ERDEMIR PORT
DANGEROUS CARGO HANDLING GUIDE

FIRST PREPARING DATE: 31.12.2015

CANER ÖZLEYEN

MARINE TRANSPORTATION COORDINATION&CONTROL MANAGER

SIGN

SEAL

Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

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REVISIONS

NO	Rev. No	Revision Index	Revision Date	Revisioned By	
				Name/Surname	Sign
1	01	Ferro Silicon was added, Annexes 3, 7, 8, 9, 10, 12, 13, 14, 15, 16 and Facility Information Form were revised. Names and responsibilities have been revised due to change of organization.	22.11.2019	İsa KONAK	
2	02	Dangerous Cargoes Security Advisor information in the Facility Information Form has been updated.	08.10.2020	İsa KONAK	
3	03	The document name has been changed.	05.04.2022	İsa KONAK	
4	03	Dangerous Cargoes Security Advisor information in the Facility Information Form has been updated.	05.04.2022	İsa KONAK	
5	01	"Coal" has been added to the table of dangerous cargoes handled at the port.	14.10.2022	İsa KONAK	
6	01	The duties of TMGD have been added to Chapter 2.	14.10.2022	İsa KONAK	
7	01	Dangerous Cargoes Security Advisor information in the Facility Information Form has been updated.	14.10.2022	İsa KONAK	
8	01	Information on Coal Cargo has been added to Section 2, 3, 5, 6, 7, 8, 9, Annex-14.	14.10.2022	İsa KONAK	
9	01	Hazardous substance classes and separation tables have been added to Chapter 4.	14.10.2022	İsa KONAK	
10	02	Articles 10 and 14 in the Facility Information Form have been updated. UN numbers in the Dangerous Cargo Table in Sections 1 and 4 have been renewed in accordance with SDS.	30.04.2024	İsa KONAK	
11	03	Articles 10 in the Facility Information Form have been updated.	16.01.2025	İsa KONAK	
12	04	Articles 33 and 36 in the Facility Information Form and departmant name, title in the document have been updated.	30.09.2025	İsa KONAK	

13	05	Article 10 of the Facility Information Form, Annex-3 Emergency Contact and Communication Information, and Annex-10 Marine Craft Table have been updated.	14.07.2026	İsa KONAK	

1. ENTER

1.1 General informations which belongs to the facility, has been stated in facility information form at below.

FACILITY INFORMATION FORM

1	Facility Manager Name/Surname	Ereğli Demir ve Çelik Fabrikaları T.A.Ş.		
2	Facility Manager Contact Informations (address, phone, favx, e-mail and web site)	Ereğli Demir ve Çelik Fabrikaları T.A.Ş. Uzunkum Avenue No:7 67330 Karadeniz Ereğli/Zonguldak Tel: (372) 323 25 00 Fax: (372) 333 15 00 e-posta: iletisim@erdemir.com.tr web: www.erdemir.com.tr		
3	Name of Facility	Port Of Erdemir		
4	Registered Province	Zonguldak		
5	Facility Contact Informations (address, phone, fax, e-mail and web site)	Ereğli Demir ve Çelik Fabrikaları T.A.Ş. Port Of Erdemir MARINE TRANSPORTATION COORDINATION&CONTROL MANAGEMENT Uzunkum Avenue No:7 67330 Karadeniz Ereğli/Zonguldak Tel: (372) 329 35 92 Fax: (372) 333 15 05 e-posta: erdemirport@erdemir.com.tr		
6	Geographical Area Where The Facility	In Europe /West Blacksea		
7	Facility's Port Authority And Contact Informations	Kdz.Ereğli Port Authority Orhanlar Dist. Atatürk Bulvarı Bozhane Strt. No:5/A Kdz. Ereğli/ZONGULDAK Tel: (372) 316 10 07 Fax: (372) 323 11 69		
8	Facility's Municipality And Contact Informations	Karadeniz Ereğli Municipality Murtaza Dist. Yukari Beyçayiri Strt. No:39 Tel : (372) 333 13 33 Fax: (372) 323 28 49		
9	Name of Free Zone and Organized Industrial Zone	-		
10	Coastal Facility Management Permit /Effective Date Of Temporary Management Permit Certificate	02.12.2026 (Temporary Operating Permit Certificate)		
11	The Operating Status Of Facility (X)	Own Load And Extra 3. Party (X)	Own Load (...)	3. Party (...)

12	The Name–Surname Of Port Facility Responsible and contact details (phone, fax, e-mail)	Caner ÖZLEYEN MARINE TRANSPORTATION COORDINATION&CONTROL MANAGER P: (372) 329 35 92 - (372) 329 58 77 F: (372) 333 15 05 erdemirport@erdemir.com.tr cozleyen@erdemir.com.tr
13	The Name-Surname Of Dangerous Cargoes Operation Responsible and Contact Details (phone, fax, e-mail)	Erdem AYAN Tel: (372) 329 51 98 Fax: (372) 333 15 05 e-posta: eayan@erdemir.com.tr
14	The Name-Surname Of Dangerous Goods Security Advisor and Contact Details (phone, fax, e-mail)	ALPER MALKOÇ GSM: 0 533 636 81 44 e-posta: alperm@sttmgd.com
15	Facility's Sea Coordinates	Port Of Erdemir is located the shore line which is (41°17'48"N and 31°23'45"E) from Baba foreland to Cengel foreland (41°14'45"N and 31°23'45"E).
16	The Types Of Dangerous Cargoes Which Handling At Facility (MARPOL Ek-I, IMDG Kod, IBC Kod, IGC Kod, IMSBC Code, Grain Code, TDC)	Benzole, Sulfurıc Acid, Coal Tar, Ferro Silicon, Stell Scrap
17	Types of Vessels Which Can Be Berthed	Ferryboat, General Cargo, Bulk, Product Tanker, Ro-Ro, Chemical tanker, Container
18	The distance from facility to mainroad (kilometer)	1 km.
19	The Distance of Facility To The Railway (kilometer) Or Railway Connection (Yes/No)	No
20	The Nearest Airport's Name And Distance From The Facility (kilometer)	Sabiha Gokcen/Istanbul 250 km
21	The Handling Capacity Of Facility (Ton/Year; TEU/Year; Vehicle/Year)	Bulk Handlin Capacity: 13.750.000 Ton/Year General Cargo Handling Capacity: 6.000.000 Ton/Year Liquid Load Handling Capacity: 250.000 Ton/Year
22	Is Handling Of Scrap Operation Possible?	Yes
23	Is there border gate? (Yes/No)	Yes
24	Is there bonded area? (Yes(No)	Yes
25	Cargo Handling Equipments And Capacity	Cargo Crane (max. 40 ton) Bulk Crane (max. 1500 ton/hrs) Conveyor Belt (max. 2500 ton/hrs) Benzole Pipeline (max. 80 ton/hrs) Tar Pipeline (max. 300 ton/hrs) Sulfuric Acid Pipeline (max. 200 ton/hrs) Forklift (max. 45 ton) Loader (max. 5 m^3) Industrial Excavator (max. 1,8 m^3) vb.
26	The Storage Of Tank's Capacity (m^3)	1 Coal Tar Tank 20.000 m^3 1 Fuel-Oil Tank 200 m^3 3 Acid Tanks 3.000 per ton

		1 Benzole Tank 3.706 m³ Note: Tanks are located on the land side of the coastal line.	
27	Open Storage Area (m^2)	197.000 m2	
28	Half Close Storage Area (m^2)	-	
29	Close Storage Area (m^2)	3.000 m2	
30	The Designated Fumigation And / or Removal From Space fumigation (m^2)	-	
31	The Communication Details Of Pilotage&Tugs Services' Officer	Ereğli Demir ve Çelik Fabrikaları T.A.S. Uzunkum Strt. No:7 67330 Karadeniz Ereğli/Zonguldak Tel: (372) 323 25 00 Fax:(372) 333 15 00 e-posta: iletisim@erdemir.com.tr web: www.erdemir.com.tr.	
32	Have Security Plan was created? (Yes/No)	Yes	
33	Port Waste Reception Capacity (The wastes should be regulated by separately)	Type Of Waste	Capacity (m^3)
		Slage Tank Slage Mobile Tank Bilge Water Bilge Mobile Tank Waste Oil Waste Oil Mobile Waste Water Waste Water Mobile Toxic Liquid Cargo Mobil Tank Toxic Liquid Cargo Tank Garbage (Household Waste Caldron)	50 12 50 12 50 10 2832 m3/gün 10 6 12 30

