizens and state agencies work in a coordinated manner and follow a line of command, which in this case would be expert, trained personnel for managing the respective emergency. However, but we must be prepared and aware of possible scenarios and the assistance we would have in the event of a (NATURAL DISASTER and/or EXPLOSION OF STORED MATERIAL). The consequences of poor performance or bad guidance can result in business interruption or poor planning, and the only way to correct these problems is to train staff and carry out practical exercises and drills of events that are similar to those planned, in order to evaluate results and improve every day with more experience and knowledge.

Continuous communication among all the people involved in a possible unexpected event is CRUCIAL to minimize and mitigate negative effects, communication allows everyone who is within a radius of action "X" to interrelate and the unexpected event and adverse consequences can be mitigated with a simple call or communication by some other means of communication.

The incident command system allows these communications to be made as well as the implementation of the entire strategy of MITIGATING the possible catastrophic event to minimize losses for everyone by using all resources and avoiding possible deviations or misuse of them. For that reason, the COMMUNICATIONS chapter of this plan was added or expanded as an update.

3. WHEN DOES SCI APPLY?

SCI should be applied to all incidents, events and operations. It is useful for preparing possible scenarios and resources before an incident occurs. If an incident has occurred, SCI begins with the arrival of the first unit on the scene. This will ensure better preparation and an organized response. Daily use of SCI is excellent training that provides familiarity with the system and its procedures. Thus, for incidents that require more resources, management of personnel, equipment and tools will be easier and more efficient.[1]

SCI is an effective planning tool based on probable risk scenarios and incident response including, among others:

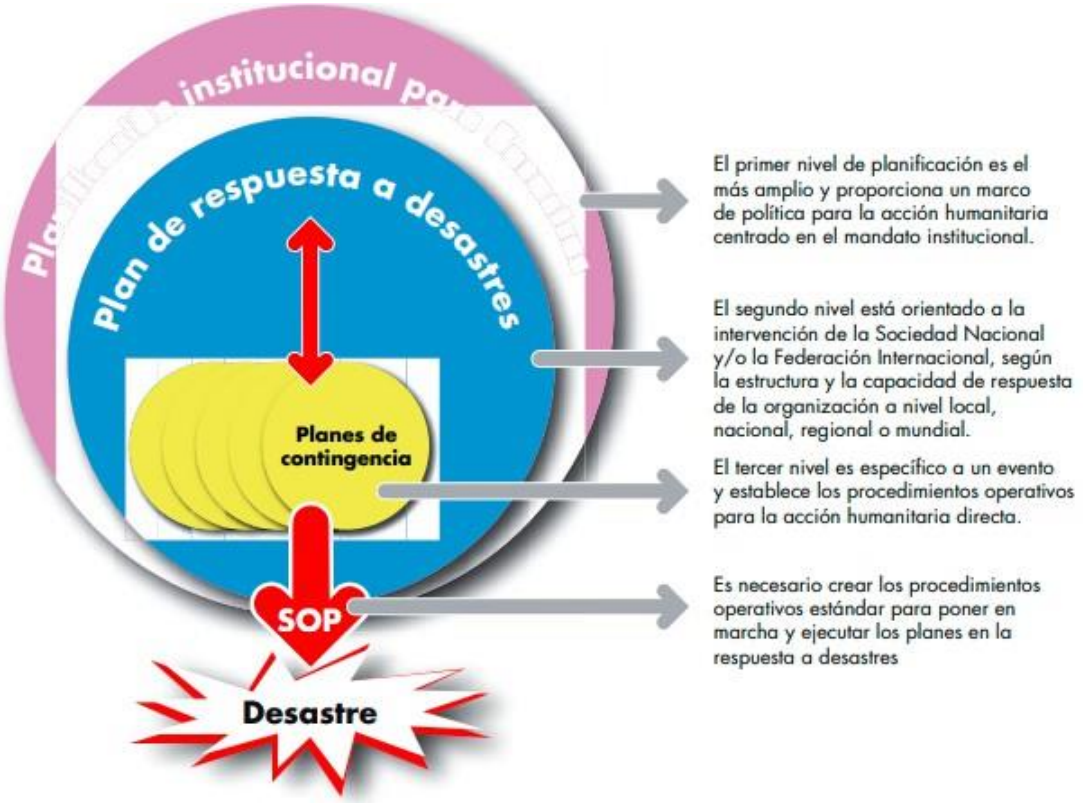
- Security operations in large human concentrations (sports events, celebrations, parades, concerts, political meetings, union complaints)
- Visits by important dignitaries (presidents, religious authorities and others)
- Vehicle accidents, domestic incidents, structural fires.
- Structural fires, restoration of burned areas, hazardous material fires originating on land or sea.
- Incidents with hazardous materials (leaks, spills, releases, poisoning)
- Search and rescue operations.
- Air, water and land transport accidents.
- Natural disasters: earthquakes, tsunamis, floods, electrical storms, earthquakes, droughts, global epidemics or declared pandemics.
- It is also implemented when global DRILLS are executed with the intervention of state rescue agencies.
- And for communicating with nearby communities or neighborhoods affected by one or more events, depending on the orientation of the sequence of effects.
- To deploy industrial brigades or for general partial practice activities according to training planning.
- Programs to control or eradicate pests and epidemics.
- Emergencies and disasters in which several institutions participate (landslides, explosions, floods, earthquakes, hurricanes, volcanic eruptions, tornadoes).
- Operation of massive temporary shelters.
- Collisions of ships in the entrance channel or while they moored at the different docks of PUERTO BOLIVAR.
- If controlling the emergency exceeds the emergency management possibilities of YILPORTECU's internal industrial brigades.
- If the event is directed towards populated areas or areas with a possible greater impact, the respective warning and possible evacuation communications will be issued.
- For coordination with state rescue and emergency control agencies.

From the beginning of its activities in Puerto Bolivar, YILPORTECU has had an Emergency Plan, "YECU-EHS-01-022-V3_Plan Emergencia FIRE_YILPORT ECU," which is executed when a fire of any type reaks out, but the moment the fire gets out of control, this ISC 300 plan takes effect in conjunction with the rescue agencies of MACHALA, EL ORO AND ECUADOR

[1] ISC 300 Incident Command Miami USA

Figure 2 Contingency Plans According to the Disaster Level

Institutional planning for disasters
Disaster response plan
Contingency plans
SOP
Disaster
The first level of planning is the widest and provides a policy framework for humanitarian actions centered on the institutional mandate.
The second level is oriented towards intervention by the National Society and/or the International Federation, depending on the response structure and capacity of the organization at the local, national, regional or world level.
The third level is specific to an event and defines the operational procedures for direct humanitarian action.
Standard operational procedures need to be created for implementing and executing disaster response plans.



SOURCE: Emergency Plan Preparation Guide, 2020

4. OBJECTIVES, SCOPE AND RESPONSIBILITIES

4.1 OBJECTIVES

4.1.1 GENERAL OBJECTIVE

Preserve the life of every person working at YILPORT - TERMINAL OPERATIONS (YILPORTECU) SA facilities, then protect infrastructure and re-establish normal activities after an accident, notify communities through effective and efficient communication channels in coordination with the RISK CENTER and ECU 911 to minimize impacts produced by the emergency and its possible consequences.

4.1.2 SPECIFIC OBJECTIVES

1. Adopt emergency control measures when an unwanted event occurs and work together with state and rescue institutions.
2. Identify anthropic and natural hazards that may affect YILPORTECU operations.
3. Mitigate as much as possible the impact and consequences of the emergency through early ALERTS to surrounding inhabitants.
4. Communicate effectively with all communities near the port area about the status of the undesired event at the beginning, during and after it is over.
5. Coordinate and provide facilities for state rescue institutions and professionals in the emergency area so that they can do their job efficiently and effectively.
6. Adopt a mitigation measures hierarchy to anticipate and avoid, or failing that, minimize impacts, and if there are residual impacts, repair/compensate for risks and impacts on workers, affected communities and the environment.
7. Coordinate all evacuations to designated meeting points inside and outside YILPORTECU efficiently and effectively, in coordination with Ecuadorian state rescue, control and emergency management institutions.

4.2 SCOPE

The YILPORT - TERMINAL OPERATIONS (YILPORTECU) S.A. EHS Emergency Preparedness and Response Plan is applicable to all activities carried out by YILPORT - TERMINAL in different types of catastrophic events.

The different causes of possible total evacuations of personnel to the meeting points are described above, so necessary resources for mobilizing and carrying out all activities need to be taken into account.

Figure 3 Controllers and Stakeholders of the Strategic Plan

Stakeholders_Emergency Preparedness and Response Plan

CITIZENS	"YILPORTECU"	COMPETITORS
CUSTOMERS	HOLDING COMPANY	MEDIA
DISTRIBUTORS	SENIOR MANAGEMENT	REPORTERS
SHAREHOLDERS	OWNERS PROCEDURES	TRADE ASSOCIATIONS
INVESTORS	INTERNAL YILPORTECU	NEIGHBORS
OWNERS	RESPONSE PERSONNEL	PRESSURE GROUPS
INSURERS	EMERGENCIES	TRANSPORT SERVICES
GOVERNMENT	COMMUNICATION	DEPENDENTS
LEGISLATORS	YILPORTECU STAFF	GUILDS COMMUNITIES
SUPPLIERS	CONTRACTORS	OTHER INTERESTED PARTIES

SOURCE: OSALAM Emergency Plan, 2020

This plan is embedded in the direct impact framework of a possible undesired emergency event, for which direct stakeholders are defined as neighboring communities, groups of cooperatives, universities and nearby schools, state agencies, subcontractors, clients, shareholders, suppliers, employees, workers, neighboring communities and companies, shipping lines, ships and crew within the radius of action of the impact. Communication will come later when the emergency is under control by professional state emergency institutions, such that effective communication can be carried out within that radius of action.

4.3 RESPONSIBILITIES

The procedure is designed so that the "INCIDENT COMMAND" is entirely responsible for managing resources and in each case they will be in charge of all Ecuadorian state institutions, the Machala Municipal Firefighters and their department of specialization, The Harbor Master of the National Ecuadorian Navy, the Municipality of Machala, the Provincial Council of El Oro and the National Risk Management Secretariat of the province are among the most important, depending on the magnitude of the risk and identification of the danger.

All people involved in concession project activities and/or operations for the following project activities: Design, Financing, Equipment, Additional Works, Operation and Maintenance of the PUERTO BOLIVAR Port Terminal are responsible for following this document precisely to ensure its faithful fulfillment.

The effective incident command MUST communicate with the 911 operator to coordinate emergency control activities, while the YILPORTECU emergency control delegate (CAE) is in charge of communicating with the social actors of each community or neighborhood near the disaster and its possible effects according to blast wave data

4.4. DEFINITIONS

WORD	DEFINITION
Control Center (CC):	Person in whom all information is centralized during the Emergency, who is in charge of notifying external teams.
Emergency outbreak:	Emergency situation controllable with existing resources in the company..
Emergency:	Emergency situation that is not controllable with the existing resources in the company and therefore requires External Help (ESI), which may involve the partial or total evacuation of personnel present in the facilities.
SENIOR MANAGEMENT	Person or group of people who direct and control an organization at the highest level. (Source: NCH 18000. Of 2004).
Alert	The condition prior to the occurrence of a preventable disaster, in order to take precautions and activate pre-established procedures
Green Alert	Indicates that you should pay attention to the behavior and evolution of the monitored phenomenon or event, as well as alerts that continue to be issued. This alert should be addressed to institution specialists, people in charge of the Emergency Plan and inhabitants of endangered communities.
Yellow Alert	The alert increases and different teams and institutions begin preparing to carry out the corresponding actions to address the impact of the event and its consequences and execute the EMERGENCY PLAN ACTIVATION; brigades must go to the accident site.
Red Alert	This signifies that the arrival or materialization of the event is imminent. The alert is issued through the responsible Brigade members. The Emergency Plan is activated and, in most cases, personnel evacuation to safe areas or meeting points will be ordered and the emergency will be fully controlled by an expert from the state agency specializing in the specific emergency.
Control Center	The place where the Emergency Chief will be located and coordinate all the action. It will be in a safe place, preferably near a telephone and the fire detection switchboard, if applicable. Usually, it will be the YILPORTECU CCTV camera room.

Risk management:	A component of the social system consisting of planning, organization, direction and control of activities related to adverse events.
IDENTIFICATION OF DANGER	A process by which the existence of a hazard and its characteristics are recognized and defined. (Source: NCH 18000. Of 2004).
Stakeholder:	Any person or organization that has an interest in the company or is affected by its activities.
Affected communities:	People or communities exposed to negative impacts related to the company that affect their environment, infrastructure, lifestyle, personal safety, health or livelihoods.

4.5 ABBREVIATIONS

ABBREVIATION	DESCRIPTION
PPE	Personal protection equipment
PE	Meeting Point (Designated place to go and gather in the event of a general evacuation)
Emergency Operations Center (COE):	A group of representatives of different institutions responsible for assisting the community affected by an incident; they gather at a previously designated facility to coordinate the efficient use of response resources and return the situation to normal. COE commands emergency operations in the community. It is supported by each country's regulatory, administrative and legal procedures
Incident Commander (CI):	Person in charge of SCI at the scene.
Unified Command	A function of SCI that is applied when several institutions make joint agreements to handle an incident, by which each institution retains its authority, responsibility and accountability.
ISC	Incident Command System 300 Level, EXTERNAL.

4.6 REFERENCES

REFERENCES	REGULATION/LAW
Regulations for the Operation of Company Medical Services	A Page: 16 lo. 1404
Organic Code of Land Use Planning, Autonomy and Decentralization..	COOTAD
Comprehensive Risk Management Plan	PIGR
Jurisdiction of GADs. The GR of the cantons will be managed concurrently and articulated with SGR, the Constitution and the law. The obligatory nature of municipal GADs adopting technical standards for the prevention and management of seismic risks	Organic Code of Land Use Planning, Autonomy and Decentralization. art.140
On the prohibition of authorizing or legalizing human settlements. Non-fulfillment is cause for immediate removal of the authority who granted it. It includes criminal prosecution.	Organic Law reforming COOTAD
On the definition and declaration of states of exception. The power to declare them resides with the President of the Republic and cannot be delegated.	Public and State Security Law. Art- 28 - 37
Details of the membership of SNDGR	Regulations of the Public and State Security Law
Incorporation of risk management in public investment programs and projects	Organic Code of Planning and Public Finance
Health and Safety Regulations for Construction and Public Works Personnel	R.O. No. 249
YECU-EHS-01-022-V3_Emergency Plan FIRE_YILPORT ECU	YECU-EHS-01-22
YECU-EHS-01-68_Earthquake Emergency Plan_V1	YECU-EHS-01-68
YECU-EHS-26-67_YILPORTECU EMERGENCY NUMBERS_V1	YECU-EHS-26-67

5. GENERAL PROJECT DATA

Basic data of the Puerto Bolivar modernization project located in Puerto Bolivar in the province of El Oro in southern Ecuador.

INFORMATION ON THE SUBJECT OF CONTROL	
Company	YILPORT TERMINAL OPERATIONS YILPORTECU S.A.
RUC	0992982047001
Legal Representative	Alfredo José Jurado Von Buchwald
Classification	Exploitation of Terminal facilities, such as Ports
Address	Av. Bolívar M. Vargas s/n. Edificio de Autoridad Portuaria de Puerto Bolívar.
Telephone	+593 995083333
Type of company	Public Private Partnership

The environmental conditions of the port are similar in most of the southern area of Ecuador, so the threats are the same as the rest of Ecuador, except that proximity to the sea increases the risk of a Tsunami.

PROJECT DATA	
Project name	'CONSTRUCTION AND OPERATION OF THE PUERTO BOLÍVAR PORT TERMINAL, OPERATED BY YILPORT TERMINAL OPERATIONS YILPORTECU S.A.'
Environmental license	**MAE-RA-2017-309603**
Project phase	Operation and Administration of Maritime Ports.
CCAN code	OPERATION OF COMMERCIAL PORTS.
Responsible technician	Jaime Vanegas
Jurisdiction	Certificate ISC 300 – Incident Command System International NFPA 1561 – INTERAMERICAN FIREFIGHTERS – USA.
Location	Puerto Bolívar, Machala – El Oro

Location Map	
Coordinates	Universal Transverse Mercator projection U.T.M. System of World Geodetic Reference WGS 84 - Zone 17 South

Points	Latitude (X)	Longitude (Y)
1	611290	9639124
2	610952	9639220
3	610966	9639464
4	611047	9640244
5	611941	9639964
6	611608	9639609
7	611680	9639532
8	611290	9639124

5.1 TECHNICAL SPECIFICATIONS

50-year concession project of the Puerto Bolivar facilities for Operations within the port terminal.

Figure 4 Puerto Bolivar, YILPORT ECUADOR, 2018

Berth Information

	Berth 1	Berth 2	Berth 3	Berth 4	Berth 5
Length (m)	125	125	180	180	300
Draft (m)	10	10	12 (7.5)	12 (8.5)	14

SOURCE: YILPORT ECUADOR - 2018

THE BEST CHOICE IN ECUADOR'S MARINE TRADE

Puerto Bolívar is located in the province of El Oro, Ecuador. The port was established near the country's famous banana farms, which produce 3 million tons annually. The shrimp industry is also very active in the region. In addition to refrigerated cargo, the terminal also handles dry cargo such as paper pulp and concentrated copper. With its container loading operations, the terminal is the most secure and safest place for containerized export products.

Business activities have to respect human rights, which means avoiding the infringement of human rights of others and addressing adverse human rights impacts that such activities may cause or contribute to. Each Performance Standard contains human rights elements a project may encounter during its operations. By applying these Performance Standards with due diligence, a client will be able to address many human rights issues in their project.

External stakeholders can provide valuable information, such as suggestions for improving products, early warning of critical situations, opinions on interactions with employees, or comments from regulators, NGOs and individuals regarding the environmental and social performance of the company. The external communication procedure should include methods to:

1. Receive, record and validate external communications and requests for information from the public;
2. Analyze and evaluate the importance of the issues raised and determine how to address them;
3. Provide, track, document and publish responses, and
4. Adjust the management program as appropriate.

5.2 GENERAL DESCRIPTION

Affected communities will want to know what measures the company has taken to solve the problems identified when an unexpected occurrence or undesired EVENT happens, such as a natural accident that gets beyond the control of the internal industrial brigades of YILPORTECU.

Keeping communities informed about what is being done is a crucial component of establishing and maintaining good relationships. Letting people know when they will receive new information helps build trust. You can also reduce the amount of time spent responding to concerns.

The frequency of this communication will be proportional to the stakeholders' level of concern, but it should at least be annual. If the company's activities change or new environmental and social risks emerge, stakeholders need to be contacted outside the usual calendar to discuss these changes.

To keep communities informed, the WhatsApp network will be used with the leaders of each community affected by the calculation or simulation of the radius of the maximum shock wave we could have; however, communications for other events or invitations to practices or drills will also occur at least once per year.