34 Specialty Of Docks

Dock No	Length (meter)	Width (meter)	Max. Water depth (meter)	Min. Water depth (meter)	The max.vessel Tonnage Which can be Berthed (DWT/GRT/MTR)
Bulk Terminal Dock No 1	405	30	10,5	10,5	60.000 DWT
General Cargo Dock No 1	295	50	11	11	30.000 DWT
Bulk Terminal Dock No 2	350	30	20	20	200.000 DWT
General Cargo Dock No 2	300	50	14	14	63.500 DWT
General Cargo Dock No 3	170	30	6,5	6,5	4.000 DWT

General Cargo Dock No 4	150	50	10	10	15.000 DWT
Ro-Ro Dock	23	25	14	14	20.000 DWT
Train Ferry Hydraulic Platform	28	11,2	10	10	8.500 DWT

Name Of Pipeline (If there is)	Piece(s)	Length (meter)	Diameter
Benzole Pipeline	1	290	6
Sulfuric Acid Pipeline	1	240	6
Coal Tar Pipeline	1	250	10

1.2 The operating procedures related to the handling of dangerous cargoes like Benzene, Sulfuric Acid, Coal Tar, Ferro Silicon cargoes, has been mentioned in the related sections.

2. RESPONSIBILITIES

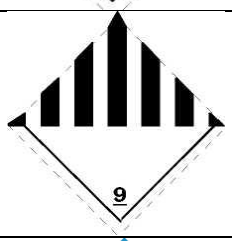
1. All parties involved in the freight transport activities of dangerous cargoes in Erdemir Port; take all necessary measures to make transport reliable, safe and by causing no harm to the environment, to avoid accidents and reduce the damage to as little as possible in case of accident.

2. Erdemir's own or 3. Parties (third parties) responsibilities about the load are listed below;
   a) Prepares, gets ready all mandatory documents (SDS), information, and paperwork related to dangerous cargoes, and delivers them to Erdemir Marine Transportation Cooordination and Control Management ensuring these documents are accompanying the good during the transport operations,
   b) Ensure classification in accordance with the regulation, identification, packaging, marking, labeling, and plating of dangerous cargoes,
   c) Ensure the dangerous cargoes are safely loaded, stacked, secured, transported, and unloaded in the packing, container and cargo unit approved and in accordance with the rules.

3. Erdemir Marine Transportation Cooordination and Control Management responsibilities are as follows ;

   a) Ensure the convenient, sheltered, and safe approach and binding of the vessels,
   b) Ensure that the entry-exit system between the vessel and the shore is appropriate and safe,
   c) Trains and appoints all the staff on duty in a dangerous cargo operation general awareness and task-oriented for the loading, unloading, and handling of dangerous cargo,
   d) In Erdemir Port the dangerous cargoes are loaded on stock tanks or ships with a pipeline without being stored or waiting. The Business Unit field ensures the transportation, handling and supervision is done safely and according to the rules by the Unit Safety Engineer.

e) Request all mandatory documents, information, and paperwork related to dangerous cargoes of the respective load; ensure they accompany the dangerous good.
f) The current list of all handled dangerous cargoes in the port area is shown below;

Name Of Dangerous Cargoes (PSN)	**Class**	**UN No**	**Label**	**Packing Group**	**Storage / Decomposition**	**Load Documents**
Benzole Coal Tar Distillates, Flammable	**3**	**1136**		**II**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Sulfuric Acid Containing more than 51% acid	**8**	**1830**		**II**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Coal Tar Environmentally Harmful Substance, Liquid, N.O.S	**9**	**3082**		**III**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Ferro Silicon With 30% or more but less than 90% silicone	**4.3** **+6.1**	**1408**		**III**	**No storage at port**	**SDS avaliable**
Coal	**IMSBC Code** **Group B (and A)** **MHB** **Combustible Solid (CB)** **Self-Heating Solid (SH)** **Flammable Gas Released Solid (WF)** **When Wet** **Abrasive Solid (CR)**				**No storage at port**	**SDS avaliable**

g)On the entrance of all the dangerous cargoes that came to the port area or made entry from Erdemir Gülüç Gate, The Fire Department and security staff control whether the cargoes properly identified, classified, certified, packed, marked, labeled, declared and whether it is loaded and transported in an approved way, according to the rules and safely to the packing, container and cargo transport unit. These vehicles are taken to the scales escorted by the fire department, then to the operation site escorted by the port staff.

h)By taking the necessary safety measures, the dangerous cargoes that are not according to the rules, unsafe or can pose a risk to people or the environment are reported to the Authority of the Port.

i) Make sure emergency arrangements are done and that all the people related to these cases are informed,

j) Informs the port authority about the dangerous cargo accidents that occur in the processing responsible area.

k)Gives the necessary support and cooperation to the controls done by the formal Authorities,

l) Sets the docks, wharves, antrepot and warehouses to be used for explosive, combustible, flammable and other dangerous cargoes. Activities related to the dangerous cargoes are done in the dock reserved for the handling of the dangerous cargoes,

m) The docks and wharves assigned to the vessel or marine vessels that will load or unload fuel oil are equipped with the facilities and equipment suitable for this job;

n) Dangerous cargoes that are not allowed to temporarily wait in the processing area or dangerous cargoes that are not given permission are removed from the coastal facility without delay as soon as possible,

o) The vessels and marine vessels carrying dangerous cargoes cannot approach the docks and wharves without permission from the port authority.

p) In the loading, unloading, or transshipment of the dangerous cargoes aboard the vessel and other marine vessels the ones that are performing loading, unloading, or transshipment with the vessel supervisor take the necessary safety precautions especially in hot seasons against the heat and other dangers. Flammable materials are kept away from spark-forming processes and in the dangerous load handling area spark-forming tools or instruments cannot be operated.

q)In emergency situations the procedures related to the evacuation form coastal facilities of the ships and marine vessels are indicated in Appendix Handling Hazardous Materials Emergency Response Plan.

4. The responsibilities of the vessel's master are as follows;

a) Ensures the equipment and the devices are in proper condition for the transportation of dangerous cargoes,

b) Requests all the mandatory documents, information, and paperwork related to the dangerous cargoes from the coastal resort and the loads responsible; ensure they accompany the cargoes,

c) Ensures the safety precautions related to the dangerous cargoes loading, stocking, separation, handling, transport and unloading are fully implemented and continued; makes the necessary inspections and controls,

d) Controls the dangerous cargoes that enter his vessels are procedure properly identified,

classified, certified, packed, marked, labeled, declared and whether they are loaded and transported safely, approved and according to the rules to the unit of packaging, container, and cargo transport,

e) Ensures that all the vessel's crew is informed and trained about the transported, loaded, disembarked dangerous cargoes, safety measures, safe working, emergency precautions and similar issues,

f) Trains and appoints the vessel's crew about loading, transporting, disembarking, and handling of dangerous cargo; ensures that qualified and trained people work having taken safety work precautions,

g) Without the Port Authority's permission can not go beyond of the assigned area, anchor, nor approach the quay or the dock.

h) In order to safely transport the dangerous cargo the master of the vessel follows all the rules and measures during navigation, maneuvering, anchoring, approaching and leaving,

i) Provides safe entry-exit between the vessel and the dock,

j) Requests information regarding the applications related to the dangerous substances form the coast facility to the vessel, safety procedures, emergency measures and intervention strategies; informs the crew,

k) Keeps an up to date list of the dangerous cargoes on board and declares it to whom it might concern,

l) Informs the port presidency by taking the necessary safety measures about dangerous substances that are inappropriate , unsafe and pose a risk to the vessel , people or the environment,

m) Reports to the port presidency about the accidents regarding dangerous cargoes that occur onboard,

n) Gives the necessary support and cooperation during the onboard inspections carried out by the formal authorities

5. All the vessels and marine vehicles found in the port must follow the rules determined in national and international contracts and regulations. (SOLAS, MARPOL, ISPS, Port Regulations etc.)

6. The foreign flagged vessels found in the port area must fly their national flag together with the Turkish Flag from sunrise to sunset whereas Turkish vessels must fly only the Turkish Flag. Flags must comply with the standards and be clean.

7. For emergencies ; a sufficient number of deck and engine staff with maneuver and shifting abilities must be on board at all the times.

8. Vessels that want to perform repair , paint , hot work , sea barge and/or boat landing process, movement restricting work, or maintenance work in the port area; must apply together with the permission taken from the Port Authority to the Port Management. Their applications will be assessed and answered by the Port Management as soon as possible.

9. In the port sturdy ropes must be used for the vessels ; appropriate fastening must be done and unless its requested otherwise the vessels must be kept close to the dock at all times.

10. The gangway and the cargo board network must be safe and comply with the relevant international rules. Service will not be provided to the vessels that do not have a safe and appropriate gangway.

11) The manhole covers and stairs must be safe and solid. In case the cover needs to be closed due to weather conditions, before closure all port workers need to be out of the

warehouse.
12) For loading/unloading operations to be safe decks, holds etc. Vessels lighting must be adequate.
13) The atmosphere in the vessel holds and in the closed areas that are likely to be entered must be ventilated, clean and safe.
14) The walkways on the vessel, all stairs and steps and so on, the entry-exit areas that are likely to be used must be solid and well-kept; must be free from oil and grease, clean and save.
15) If the vessel crane will be used in loading/unloading operation; the crane and its embodiments must be undamaged and suitable for the purpose. Before the operation Cargo Gear Booklet must be presented to the Port Authority. If the vessel crane will not be used; the cranes should be turned in the opposite direction of the approached side and must be positioned so that they are not found in the port cranes action domain.
16) During loading/unloading operations the vessel cranes must not be moved without having informed the responsible of port operations. (the people who is in charge of port operations)
17) In order to prevent damage that may occur due to cargo operations the port must be informed about the positions of the fuel tank inside the load warehouse , holds stairs , pipes , frames , hatches , bilge covers and similar places,

18) The Loading/Unloading Operation:

a) The vessels plan showing Loading/Unloading/Ballast operations, must be signed in agreement between the vessel and the Port Authority. In case there is a change in the plan during the operation the revised plan must be approved by the parties.

b) During loading/unloading operation each hold must be checked on time by the crew members. The damages that are likely to occur because of the loading/unloading operation must be reported to the port responsibilities together with the damage report. The damages that are not reported within 8 hours or the specified time in the vessel rental contract will not be taken into account.

c) Doing the vessel ballast operation right and on time is of importance for the continuation and safety of the loading/unloading operation. In addition, the departure drafts of the vessels must be appropriate to maneuver's safety.

d) The vessels that have completed the loading/unloading operation except for special circumstances or weather conditions must leave the dock within 3 hours; otherwise supererogatory dockage will be applied. The vessels wishing to stay in the dock must obtain permission from the Port Authority through their before the loading/unloading operation ends.

e) The dangerous good operations with their general outlines take place as follows ;

- The receipt of the request and the approval of the appropriateness of the vessel in technical aspects
- After the vessel/tank control the entry into the area of Erdemir Port
- The preparation of Occupational Safety Protocol (for land tankers)
- The connections are made

- The supervision of the fire department and operation take place.

19) Responsible of Dangerous Cargoes Security Advisor

a) TMGD fulfills the duties specified in ADR/RID 1.8.3 and within the scope of the legislation related to the transportation of dangerous cargoes by road, rail and sea, in the establishments to which it provides TMGD service.
b) With the fulfillment of the duties and responsibilities of TMGDK and TMGD determined by the legislation, dangerous goods handled at ERDEMIR Port (Bulk liquid cargoes, Bulk solid cargoes, Scrap cargoes, etc.) and to provide consultancy services to carry out activities related to loads that have the potential to harm the environment or other loads) in accordance with national and international legislation.
c) Determining which national and international legislation the cargo handled at our port is covered by,
d) International Convention on Erdemir Port dangerous cargoes (MARPOL 73/78) Annex-I Cargo oil and petroleum products, International Code (IMDG) listed in the International Code (IMDG Code), which is listed in the International Code (MARPOL 73/78) Transported by Sea Maritime Bulks Code (IMSBC Code) Among the cargoes given in Code Attachment 1, the solid "B" and "A" in the above group are the bulk cargoes of the Ships Carrying Dangerous Chemicals in Bulk (IBC) with the UN Number given in Annex-1. About the International Code (IBC) Chapter 17 in transport with the same persons, user or as applicable, As a spill wound, Bulk solid is alive. , Scrap business, etc.) content and reviewed,
e) Determining which responsibilities ERDEMİR and our Port have in accordance with the relevant legislation,
f) Determination of the required documentation (procedure, instruction, form, load declaration document, documents to be prepared/checked before and after the operation, necessary etc.) within the scope of these responsibilities, and creation of these documents,
g) Identifying training needs, preparing documents and providing trainings, (IMDG Code mission-oriented and general awareness trainings are out of the scope.)
h) Preparing the monthly progress report and submitting it to ERDEMİR in the first week of the following month,
ı) Ensuring the necessary coordination and communication with the relevant ERDEMİR units and 3rd parties as required by the performance of the work during the work, provided that ERDEMIR is informed, and the work is carried out,
j) To report to the Administration by preparing a quarterly report regarding its responsibilities determined in the regulation,
k) Entering monthly visit notifications and reports into the Ministry System.

In this context, for each activity the duties of the units have been defined;

Loading Benzole To The Vessel Through Pipelines:

Erdemir Port Customer Relations Management
Gives suitability approval to the ship with the record: 'have flange to the extent of providing the connection to the 6 inches Loading Coast pipeline and a long enough flexible

pipeline'. The manifold that is going to be used to do the coast fastening of the ship is taken under consideration in the location it is found in the ship.

OYAK Shipping / Erdemir Port Customer Relations Management

Makes sure the discharging of the vessel takes place in a time when there is less concentration of shipments in the region. Supervisers these issues during cargo planning. Makes sure all the non-related staff in the surroundings clears the area during the discharging. Informs the OYAK Shipping Maintenance Department about the planned date and time 'with the aim to obtain the cessation of the energy of the cranes'

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the sea side on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
The Occupational Safety Department prepares and gets signed by the parties the protocol where the precautions that need to be taken before starting the operation. Bans the possiple entry-exits to the area where the Fire Dept. activity is going to take place by putting around strips and signs showing the safe distance. In addition, one firefighting vehicle is present and ready during the loading for more than 24 hrs.

Coke Plant/Secondary Products Business Management
Makes the connection between the vessel and the benzole source in accordance with the document no. ISG.TAL1.00020. In this operation uses bronze materials (chisel, screwdriver, etc.) that dont produce sparkles. The staff uses labor appropriate personal protection hardware like mask with A1 cartridge that will not be affected by benzole and its derivatives, acid resistant work clothes, anti-static shoes are used.

<u>Loading Benzole To The Vessel Using By Land Tankers</u>

Erdemir Port Customer Relations Management
It manages the process of fulfilling the application and requirements within the scope of "Notification and Special Permission Directive Regarding Dangerous Cargoes Carried by Sea and its Annex" dated 12 April 2019 and numbered 29486 regarding Supalan handling.