Table 1 ISC 300 Location Plan for the Emergency

Levels, areas and scope of citizen participation

YECU-EHS-01-56_Emergency Plan level

LEVELS OF APPLICATION OF THE EMERGENCY	PRODUCTS	AREAS OF PARTICIPATION	SCOPE OF PARTICIPATION
NATIONAL	National Emergency Plan	Total evacuation to previously designated meeting points	Total
ZONAL	Zonal Emergency Plan	Evacuation to sectoral meeting points	Eventual
SECTORAL	Machala Emergency Plan	Directions taken by ECU 911 and evacuation to meeting points	Partial
PRIVATE	**Emergency Preparedness and Response Plan**	**Indications taken by ECU 911 and communication between social actors**	**Specific**
INTERNAL	YILPORTECU Emergency Plan	Internal management of the emergency without external impacts	Operational Processes
OUTBREAK	Emergency Management	Training of industrial brigades with extinguishing equipment	Work areas
GENERAL INDICATIONS	TAPE procedure	Handling fire extinguishers (Pull, Point, Press and Spread) extinguishing agent	Workstation

SOURCE: YILPORT ECUADOR - 2020

When emergencies occur, indications and planning at all levels come into force depending on the level of emergency management from OUTBREAK to total catastrophe.

Figure 5 Emergency level scale 2020

LEVELS OF EMERGENCY ACCORDING TO THE EVENT
TAPE OUTBREAK INTERNAL PRIVATE SECTORAL ZONAL NATIONAL
TAPE procedure
Emergency Management
YILPORTECU Emergency Plan
Emergency Preparedness and Response Plan
Machala Emergency Plan
Zonal Emergency Plan
National Emergency Plan

SOURCE: YILPORT ECUADOR - 2020

ALERT levels will be issued according to the level of the emergency; when an emergency occurs, the respective implementation or application Plan or strategy is activated according to the natural or anthropic risk of fire occurring at a certain time in the area.

1. TAPE procedure (application of the Pull, Aim, Press and Spread strategy and actuation of a dry chemical fire extinguisher).
2. If a fire outbreak occurs, the respective basic emergency plan is applied.
3. If the outbreak cannot be controlled, the industrial brigade is called, and the YILPORTECU internal emergency plan takes effect.
4. If the emergency plan cannot mitigate the risk of expansion of the fire and/or accident or undesired event, the Emergency Preparedness and Response Plan or "Incident Command" takes effect; if there is eminent risk to the external population of Puerto Bolivar, the response plan should be applied and immediately communicated to surrounding communities near or adjacent to YILPORTECU, so that the consequences of delays are mitigated; it is communicated through WhatsApp to the leader of each community so that they can cooperate with the intervention and rescue authorities that are leading the emergency event.
5. If the emergency goes to another level due to the emergency evacuation of the city, the level moves up to CITY.

6. Then, if it goes to the province level, the Zonal Emergency Management Plan takes effect.
7. And finally, if we are in a state of EXCEPTION at the national level and/or receive instructions from the Ecuadorian government regarding on the emergency.

Figure 6 YILPORTECU 2020 Port TERMINAL map

PROJECT LOCATION MAP

MAPA DE UBICACIÓN DEL PROYECTO

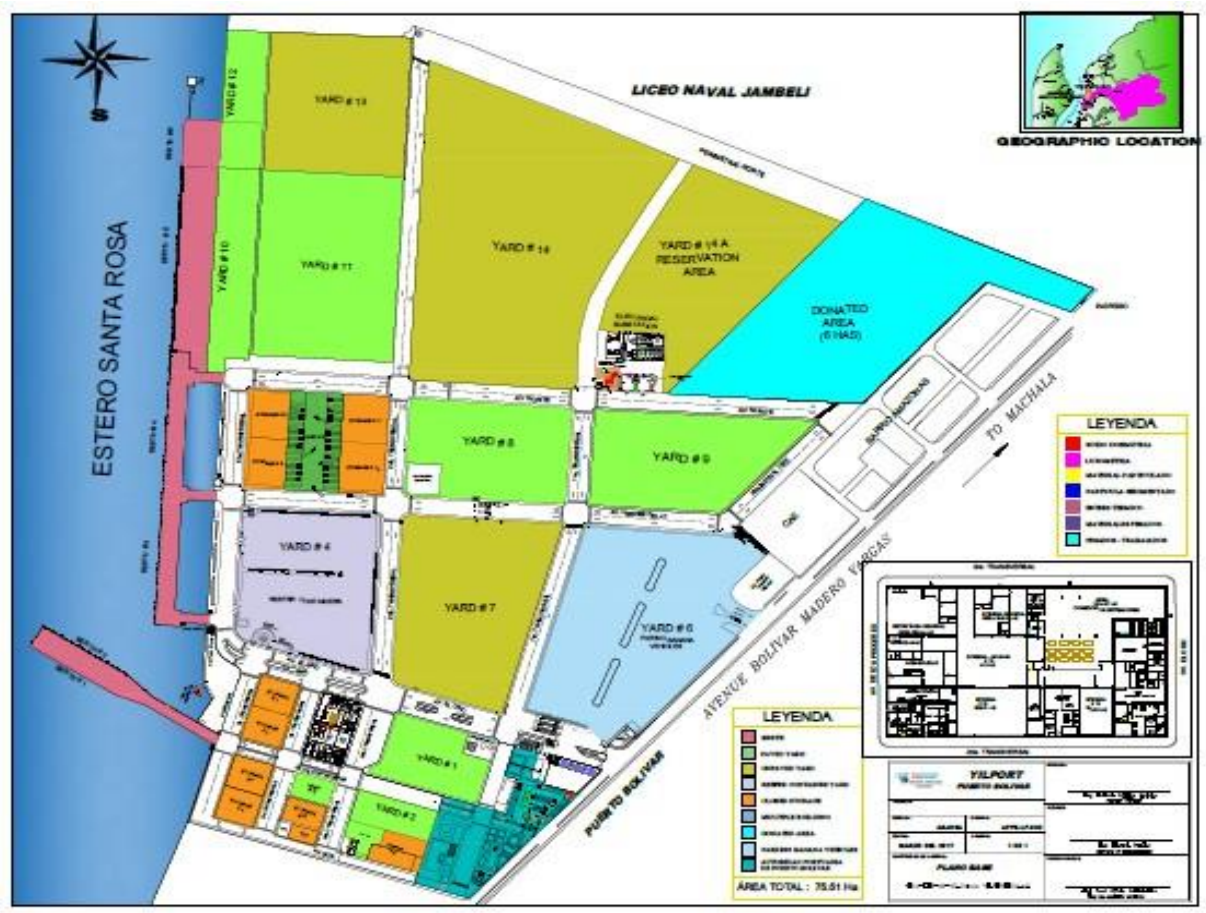
SOURCE: YILPORT ECUADOR - 2020

Emergencies will be treated separately according to the circumstances of each situation and according to the risks of each undesired event.

6. RISK ANALYSIS

For the risk analysis, an on-site review is proposed for each work area, depending on the activity to be carried out at the workplace, taking into account the main risks from a LABOR point of view.

Figure 7 YILPORTECU 2020 Port TERMINAL map



SOURCE: YILPORT ECUADOR – 2020

The identification of the most vulnerable areas and those most prone to a fire and/or explosion is shown on the Map of merchandise distribution areas, which can be classified or their vulnerability due to the storage of hazardous materials can be calculated. They are shown below in the table of hazardous materials storage with the possible consequences, if there is an explosion. The calculation was made based on the type of fuel stored, which in this case will be industrial DIESEL FUEL, and the quantities are as specified in the detailed statistics.

6.1 RISK ANALYSIS FOR THE PORT SECTOR

To identify hazards and Evaluate Risks generated by Port Sector activities, the Regulated parties need to perform a risk analysis with the matrix of possible catastrophic events in the Facility, in accordance with the best national and international practices that can ensure that Risks are managed according to the type of Project and/or Facility. It is very advisable to carry out a risk analysis in a systematic, methodological and consistent way, and identify dangers exhaustively, evaluate Risks, and where appropriate, specify actions and/or recommendations of Industrial Safety, Operational Safety and Environmental Protection that will be implemented to achieve a Safety Integrity Level (SIL) for the Project and/or Facility.

To carry out the risk analysis, it is recommended that Regulated parties use at least the information obtained from the following specialties to identify hazards, and evaluate and Analyze Risk,

a. Operations risk.
b. Instrumentation and control engineering;
c. Safety engineering and firefighting;
d. Anthropic Risk Matrix
e. Natural Risk Matrix.
f. Risk of explosion
g. Risk of mass poisoning
h. Terminal Risk Map
i. Statistics
j. Impact on third parties (Stakeholders)

6.2 PRELIMINARY RISK ANALYSIS

The application of the Regulated parties' choice of methodology should be technically supported and will be in accordance with the stage of the Project Life Cycle (Design, Construction, Operation, Closure, Dismantling and Abandonment), and at all times the methodology will allow an exhaustive identification of Hazards, which will provide feedback for the subsequent Risk Analysis phase.

Through the use of a suitable methodology, Regulated Parties will first identify the Hazards and Threats in the Project and/or Installation Design phase, and recognize Hazardous Substances, conditions and possible Dangers involved in the use of certain technology, as well as safeguards, security measures, and protections considered for each area of the Project and/or Installation. Of particular interest is the implementation of the best normally recognized national and international engineering practices, codes and standards, and as much as possible, where appropriate, the application of inherently safe Design.

In addition to the above, not only will all aspects of process Risk be considered in each area of the Project and/or Installation when applying the selected methodologies, but also aspects that interact with it, including operational aspects (routine and non-routine activities), human errors and/or system failures, deviations from normal/maximum/minimum operating and design conditions, start-up activities, normal shutdown, emergency shutdown, failure or interruption of essential services for safe operation

of the plant (electrical energy, plant air, instrument air, etc.), types of construction materials, corrosion phenomena (external, internal and stress and corrosion cracking), as well as:

a) Geological phenomena (earthquakes, tidal waves, volcanic eruptions, landslides, geological faults, landslides, and others);
b) Hydrometeorological phenomena (cold fronts, tropical cyclones, tropical storms, tropical depressions, tropical waves, pluvial floods, river flooding, storm surge, blizzard, hail storm, electrical storm, droughts, pluvial erosion, waterspouts, hot and cold waves, etc.);
c) Health phenomena (vectors that transmit pathogens and parasites to personnel and the population; presence of harmful pests in the Facility, air, water, soil and food contamination, etc.);
d) Social and organizational phenomena and their main manifestations (massive crowds, demonstrations of social inconformity, terrorism, sabotage, vandalism, acts against air, sea or land transport safety, interruption or impairment of basic services or strategic infrastructure, etc.), and
e) External disasters having a direct or indirect impact on the Facility (vehicle collision with the Facility, collision between vehicles, collision between mobile facilities, sinking of the Facility, Tank car collision, etc.).

6.3 QUALITATIVE RISK ANALYSIS

Hazard Identification and Risk Assessment: The results of the Preliminary Hazard Analysis will be the initial input for the Hazard identification and Risk Assessment phase, using any of the methodologies selected by the Regulated parties.

It is recommended that the Hazard Identification and Risk Assessment be carried out exhaustively, systematically, methodologically and consistently for each area of the port facility.

Table 2 QUESTIONNAIRE Risk Analysis Method

Type	Name
Qualitative Risk Analysis Methodology	What happens if?
	Checklist / What happens if?
	Hazard and Operability Analysis (HAZOP)
	Muhibauer Method
	Fail Mode and Effect Analysis (FMEA)
	Fail Mode, Effect and Criticality Analysis
	Human Reliability Analysis (ACH)

Tipo	Nombre
Metodología de Análisis de Riesgo cualitativo	¿Qué pasa si?
	Lista de verificación / ¿Qué pasa si?
	Análisis de Peligros y Operatividad (Hazop)
	Método Muhlbauer
	Análisis de Modos de falla y efecto (FMEA)
	Análisis de Modos de falla y efecto y Criticidad (FMEAC)
	Análisis de Confiabilidad Humana (ACH)

Tipo		Nombre
Metodología de Análisis de Riesgo semicuantitativas y cuantitativas		Análisis de Capas de Protección (LOPA)
		Análisis Bow – Tie
	Análisis de frecuencias	Análisis de Árbol de fallas
		Análisis de Árbol de eventos
	Análisis de consecuencias	Simulación de consecuencias con software especializado (Radiación Térmica, Dispersión tóxica, Sobrepresión y derrame en superficies terrestres)
		Simulación de consecuencias con software especializado (Derrame sobre superficies marinas)
		Estudio para ubicación segura de Instalaciones (*Facility Siting Analysis*)

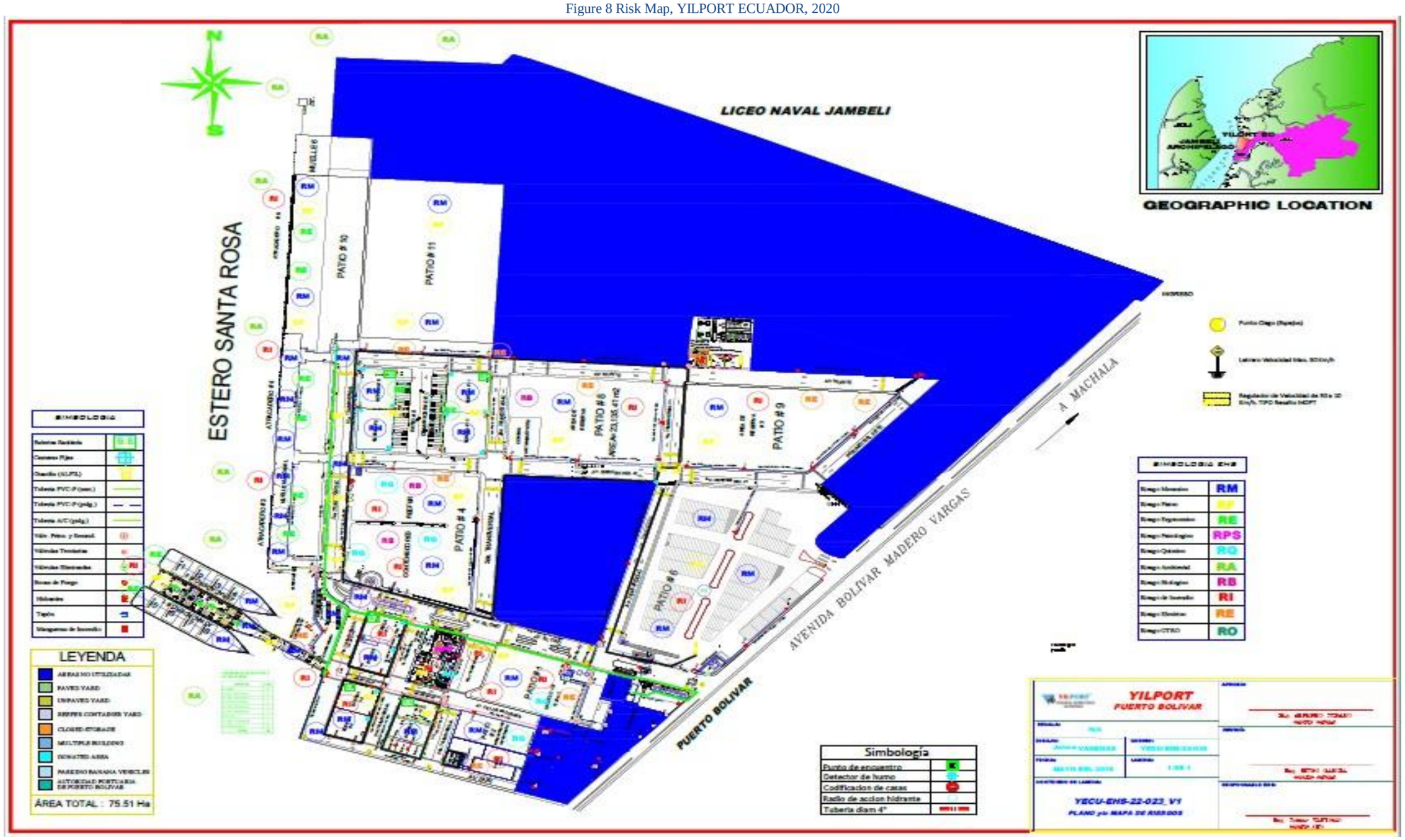
Type		Name
Semiquantitative and Quantitative Risk Analysis Methodology		Layers of Protection Analysis (LOPA)
		Bow-Tie Analysis
	Analysis of Frequencies	Failures Tree Analysis
		Events Tree Analysis
	Analysis of Consequences	Simulation of Consequences using specialized software (Thermal Radiation, Toxic Dispersion, Overpressure and Spills on Land Surfaces)
		Simulation of Consequences using specialized software (Spills on marine surfaces)
		Study for Safe Location of Facilities (Facility Siting Analysis)

SOURCE: YILPORT ECUADOR - 2020

The hazard identification and Risk Assessment methodology selected (preliminary, qualitative, semi-quantitative and/or quantitative) will be updated each year or each time operations with different types of product increase at the port facility.

Depending on the type of HAZARD and the magnitude of the unexpected event, a SWEEP of possible events was made based on the experience of several ports and taking into account events that have occurred over the last 4 years and current loading and storage conditions of Puerto Bolivar, cause the danger curve to rise significantly, because currently the only fuel stored is DIESEL; however, the storage of a highly volatile, explosive fuel was taken into account for calculation purposes.

Figure 8 Risk Map, YILPORT ECUADOR, 2020



Source: YILPORT TERMINAL ECUADOR, 2020

Figure 9 Risk Map, YILPORT ECUADOR, 2020

CONSOLIDATED ANALYSIS MATRIX OF NATURAL AND ANTHROPIC RISKS
YILPORT TERMINAL OPERATIONS - PUERTO BOLIVAR ECUADOR

Analysis Method According to Statistical Data and Data from Hazard Maps of Natural Hazards Ecuador 2010 **2018**

PROCESS and/or PRODUCT	Storage capacity (TEUS)	Market	Area (m2)	REX	Energy supply	Firefighter response (min)	Firefighting Network System	Building structure	Electrical Contact Hazard	Explosion Risk	Static Discharge Risk	Health Risk	Plant Fire Risk	Storage Fire Risk	Seismic risk	Volcanic risk	Flooding risk	Landslide risk	Aircraft Collision Risk	Dangerousness (%)
Loading and unloading operations of loose cargo, bananas, containers, vehicles and paper reels	50.000,0	National & Export & Import	75.000,0	If there are statistics of serious accidents	Transf. 600 KVA	Arrival Time: 10	Lack of Maintenance and Update of Vulnerable Points	Class II	Low	Low	Low	Considerable	High	Very high	Class I (Considerable risk)	Class 0 (None)	Class I (Considerable risk)	Class 0 (None)	Class 0 (None)	Class I (Considerable risk)	**70 (High)**

Source: YILPORT TERMINAL ECUADOR, 2020

Table 3 List of Undesired Events at the LEVEL Terminal

ANALYSIS OF UNDESIRED EVENTS YILPORT TERMINAL OPERATIONS

YECU-EHS-76-23_ Major Catastrophic Events Analysis _V3

No.	UNDESIRED CATASTROPHIC EVENT	ZONE/PLACE	T	RISK LEVEL
1	Ship arrival with patient possibly infected with CORONA VIRUS.	Dock	**800**	Critical
2	Man overboard on pier	Sea water	**729**	Critical
3	Fires in tugboats during operations.	Access Channel	**500**	High
4	TANKER FUEL TRANSFER FIRE IN SEAWATER (any dock) Large quantities.	Sea water	**500**	High
5	Oil and/or fuel spill from TANKER into seawater (any dock) Large quantities.	Sea water	**500**	High
6	Fainting of Operator of GANTRY, RTG and/or other types of cranes.	Dock	**500**	High
7	Fire inside a vessel (Ship)	Docks 1,2,3,4 and 5	**486**	High
8	Fire in Dining Room or Kitchen	Dining room and kitchen	**486**	High
9	Rain and flooding during the rainy season, flooded areas and runoff.	General port	**486**	High
10	Chlorine Poisoning in Elevated Tank (6 tanks) Leak	Tank 1 Chlorination system	**486**	High
11	Chlorine poisoning in maintenance yard (6 tanks).	Chlorine leak	**486**	High
12	Fall from height inside ship holds (Fall from max. 15 m)	Vessel	**486**	High
13	Fall of a banana boat WINCH or mechanical crane, or connectors on the vessel.	Vessel	**486**	High
14	CUSTOMS warehouse fire inside the operations building.	Warehouse 15	**450**	High
15	Earthquake in general, telluric movement inside the port.	General port	**324**	Medium
16	Tsunami with 10 min. advance warning.	General port	**300**	Medium
17	Fall of RTG crane 1-2-3-4 on dock 5A-5B.	Docks 5A - 5B	**300**	Medium
18	Fire in interior offices (OPERATIONS Building)	Operations Office Building	**192**	Medium
19	Fire in diesel tank area, near ARETINA and OROESTIBA	Diesel tank	**180**	Medium
20	Toxic cloud, with wind direction towards a populated area. Handling of Stored Hazardous Materials, Location Warehouse No.5	Warehouse 5	**180**	Medium

SOURCE: YILPORT ECUADOR – 2020

This analysis considers events with the highest probability of occurrence and the magnitude of the disaster should it occur when analyzing risk of an undesired MAJOR event that can go beyond internal or industrial brigade control**.**

Threats are not only structural or of anthropic origin; the risk analysis or undesired event was also carried out from the point of view of a NATURAL RISK.

Table 4 List of Natural Disasters EVALUATION

ANALYSIS OF EVENTS NATURAL RISK YILPORT TERMINAL OPERATIONS

YECU-EHS-76-34_Analisis Eventos Riesgo Natural_V3

No.	UNDESIRED CATASTROPHIC EVENT	ZONE/PLACE	P	C	E	T	RISK LEVEL
3	Structural Fire	Docks	7	8	9	**504**	High
4	Bomb blast	Nearby Sectors	7	8	9	**504**	High
5	Hazardous Material Explosion	Nearby Sectors	7	8	9	**504**	High
6	Toxic cloud expansion	Nearby Sectors	7	8	9	**504**	High
8	Risk of Biological Contagion Pandemic	General Port	5	10	10	**500**	High
9	Earthquake	General Port	5	7	8	**280**	Medium
2	Power supply and power blackout	General Port	3	6	8	**144**	Medium
11	Flood	Nearby Sectors	6	8	3	**144**	Medium
12	Tsunami	Nearby Sectors	6	8	3	**144**	Medium
1	For return of experience, (REX) Return of the Experience	General Port	3	6	7	**126**	Medium
15	Aircraft Forced Landing	General Port	3	4	9	**108**	Medium
7	Electrical discharge (Static Energy)	Buildings	3	7	5	**105**	Medium
10	Volcanic	Nearby Sectors	5	2	3	**30**	Low
13	Landslide	Nearby Sectors	2	3	3	**18**	Low
14	Drought	Nearby Sectors	2	3	2	**12**	Low

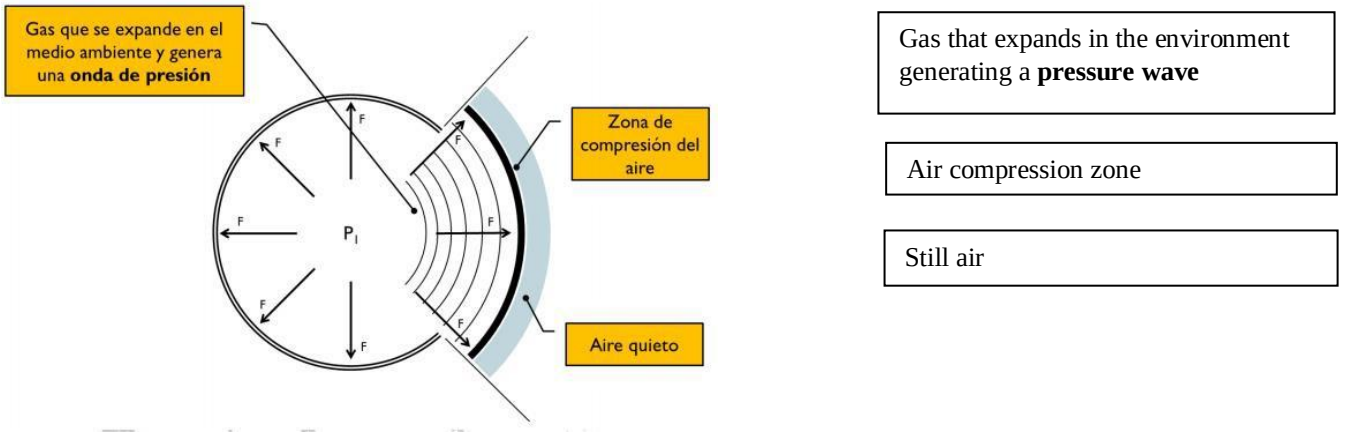
Analysis of Threat most likely to become an undesired event.

SOURCE: YILPORT ECUADOR – 2020

6.4 CALCULATION OF EXPANSIVE WAVE EXPLOSION

To study of the impact of a possible explosion on the population near the YILPORT ECUADOR facilities, areas with the highest risk or highest impact on the population around the YILPORT ECU Terminal will be taken into account. It begins with a sound container inside which there is a gas at higher than atmospheric pressure. If the container breaks, the gas escapes and expands into the surrounding environment producing a destructive pressure wave or Shock Wave; however, the still air in front of the mass of gas that is expanding at high speed is compressed. Now it also moves at high speed, producing what is called wind pressure, that is, dynamic pressure due to the speed of the air displaced by the gas and of the expanding gas itself.

Figure 10 Sudden Explosion Dynamics



SOURCE: Red Proteger Spain; 2015

The distances of the Intervention zone and the Alert zone can be delimited to evaluate overpressures, according to the Basic Guideline for developing and approving Special Chemical Sector Plans.

A propane and butane tank under normal conditions was used as a reference to calculate the effects of the EXPANSIVE WAVE. If it were to explode, what would happen and what would be its range around the radius of the explosion, according to NIOSH NTP's 321, 293 and 294 Standards? In order to express the impact diameter of the blast wave in the diagram, it was plotted using a simple rule of 3, taking the diameter of the initial wave as a base.

Table 5 Calculation of EXPLOSION Expansive Wave Effects

CALCULATION OF EXPANSIVE WAVE EXPLOSION EFFECTS DISTANCE - FUEL

IN THE EVENT OF A TOTAL EXPLOSION OF THE TOLUENE TANK (Class 3)

A propane and butane tank under normal conditions was taken as a reference to calculate the effects of the EXPANSIVE WAVE. If it were to explode, what would happen and what would be its range around the radius of the explosion, according to technical standards
NIOSH NTP 293 and 294.

$$W = \frac{\eta M \cdot E_c}{E_{cTNT}} = \frac{0{,}1 \cdot 760000 \cdot 46389}{4520} = 779992 \text{kg de TNT}$$

Explosion No.	Yard No.	Section (Zone)	Static local overpressure of the pressure wave 125 m bar = 0, 125 bar = 12.5 kPa = 12 500 Pa.	Using the graph of figure 2 at 12,500 Pa corresponds a scaled distance Z = 9 equivalent to one:	R = 9. 7799921/3 =828 m
1	P3	Evaluation of the risk of overpressure generated by the deflagration of an unconfined vapor cloud due to the rupture of a PROPANE BUTANE fuel Storage Tank located in Patio No. 3. in containers.	12.500	9,0	**828,0**
2	P7	Evaluation of the risk of overpressure generated by the deflagration of an unconfined vapor cloud due to the rupture of a PROPANE BUTANE fuel Storage Tank located in Patio No. 7. in containers.	11.500	8,0	**736,0**
3	P11	Evaluation of the risk of overpressure generated by the deflagration of an unconfined vapor cloud due to the rupture of a PROPANE BUTANE fuel Storage Tank located in Patio No. 11. in containers.	12.500	9,0	**828,0**

SOURCE: YILPORTECU, 2020

STORAGE TANK DIMENSIONS: Currently (Dec 2020) there are DIESEL fuel tanks with a Tank Diameter of 6 m. Regulatory tank separation distance 6 m; Expansive Wave Diameter 92 m with disasters as per the table of minimal DAMAGE to people and structural DAMAGE, such as BREAKING glass in the surrounding area. A fuel tank model (propane - butane) was taken into account for analyzing the calculation of possible damage in the surrounding area, which could affect a maximum distance of APPROXIMATELY 1,600 m around, depending on the exact site of the explosion and the wind direction. It is proposed that communications be made depending on the direction of the wind at the specified or proposed site.

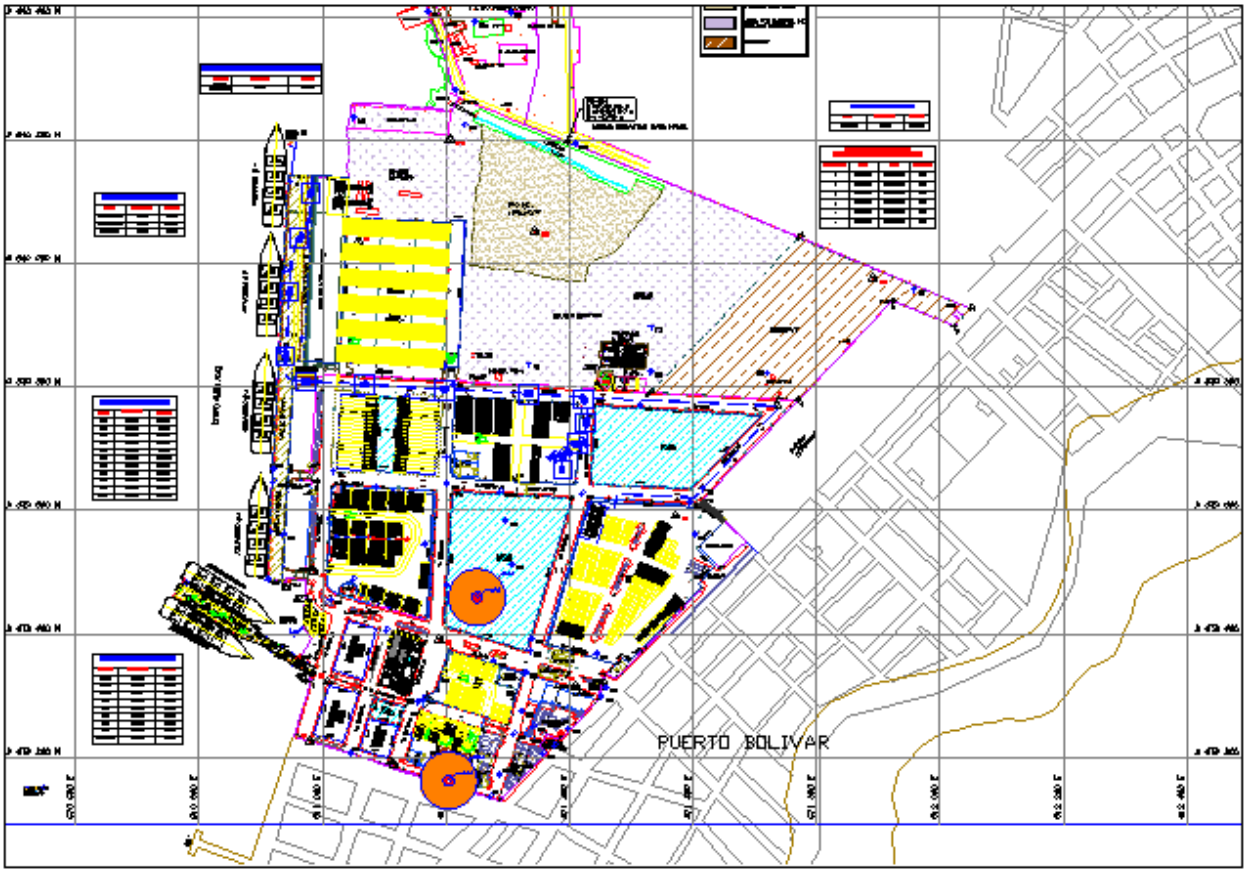
Current storage conditions at YILPORTECU comply with the legal technical requirements for fuel storage. There are currently no storage or large fuel tanks. For that reason, it is not necessary to make an extreme calculation of possible EXPANSIVE WAVE effects, as can be seen on the diagram of class III and IV hazardous materials location and storage.

Figure 11 Class III and IV Fuel Storage Sites

SOURCE: YILPORTECU, 2020

The quantities currently handled inside PUERTO BOLIVAR (YILPORTECU) are not large or alarming because they involve FUEL for operations and the largest amount in the fuel storage tank at the site is 12,000 Gal. of diesel.

Figure 12 Expansive Wave radius calculation

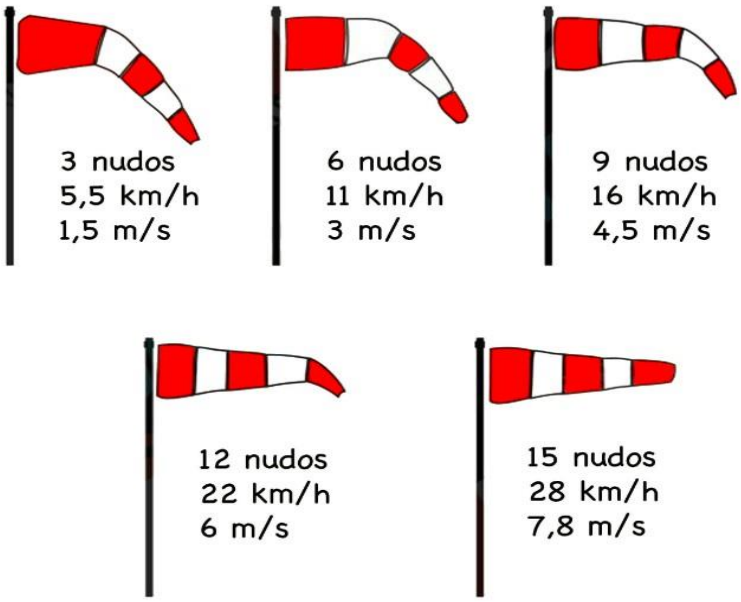


SOURCE: YILPORTECU, 2020

Figure 13 Windsock Location on Pier 1

SOURCE: YILPORTECU, 2020

Figure 14 Interpretation of Speed with the windsock



Source: web: www.siempreenlasnuves.com/doc

Figure 15 Pier 1- Windsock location

Source: Puerto Bolivar Map YECU-EHS-22-23_v5

Table 6 Wind speeds

Table of wind speeds

Below is a list in table form with the wind speeds as well as their classification.

Beaufort	Wind speed	Indication	Concept/ assessment
0	0 - 2	Smoke rises vertically	still
1	2 - 5	Smoke drifts gently to the side	soft
2	6 – 12	Wind is felt on the skin	soft
3	13 - 20	Light flags move	moderate
4	21 - 29	Moves dust and papers	moderate
5	30 - 39	Small trees begin to sway in the wind	brisk
6	40 - 50	Umbrellas can no longer be used	strong
7	51 - 61	All trees are moving/difficult to walk against the wind	strong
8	62 - 74	Tree branches break	very strong
9	75 - 87	Significant damage to buildings can occur	very strong
10	-88 - 101	Worse damage to buildings can occur	massive
11	102 - 116	Worse damage to large buildings can occur	massive
12	117 >	Destruction of strong buildings/ seek refuge immediately	hurricane

Page: 41

Here is complete list of all meters offered by PCE Instruments.

Contact in Spain:
PCE Instruments Ibérica S.L.
C/ Mayor 52 - Bajo
E-02500 Tobarra
Tel. 902 044 604
Fax 967/543542

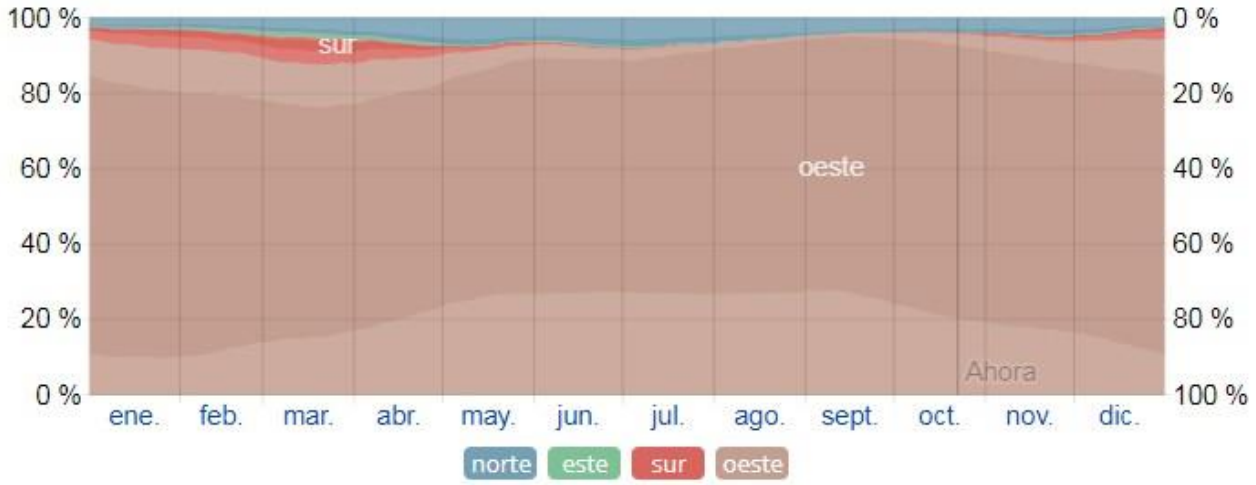
Contact in Latin America:
PCE Instruments Chile S.A.
Avd. Amerigo Vespucio 1385, Módulo 28. Edif. C
Quilcura - Santiago de Chile
Tel.+56 2 562 0400
Fax +56 2 562 0405

SOURCE: Wind Speed Study PC IBERICA, 2015

The average hourly wind speed in Puerto Bolívar shows slight seasonal variations throughout the year.

The *windier* part of the year lasts *7.0 months, from July 24 to February 22*, with average wind speeds of more than ***10.9 kilometers per hour***. The *windiest day of the year is September 27*, with an average hourly wind speed of ***12.2 kilometers per hour***.

Figure 16 Average Wind Direction in Puerto Bolivar



Source. Strong Wind Study Puerto Bolivar 2016

North East South West

The percentage of hours during which the mean wind direction is from each of the four cardinal points, excluding hours when the mean wind speed is less than 1.6 km/h. The light-colored areas at the edges are times of intermediate directions (northeast, southeast, southwest, and northwest).