OYAK Shipping / Erdemir Port Customer Relations Management
Makes sure the discharging of the vessel takes place in a time when there is less

concentration of shipments in the region. Supervisers these issues during cargo planning. Makes sure all the non-related staff in the surroundings clears the area during the discharging. Informs the OYAK Shipping Maintenance Department about the planned date and time 'with the aim to obtain the cessation of the energy of the cranes'

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the activity on the dock before the discharge. Makes sure the sources that can create static electricity are removed. Makes and checks the grounding systems of the land tankers and the grounding systems found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The ship is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
Occupational Safety Department , before the operation starts prepares and makes the parties sign the protocol where the safety precautions to be taken are written. Checks whether the vessel and the land tankers are certified to transport this load. (*for example checks whether the land tankers have **ADR.** European Agreement Concerning the International Carriage of Dangerous Cargoes by Road)*

Security Unit; tankers are taken to the weighing area in the port area under the supervision of Security. Later on, tankers are taken from weighing area to the operation area under supervision Security.

The Fire Department; Bans the possiple entry-exits to the area where the fire department activity is going to take place by putting around strips and signs showing the safe distance. In addition, one firefighting vehicle is present and ready during the loading for more than 24 hours.

Transportation Company (Tanker)
It complies with the requirements of "Notification and Special Permission Directive Regarding Dangerous Cargoes Carried by Sea and its Annex" dated 12 April 2019 and numbered 29486 regarding Supalan handling and the permits and instructions given by the Ministry of Transport and Infrastructure.
The connection between the ship and tanker is carried out by the corresponding shipping company. In this operation it uses bronze materials (chisel, screwdriver, etc.) that don't produce sparkles. The staff uses labor appropriate personal protection hardware like mask with A1 cartridge that will not be affected by benzole and its derivatives, acid resistant work clothes, anti-static shoes are used. Checks that all the connections and gaskets are leak-proof. Turns in to the Port authorities the cargo documentations (SDS, etc.) of the dangerous materials to be loaded aboard the ship. During the loading of the material

aboard the ship affirms that the authorized staff appointed by the working corresponding company has completed the IMDG general awareness and task related educations.

Unloading of Sulfuric Acid by the Vessel to the Line:

Erdemir Port Customer Relations Management
Provides the approval of conformity provided that it accepts the conditions specifying the ship's berth specifications and manifold position. The ship's shore connection is to be made at the position where the manifold is located on the ship.

OYAK Shipping / Erdemir Port Customer Relations Management
Ensures that the ship is evacuated during the period when there is less shipment in the region. Observes these issues during cargo planning. It ensures that all personnel who are not involved in the environment during evacuation evacuate. It informs OYAK DLİ Maintenance Unit in order to ensure that the cranes are de-energized at the planned date and time.

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
Although the Department of Occupational Safetydoes not have any duties during the operation, the Erdemir Port Emergency Plan and the Erdemir Emergency Plan come into play in a possible emergency.

Coke Plant/Secondary Products Business Management
Makes the connection between the ship and benzol line correctly. During this activity, bronze materials (chisels, screwdrivers, etc.) which do not generate sparks are used. Personnel use suitable personal protective equipment such as cartridge masks, acid-resistant work clothes, anti-static shoes that are not affected by the vapor of benzene and derivatives.

Loading Coal Tar Aboard The Vessel By Pipelines:

Erdemir Port Customer Relations Management
The ship's quay technical specifications and condition of the manifold position gives

approval of conformity with the registration where conditions are accepted. The structure of the ship's shore is taken into consideration where the manifold is on board.

OYAK Shipping / Erdemir Port Customer Relations Management
Ensures that the ship is evacuated during the period when there is less shipment in the region. Observes these issues during cargo planning. It ensures that all personnel who are not involved in the environment during evacuation evacuate. It informs OYAK DLİ Maintenance Unit in order to ensure that the cranes are de-energized from the planned date and time.

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the ship is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure Hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
The fire brigade turns the strip with a safe distance in the area where the activity will take place and prohibits the possible entry and exit by placing a sign. However, one fire truck is present in the area for 24 hours during the loading period.

Coke Plant/Secondary Products Business Management
Makes the connection between the ship and benzol line correctly. During this activity, bronze materials (chisels, screwdrivers, etc.) which do not generate sparks are used. Personnel use suitable personal protective equipment such as cartridge masks, acid-resistant work clothes, anti-static shoes that are not affected by the vapor of benzene and derivatives.

Unloading Ferro Silicon:

OYAK Shipping
All kinds of last products, semi-products, raw materials (all solid bulk cargo) and so on. make loading and unloading of materials the best and safest way.

Cranes (CB2, CB3, CB4, CB5) used in the handling of dangerous solid bulk cargoes to ensure the control of mechanical steel ropes and ship hold lighting in handling operation.

We wanted to regulate the SDS (Material Safety Data Sheet) obtained from the manufacturer / related unit (if any) and take additional measures.

Where detailed details of the location and quantities of the cargo on board for all solid bulk cargoes are available, the detailed loading / unloading plan shall be taken from the ship prior to commencing / unloading and in agreement with the master. (Plan.3)

Evacuation cleaning cleans the area of all personnel not involved in the environment.

Hazardous solid bulk cargoes are combined with incompatible materials so that they do not react in a hazardous manner and are handled in a single order.

Occupational Safety Department / Fire Department
Although the Department of Occupational Safetydoes not have any duties during the operation, the Erdemir Port Emergency Plan and the Erdemir Emergency Plan come into play in a possible emergency.

Unloading Coal:

OYAK Shipping
All kinds of last products, semi-products, raw materials (all solid bulk cargo) and so on. make loading and unloading of materials the best and safest way.

Cranes (CB2, CB3, CB4, CB5) used in the handling of dangerous solid bulk cargoes to ensure the control of mechanical steel ropes and ship hold lighting in handling operation.

We wanted to regulate the SDS (Material Safety Data Sheet) obtained from the manufacturer / related unit (if any) and take additional measures.

Where detailed details of the location and quantities of the cargo on board for all solid bulk cargoes are available, the detailed loading / unloading plan shall be taken from the ship prior to commencing / unloading and in agreement with the master.

Evacuation cleaning cleans the area of all personnel not involved in the environment.

Hazardous solid bulk cargoes are combined with incompatible materials so that they do not react in a hazardous manner and are handled in a single order.

Occupational Safety Department / Fire Department
Although the Department of Occupational Safetydoes not have any duties during the operation, the Erdemir Port Emergency Plan and the Erdemir Emergency Plan come into play in a possible emergency.

3.RULES AND PRECAUTIONS TO APPLY/BE APPLIED BY THE COAST FACILITY

The basic safety rules that must be followed in Erdemir Port in addition to the safety rules determined with national and international agreements and authorities are listed below as articles. Our Port is ISPS appropriate according to SOLAS part XI and is being observed by 24

hours camera system.

- Inside the Facility and Erdemir Port railway vehicles, work machines, heavy transporters, trunks and such means have passage priority in traffic.
- Entering the working area of the work machines (crane, railway vehicles, loader, forklift, escavator, etc.) is dangerous and prohibited.
- Walking without permission and purpose on the dock and the port area you are staying is dangerous and prohibited.
- Entering the working area of the port cranes; be under the load on docks and /or deck is dangerous and prohibited/ not allowed.
- During the time the vessel is on the dock; to prevent work accidents like leg springs, falling and so on of the vessel crew, walking over the places on the dock, where there might be spilling of substances like: pellet, coal, coke, srap, wood, wedge, steel band and so on, is dangerous and prohibited.
- During the time the vessel is on the dock; the distance between the walking pathway of the cranes and gangway must be minimum 50 cm; the check up and safety is responsibility of the vessel crew.
- During bunkering the connections must be right and under control and all necessary safety precautions need to have been taken.
- Visitor, agency and such vehicles with their park places being shown with parking signs; are not allowed to park out of these places.
- Must follow all the written and vissual labor safety rules.