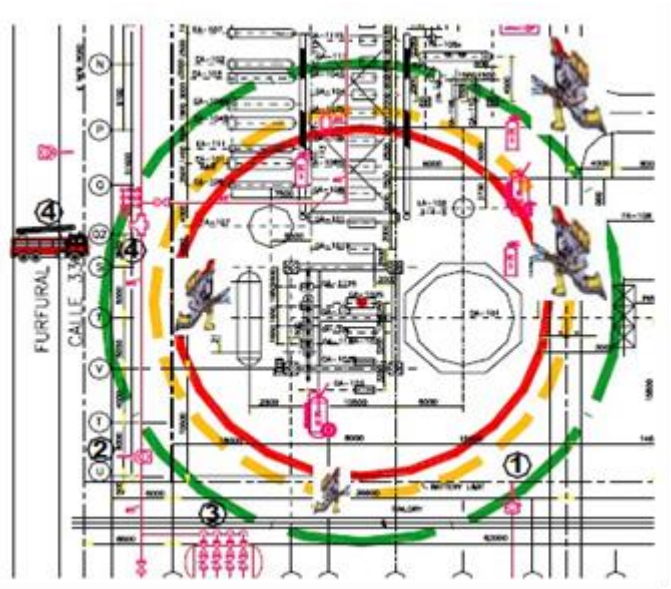
The impact on surrounding communities in the event of an explosion or the effects of a shock wave, can be seen in the following diagram where there is an impact 1.6 km around, which may affect the surrounding population; it is proposed that a WhatsApp call be made or that groups be created according to the wind direction or the location of the explosion in the different yards; the emergency call and constant communication will be linked to an interrelated system between communication groups by zone of possible impact, northern zone, southern zone, eastern zone and western zone. This point will be discussed later.

6.5 POSSIBLE IMPACTS ON SURROUNDING AREAS

Expansive wave effect calculations can simulate that the potential effect of the impact in the zones by wave reach will be around 1,600 m2, depending on the location of the explosion.

For this reason, when the possible explosion occurs, the shock wave can affect many people in the surrounding area, and cause damage in accordance with the distance from the point of origin.

The following example involves a hydrocarbon fire (unconfined puddle or pool fire).



The thermal radiation range is expressed in concentric circles, with the axis at the focus of the fire. The simulation allows 3 circles to be drawn, called:

Maximum risk zone, where the destruction is practically total.

• Intervention area, where only equipped firefighters can remain.

• Alert zone, maximum limit that people without special equipment can approach.

Summary table of fire simulation results for the operating variables of the system (pressure, flow, climatic conditions, etc.):

Table 7 Thermal Radiation Effects

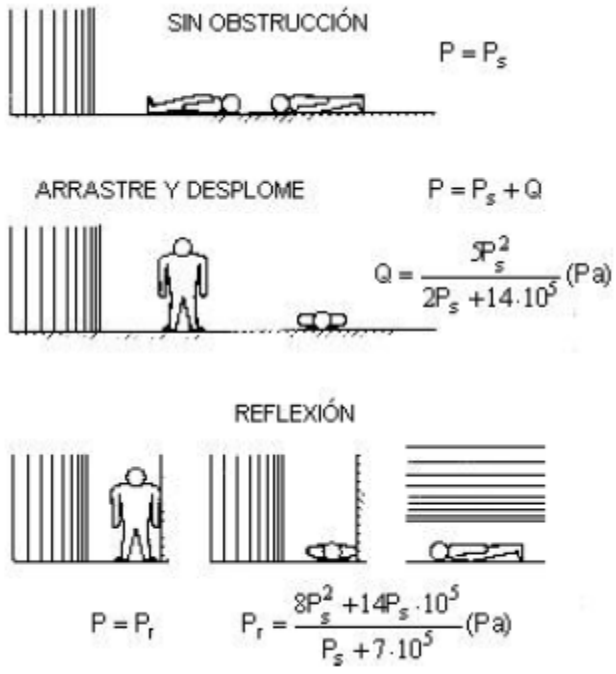
INCENDIO: REFERENCIAS					
Radiación incidente		Efectos de la radiación térmica			Observaciones
Flujo térmico (kw/m^2)	Alcance (m)	Sobre equipos		Sobre personas	
		Sin igni-fugado	Con igni-fugado		
37,5 kw/m^2 Riesgo máximo	18 m	> 80%	70%	100% de muertes en 1 minuto	
12,6 kw/m^2 Zona de intervención	35 m	40%	35%	1% de muertes en 1 minuto	zona límite de intervención de bomberos
4,00 kw/m^2 Zona de alerta	60 m	10%	10%	0% muertes (umbral humano)	máximo tolerable por el hombre. sin vestimenta especial

SOURCE: YILPORTECU, 2020

FIRE: REFERENCES					
Incident radiation		**Thermal radiation effects**			**Observations**
Thermal flow (kw/m2)	**Range (m)**	**On equipment**		**On people**	
		Without fireproofing	**With fireproofing**		
37.5 kw/m2 Maximum risk	18 m	> 80%	70%	100% deaths in 1 min.	
12.6 kw/m2 Intervention zone	35 m	40%	35%	1% deaths in 1 mi.	Limit of intervention by firefighters
4.00 kw/m2 Alert zone	60 m	10%	10%	0% deaths in 1 min.	Maximum tolerated by people without special clothing

The consequences of the possible damages will vary depending on the type of fuel and its quantity. A MAXIMUM storage RISK and the consequences for the surroundings are proposed for the YILPORTECU analysis based on the pre-established distances of the port terminal profile and the surrounding neighbors.

Figure 17 Effects of overpressure according to the position of the human body



WITHOUT OBSTRUCTION
DRAGGING AND COLLAPSE
REFLECTION

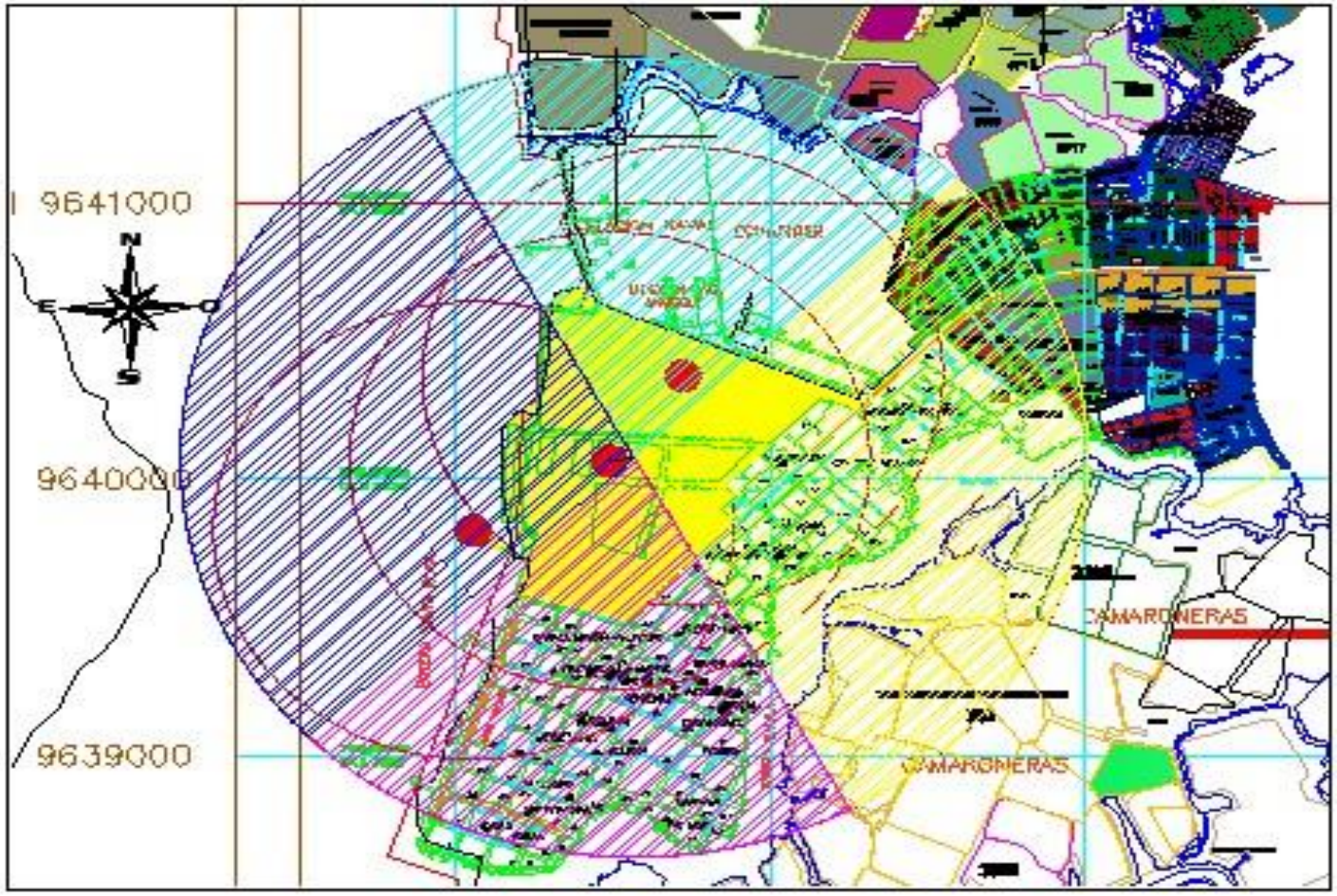
SOURCE: NTP 321: Vapor cloud explosions

The figure shows the consequences of possible overpressure effects according to the distance of the impact or loads or the contents of the fuel storage tank and/or dangerous cargo stored in a certain place in the port area.

All these calculations and details are based on our emergency plans for each possible event described in their respective codes:

- YECU-EHS-01-022-V3_Plan Emergencia INCENDIO_YILPORT ECU
- YECU-EHS-01-68_Plan Emergencia Terremotos_V1
- YECU-EHS-26-37_Plan Emergencia Vientos Fuertes_V1
- YECU-PR-01-092_Protocolo TSUNAMI_V1

Figure 18 Longitudinal Extension of the Expansive Wave



SOURCE: YILPORTECU, 2020

7. ACTIVATION OF THE UNIFIED COMMAND PLAN

7.1 INCIDENT EVALUATION

Identification of a problem and estimation of possible consequences determines the degree of deployment of the System at the scene.

Responsibility for the initial assessment rests with the first person to arrive on the scene. Evaluation continues throughout the entire operation to continually update the answers to the following questions:

1. What is the nature of the incident (what happened)?
2. What threats are present?
3. How big is the affected area?
4. How could it evolve?
5. How could the area be isolated?
6. What place could be a good Waiting Area, Victim Gathering Area?
7. What access and exit routes are safe for personnel and equipment?
8. What are the present and future capacities, in terms of resources and organization?

Ongoing assessment helps the Incident Commander identify contingencies, resource needs, and determine how those resources should be deployed.

Once the emergency has been controlled internally, this ISC 300 preparedness and response PLAN is activated, and disaster management experts take control of the INCIDENT COMMAND, depending on the type of accident or unexpected event.

7.2 COMMAND TRANSFER

This describes how and when a command change occurs and key points that should be included in the transfer report.

As described above, the first respondent with operational capability who arrives at the scene of the incident assumes the role of Incident Commander. For a wide variety of reasons, it might be necessary to transfer the command to someone else.

A transfer of command should take place in person, face to face. The outgoing commander should introduce his Command Staff and Section Chiefs to the incoming commander, and inform him about:

- Incident conditions (current situation, objectives, priorities, risks, need for resources, etc.).
- Meeting point and its current status.
- Security considerations.
- Deployment and allocation of Resources.

Incoming (personnel) and outgoing (personnel) should review the command board together, which shows the status and deployment of resources and notify the Communications Central and other assigned personnel about the change. SCI Form 201 should be used to facilitate the preparation of the report. These Forms help prepare a concise record of:

- Incident area.
- Actions being carried out by response institutions.
- Current SCI organization.
- Current deployment of resources and additional resource needs.

Using the incident command strategy, the EMERGENCY is controlled with available resources and each area or incident command leader takes control of the situation and fulfills each activity and task that needs to be carried out in similar cases.

7.3 DISSEMINATION

If the level of the emergency reaches a point at which it is beyond the control of internal YILPORTECU industrial brigades, the unified command is activated and managed by emergency control professionals who are experts in: hazardous materials, earthquakes, tsunamis, operations, structural fires, fires in ships, or according to the type of undesired catastrophic event.

Figure 19 EMERGENCY strategic wheel

SOURCE: YILPORTECU, 2020

7.4 ACTIVATION OF COE - UNIFIED COMMAND - EMERGENCY

The Emergency Operations Center (COE) is the body that coordinates, plans, directs, controls and supervises activities carried out at different levels: National, Regional, Provincial, Cantonal and Parish, during an emergency, adverse event or disaster. The COE Operations Room is the physical area where work area authorities ensure the functionality of the different work fronts in the planning and response process and management (administration) of all administrative aspects related to the intervention (action during adverse events). Features of COE:

a) Located in a building (infrastructure) that fulfills construction standards for earthquake resistance and safety. CCTV YILPORTECU.
b) Immediate availability of a closed space or one that can be easily closed.
c) Possibility of establishing a heliport nearby.
d) Adequate facilities for the functioning of communication and telematic services.
e) Basic public services.
f) Sufficient space for vehicle parking, loading and unloading.
g) Availability of an eating area and a rest area.

COE is an inter-institutional emergency coordination body and carries out several types of activities, including the following:

a. Activation of the Emergency Plan and the respective response protocols, depending on the type of emergency.
b. Verification of the institutions that participate in the operation.
c. Identification of affected area and actions that have been carried out based on operational reports.
d. Activation of functional areas required for emergency management.
e. Determination of operating scenarios, in accordance with existing cartography.
f. Reception of periodic reports from Unified Command Posts (PMU) and monitoring of response actions throughout the impact zone.
g. Determination of intervention possibilities in the impact zone based on the inventory of available resources.
h. Making decisions regarding the progress of actions on each operation front, in accordance with reports provided by PMUs.
i. Identification of and prioritization of intervention in the most affected areas or in areas not restricted for operations.
j. Coordination of aspects related to information management and determination of dissemination mechanisms,
k. Identification of management possibilities and performance of necessary actions to guarantee the normal development of operations.
l. Monitoring of the activities carried out by each functional area.

The Unified Command Post (PMU) is a temporary body located near the impact zone of an adverse event that is in charge of coordinating, organizing and controlling urgent command during the “Impact Phase”. Its creation facilitates rescue work, administration and medical care for affected people, the evacuation of victims according to their level of urgency and the best use of human and technical resources.

It also ensures the administrative principle of unity of command (Unified Command). All competent institutions use this function to respond to incidents and jointly develop common objectives and tactics to adequately fulfill the policies and needs of all members.

No institution loses its authority, responsibilities or accountability. The concept of unified command means that by mutual agreement the institutions involved contribute to the command process through:

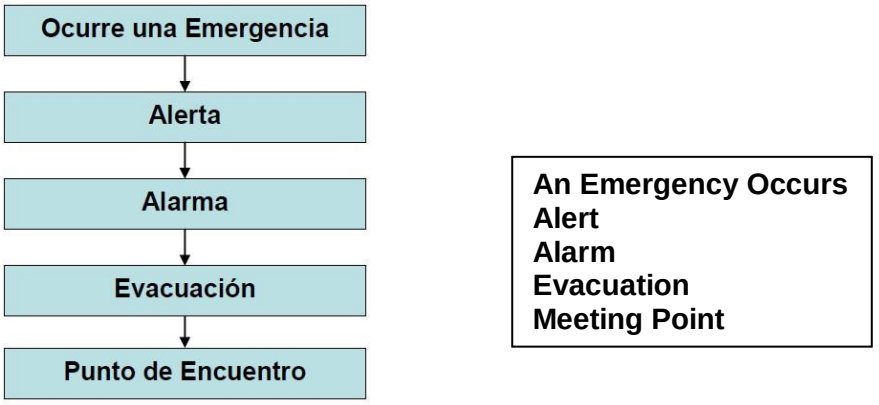
There will be a Unified Command Post in the impact zone that coordinates its actions with the Emergency Operations Center (COE) and it is in charge of coordinating efforts with Centers for Care and Classification of the Injured (TRIAGE), Outposts and hospitals dealing with the disaster. Its functions include:

- Assessing the magnitude of the disaster and notifying the Emergency Operations Center (COE) about immediate assistance needs.
- Immediately fulfilling the Plan of Activities or Plan of Action and distributing work according to the type of disaster and institutional responsibilities.
- Evaluating daily the needs of First Contact Brigades, as well as rescue and salvage groups, and submitting a report on activities carried out.
- Adopting and transmitting the necessary orders to coordinate their action within the "Aid Chain".
- Coordinating administrative activities and rationalizing available resources..
- Channeling initial information for the community and the media through a radio communication center in coordination with the Emergency Operations Center (COE).
- Preparing and leaving a written report on actions carried out in the impact phase.
- Suspending the Command Post (PMU), when it is deemed that actions in the impact zone have ended.

IMPORTANT: If rescue activities are beyond the scope of internal YILPORT TERMINAL OPERATIONS brigades, the UNIFIED COMMAND will be activated.

If the Mayor's Command Plan is activated GLOBALLY, port personnel should be evacuated to Meeting Point No. 1 located in Yard No. 6, and the rescue institutions interface will be followed according to the emergency in the COMMAND AREA (CCTV) to control and share documentation and the current situation by activating everything on channel 16ht. The following command sequence will be followed for the INTERFACE.

Figure 20 CU - YILPORT - ECU, 2018 Sequence



Source: ISC 300 Incident Command

7.5 UNIFIED COMMAND

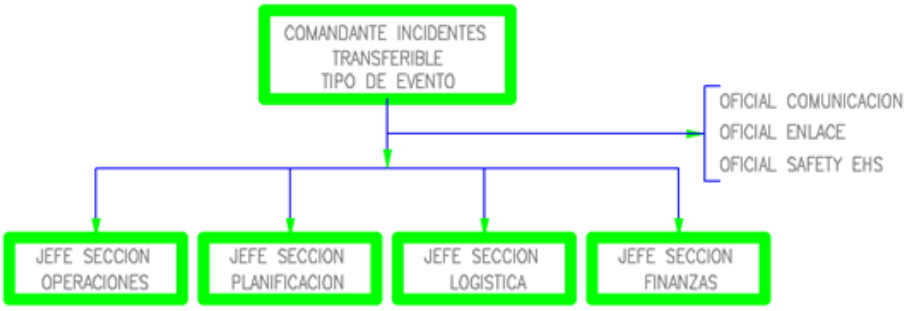
PC

If an unexpected event occurs and the problem is beyond the control of internal YILPORT ECU brigade personnel, only then will this UNIFIED COMMAND plan be activated.

The Unified Command is a combination of facilities and equipment, additional qualified technical personnel, more protocols, more technical procedures, and adequate internal and external communication strategies that operate in a common organizational structure, and are in charge of managing resources assigned to effectively achieve pertinent objectives during an undesired event or incident or operation. It will include a maximum of 5 people and a director or leader who will command the Command unit.

The Unified Incident Command leader will always be transferable according to the type of catastrophic event or emergency that occurs.

Figure 21 CU Hierarchy - YILPORT - ECU, 2018



INCIDENT COMMANDER TRANSFERRABLE TYPE OF EVENT	OFFICIAL COMMUNICATION OFFICIAL LIAISON EHS SAFETY OFFICIAL

OPERATIONS SECTION CHIEF	PLANNING SECTION CHIEF	LOGISTICS SECTION CHIEF	FINANCE SECTION CHIEF

Source: Incident Command ISC 300

It is the responsibility of each MACHALA GAD rescue unit chief to be completely familiar with this Emergency Preparedness and Response Plan and each member of the rescue units will have their own intervention strategies, but will follow this Emergency Plan guide that is designed according to the requirements and current situation of the PUERTO BOLIVAR - ECUADOR YILPORTECU TERMINAL.

Emergency activities during a catastrophic event should be carried out jointly with the different city authorities in the planning meeting. Orders are given so that they can be carried out by the chiefs of operations of each public order agency. This EMERGENCY PREPAREDNESS AND RESPONSE PLAN is exclusive for evacuating personnel to the different meeting points indicated in Annex 1, personnel evacuation routes.

Table 8 Incident Command Leader Transfer

YILPORT ECU UNIFIED COMMAND LEADER TRANSFER

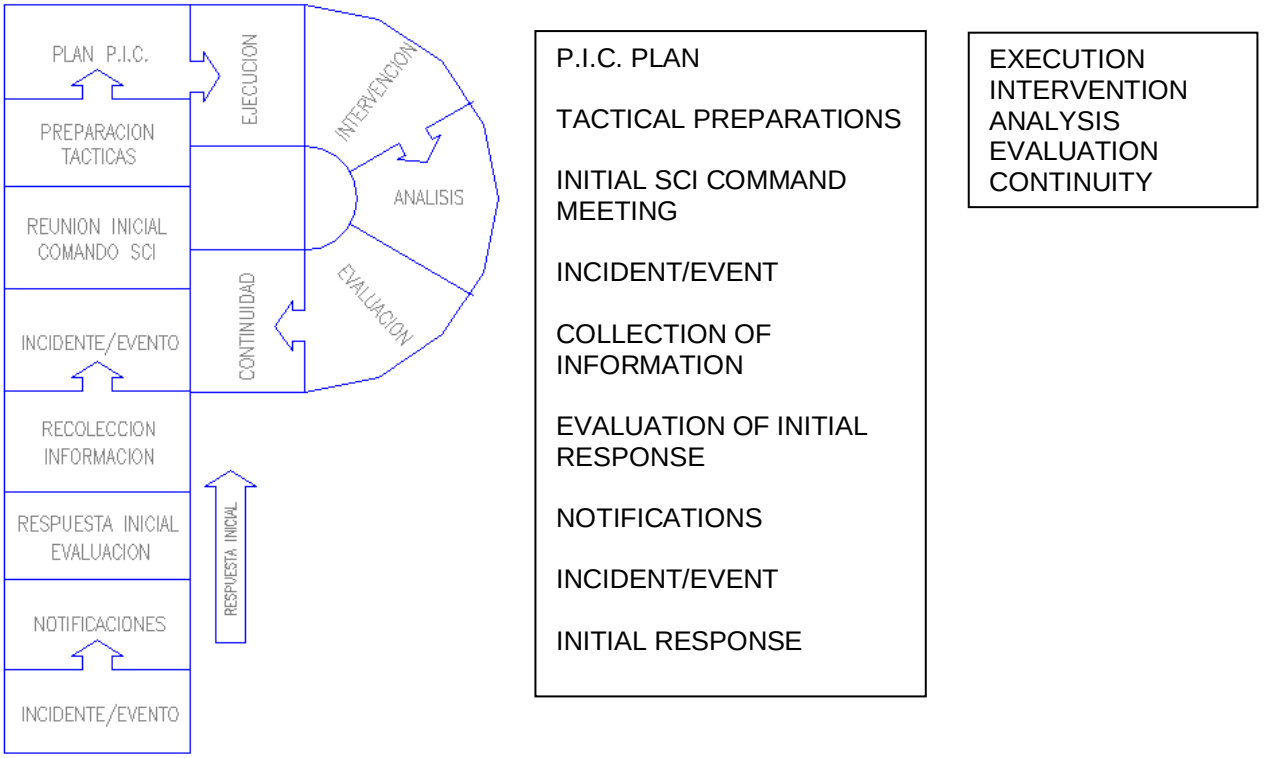
COMMAND TRANSFER BY TYPE OF EVENT

Earthquake	Fire	Explosion	Leaks	Spill	Vehicle collision	Chemical
CSC Chief	Fire Chief	Fire Chief	Chemical Expert	Chemical Expert	Police Chief	Chemical Expert

Source: ISC 300 Incident Command

Likewise, in the event of an emergency, UNIFIED COMMAND planning will be organized; Unified Command staff should hold continuous meetings to keep this emergency plan active, and their daily activities will be reported in the schedule of activities using a continuous improvement indicator. They will be responsible for implementing various drills and having all the necessary rescue and communication resources.

Figure 22 Strategy in CU - YILPORT - ECU, 2018



Source: ISC 300 Incident Command

The SCI 300 NFPA strategy is used to deal with the EMERGENCY at the international level because if it gets out of control, the transfer of command with the NFPA method is standard for international rescue agencies worldwide that follow the “P” Planning strategy from the moment the undesired event or INCIDENT is identified.

If an incident is detected within the facilities of the YILPORT ECUADOR TERMINAL, a message will be sent by WhatsApp to all members of the Safety Unit and rescue agencies, then the Unified Command will be set up in the control zone in the CCTV OFFICE where all the facilities can be viewed; the CU members will meet in this area to implement the Emergency Plan according to the order of “P”. They will receive information on the current situation, then meet and determine its containment or propagation; then the emergency plan will be launched, the evacuation will be executed, and if necessary, rescue will take place. The situation will then be the analyzed. If necessary, command will be transferred to the expert, if not, the situation will be ended and finally return to normal activities.

The attached additional matrix in the Incident Command ANNEX of YILPORT ECUADOR will be implemented for executing activities if the INCIDENT COMMAND is activated,.

Table 9 ISC 300 Incident Command Activities

EMERGENCY ACTIVITIES ISC 300 UNIFIED COMMAND UNIT

FUNCTIONS OF ISC 300 UNIFIED INCIDENT COMMAND MEMBERS - YILPORT ECUADOR

FILE: YECU-EHS-43-67_Actividades Comando Unificado INCIDENTES ISC 300_YILPORT ECU-V2

MEMBER (CU)	PERSONNEL	EVACUATION ACTIVITIES		
		PROACTIVE	REACTIVE	CONTINUITY
Unified Command Leader	Fire Chief, (Hazardous materials) Chief of Police, Chief of the Armed Forces and President of AEPIC, Chief of Safety Unit, SUINSA, ANTINARCOTICS, ANTI-TERRORISM UNIT, etc. (EXPERT)	Stay updated through communications about new modifications to the YILPORT ECU Terminal EMERGENCY PLAN, through the YILPORT ECU (CAE 1) SAFETY MANAGER, to be updated at least every 6 months about new technologies and/or new operations processes.	Report immediately to the command point or COMMAND CENTER (UNIFIED COMMAND) of the YILPORT ECUADOR terminal located in the CCTV office, in front of pier No. 4, to receive information on the current situation and coordinate the activities of the event, giving priority to: 1.- Protecting Lives, 2.- Cost vs. Benefit and 3.- Preparing the RIT team - 4.- Preparing and executing the General Evacuation Plan. Maintain continuous communication with ECU 911 to organize the general evacuation and means of communication among stakeholders according to the direction of the catastrophe or undesired event.	Make inspections, observations, measurements and audits after the event to activate orders so that everything returns to normal, activate mobility measures and restrict access to the danger zone until proper investigations of possible causes are made, then pass the responsibility to brigade chiefs and CAES of the different responsible companies and to the OPIP of the YILPORT ECU terminal
Operations Chief	High level managers of the different agencies (firefighters, police, SUINSA, EXPERT, RESCUER, etc.)	Carry out the different GENERAL evacuation plans, strategies according to the specifications of this plan, design intervention and rescue strategies, training for possible events, coordinate updating activities at least once a year. Carry out an emergency mobility plan, an intervention and rescue plan, strategies for possible events, chemicals, spills, explosions, types of fires, etc.	Activate strategies in coordination with the leader, await orders before intervening, cordon off areas, assess the situation before intervening, prevent its spread, save lives and take people to the meeting area, medical care, transport the injured, mobility plan, communicate to ensure that the main road (AV. BOLIVAR MADERO VARGAS) is free, divert traffic at least 1 km from the port terminal, communicate with the different hospitals of the city for care, Burns Unit and IESS Hospital, according to the evacuation GUIDE plan with proper police support and follow-up.	Await orders from the CU (Unified Incident Command) leader to return to continuity, allow traffic gradually every 500 m and return to normal traffic, collaborate in the investigation by experts, collect evidence, photographs, inventories, etc. Respect the decisions of the UNIFIED COMMAND for returning activities of the communities or neighborhoods to normal, depending on possible surrounding effects.
Planning Chief	Safety Unit Coordinator of ECU 911 (EMERGENCIES 911 Center, El Oro Sector)	Design ordinances for road improvement, Update this plan at least once a year, schedule activities to improve this plan, coordinate drills, coordinate training for members of the YILPORT ECU terminal, coordinate activities with the different Technical Rescue schools, prepare technology transfer and improve technical rescue strategies	Analyze the activities of each technical member of the rescue, as an observer without intervening in zone 0, help the leader of the unified command to carry out activities during emergency actions, fill out planning forms, Identify scarce resources and their deployment	Loss projection and analysis, calendar of improvements, evaluation of the unexpected event, incident report, time report, report and indicators of losses and benefits
Logistics Chief	ECU 911 Director	Manage activities so that rescue areas or PARISH or NEIGHBORHOOD meeting points are kept clear and in good working order, coordinate signaling activities in the area, improve roads, ensure that main roads are free and clear according to ordinances, coordinate with authorities to carry out assurance activities of the plan, manage traffic lights on the road to the hospital or evacuation route drawn up previously by the unified command.	Ensure that rescue units are notified of the event, coordinate with the UC leader to ensure that actions are carried out with all the resources available in zone 0, coordinate with EHS chiefs of each company for transporting resources, stretchers, water, first-aid kits, coordinate with the IESS hospital, so that doctors come to each meeting point or the meeting point of concentration, coordinate transport activities, communicate with leaders of neighboring communities about the accident and possible emergency measures and possible evacuations, activate evacuation ALARMS and warnings of greater danger.	Coordinate with EHS chiefs of each company to activate the Contingency Plans of each company to return the situation to normal, transport used resources, clean meeting points, waste organization and coordination with the city cleaning company, collaborate directly with the external forensic experts of the event. Prepare the corresponding report of the event, request the renewal of lost resources
Finance Chief	Financial Personnel of the Risk Management Unit	Make a financial budget based on plans for the different emergency events, take charge of collecting the money so that GAD will have an emergency account, transfer payments to suppliers of emergency resources, according to the project previously approved by the ECU 911 DIRECTOR.	Ensure that credit providers are available to continue regularizing payments with the approval of the Mayor and/or GAD OFFICIALS for urgent emergencies, prepare the respective reports of emergency events	Obtain economic resources ($ USD) and distribute them responsibly to continue the continuity of the GLOBAL Emergency Plan, prepare the respective report of the activities of the unexpected event.
Communications Officer	General Manager of YILPORT ECU	Prepare communications activities with internal and external agencies, prepare staff for unexpected events, authorize training with technical personnel, middle management personnel of the companies, maintain up-to-date communication with YILPORT ECU port terminal companies, bring in the media and prepare an emergency coding plan, inform the press about progress, practices and drills in the communities.	Work with the unified command leader on the activities, the sole person responsible and authorized to deal with the press during a particular time, organize press conferences and arrange communication activities between companies and rescue agencies. Keep the different state rescue institutions informed about updates regarding rescue methods and strategies to save lives using more technology, updating courses and new methods. Communicate with the press about the events and the respective progress on the incident, SOLE PERSON AUTHORIZED to speak to or publish in the PRESS	Keep the press informed about progress in improving the methods applied in the areas involved, progress with strategies, with industrial safety issues and their application with respect to the last event that occurred. AUTHORIZED to give press conferences to agencies or stakeholders on the different events of emergencies.
Liaison Officer	OPIP and/or OPIP SUPERVISOR - SHIFT CHIEF - YILPORT ECU - CAE 1 - CAE 2	Responsible for liaisons with special rescue units, such as RIT, chemical experts, forensics, insurers, technical inspectors, preparation of intervention plans for each event, reports of liaisons with the different rescue agencies at the national and international level, COMMUNICATION using international maritime frequency F. 16.	Maintain communication with the different rescue and intervention agencies, doctors, rescue hospitals, helicopters, Armed Forces specialists, make calls to prepare intervention technicians, assist the leader of the unified command. Observe the intervention activities of each agency, provide information to the CU leader, keep the CU leader informed about the situation of each company, about available resources and their different water capacities and SRCI	Maintain a liaison (COMMUNICATION) between the rescue units of the different intervening rescue agencies and manage the activities of the permanent YILPORTECU internal brigade in the different areas until the end of operation, coordinate activities for cleaning and returning to order, and collaborate with forensic investigations.
EHS Safety Officer - CAE 1 - CAE 2	SAFETY and/or Specialty Manager EHS - YILPORT ECU	Monitor the maintenance of fire protection networks of the companies using management indicators, carry out checks of each company on fire protection issues, monitor continuous improvement of fire protection in companies, carry out the respective calculations of fire hazards and degree of protection, fire network designs, INSPECTIONS and check list.	Observe, verify and intervene if the case or situation warrants it, provide plans and emergency plans to the CU LEADER, collaborate in communications with GENERAL MANAGEMENT, make chain of command calls to report the situation upwards and laterally. Receive orders from the CU and make the respective calls to communities and stakeholders with the AUTHORIZATION of the YILPORTECU General Manager or communicate if warranted by the danger in the area of the undesired event.	Plan and ensure that firefighting networks of companies return to normal, the situation of the affected plant should be reviewed the next day and the respective technical report of continuous improvement should be prepared so that it is carried out as soon as possible, verify the status of resources used and make requests for their renewal prior to analyzing the event with experts, after their respective intervention.

Update and Design: Jaime VANEGAS, EHS MANAGER - YILPORT ECUADOR - Dec. 2020

Source: YILPORT ECUADOR, 2018

A strategic point was designated to ensure greater efficiency and control of Unified Command activities at the port terminal, which provides a panoramic view of any problem by viewing it through the cameras. From this command center, it will be possible to view with the camera location plan, intervene with the different rescue agencies, communicate with commercial ships and with the coastguard, open and close doors, control communication with alarms located at strategic points.

The meeting center for controlling the emergency is in the CCTV office to manage all movement of available resources in the entire terminal with cameras. They can also be managed according to incident command strategies.

Figure 23 CCTV Office - UNIFIED INCIDENT COMMAND

Source: YILPORTECU, 2020

CCTV BUILDING - UNIFIED COMMAND; YILPORTECU has a camera center located in the port terminal. This office will be used if an emergency goes to a higher level. The incident command will be activated from that building to have better control of the emergency.

ALARM SYSTEM; The company has a system (an alarm siren) to notify direct and indirect collaborators about emergencies that endanger the lives of workers and officials inside the facilities; in this case, the alarm serves as a reference. For ensure a better understanding of the general alarm, it will sound according to the type of emergency as follows: **PARTIAL EMERGENCY ALARM**. To alert and report any negative event inside or outside YILPORTECU, it will an intermittent sound every two (2) seconds with five (5) beeps.

When the ALARM is activated for the EVACUATION PLAN, it should be sounded as follows. FIVE (5) INTERMITTENT BEEPS WITH TWO (2) SECOND INTERVALS BETWEEN EACH BEEP; coordinators and brigade members will minimize risk situations (fire control, first aid), support the evacuation, guide all collaborators to their respective shelter areas, and the other brigade members will come to the emergency area and support tasks according to the team to which they belong.

GENERAL EMERGENCY ALARM; To alert and report any negative event inside or outside that INVOLVES INVIMA, its identification will be a continuous sound of Five (5) seconds. When the ALARM is activated to execute the EVACUATION PLAN, it must be sounded as follows. ONE (1) CONTINUOUS BEEP OF FIVE (5) SECONDS; all coordinators and brigade members will minimize risks according to the team to which they belong (fire control, first aid and rescue), support the evacuation, guide all collaborators to their respective shelter areas.

The OPIP Security chief of "YILPORTECU S.A." and/or Operations Shift Leader will be in charge of disseminating or making known this plan to "YILPORTECU S.A." and the aid agencies that intervene in an accident, so that they will have sufficient knowledge of their functions and obligations.

a) **IN CASE OF FIRE:** The affected area will be evacuated initially; then, if the fire has not been controlled, neighboring areas of the affected area as well.
b) **IN CASE OF EXPLOSIONS AND/OR ATTACKS**: These situations include:
c) **THREAT OR POSSIBLE BOMB**: If the location is known, the threatened area will be evacuated.
d) **BOMB EXPLOSION**: If there has been an explosion due to an attack in the plant or offices, a temporary total evacuation should be made while the entire area is reviewed.
e) Each of these EXPLOSION situations will be considered according to the possible magnitude of the adverse effects on the range of the expansive wave, before making calls or alarms for possible evacuations.
f) **IN CASE OF EARTHQUAKES**: It will only be evacuated after the earthquake ends and the facilities have been reviewed, and it is determined that there are risks for employees due to infrastructure damage. All affected buildings will be evacuated.
g) **IN CASE OF GAS LEAKS**: Evacuate the area affected by the leak. If it could spread or cause damage beyond the area where it is located, neighboring areas should be evacuated.
h) **IN CASE OF SPILLS**: Evacuate areas adjacent to the spill site. If it could spread or cause damage beyond the area where it is located, neighboring areas should be evacuated.

EVACUATION PROCEDURE: In this plan, evacuation is the main task of the incident COMMANDER, who will give the order to evacuate affected areas acco Page: 57 chnical criteria in the affected areas or if he receives the order from COE to evacuate the entire population.

1. Once the alert is given in the facility about an event that could cause an emergency situation, the guard or Brigade Member (YILPORTECU green vest) notifies the Emergency Coordinator.
2. The Emergencies Chief (YILPORTECU green vest), will assess the situation after receiving complementary information, and if he

considers that there is an imminent risk to the integrity of the occupants, he will make and communicate the decision to evacuate and activate the Alarm so that all personnel.

3. Upon receiving the alarm in each area, Evacuation Coordinators (YILPORTECU green vest) suspend their work, take their personal belongings, information and key documents, leave their workplace and go to the place designated to start the evacuation, taking with them employees, suppliers, visitors and/or users, if there are any; for fires, they will close the door of their office without locking it, in case of a bomb threat or explosion they will open doors and windows, and leave the place by the previously defined route.
4. The Evacuation Coordinator verifies that everyone has left. Upon reaching the specified final meeting place, they begin the count, and await orders from the Emergencies Chief or Emergency Committee.
5. The evacuation should be coordinated by state rescue agencies that will be able to coordinate simultaneously with ECU 911 and focus cameras on the current situation and possible undesired events during the unfolding emergency.
6. Affected areas will be analyzed according to an analysis of the possible event during a shock wave situation.
7. Through ECU 911, coordination will take place between the different affected groups depending on the wind direction or possible consequences of a toxic cloud.
8. Possible effects and their consequences will be analyzed by experts before deciding on a general evacuation of the population.