Safety Precautions

Benzole:

Before Touching

- Ask all unnecessary staff to clear the area
- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Extinguish all substances that are on fire.
- Determine all sources of sparkle, if possible cut the electricity in the lines near the area. Remove the sources that can create static electricity. Benzene vapor is heavier than air and it can accumulate in lower points.
- When suspecting about terorizm or sabotage, one after another explosions are expected.

Touching:

- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Use two workers, while one of them is approaches, the other observes from a safe distance.
- If possible aproach by taking the wind at your back and from the top. Plan the escape way.
- Aviod entering small pools and pond beds where there might be dangerous atmosphere because of hot weather , explosive , oxygenless or other reasons.

Do not enter the closed areas including the tanks and buildings. Wait for the arrival of the staff with the proper training and equipment. Especially, entering closed areas with the purpose of saving staff members that have lost their senses is included.

Sulfuric acid:

Before Touching:

- Ask all people and unnecessary staff to clear the area.
- Rig out if there are substances on fire put them out with appropriate extingusher.
- In no circumstance do not sprinkle water over acid. It causes the release of hydrogen gas, and hydrogen gas is explosive.
- Determine all sources of sparkle, if possible cut the electricity in the lines near the area.

Touching:

- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Use two workers while one of them is approaches , the other observes from a safe distance.
- If possible aproach in the direction of the wind and from the top. Plan the escape way.
- Do not enter the closed areas including the tanks and buildings. Sulphuric acid vapor

might affect human health. Wait for the arrival of the staff with the proper training and equipment. Especially, entering closed areas with the purpose of saving staff members that have lost their senses is included.

Coal Tar:

Before Touching:

- Its vapor is toxic. Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots)
- Ask all non-essential personnel to clear the area.
- If there are loads on fire, extinguish them with suitable fire extinguishers. Use normal foam or dry chemical

Touching:

- Its vapor is toxic. Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots)
- Use two people, one will observe while approaching, the other from a safe distance.
- Approach from the windward direction if possible. Plan your escape line.
- Do not enter confined spaces, including tanks and buildings. Tar vapor can affect human health. Wait for the arrival of personnel with the appropriate training and equipment. In particular, this includes entry into confined spaces for the purpose of rescuing unconscious personnel.

Ferro Silicon:

Before Touching:

- Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots).
- Ask all personnel not required to clear the area.
- Extinguish with suitable extinguishing media if there are any combustible material. Never use water.
- Take precautions to prevent contact with water. Causes hydrogen gas to escape and hydrogen gas is explosive.
- Highly toxic phosphine and arsine gases may occur in contact with water.

Touching:

- Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots).
- Use two people, one will approach, the other will observe from a safe distance.

- Do not enter into enclosed areas in contact with water and Class 8 (corrosive) liquids.
- It should not be approached in rainy weather conditions.
- During the loading of this load, all service / hatch covers not used in the load volumes where this load is loaded or to be loaded shall be kept closed.

Coal:

Before Touching:

- Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots)
- Ask all non-essential personnel to clear the area.
- If there are loads on fire, leave them without air. Never use water.

Touching:

- Wear the necessary safety equipment (mask, safety glasses, gloves, protective clothing, boots)
- Use two people, one will observe while approaching, the other from a safe distance.

Emergency Situations:

In emergency situations; the precautions to be taken by the port authorities and the vessel crews are shown below;

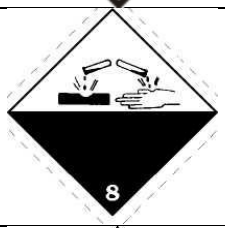
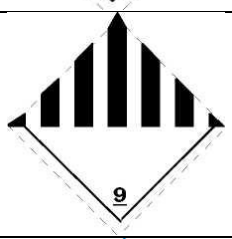
- In Erdemir Port, in case there is an emergency situation that affects the vessels; the vessel's authorities are informed in the shortest period of time possible in order to take the appropriate precautions.

- In case of an emergency on board, the port authorities should be informed via VHF channel 10. If VHF cannot be contacted; +90 536 065 50 13 telephone numbers and / or Port Facility Security Officers should be reached.

- Outside Erdemir site; You can reach fire, police and ambulance through emergency numbers. Within the Erdemir area; Erdemir's ambulance, fire brigade and protection services can be reached by using domestic routes.

Port Operations Responsible	***Port Facility Security Officers***	***Dangerous Cargoes Safety Consultant***
+90 (536) 065 50 13 (7/24)	Aydın DAĞISTAN +90 543 431 29 10 Celal Kıncı: +90 544 370 74 38	ALPER MALKOÇ: +90 533 636 81 44

4.CLASSIFICATION, TRANSPORT, SHIPMENT/DISEMBARKMENT, HANDLING, SEGREGATION, STOCKING, AND STORAGE OF DANGEROUS CARGOES

Name Of Dangerous Cargoes (PSN)	Class	UN No	Label	Packing Group	Storage / Decomposition	Load Documents
Benzole Coal Tar Distillates, Flammable	**3**	**1136**		**II**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Sulfuric Acid Containing more than 51% acid	**8**	**1830**		**II**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Coal Tar Environmentally Harmful Substance, Liquid, N.O.S	**9**	**3082**		**III**	**It has ıts own pipeline** **No storage at port**	**SDS avaliable**
Ferro Silicon With 30% or more but less than 90% silicone	**4.3** **+6.1**	**1408**		**III**	**No storage at port**	**SDS avaliable**
Coal	**IMSBC Code** **Group B (and A)** **MHB** **Combustible Solid (CB)** **Self-Heating Solid (SH)** **Flammable Gas Released Solid (WF)** **When Wet** **Abrasive Solid (CR)**				**No storage at port**	**SDS avaliable**

It is applied by the relevant employees in the Marine Transport Coordination and Control Management, Occupational SafetyManagement-Fire Department and Coke Factory. In the event of an accident, employees and / or visitors in the Ports and Docks due to work or visit must comply with the decisions taken within the framework of this plan.

The loading and unloading activities of dangerous cargoes in Erdemir Port are as follows;

- The loading of Benzole aboard the vessel by pipelines.
- The loadinng of Benzole aboard the vessel by land tankers (Supalan-Special handling and notification subject to handling),
- Discharging of Sulfuric Acid on the Line by the vessel.
- The loading of Coal Tar aboard vessel by pipelines.
- Loading and unloading of ferro silicon.
- Loading and unloading of coal.

Segregation Table

SEGREGATION TABLE

The following table shows the general provisions for segregation between the various classes of dangerous goods.

SINCE THE PROPERTIES OF SUBSTANCES, MATERIALS OR ARTICLES WITHIN EACH CLASS MAY WARY GREATLY, THE DANGEROUS GOODS LIST SHALL ALWAYS BE CONSULTED FOR PARTICULAR PROVISIONS FOR SEGREGATION AS, IN THE CASE OF CONFLICTING PROVISIONS, THESE TAKE PERCEDEMCE OVER THE GENERAL PROVISIONS.

SEGREGATION SHALL ALSO TAKE ACCOUNT OF A SINGLE SUBSIDIARY RISK LABEL.