GENERAL ASPECTS TO CONSIDER: It is essential to keep all staff informed about the most important recommendations to consider when evacuating:

- √ Do not run.
- √ Do not scream.
- √ Do not return to the affected site.
- √ In case of smoke, crouch while advancing.
- √ Check the condition of escape routes.
- √ Close doors after leaving.
- √ If you must take refuge, leave a sign, reduce risks.

These indications will be socialized through the respective drills scheduled once a year with Ecuadorian government rescue institutions on dates proposed by them.

RESPONSIBILITY OF ALL OFFICIALS: All those involved and all those responsible for the effectiveness of this plan, MUST know and interact with this plan; the different social groups or stakeholders of the plan will be responsible for disseminating its updates; for this, everyone should:

- √ Know the plan.
- √ Respect the established rules.
- √ Participate in training.
- √ Report all hazardous situations.

RESPONSIBILITIES OF EVACUATION COORDINATORS:

- √ Evacuation Coordinators should be assigned a badge that identifies them in the event of an emergency inside Company facilities.
- √ All evacuation care should be recorded on the form designed for that purpose.
- √ They should be familiar with evacuation rules to pass them on to people during the evacuation process itself.
- √ Verify at the meeting place that all personnel came out and await the orders of the emergency committee.
- √ Coordinate the return of staff to their jobs.

EXIT PRIORITIES: Priorities for determining who leaves first and from which Places:

People: Three types of people are considered for evacuation, successively, and in decreasing order of risk: **Employees and workers, visitors and patients**, the latter being those who evacuate in third place, where the priority is the likelihood of survival.

Materials: those that can augment the risk of destruction (pressurized gases), those that will serve as immediate assistance to the Injured (stretchers, first aid kits, etc.).

ASSETS, VALUABLES and NON-REPLACEABLE MATERIAL: Meeting points fulfill the following requirements:

a) They are at least 15 meters away from any building.
b) They are not located on public roads or access routes to the facilities.
c) They are on a level not easily affected by the flow of gases.
d) They keep the main entrance of the affected area free.
e) Maps of evacuation routes will be located in visible places for all personnel in the area, and will indicate normal and alternate routes in the event evacuation is necessary.

7.6 WAITING AREA (E)

As an incident grows, additional resources are required. To avoid problems that could cause a massive convergence of resources at the scene and manage them effectively, the Incident Commander (IC) can establish Waiting Areas that he considers necessary.

The implementation of a Waiting Area varies depending on the shape of the SCI structure. It is a holding area close to the scene where resources remain until they are allocated. A waiting area:

- Increases the safety of response personnel and the ability to account for resources.
- Avoids premature allocation of resources.
- Facilitates timely and controlled entry of personnel into the incident area.
- Provides a place to record the arrival and deployment of personnel, equipment and tools, making control easier.

The sign that identifies the Waiting Area is a circle with a yellow background and a black E inside.

Duties of the Waiting Area Manager: Once the Incident Commander (IC) has identified the need to establish Waiting Areas, he assigns Waiting Area Managers who should:

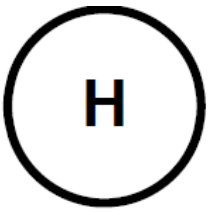
- Obtain a report from the Operations Section chief or IC.
- Supervise the procedure for registering the arrival of personnel and equipment.
- Respond to requests for resources, assign available resources as indicated by IC or the Operations Chief.
- Monitor the status of resources.
- Keep IC and the Operations Section chief informed about the status of the resources in the Waiting Area.

Considerations for selecting a Waiting Area: Waiting areas are clearly identified in the plan, but depending on the situation, a preliminary analysis will be made before the areas are designated, depending on possible impacts due to different effects. Waiting Areas must:

- Be away from the scene of the incident, but no more than five minutes away.
- Be away from all dangerous areas.
- Have different routes for the entry and exit of resources.
- Be large enough to accommodate available resources and expand if required by the incident.
- Offer security for both staff and equipment.

In the case of YILPORTECU, the base point should be determined at the same moment by the incident command, but in any case it is Waiting area on Pier 1 for intervention from the sea; for intervention from the land side, it will be designated as yard No. 7 or yard No. that depends on the proximity of the undesired event or the range of the impact wave.

7.7 HELIPAD



A yellow background circle containing a black H is the HELIPAD sign. For YILPORTECU, the HELIPAD site was designated as the national navy pier, next to pier No. 6.

It is a place for helicopters to land, take off, and load and unload personnel, equipment and materials.

Some incidents require more than one HELIPAD.

The HELIPAD sign is a circle with a yellow background, a large H and a number, both black, indicating to which HELIPAD it refers.

For YILPORTECU, we need to remember that this service depends exclusively on the national NAVY. It is not YILPORTECU's own resource, so the helicopter landing point cannot be identified. So, it was pre-established near the current national navy, 200 m north of the point furthest from the north fence, next to the national NAVY area.

7.8 VICTIM CONCENTRATION AREA (ACV)

It is a place for classifying, stabilizing and referring the victims of an incident. Although they are not official facilities, ACVs will be necessary for incidents where victims exceed treatment capacity.

ACVs should be installed quickly for emergency treatment, The selected location should be:

- A safe area, free of threats,
- Near the scene, but downwind and higher than the incident scene and associated risks.
- Accessible to transport vehicles (ambulances, trucks, helicopters, etc.),
- Easily expandable,
- Isolated from the public and ideally out of sight.

The ACV should be prepared for an efficient flow of victims and medical personnel. Each area must be clearly marked.

Victim classification areas should be separate from treatment areas, and both should be separate from transport areas. ACVs can be divided into sub-areas. It is useful for ACV Managers to designate a supervisor for each sub - area. Treatment areas should be close enough to each other to allow:

- Verbal communication between workers in the different areas.
- Shared access to medical supplies and equipment (to be stored in a central location).
- Easy transfer of patients whose status has changed.
- Patients in a treatment area should be positioned so that they all have their heads pointed in the same direction, leaving a free space at least one meter wide between one another. This will facilitate efficient use of space and the use of available personnel. If a morgue is required, the site should be safe and inconspicuous from medical treatment areas. It is identified by a circle with a yellow background and black letters.

In our case, the ACV will be in yard No. 7, as warranted by the situation, the magnitude of the incident and its effects.

7.9 TRIAGE/SORTING OR CLASSIFYING THE INJURED

The French word “TRIAGE” does not have an adequate translation in Spanish or English. It involves prioritizing the injured in the event of a massive emergency. The classification is based on the expected prognosis with or without treatment, in order to select cases that can benefit most from existing medical resources.

a) Immediate care: in case of bleeding (Who needs immediate attention?) Deferred care: priority for evacuation (Who can wait to be evacuated?)
b) Deferred care: without complications (Who can move unassisted or receive definitive care at the site?)
c) Minimal care: little or no treatment required or treatment/transfer will not change the fatal prognosis (Who is not likely to survive?).

After TRIAGE, ECU 911 is asked to transfer the injured and seriously injured personnel so that they can be treated according to their priority at the nearest hospital based on data and according to ECU 911 communications, which is already in prior contact with HOSPITAL staff to provide data and details of the arrival of injured people and possible affected people, according to the TRIAGE ticket, so that beds and hospital resources are available and ready to save the lives of the affected people.

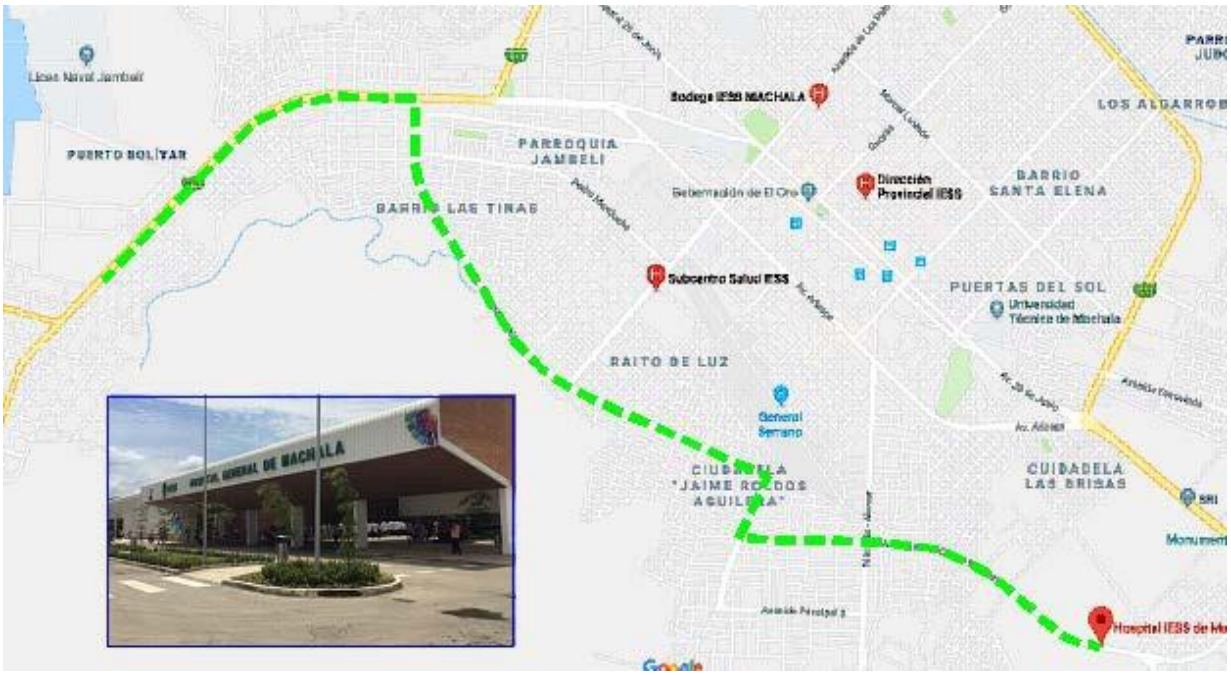
Figure 24 Injured Personnel TRIAGE Card

TARJETA DE TRIAJE

TRIAGE TICKET	
I	Serious, likely to survive
II	Moderate
III	Light
IV	Deceased

SOURCE: YILPORTECU, 2020

Figure 25 Optimal Route to IESS Hospital



SOURCE: YILPORTECU, 202

8. RESOURCES

YILPORT TERMINAL ECUADOR. In any incident, the efficient management of resources is extremely important. An efficient operation requires the ability to select a resource, guarantee its safety and maintain control over those that have been assigned.

Resources are described by their Class, Type, Category, and Status. Equipment and/or personnel that are available or potentially available for tactical application to an incident.

Resource classification

Resource class; *Class* refers to resources described according to their function. For example, police vehicle (surveillance), helicopter (transport), pump (movement of liquids), etc. Resources in the same Class can be used by different institutions in a variety of emergencies. For example, both the police department and the fire department use fuel depots and brigade transportation. Resources pertaining to different Classes are used specifically by certain institutions and apply only in certain areas. For example, police vehicles (security, police), firefighting vehicles (fire brigade).

Resource type; Type indicates specific resources described according to their **level of capacity**. Usually, resources are identified by a number. Type 1 indicates the highest capacity, Type 2 the next highest, and so on.

Status of resources; During an incident operational resources will have one of three possible conditions:

- **Assigned:** those who are working on the incident with a specific task.
- **Available:** those that are ready for immediate deployment in the Waiting Area.
- **Unavailable:** resources that cannot be used. Resources may be unavailable due to a need for mechanical service (maintenance, repairs);
- the need for a rest period if personnel are below the operational threshold, meteorological conditions, and natural lighting, where its use would represent an excessive and unjustified expense

Usually, resources that become unavailable are moved to the Base (if it has been established).

8.1 LIST OF RESOURCES AVAILABLE AT THE TERMINAL

Table 10 ISC 300 INTERVENTION Resources

ISC 300 EXTERNAL RESOURCES EMERGENCIES

RESOURCES AVAILABILITY TABLE INCIDENT COMMAND PLAN

File: YECU-EHS-43-68_Recursos ISC 300_V1

TP transportation People

SP Public security

TC Freight transport

No	Class	Resource	Technical specifications	Typ	Availability	Owner	Contact	Telephone
1	TC	Tugboats	Water jet and foam	3	Advance planning	OPSC	Freddy Calle	999482555
2	TP	SECURITY Speedboat	4 passengers maximum, 2 Hp engine	1	Immediate	YILPORTECU	Maribel Alcibar	995146088
3	SP	Pump truck	GAD Machala firefighters	1	Upon ECU 911 call	FIRE DEPT.	Hugo Ruilova	982610564
4	SP	Telescopic ladder	GAD Machala firefighters, MAX. 30 m.	1	Upon ECU 911 call	FIRE DEPT.	Hugo Ruilova	982610564
5	TC	Ship firefighting system	Each shipowner	1	Shipping Line	SHIPPING	Jorge Ochoa	992247002
6	TC	Platform barge	Private dock Puerto Bolivar	1	Advance planning	PRIVATE	Eco. Cevallos	999790938
	TP	Professional DIVERS	Professional industrial DIVERS	2	Advance planning	IMMEDIATE	Luis Amador	999500004
7	TP	Professional DIVERS	Professional industrial DIVERS	2	Advance planning	NAVY	Rafael Mata	969825146
8	TC	Liquid waste disposal	LIQUID WASTE Tanker 10,000-gal cap.	3	Advance planning	SERVIDASA	Pedro Salinas	997200947
9	TC	Loading platforms, container	SEMITRAILER cargo transport platform	10	Advance planning	OROESTIBA	Alberto Nieto	998822438
10	TC	Reach Stacker container carrier	REEFER YARDS Container transport	3	Advance planning	OROESTIBA	Alberto Nieto	998822438
11	TC	3 Tm forklift	Cargo transportation up to 3 Tm	10	Advance planning	OROESTIBA	Alberto Nieto	998822438
12	TC	Lifting chains	LIFTING materials up to 30 Tm	10	Advance planning	OROESTIBA	Alberto Nieto	998822438
13	TP	PRACTICAL speedboat	Passenger transport by sea to borda channel	1	Immediate	ACUATICO	Ronald Pita	984106754
14	TC	Liquid waste treatment plant	Liquid waste treatment MITIGATION	1	Immediate	SERVIDASA	Pedro Salinas	997200947
15	TP	Small helicopter	National Navy of Ecuador	1	Advance planning	NAVY	Rafael Mata	969825146
16	SP	Attack and response boat	Water attack boat (RAPID)	1	Advance planning	NAVY	Rafael Mata	969825146
17	TC	Hazardous Materials Unit	Technical Personnel for intervention with hazardous materials	2	Upon ECU 911 call	FIRE DEPT.	Hugo Ruilova	982610564
18	TC	Bomb Deactivation	Technical Personnel for Intervention with explosives and bombs	1	Upon ECU 911 call	POLICE	Capt. Acevedo	984493257
19	TP	GLOBAL people management	Crowd management and general evacuation	1	SG Risk Ecuador	SGGR	Romel Aguilera	996527692
20	TP	Private ambulance	EMERGENCY transport for injured and accidents	1	Immediate	ORO SALUD	Ricardo Marquez	991853805
21	TP	Burn care	Personnel Treatment (BURNS) 3rd degree	1	Upon ECU 911 call	HOSPITAL IESS	Ricardo Marquez	991853805
22	TP	Injury and accident care	Personnel treatment Accidents and doctors	1	Immediate	H. TEOFILO D.	Ricardo Marquez	991853805
23	TP	Telemedicine (COVID)	Attention by video conference (EMERGENCIES)	1	Immediate	ORO SALUD	Ricardo Marquez	991853805
24	TC	HEAVY load cranes	Cargo transport and handling. Maximum cap. 50 T	4	Operations Department	YILPORTECU	Hugo Garcia	981663539

Updated: Dec. 2021 - EHS DEPART. YILPORTECU

SOURCE: YILPORTECU, 2020

In an emergency, the communication system for emergency treatment is of utmost importance for knowing what resources are available for resolving situations and unexpected events; it is important that the Incident Command Unit Commander who is at that moment in the Unified Command, knows exactly what is happening to be able to solve emergencies, prioritize basic SAFETY principles, maintain and protect lives, then infrastructure, and finally the continuity of the business.

To resolve the incidents described, YILPORT TERMINAL ECUADOR needs to Activate the Emergency Plan, and if the emergency reaches a point where the control curve is out of the hands of the internal brigade, the emergency situations expert takes command; he should be a well-trained expert in emergency management according to its type or class.

Different resources will be called in according to the needs of the emergency and what is needed. The phone number of the owner of each resource is shown in the list of ISC 200 RESOURCES.

8.2 IMPLEMENTATION SCHEDULE

The program for implementing the actual Emergency Preparedness and Response Plan will be according to the following schedule:

Table 11 Implementation Schedule

Nº	Item	Activities	Start date	End date	Responsibility
1	Development of the YECU-EHS-01-43 Plan	- Description of the company and its environment. - Emergency situations. - Organization of the emergency. - Actuation procedures. - Affected neighborhoods and their contacts by zones..	01/12/20	30/12/20	EHS
2	Implementation of proposed corrective and/or preventive measures.	- Making the respective corrections and recommendations. - Approval of the final version.	25/12/20	01/02/21	I.D.B.
3	General information and dissemination.	- Information sessions at all levels of the businesses, including staff visits, stakeholders, and neighborhood personnel. - Preparation of basic instructions for visits and contractors. - Submission of a copy of EP to external assistance services (Fire, Police, Civil Defense, CSC). - Visit to the company by external assistance services.	01/03/21	01/06/21 Page: 66	EHS
4	Training of all Personnel	- Training for different YILPORTECU levels, virtual and/face-to-face training. - Periodic updating of training.	01/06/21	01/08/21	EHS

5	Training and Practices.	- Launch of training activities. - Carrying out partial and sample PRACTICES. - Record, analyze and report practices and real emergencies in the Plant.	01/08/21	01/09/21	EHS
7	Realization of Annual drill.	- Carry out the annual drill, total participation. - Drill improvement reports.	01/12/21	28/12/21	ECU 911 - EHS

It should be noted that internal YILPORTECU activities for fulfilling this plan will be arranged according to the company's own resources, but the fulfillment of liaison activities or with the other institutions will be the responsibility of COE or each government institution that is included in this emergency preparedness and response plan.

9. COMMUNICATION

Radio communications assigned to maritime activity will be used for this Plan, as well as the radio frequency of the Port Facility of YILPORT Terminal Operations S.A., commercial telephones, mobile phones and Internet systems.

During emergencies operational communications have priority over any other type or need.

Figure 26 Internal YILPORTECU Communication Devices

Source: YILPORTECU, 2020

Work channels used

- Maritime channel 16 VHF 156.8 Khz.
- Maritime channel 15 - 9 VHF
- YILPORT Terminal Operations **EMERGENCY** channel
- Person responsible for activating the Industrial Brigade: shift manager
- YILPORT cell phone system: 0968647073
- YILPORT email: operations@yilport.com

YILPORT Terminal Operations has a radio station that operates 24 hours a day, 365 days a year with a primary link line and a frequency of VHF channel 16.

The following communications networks are defined in the attached table for the link between the Unified Command and Response Groups and Agencies/Companies in the Organization for the Response to this Action Plan:

Figure 27 External Communication with Rescue Agencies

Fuente: Proyecto de Ley 02387/2017-CR (Ley que establece la central única de emergencias 911 para la atención de emergencias y urgencias a nivel nacional)
Elaboración: DN Consultores

Source: YILPORTECU, 2020

WORK COVID EARTHQUAKE TSUNAMI ACCIDENT FIRE EXPLOSION IMO OIL

For intervention using external communication channels outside YILPORTECU, the chain of command must be followed upwards, in parallel and downwards, according to the strategy applied. Once the emergency occurs and incident command is located, proper communications are carried out at all levels to ensure that external and internal YILPORTECU stakeholders are informed.

9.1 COMMUNICATION PYRAMID

Communication among the different actors during an **EMERGENCY** SHOULD follow the pyramid of priorities in the following table of preferences. When the emergency passes unified command control commands, communications become extremely important and are carried out according to the following impact criteria:

Level of the Emergency

1. Magnitude of the disaster
2. Range and amplitude of the shock wave
3. Wind direction
4. Direction of the possible toxic cloud
5. Weather conditions
6. Ambient temperature
7. Condition of the day
8. Date of the incident
9. Statistics of similar events
10. Number of people at the nearest meeting points
11. Review the priorities of injured and disabled persons at each waiting area
12. Identify high risk areas near the point of origin or damage or unexpected event designated as the accident site
13. Review the closest evacuation routes and their accessibility.
14. Be aware of the level of response of available brigades,
15. Advice from experts in emergency control.
16. Once the UC Incident Command has sounded a general evacuation alarm, stakeholders are called by telephone according to the order and hierarchy of the priority pyramid.
17. Communications should be made according to the magnitude of the emergency, in order to communicate with potentially affected sectors or areas; the intention of this procedure is to provide an advance alert so that they can evacuate or be aware of any natural disaster or accident that compromises people's lives due to the unexpected event.
18. When warranted by the situation, communication messages are sent out to keep the neighborhoods around YILPORTECU informed,
19. The national COE is in charge of managing crowds according to the degree of protection and advice of the expert.
20. It also warns the population about the possible expansive wave impacts and consequences through press releases and communications to neighboring institutions.
21. CAE 1 and CAE 2 of YILPORTECU keep the communities informed about the status of the incident according to statements from the national COE or according to indications from the UNIFIED COMMAND.
22. IMPORTANT NOTE: emergency notifications and communications to surrounding communities are the direct responsibility of the national COE, since it is responsible for managing emergencies and evacuation plans.
23. The scope of this communications plan is limited to the boundaries of impacts according to mathematical calculations of possible impacts in the vicinity, depending on the location of the disaster and its magnitude.
24. In the restoration stage after the emergency, CAE 1 - 2 will also keep stakeholders informed through WhatsApp communications to groups impacted directly and indirectly to reassure everyone and transmit the results truthfully.

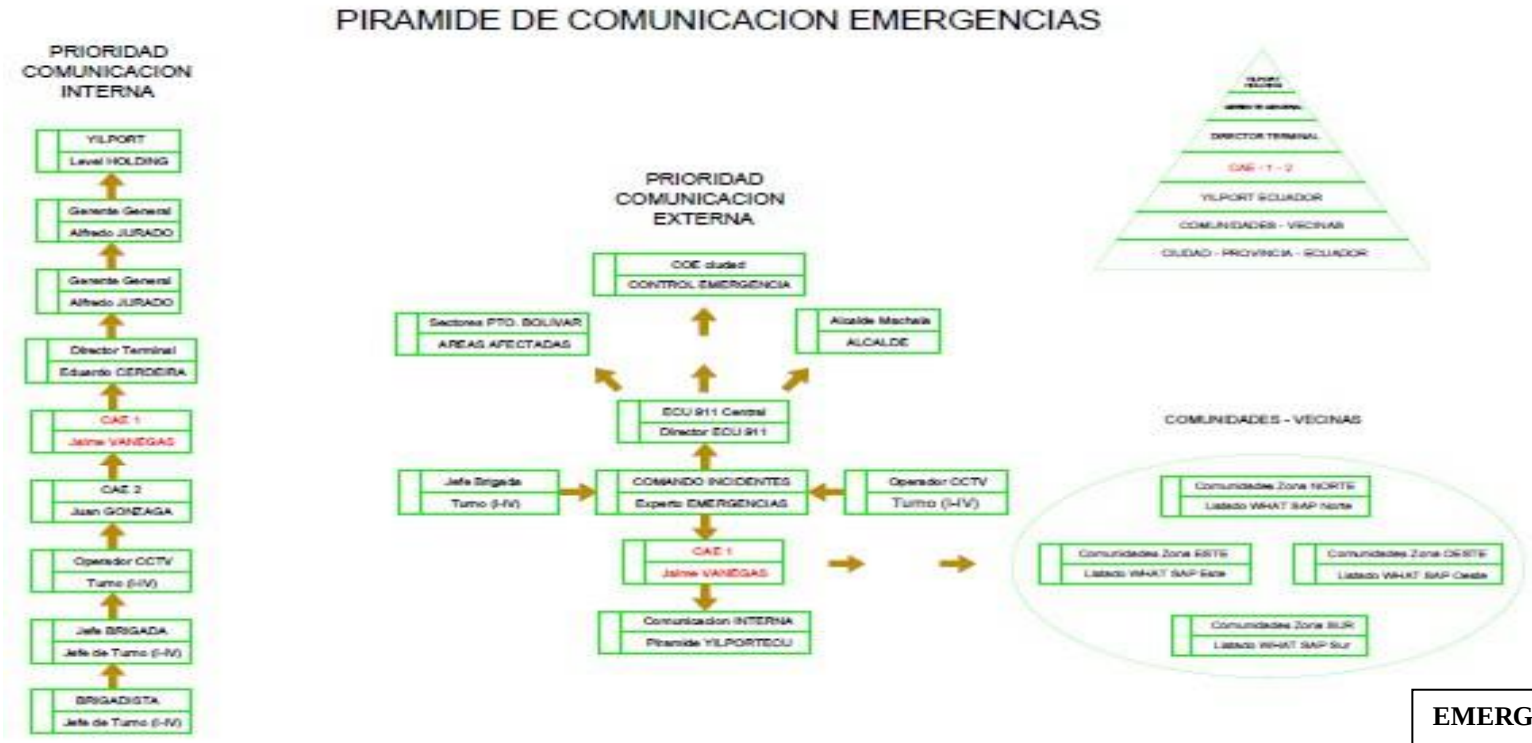
CAE 1 - CAE 2 (YILPORTECU Emergency Activities Coordinator) or the official spokesperson is the person delegated to deliver information to neighborhoods and communities, but not to communicate with the press; in exceptional cases, other officials are delegated to fulfill this function in an emergency. Official statements issued in a timely manner and with transparency, as well as strong evidence and testimonies from those involved, can prevent the indiscriminate dissemination of rumors.

Develop relationships with neighborhoods or community presidents, and maintain a fluid and permanent dialogue that covers their source, not only when you need to manage an emergency. Be honest, transparent and provide reliable information.

Be relevant and express confidence, but never arrogance. Talk from the people's point of view, and think about what people need to hear so that you can direct your message there. Otherwise, you will not connect and your message may be lost. Cite the conclusions first, then explain the points that support your claim.

Following internal communications, communications within the company are made, then upwards and in parallel for surrounding communities and affected neighborhoods.

Figure 28 Communication Priority Pyramid



Source: YILPORTECU, 2020

EMERGENCY COMMUNICATION PYRAMID

INTERNAL PRIORITY COMMUNICATION	**EXTERNAL PRIORITY COMMUNICATION**

Keep in mind that technical language has little or no meaning for a non-specialist audience. Avoid making lists because they are boring and you contradict the message that you are the official source that manages figures for the media and the public.

Figure 29 Stages of Emergency Control

Source: ISC 300 Emergency Control Book, 2018

Preparation	Beginning	Control	Recovery	Evaluation
Formation of risk communication team. Internal coordination. Interinstitutional coordination, links with partners and allies. Crisis communication plans. Internal and external training of diverse audiences. Development of messages, channels and dissemination formats for preparation, response and recovery. Monitoring communication. Management of resources.	Opportunity for control	CRISIS		Evaluate the plan Document the lessons learned Identify actions to improve the plan.
Activation of crisis and monitoring plan				

MODEL Press Release

Puerto Bolivar, dd of the month of the year (@YILPORTECU). Today at 00:00 a.m./p.m. (Ecuador time) an earthquake with a magnitude of 0.0 occurred in the Site of the Earthquake,

According to available data, it is not yet possible to determine whether a tsunami affected the Ecuadorian coast. The Risk Management Center of Ecuador has reported through ECU 911, that there may be waves that threaten the coasts of South America. (or simply there is no impact)

The Central Risk Management of Ecuador is assessing the threat to Ecuador, which is ongoing.

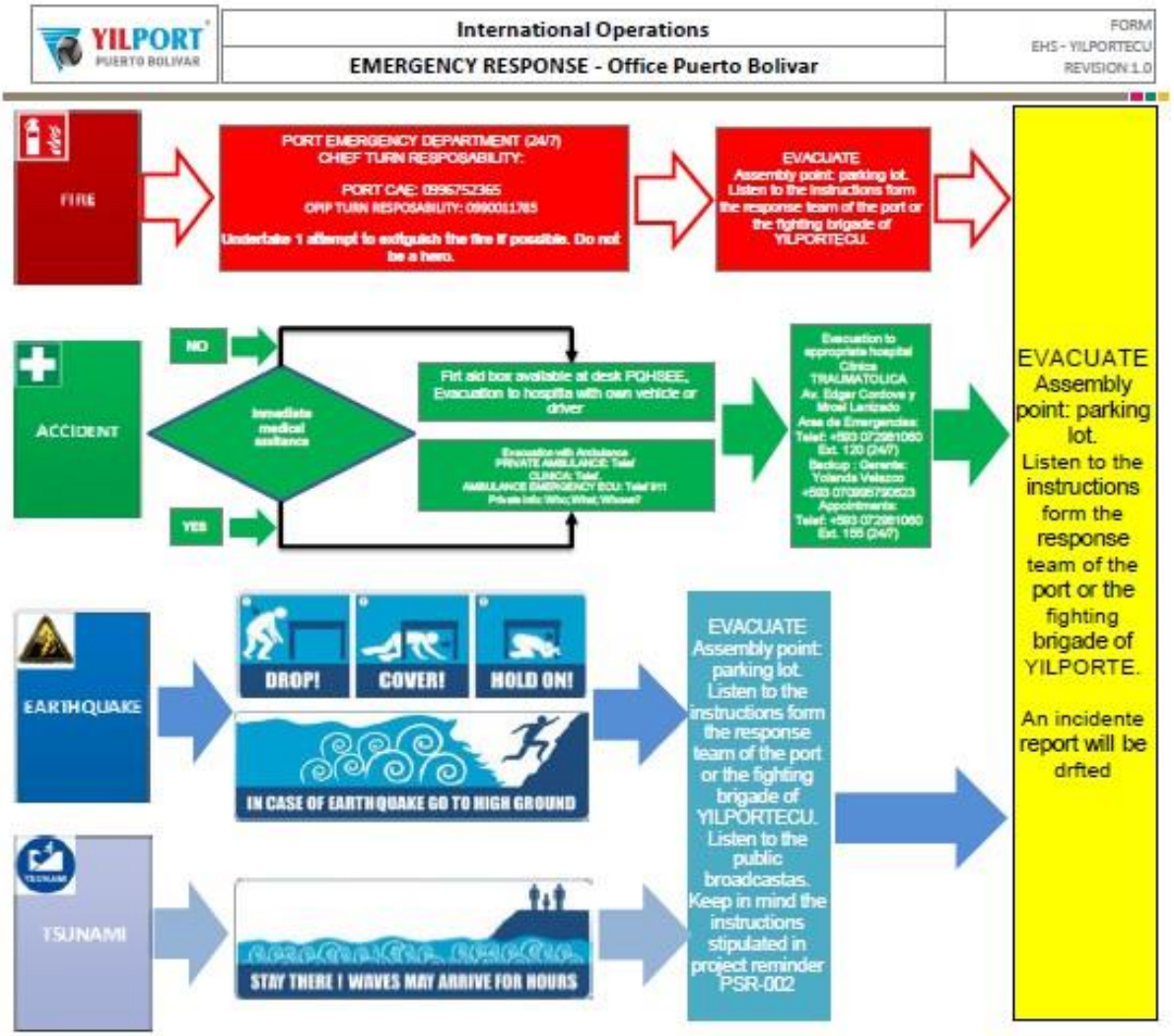
Recommendations

All neighborhoods and local and national agencies are asked to monitor the evolution of the event and information provided by the Disaster Risk Management Center. We will issue new bulletins in the next few minutes as communications are received.

Developing situation…

Main Activities, EMERGENCIES. The person involved in this Incident Plan for controlling the emergency should never forget that life is more important than any decision; for that reason, we should always remember the basic rules about possible impacts in an emergency; we should act efficiently according to emergency tables and their proper steps.

Figure 30 Immediate Emergency Response



Source: YILPORTECU, 2020

Figure 31 Method for Proceeding in different Events

EMERGENCY PLAN OF YILPORT ECUADOR 2018

BASIC INSTRUCTIONS FOR IMMEDIATE INTERVENTION BY YILPORT ECU PERSONNEL, IF THE FOLLOWING EVENTS ARE DETECTED

No.	FIRE	SPILL	ATTACK OR ROBBERY	WORK ACCIDENT	ALARM-EVACUATION
1	Notify your boss, supervisor and/or shift SPIP (GAMA 2).	Notify your boss and/or supervisor verbally, call the shift SPIP (GAMA 2).	Stay calm.	Notify a Brigade Member, OPC Supervisor, Costa, Gama2 immediately.	Shut off all equipment and unplug, if appropriate.
2	Put closed doors between you and the smoke. Cover cracks around doors and openings.		Do not resist the attack or robbery.		Stay calm and do not stop at exits.
3	If you are in the hold of a ship, get out as quickly as you can in an orderly manner.		Do not confront the attackers.	Do not move the victim.	Use designated evacuation routes.
4	Call the ECU911 emergency systems (Supervisor only).	Do not smoke, light fires or actuate light switches.	Try to remember details, characteristics, etc., of the attackers.		If you encounter smoke, get down and advance on hands and knees.
5	If you are a brigade member, proceed with the PAS strategy (Protect, Help and Assist).		If another incident or collateral damage occurs, proceed according to instructions.	Never give water to someone who is unconscious.	Obey the instructions of designated emergency personnel.
6	Use the nearest fire extinguisher, and TAPE procedure (Pull, Point, Press, and Spread).	Do not handle the spilled product.	After the attackers leave, notify ECU911 immediately about the situation.		Gather at the Meeting Point (Truck Yard).
7	Evacuate to the Meeting Point (Truck Yard).			Do not let him get cold.	

PLAN DE EMERGENCIA DE YILPORT ECUADOR 2018

YILPORT PUERTO BOLIVAR

INSTRUCCIONES BASICAS PARA INTERVENCIÓN INMEDIATA DEL PERSONAL YILPORT ECU, EN CASO DE DESCUBRIR LOS SIGUIENTES EVENTOS

No.	INCENDIO	DERRAME	ASALTO O ROBO	ACCIDENTE LABORAL	ALARMA - EVACUACION
1	Comunique a su jefe, supervisor y/o al SPIP de turno (GAMA 2)	Comunique al jefe y/o superior mediante aviso verbal llamar al SPIP de turno (GAMA 2)	Mantener la calma,	Comunique inmediatamente a Brigadista, Supervisor OPC, Costa, Gama 2,	Apagar todos los equipos y desenchufar si es el caso.
2	Ponga puertas cerradas entre usted y el humo. Cubra ranuras alrededor de las puertas y abertura		No ofrecer resistencia al asalto o robo.		Mantener la calma y no detenerse en las salidas.
3	Si se encuentra dentro de las bodegas del barco, salga lo mas pronto que pueda en forma ordenada,		No enfrentarse con los asaltantes.	No mover al accidentado,	Utilice las vías de evacuación establecidas al respecto.
4	Llame a los sistemas de emergencia ECU911. (Solo supervisor)	No fume, no encienda llamas, no accione interruptores eléctricos.	Trate de recordar detalles, características, etc., de los asaltantes.		Si se encuentra rodeado por humo agáchese y gatee.
5	Si es brigadista proceda con la estrategia PAS (Proteger Auxiliar y Socorrer)		Si se produce otro siniestro o daño colateral, proceda según indicaciones	Jamás dar de beber Agua a quien este sin conocimiento,	Atienda a las instrucciones del personal designado para emergencias.
6	Utilice el extinguidor mas cercano, procedimiento TAPE (Tira, Apunta, Presione y Esparce).	No manipule el producto derramado.	Retirado los asaltantes comunique de la situación inmediatamente al ECU 911		Concetrarse en el Punto de Encuentro (Patio Camiones)
7	Evacuar hacia el Punto de Encuentro (Patio Camiones)			No permitir que se enfrie.	

Jaime VANEGAS EHS Manager YILPORT ECU

Figure 32 Method for VISITORS and THIRD PARTIES

INDUSTRIAL SAFETY INFORMATION FOR VISITORS (FRONT and BACK)

File: YECU-EHS-42-23_Instrucciones VISITANTES seguridad industrial_V1

YILPORT PUERTO BOLIVAR

YILPORT TERMINAL OPERATIONS S.A. YILPORTECU has an interior Emergency Plan () that is activated in an emergency, as well as detection facilities, alarms, strobes and protection lights designed to act according to the provisions of the Plan; Industrial Brigade personnel of Puerto Bolivar (YILPORTECU) are identified by a green vest, and are trained for emergencies; it is part of their mission to assist you in such a situation.