	CLASS	1.1, 1.2, 1.5	1.3, 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
Explosives	1.1, 1.2, 1.5	*	*	*	4	2	2	4	4	4	4	4	4	2	4	2	4	x
Explosives	1.3, 1.6	*	*	*	4	2	2	4	3	3	4	4	4	2	4	2	2	x
Explosives	1.4	*	*	*	2	1	1	2	2	2	2	2	2	x	4	2	2	x
Flammable Gases	2.1	4	4	2	x	x	x	2	1	2	x	2	2	x	4	2	1	x
Non-toxic, Non flammable gases	2.2	2	2	1	x	x	x	1	x	1	x	x	1	x	2	1	x	x
Toxic gases	2.3	2	2	1	x	x	x	2	x	2	x	x	2	x	2	1	x	x
Flammable liquids	3	4	4	2	2	1	2	x	x	2	1	2	2	x	3	2	x	x
Flammable Solids	4.1	4	3	2	1	x	x	x	x	1	x	1	2	x	3	2	1	x
Substances, liable to spontaneous combustion	4.2	4	3	2	2	1	2	2	1	x	1	2	2	1	3	2	1	x
Substances which, in contact with water, emit flammable gases	4.3	4	4	2	x	x	x	1	x	1	x	2	2	x	2	2	1	x
Oxidizing substances (agents)	5.1	4	4	2	2	x	x	x	2	1	2	2	2	1	3	1	2	x
Organic peroxides	5.2	4	4	2	2	1	2	2	2	2	2	2	x	1	3	2	2	x
Toxic substances	6.1	2	2	x	x	x	x	x	x	1	x	1	1	x	1	x	x	x
Infectious substances	6.2	4	4	4	4	2	2	3	3	3	2	3	3	1	X	3	3	x
Radioactive material	7	2	2	2	2	1	1	2	2	2	2	1	2	x	3	x	2	x
Corrosive substances	8	4	2	2	1	x	x	x	1	1	1	2	2	x	3	2	x	x
Miscellaneous dangerous substances and articles	9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Segregation Terms

1. "away" In the warehouse or on mobile with at least 3 meters horizontal.
2. "separated" – A minimum of 6 meters of horizontal travel above or in different holds below deck.
3. "separate by one full compartment or hatch" - 12 meters horizontal space is too small. The deck is not barn or housed in it.
4. "Separate from length with a full partition or warehouse in between" - less application with 24

meters horizontal. An additional hatch should be considered in order to be considered within the scope of the deck.
X. Special Chart is examined. - It is valid for the specials in the IMD Dangerous Goods list.

Segregation of Bulk Cargoes

Petro Coke and Coal stands for Self-Flammable Solids (Class 4.2) on IMDG. It contains the separation table of substances belonging to other packaged dangerous goods classes and Class 4.2 substances.

IMDG SINIFLARI	Paketli Tehlikeli Maddeler																
	1.1 1.2 1.5	1.3 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
4.2	4	3	2	2	2	2	2	1	X	1	2	2	1	3	2	1	X
9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Stacking Rules in the Port Area

	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	8	9
2.1	0	0	0	S	A	S	0	S	S	0	A	0
2.2	0	0	0	A	0	A	0	0	A	0	0	0
2.3	0	0	0	S	0	S	0	0	S	0	0	0
3	S	A	S	0	0	S	A	S	S	0	0	0
4.1	A	0	0	0	0	A	0	A	S	0	A	0
4.2	S	A	S	S	A	A	A	S	S	A	A	0
4.3	0	0	0	A	0	A	0	S	S	0	A	0
5.1	S	0	0	S	A	S	S	0	S	A	S	0
5.2	S	A	S	S	S	S	S	S	0	A	S	0
6.1	0	0	0	0	0	A	0	A	A	0	0	0
8	A	0	0	0	A	A	A	S	S	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0

Ambalaj / IBCler / treylerler / düz veya platform konteynerler için
0 = ayrıştırma gerekmez (özel hükümlerde aksi belirtilmedikçe)
A = "...dan uzak" – minimum 3 m mesafe
S = "... dan ayrı" – açık alanlarda minimum 6 m. mesafe; kapalı alan ve depolarda minimum 12 m mesafe ya da yangın geçirmez duvarla ayrılmış

Kapalı konteynerler / seyyar tanklar / kapalı kara yolu araçları için
0 = ayrıştırma gerekmez (özel hükümlerde aksi belirtilmedikçe)
A = "...dan uzak" – ayrıştırma gerekmez (özel hükümlerde aksi belirtilmedikçe)
S = "... dan ayrı" – açık alanlarda, uzunlamasına ve enlemesine min 3 m mesafe, kapalı alan ve depolarda minimum 6 m mesafe ya da yangın geçirmez duvarla ayrılmış

Açık kara yolu vasıtaları / tren vagonları / üstü açık konteynerler için
0 = ayrıştırma gerekmez (özel hükümlerde aksi belirtilmedikçe)
A = "...dan uzak" – minimum 3 m mesafe
S = "... dan ayrı" – açık alanlarda, uzunlamasına ve enlemesine minimum 6 m mesafe; kapalı alan ve depolarda minimum 12 m mesafe ya da yangın geçirmez duvarla ayrılmış

- The stacking rules stated below will be valid only when they are packaged and unpacked, except for hazard class4.

- Dangerous goods arriving at the ERDEMİR port facility in packages other than bulk cargo are inspected at the port entrance according to IMDG and ADR rules.
- Unpacked, unmarked and unlabeled cargoes are not allowed to enter the port.

5.THE PORTABLE BOOK ABOUT THE DANGEROUS CARGOES HANDLING IN THE COAST FACILITY

The portable book about the dangerous loads has been attached

6. OPERATIONAL ISSUES

Loading Benzole Aboard the Vessel By Pipelines:

Erdemir Port Customer Relations Management
Gives suitability approval to the ship with the record: 'have flange to the extent of providing the connection to the 6 inches Loading Coast pipeline and a long enough flexible pipeline'. The manifold that is going to be used to do the coast fastening of the ship is taken under consideration in the location it is found in the ship.

OYAK Shipping / Erdemir Port Customer Relations Management

Makes sure the discharging of the vessel takes place in a time when there is less concentration of shipments in the region. Supervisers these issues during cargo planning. Makes sure all the non-related staff in the surroundings clears the area during the discharging. Informs the OYAK Shipping Maintenance Department about the planned date and time 'with the aim to obtain the cessation of the energy of the cranes'

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the sea side on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
The Occupational Safety Department prepares and gets signed by the parties the protocol where the precautions that need to be taken before starting the operation. Bans the possiple entry-exits to the area where the Fire Dept. activity is going to take place by putting around strips and signs showing the safe distance. In addition, one firefighting vehicle is present and ready during the loading for more than 24 hrs.

Coke Plant/Secondary Products Business Management
Makes the connection between the vessel and the benzole source in accordance with the document no. ISG.TAL1.00020. In this operation uses bronze materials (chisel, screwdriver, etc.) that dont produce sparkles. The staff uses labor appropriate

personal protection hardware like mask with A1 cartridge that will not be affected by benzole and its derivatives, acid resistant work clothes, anti-static shoes are used.

Loading Benzole Aboard the Vessel By Land Tankers:

Erdemir Port Customer Relations Management
It manages the process of fulfilling the application and requirements within the scope of "Notification and Special Permission Directive Regarding Dangerous Cargoes Carried by Sea and its Annex" dated 12 April 2019 and numbered 29486 regarding Supalan handling.

OYAK Shipping / Erdemir Port Customer Relations Management
Makes sure the discharging of the vessel takes place in a time when there is less concentration of shipments in the region. Supervisers these issues during cargo planning. Makes sure all the non-related staff in the surroundings clears the area during the discharging. Informs the OYAK Shipping Maintenance Department about the planned date and time 'with the aim to obtain the cessation of the energy of the cranes'

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the activity on the dock before the discharge. Makes sure the sources that can create static electricity are removed. Makes and checks the grounding systems of the land tankers and the grounding systems found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The ship is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
Occupational Safety Department , before the operation starts prepares and makes the parties sign the protocol where the safety precautions to be taken are written. Checks whether the vessel and the land tankers are certified to transport this load. (*for example checks whether the land tankers have **ADR.** European Agreement Concerning the International Carriage of Dangerous Cargoes by Road)*

Security Unit; tankers are taken to the weighing area in the port area under the supervision of Security. Later on, tankers are taken from weighing area to the operation area under supervision Security.

The Fire Department; Bans the possiple entry-exits to the area where the fire department activity is going to take place by putting around strips and signs showing the safe distance. In addition, one firefighting vehicle is present and ready during the loading for more than 24 hours.

Transportation Company (Tanker)
It complies with the requirements of "Notification and Special Permission Directive Regarding Dangerous Cargoes Carried by Sea and its Annex" dated 12 April 2019 and numbered 29486 regarding Supalan handling and the permits and instructions given by the Ministry of Transport and Infrastructure.
The connection between the ship and tanker is carried out by the corresponding shipping company. In this operation it uses bronze materials (chisel, screwdriver, etc.) that don't produce sparkles. The staff uses labor appropriate personal protection hardware like mask with A1 cartridge that will not be affected by benzole and its derivatives, acid resistant work clothes, anti-static shoes are used. Checks that all the connections and gaskets are leak-proof. Turns in to the Port authorities the cargo documentations (SDS, etc.) of the dangerous materials to be loaded aboard the ship. During the loading of the material aboard the ship affirms that the authorized staff appointed by the working corresponding company has completed the IMDG general awareness and task related educations.

Unloading of Sulfuric Acid On the Line By The Vessel:

Erdemir Port Customer Relations Management
Provides the approval of conformity provided that it accepts the conditions specifying the ship's berth specifications and manifold position. The ship's shore connection is to be made at the position where the manifold is located on the ship.

OYAK Shipping / Erdemir Port Customer Relations Management
Ensures that the ship is evacuated during the period when there is less shipment in the region. Observes these issues during cargo planning. It ensures that all personnel who are not involved in the environment during evacuation evacuate. It informs OYAK DLİ Maintenance Unit in order to ensure that the cranes are de-energized at the planned date and time.

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the vessel is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
Although the Department of Occupational Safetydoes not have any duties during the operation, the Erdemir Port Emergency Plan and the Erdemir Emergency Plan come into play in a possible emergency.

Coke Plant/Secondary Products Business Management
Makes the connection between the ship and benzol line correctly. During this activity, bronze materials (chisels, screwdrivers, etc.) which do not generate sparks are used. Personnel use suitable personal protective equipment such as cartridge masks, acid-resistant work clothes, anti-static shoes that are not affected by the vapor of benzene and derivatives.

Loading Coal Tar Aboard The Vessel By Pipelines:

Erdemir Port Customer Relations Management
The ship's quay technical specifications and condition of the manifold position gives approval of conformity with the registration where conditions are accepted. The structure of the ship's shore is taken into consideration where the manifold is on board.

OYAK Shipping / Erdemir Port Customer Relations Management
Ensures that the ship is evacuated during the period when there is less shipment in the region. Observes these issues during cargo planning. It ensures that all personnel who are not involved in the environment during evacuation evacuate. It informs OYAK DLİ Maintenance Unit in order to ensure that the cranes are de-energized from the planned date and time.

OYAK Shipping
Cuts the energy of the cranes that are not going to be used during the operation on the dock before the unloading. Makes sure the sources that can create static electricity are removed. Checks the grounding system found in the region.

Erdemir Port Marine Services Management
Controls whether there is long enough 'steal emergency pulling tool' in the seaside on the front and back sides of the vessel. Will make sure that the ship is fastened safely to the bollard by leaving enough amount on the deck of the vessel. The vessel is fastened to the Emergency Departure Hooks. Is responsible for keeping the Emergency Departure hooks ready.

Occupational Safety Department / Fire Department
The fire brigade turns the strip with a safe distance in the area where the activity will take place and prohibits the possible entry and exit by placing a sign. However, one fire truck is present in the area for 24 hours during the loading period.

Coke Plant/Secondary Products Business Management
Makes the connection between the ship and benzol line correctly. During this activity, bronze materials (chisels, screwdrivers, etc.) which do not generate sparks are used. Personnel use suitable personal protective equipment such as cartridge masks, acid-resistant work clothes, anti-static shoes that are not affected by the vapor of benzene and derivatives.

Ferro Silicon Loading / Unloading / Handling / Handling:

Maritime Transport Coordination and Control Department / OYAK DLİ

It is forbidden to smoke and keep open flames in the cargo volume during operation or in areas close to the cargo volume on the deck.
All portable lighting elements shall be of safe type suitable for use in explosive atmosphere (Exproof).
The load shall be kept dry and the hatch covers to be interrupted during the wet weather conditions shall be closed.
The vessel shall be equipped with a lifeguard rope and a gas detector, as well as cylinder gas mask assemblies and shall be immediately ready for use.
Before discharge, the load volume shall be tested for toxic and flammable gases in the atmosphere.
The concentration of hazardous gases shall be checked every 30 minutes while personnel are present in the load volume.
If the gas concentration exceeds the thresholds for phosphine (0.3 ppm) and arsine (0.05 ppm) or if the oxygen level falls below 18%, the load volume will not be allowed.
The load level plane shall be constructed in accordance with the conditions specified in sections 4 and 5 of the IMSBC Code. Due to the extremely high load density, tanktop sheets may be subjected to extreme stress if not spreading to ensure a uniform weight distribution. Care should be taken to ensure that the tanktop sheets are not subjected to excessive stress during loading and during the voyage due to load build-up.
It shall be kept in contact with foodstuffs and class 8 liquids.
Keeping the holds clean and dry, taking into account the hazards specific to the load.
Continuous mechanical ventilation shall be provided in the load volumes in which this load is carried during the voyage. If continued ventilation may pose a danger to the ship or cargo, it may pause the ventilation due to interruption of the ventilation. However, in any case, it shall provide mechanical ventilation starting from a suitable time before discharge.
The detectors suitable for the measurement of each gas or mixtures of these gases shall be operational on the ship for the monitoring of hydrogen, arsine and phosphine gases during the transport of this load. The detectors shall be certified to be of safe working type in the presence of explosive mixtures. During the voyage, the concentrations of said gases in the charge volumes to which this cargo is carried shall be regularly measured. The results of the measurements will be recorded and kept in the ship's archive.
After this discharge, the load volumes will be swept twice. Due to the danger of gas, water shall not be used in the volume of the load to which this load is carried.

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All kinds of finished cargoes, semi-finished products, raw materials (all solid bulk cargo) and so on. loading and unloading of materials in the best and safest way.
Cranes (CB2, CB3, CB4, CB5) used in the handling of dangerous solid bulk cargoes to ensure the control of mechanical steel ropes and ship hold lighting in handling operation.
Taking additional measures (if any) to be taken according to the SDS (Material Safety Data Sheet) supplied from the manufacturer / relevant unit.
The detailed loading / unloading plan, which includes details of the position and quantities

of the cargo on board for all solid bulk cargoes, is obtained from the ship before the estimation / unloading process starts and agreement is reached with the master.
It ensures that all personnel who are not involved in the environment during the evacuation evacuate the area.
Hazardous solid bulk cargoes are handled one by one without mixing with incompatible materials in a non-hazardous manner.

Occupational Safety Department / Fire Department

Although the Occupational SafetyManagement does not have any duties during the operation, the Erdemir Port Emergency Plan and the Erdemir Emergency Plan come into play in a possible emergency.

Coal Loading / Unloading / Handling / Handling:

Maritime Transport Coordination and Control Department / OYAK DLİ

During the handling of the cargo, all unused service / hatch covers of the cargo volumes where the cargo is loaded or to be loaded will be kept closed.

Provided that the entire cargo will be unloaded at the same port, the cargo in the mentioned cargo volume can be discharged in rainy weather conditions.

If the load level is not regulated properly in the loads, vertical cracks descending into the coal load can allow oxygen circulation and reveal the possibility of self-heating.

Leave the fire without air. Airing may be sufficient to control the fire. Do not use water. Get expert opinion, consider the option of heading to the nearest and most convenient port.

The use of CO_2 or inert gas should not be resorted to until the fire is visible.

Coals can produce methane, a flammable gas. Methane/air mixtures containing 5% to 16% methane are explosive, sparks or open flames such as electric or frictional sparks, striking a match or lighting a cigarette may be sufficient to explode. Methane is lighter than air and therefore accumulates at high points in cargo volumes or other confined spaces. If cargo volumes are not tightly sealed, methane leakage may occur in adjacent confined spaces within the cargo volume.