We appreciate your cooperation with us by following these instructions

1	Do not forget to identify yourself when entering or leaving the PORT and its facilities.
2	If an emergency occurs, you will hear an alert sound through audible alarms in the form of a SIREN activated by our BRIGADE staff.
3	Please remain calm and follow the orders of the Industrial Brigades of each assigned area.
4	Without rushing, immediately stop what you are doing and EVACUATE the port, following the evacuation arrows to the nearest meeting point.
5	If you receive an order to evacuate, please follow the instructions of the EVACUATION PLAN towards the nearest meeting points.
6	If you discover a fire (outbreak) or accident, REQUEST HELP FROM COMPANY PERSONNEL. DON'T RISK ACTING ALONE.
7	Stay at the meeting point assigned for counting and physical verification by doctors.
8	Do not return to activities until you have received instructions from the brigade members that "EVERYTHING IS UNDER CONTROL"

Jaime VANEGAS EHS Manager YILPORT ECU

EVACUATION ROUTE IN CASE OF AN EMERGENCY OR GENERAL ALARM

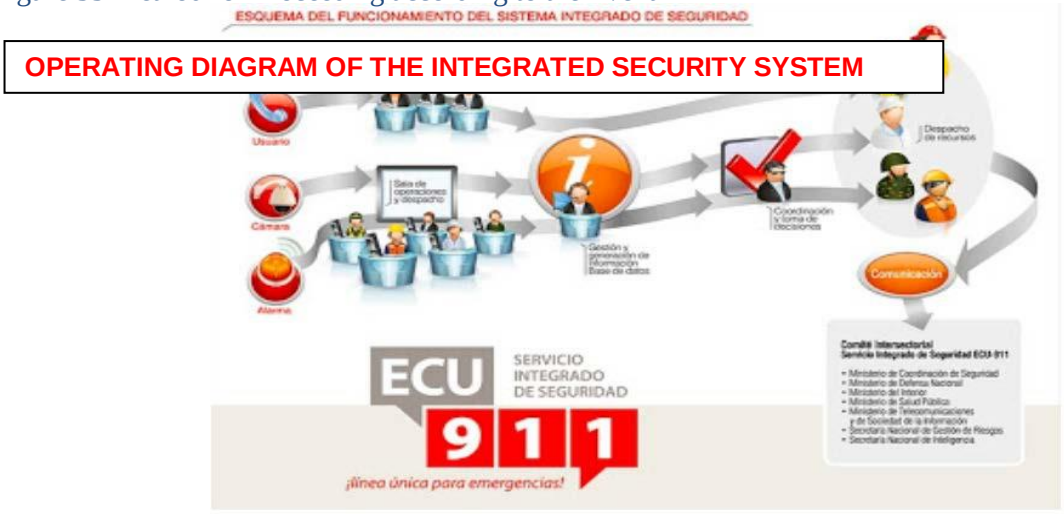
DEPARTMENT OF INDUSTRIAL SAFETY- YILPORTECU - 2020

Source: YILPORTECU, 2020

9.2 GOVERNMENT RESCUE AGENCIES

For communications, it should be noted that initial coordination and interrelations between public and private sectors during emergencies is concentrated in ECU 911, worldwide; it is commonly called "ECU 911 SINGLE LINE FOR EMERGENCIES". For that reason, communications for emergencies use to the following scheme:

Figure 33 Method for Proceeding according to the Event



Source: YILPORTECU, 2020

The following table of telephone contact numbers is for emergencies, although the main number and the only line of communication between government rescue agencies is ECU 911; these emergency numbers were compiled for specific cases to be able to coordinate activities.

Intermediate priority communication to resolve communication problems and quick response for particular calls.

Table 12 YILPORTECU Management Contacts

YILPORT "EMERGENCY" TEAM TELEPHONE CONTACTS
File: YECU-EHS-42-24_Contactos TEAM Staff YILPORTECU_V1

KEY "DECISION MAKING" EXECUTIVES

Prior.	Name	Position	Area	Telephone
1	Alfredo JURADO	Regional Manager	Regional	993260931
2	Eduardo CERDEIRA	Terminal Director	Management	986698564
3	Selami MERCAN	Maintenance Director	Maintenance	967063660
4	Fernando OLIVEIRA	CFO	Financial	991185155
5	Santiago AGUILAR	Projects Director	Projects	990088106
6	Carlos MONROY	Physical Security Manager	Physical security	992111038
7	Tatiana ORDOÑEZ	HR Manager	Human resources	981261307
8	Edgar MALDONADO	Head of Integral Tech.	IT	991543268
9	Diego NARVAEZ	Procurement Manager	Purchasing	999456041
10	Belen BURGOS	Sales Manager	Sales	994064595
11	Jaime VANEGAS	CAE 1	Emergency Coordinator	979941152

SUBSTITUTE "DECISION MAKING" OFFICIALS

Prior.	Name	Position	Area	Telephone
1	Eduardo CERDEIRA	Terminal Director	® General Manager	986698564
3	Edyson GUILLERMO	Maintenance Manager	® Maintenance	994422512
4	Juan Carlos SALTOS	Assistant Financial Manager	® Financial	986988869
5	Ozgun GOKOGLU	Project Engineer	® Projects	989131780
6	Maribel ALCIBAR	Head of Physical Security	® Physical Security	995146088
7	Carolina BURGOS	HR Manager	® Human Resources	984170037
8	Giannina AGUIRRE	Technology Specialist	® IT	999935922
9	Dennise ESPINOZA	Head of Purchasing	® Purchasing	979495279
10	Tania GUTIERREZ	Sales Supervisor	® Sales	984291228
11	Juan Carlos GONZAGA	CAE 2	® Emergency Coordinator	996752365

Updated: EHS Department - Dec. 2020

Source: YILPORTECU, 2020

Table 13 Agency contact numbers

AGENCY NAME	CONTACT NUMBER
DIRNEA	42320400
SUINSA	042504901 - 042504902 ext. 128
HARBOR MASTER PUERTO BOLIVAR	072929708 - 072929779
PETROAMAZONAS EP	072 928272
INFANTRY BRIGADE JAMBELI MARINA	072929884 – 072928208
NAVY OCEANOGRAPHIC INSTITUTE	042 481300 ext. 1000/1001
MUNICIPALITY OF MACHALA	072 932763
PROVINCIAL COUNCIL	07 3700300
MARGLOBAL SHIPPING AGENCY	072 927235 - 072 927236
MARSEC SHIPPING AGENCY	042569018 - 072 922666
T.M.T SHIPPING AGENCY	999428059
BLUE SHIPPING SHIPPING AGENCY	042393067 - 042 398931
GOLFOLINE SHIPPING AGENCY	72928071
SAGEMAR	72927235
SEREPOR	072929913 - 0995547581
SERMAGENSA	072929572 - 0997719917
ECUAESTIBAS	42517360
SERVIDASA	072929 984
SERCAOCHO	72984139
COFORT	22545479

Source: YILPORTECU, 2020

Table 14 Contact numbers of state RESCUE agencies

ASSISTANCE INSTITUTION	TELEPHONE
ECU 911	911
Machala Fire Brigade	0996773571 - 911
Puerto Bolívar Fire Brigade	072929233 - 072927040
National Police	72935283
National Secretary of Risk Management	072938872 - 072935223

GOE (Special Operations Group)	911
Social Security Hospital	73702400
Teófilo Dávila Hospital	72937581
Red Cross	072930150 - 072930151
Anti-narcotics	0995107203 072933391
Ports and Airports Intelligence Unit (UI)	992619535
Machala Regional Electric Corporation	72984453

Source: YILPORTECU, 2020

9.3 EMERGENCY CONTACTS

Table 15 Emergency Contact Numbers Internal Attention

EMERGENCY NUMBERS

EMERGENCY Management		Contact Priority	Contact
	Emergency Activities Coordinator **(CAE)**	1st Option **Note: Attention from 8:00 AM - 5:00 PM from Monday to Friday only**	Cell: 0979941152 – Radio Channel (Command– Mercurio 1)
	Emergency Activities Coordinator **(CAE)**	2nd Option **Note: Attention from 8:00 AM - 5:00 PM from Monday to Friday only**	0996752365 Cell: 0987129560 - Radio Channel (Sub command – Mercurio 2)
	Operations Shift Manager (In the absence of CAE) Attention 24/7	3rd Option	Cell: 0979941146 Cell: 0983816856 Cell: 0959072402 Cell: 0967809815 Cell: 0987338138 Radio Channel (Alfa1)

	Intervention and Rescue Team Firefighting and First Aid	1st Option **Note:** Attention 24/7	VHF Radio Channel SHIFT CHIEF (Delegation to BRIGADE MEMBERS with First Aid equipment)
	First Aid, Rescue and Prehospital Intervention Team - Occupational Medicine and Nursing	2nd Option **Note:** Attention 8:00 am – 5:00 pm Monday to Friday only	OCCUPATIONAL DOCTOR Doctor Cell: 0991853805 Nurse Cell: 0967453216
	Meeting point No. 1	1st Option	OPIP Supervisor 0986696963 OPIP 0968647073
	Evacuation Equipment in Case of Explosives, Bombs and Dangerous Material	2nd Option	VHF Radio Channel SHIFT CHIEF (Delegation to BRIGADE MEMBERS with First Aid equipment)
	Meeting Point No. 2. Evacuation Team in case of natural catastrophe	In case of Impossibility of Control with Own means	Supervisor OPIP 0986696963 OPIP 0968647073
	Fiscal Security in case of Violation of the ISPS CODE	In the Case of a Victim in Need of External Support	**911**
	National Emergency Number	Tania Ordoñez	**0994179625**

Source: YILPORTECU, 2020

9.4 COMMUNITY CONTACTS

9.4.1 NORTH ZONE COMMUNITIES

Affected area in event of an explosion due to a blast wave 800 m around towards the north and depending on the wind direction. X: 112 Km / h.

SURROUNDING COMMUNITIES AFFECTED BY "EXPANSIVE WAVE"

Update: 12-12-2020 Section **North**

No.	Name	Position	Neighborhood	Telephone
1	Mariano Pico	President	Barrio Amazonas	993795498
2	Aduana Oficinas	Manager	Luis Armando Serrano	968880905
3	Dionicio Cruz Pezo	President	COOP. DE PRODUCCIÓN PESQUERA ARTESANAL "VIRGEN DEL CISNE"	968234551
4	Leonardo Palomeque	Commander	Harbormaster Puerto Bolívar CAPBOL	963238655
5	Xavier Rubio Garcés	Commander	Coast Guard Sub Command SUBSUR	987211434
6	José Jurado	Rector	Colegio de Bachillerato "Simón Bolívar"	72935098
7	Jefferson Saavedra	Rector	Unidad Educativa "Víctor Naranjo Fiallos"	72929885
8	Ana Suquiluma	Director	Municipal Medical Unit "Dr. Pomerio Cabrera"	72927200
9	Juan Carlos Romero	Manager (Dredger)	Public Irrigation and Drainage Company of El Oro (EMPRIDREYD)	984352736
10	Senecyt	CRISTINA BRICEÑO	Institution Under construction by the technological university	959433795
11	Maryuri Cruz	President	Barrio La Unión	984390003

12	Students	Universidad Técnica de Machala - UTMACH	Universidad TP Loja	983498218

9.4.2 WESTERN COMMUNITIES

NEARBY COMMUNITIES AFFECTED BY "EXPANSIVE WAVE"
Update: 12-12-2020 Section **West**

No.	Name	Position	Neighborhood	Telephone
1	Nuvia Chávez	President	Barrio Harry Álvarez	923456587
2	Roberth Díaz	President	Barrio del Pacífico	982323546
3	Evelio Cedeño Pallaroso	President	COOP. PESQUERA ARTESANAL "COSTA AZUL"	994983300
1	Mariano Pico	President	Barrio Amazonas	993795498
2	Aduana Oficinas	Manager	Luis Armando Serrano	994983312
4	Veronica Vintimilla	President	Barrio Portuaria	994909987
5	Adgusto Soria	President	Barrio 1ero de Abril	998982316
6	Ignacio Paredes	President	Yacht CLUB	989893256
7	Gilberto Ullauri	President	Barrio 1er de Junio	97545463
8	Magaly Correa	President	Barrio Estero Huayla	981263457
9	Patricio Ordoñez	Acting	Barrio Puerto Nuevo	963432125

Affected area in the event of an explosion due to the blast wave 800 m around toward the western side, depending on the wind direction. X: 112 Km/h.

9.4.1 SOUTHERN COMMUNITIES

SURROUNDING COMMUNITIES AFFECTED BY "EXPANSIVE WAVE"

Update: 12-12-2020 Section **South**

No.	Name	Position	Neighborhood	Telephone
1	Evelin Icaza	General Manager	Port Authority P. Bolivar	985246116
2	Javier Ponguillo	President	Barrio Puerto Nuevo	984887958
3	Ariosto Carchi Salazar	President	Barrio Rafael Morán Valverde	72928699
4	Arturo Cruz	President	ASOC. DE MARISCADORES AUTONOMOS Y ANEXOS "VENECIA DEL MAR"	990617879
5	Fermín Alvarado	President	Cdla. Venecia del Mar	981895725
6	Arturo Cruz	President	ASOC. DE MARISCADORES AUTONOMOS Y ANEXOS "VENECIA DEL MAR"	990617879
7	Carlos Espinel	President	Barrio Atahualpa	959282665
8	Manuel Granda	President	Barrio Vencedores	981424749
9	Bolivar Alvarado	President	ASOC. DE PESCADORES COSTANEROS "24 DE JUNIO"	989901963
10	Eduardo Tevante	President	COOP. DE PRODUCCION ARTESANAL SIMON BOLIVAR	996487332
11	William Ramírez	President	Barrio Centenario	982744274
12	Hector Vizueta	President	Junta Parroquial Comedores	999326466
13	Harbormaster National Navy	National Navy Commander	Cristian MACAS	992042068

9.4.2 EASTERN COMMUNITIES

In the event of a catastrophe

SURROUNDING COMMUNITIES AFFECTED BY AN "EXPANSIVE WAVE"
Update: 12-12-2020 Section **East**

No.	Name	Position	Neighborhood	Telephone
1	Danny Angel Castellano	President	Presidente de UOPPAO	990243126

On the east side, human beings would not be affected in the event of an explosion, but there would be a significant risk to the environment; for that reason, in the case of an unexpected event, communication would be with the president of the fishermen's commune so that communication takes place within the commune, and efforts can be coordinated to avoid possible negative impacts on the environment as much as possible.

10 RESTORATION

Normal activities should resume in all affected areas at the end of the emergency intervention and control, and activities should be resumed in the port terminal after instructions by the emergency control EXPERT, once the risk in the affected area has been evaluated and emergency control and management technicians have determined that there is no risk or that the risk has diminished and it is suitable for people and activities.

After an emergency, the following requirements should be considered and fulfilled by the competent authorities:

1. Return to normality in the different work areas, or if I am trapped in some other unspecified part of this procedure.
2. Only the authorities can tell you when it will be safe to return to your home and/or work or office; you will be notified through the bulletin or WhatsApp GROUP in the different areas about the final status of the emergency and your ability to return to normal activities.
3. Before entering your home, office or workplace, check its condition; if you are in doubt, consult with the emergency bodies; if the roof has ash, remove it immediately, taking care that it does not to go down the drain.
4. Do not use electricity or gas until you are sure that the facilities are free of ash and in good condition.
5. Do not eat or drink anything that you suspect is contaminated; if in doubt, consult the corresponding authorities.
6. Be aware of the color of the traffic light and follow the recommendations of the local Civil Protection committee, or ECU 911 recommendations through incident command.
7. Carry out your daily activities with your family and/or co-workers and/or brigade members according to the internal emergency plan.
8. Stay calm at all times.
9. Follow instructions imparted by the authorities through the media and through your immediate boss only.
10. Immediately report possible injuries to emergency services.
11. Take care that your food is clean; do not eat anything raw or of questionable origin.
12. Thoroughly clean up any spills of medicines, or toxic or flammable substances.
13. Carefully check your home and/or workplace to make sure there is no danger.
14. If your home and/or workplace and/or office are undamaged, stay there.
15. Keep gas, electricity and water disconnected until you are sure there are no leaks or risks of short circuits.
16. Make sure your electrical appliances are dry before connecting them.
17. Don't spread or pay attention to rumors.
18. Collaborate with your neighbors and/or communities to repair damage.
19. If necessary, request help from relief brigades or the nearest authorities.
20. Drain standing water to prevent mosquito infestations.
21. The authorities will inform you about assistance and reconstruction mechanisms.
22. Do not use elevators and be careful with stairs; they could be weakened by earthquakes.
23. Avoid stepping on or touching downed or loose cables.
24. Carry out a careful damage check; if vertical elements have serious damage (columns and/or load-bearing walls), do not use the building.
25. Do not light matches, candles or open flames, or use electrical appliances until you make sure there are no leaks or problems with electrical or gas installations.
26. If there are gas or water leaks report them immediately.
27. If there are fires, call the fire brigade or rescue teams.
28. Do not consume food or beverages that have been in contact with broken glass, debris, dust, or any contaminants.
29. Use the phone only to report an emergency.
30. Turn on the radio to stay informed and receive guidance from the EMERGENCY signal.

31. When opening cupboards, shelves or closets, do so carefully because objects may fall on you.
32. Heed the instructions of authorities and relief brigades. Page: 85
33. If you are trapped, stay calm and try to communicate to the outside by hitting an object.

11 GENERAL PROVISION

Art. 180.- General Provisions: This Incident Command Plan may be modified according to advances in technical, service and labor sciences and the need to prevent occupational hazards in Departments, Services and Administration that depend directly on, are attached to, or coordinate actions, professional activities and work in YILPORT - TERMINAL OPERATIONS (YILPORTECU) SA. Moreover, if a similar spill and/or accident occurs, it is the obligation of YILPORTECU OPIP to update this Plan.

This Emergency Preparedness and Response Plan will be valid for 2 years following its approval by the internal authority of YILPORTECU; it will be disseminated and training and respective drills and practices will be carried out; for this, a plan or schedule of activities will be made for implementation according to previous planning.

The parallel risk plan should be continually updated with the YILPORT - TERMINAL OPERATIONS (YILPORTECU) S.A. risk matrix, or each time there is a change in port facility infrastructure, or new technologies are introduced, or operations increase, or there is a new type of business in the port area.

Empirical data were collected and statistical data were obtained from previous studies of the execution of this plan and study, and the methods used are from NFPA. It concludes by noting that Puerto Bolivar is a high-risk area due to future fuel storage, and possible fires caused by a chemical phenomenon called BLEVE, which can have serious consequences for people living within 1000 m; for that reason, it is important to combine activities of the various strategies to coordinate intervention and rescue techniques and forms jointly in order to be prepared. It is possible for all personnel to exit in 17 minutes at a normal pace using designated routes, as directed by a unified command of experienced people with technical training who coordinate the exit towards safe areas. It is also possible to improve the strategy as speed-of-response drills can be carried out for potential catastrophic events. It is essential and strategic to have a single command center due to the size of the Maritime Port. It is not possible to manage a catastrophe in a simple manner, that is with a single person, because many lives are at stake. For that reason, it is essential to apply Planning to ensure the efficiency of the PUERTO BOLIVAR (YILPORTECU) rescue and avoid an impact on its surroundings, and constant, agile and truthful communication between all stakeholders. It is recommended that data collection be strengthened to minimize uncertainty in the study data. Several recommendations are attached for version No. 2 of this emergency plan to improve the application.

- √ Update reliable censuses for each neighborhood using engineering students graduated from universities to ascertain quantities and types of fuels, materials, identified dangers, risks, chemicals, emergency systems and plans.
- √ Identify situations with simulations and develop the annexed plans that can serve as intervention tactics for future events.

12 TRANSITIONAL PROVISION

Art. 181.- Transitional Provision: This Emergency Preparedness and Response Plan of YILPORT - TERMINAL OPERATIONS (YILPORTECU) S.A., will take effect on the date of its approval by the MINISTRY OF LABOR.

13 *ANNEXES*

ANNEX 1_c GENERAL EVACUATION PLAN YILPORTECU – 2020

EVACUATION ROUTE IN THE EVENT OF AN EMERGENCY OR GENERAL ALARM

RUTA DE EVACUACION EN CASO DE EMERGENCIA o ALARMA GENERAL

Jaime VANEGAS EHS Manager YILPORT ECU

ANNEX 2_ RISK ANALYSIS PUERTO BOLIVAR

ANNEX 3_ POSSIBLE NEARBY IMPACT AREAS