Coals can oxidize, causing depletion of oxygen in the cargo volume and an increase in carbon dioxide or carbon monoxide concentrations. Carbon monoxide is an odorless gas slightly lighter than air, its mixtures with air in the range of 12-75% by volume are flammable. Toxic if inhaled, it binds to hemoglobin in blood more than oxygen.

Some coals can self-heat in the load volume and self-heating can lead to combustion. Various flammable and toxic gases can be produced, including carbon monoxide.

Some coals can react with water to release acids that can cause corrosion. Various flammable and toxic gases can be produced, including hydrogen. Hydrogen is an odorless gas, lighter than air, and mixtures of 4% to 75% by volume are flammable.

Unless otherwise stated, the walls of the load volumes where this load is carried will be resistant to fire and liquid leaks.

This cargo is included in classes 1 (section 1.4), 2, 3, 4 and 5 and will be segregated from packaged products (see IMDG Code) and solid bulk materials of classes 4 and 5.1.

Products included in Class 5.1 will not be allowed to be loaded in packages above or below this load in solid bulk condition.

The captain will ensure that this load is not loaded adjacent to hot areas.

This cargo shall be divided longitudinally into a full bulkhead or holds for Class 1 products other than Division 1.4.

Prior to loading, the loader or his designated agent shall give the captain in writing the characteristics of the cargo and the safe handling procedures recommended for loading and transporting the cargo. In this written statement, they will have stated at a minimum the contract specifications in terms of moisture percentage, sulfur content and material dimensions of the cargo, and in particular whether the cargo has the possibility of emitting methane gas or self-heating.

Before loading, the captain will have fulfilled the following conditions.
All cargo volumes and bilge wells shall be clean and dry. All waste materials, including detachable cargo battens, or residues of the previous load will be cleaned in the cargo volumes.

All electrical wiring and components in load volumes and adjacent enclosed spaces shall be intact. Said electrical cables and components shall be of a safe type suitable for use in flammable and/or dusty atmospheres or shall be positively insulated.

The ship will have suitable equipment for the measurement of the following values without the need to enter the cargo volume and all equipment will be in working condition throughout the voyage.

These instruments will be regularly serviced and calibrated. Ship personnel will be trained in the use of such tools. Details on gas measurement procedures are given at the end of this Annex.

It is recommended to have equipment capable of monitoring in the temperature range of 0ºC to 100ºC so that the cargo temperature can be measured during loading and during the voyage without the need to enter the cargo volume.

Smoking and use of open flames will not be allowed in the cargo volumes and adjacent volumes, the necessary warning sign will be hung in visible places. Do not allow any fire or open flame welding, cutting, etc. transactions will not be allowed.

In order to prevent gas pockets from forming in the cargo and to allow air to penetrate into the structure of the briquettes, the captain will see that the surface of the material has spread towards the walls of the cargo volume and is leveled sufficiently before sailing. Doors opening to the cargo volume will be closed sufficiently hermetically.

Concentrations of methane, oxygen and carbon monoxide in the space above the cargo will be monitored regularly at all cargo volumes. Details of gas monitoring procedures are provided at the end of this Annex. Follow-up results will be saved. The frequency of the follow-ups will be determined based on the information provided by the loader and the information obtained through the analysis of the atmosphere in the cargo volumes.

Unless otherwise expressly stated, surface ventilation will be carried out during the first 24 hours after leaving the loading port in the stone cargo volumes of this cargo.
If the methane concentrations have dropped to an acceptable level within 24 hours after leaving the port, the ventilation openings will be closed and the atmosphere in the cargo volumes will be monitored. If the methane concentrations have not decreased to an acceptable level within 24 hours after leaving the port, surface ventilation will continue and the atmosphere in the cargo volumes will be monitored, except for the breaks to be given before the measurements.

If high methane concentrations are observed in successive measurements in unventilated cargo volumes, appropriate special measures will be taken for methane producing coals.

As far as possible, the captain will ensure that the gases that may be emitted in this cargo do not accumulate in closed volumes adjacent to the holds.

METHANE RELEASING COALS

If the shipper informs that this cargo may produce methane, or if the analysis of the atmosphere in the cargo volume shows the presence of methane exceeding the Lower Explosion Limit (LEL) by 20% of the limit, the following additional measures will be taken.

• Adequate surface ventilation will be continued, except for the breaks to be given before gas measurements.
• Before the hatch covers are operated for any reason, including the discharge of the cargo, or before similar hatches are opened, attention will be paid to the disposal of accumulated gases. Care shall be taken to operate/open hatch covers and other covers without generating sparks. Smoking and the use of open flames will not be allowed. Personnel entrances to the cargo volume or adjacent closed volumes will not be permitted until the air is ventilated and the atmosphere is tested, and it is confirmed that it is purified from gas and has oxygen at a level to support life.
• Captain cellars, carpentry shops, corridors, tunnels etc. It will ensure that the presence of

methane is regularly monitored in closed working volumes such as Adequate ventilation will be provided in the said volumes and only safe type equipment suitable for use in explosive atmospheres will be used for mechanical ventilation.

SELF-HEATING COALS

If the loader informs that this load is capable of self-heating, or if analysis of the atmosphere in the cargo volume shows an increased concentration of carbon monoxide, the following additional measures will be taken:

• After the loading of a cargo volume is completed, the cargo volume's covers will be closed immediately. In addition, sealing will be provided on the hatch covers by using a suitable sealing tape. Only ventilation from the natural surface will be allowed and if necessary, ventilation will be provided for a minimum period of time and only sufficient to remove any methane gas that may have accumulated.
• During the voyage, no personnel will enter the cargo volumes unless there is a critical situation in terms of the ship's safety and life safety. The personnel who will enter from such situations must wear a tube gas mask.
• The temperature of this load will be monitored before loading. If the load has a temperature higher than 55ºC, it will not be loaded.
• A steady increase in carbon monoxide levels may indicate a possible self-heating condition. In such a case, the cargo volume will be completely closed, all ventilation will be stopped and the expert opinion will be sought immediately from the captain. While at sea, water will not be used to cool material or extinguish fires involving coal cargo, but water is used to cool the walls of the cargo volume.

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All kinds of products, semi-finished products, raw materials (all solid bulk cargo) etc. arriving at the port and shipped from our port. To make the loading and unloading of the materials in the best and safe way.

To ensure the control of the grabs of the cranes (CB2, CB3, CB4, CB5) used in the handling of dangerous solid bulk cargoes, the mechanical steel ropes and the ship's hatch lighting in the handling operation.

Taking additional measures (if any) to be taken according to the SDS (Material Safety Data) forms obtained from the manufacturer/related unit.

For all solid bulk cargoes, the detailed loading/unloading plan, which includes the details of the location and quantities of the said cargo on the vessel, is taken from the vessel before the loading/unloading process starts, and an agreement is reached with the vessel's captain.

During the evacuation, it allows all non-related personnel to evacuate the area.

It ensures that dangerous solid bulk cargoes are handled one by one without mixing them in a way that they will not react dangerously with incompatible cargoes.

Occupational Safety Department / Fire Department

Although the Occupational SafetyDirectorate does not have any duties during the operation, Erdemir Port Emergency Plan and Erdemir Emergency Plan come into play in case of an emergency.

7. DOCUMENTATION, CONTROL AND REGISTRATION

The Procedure For Loading Of Erdemir Sulfuric Acid:

For the purchased sulfuric acid, the SDS form is sent after the ship connection is made by the Purchasing Directorate.
The form is shared with the relevant groups by the Sea Transport Coordination and Control Department.
After obtaining the SDS for each dangerous substance by authorized persons, it is checked and printed and kept in its file. Warnings and warnings indicated in the ship's ETA and SDS form are shared through control forms before the ship arrives to the persons in charge of the operation.
After the vessel is docked, the persons concerned go to the ship and fill in the Ship Shore Check list prior to loading and confirm that they will be done before, during and after the operation. This form shall be kept in the ship's file after being mutually signed.
During the operation, the Coke Directorate personnel supervise the operation for 24 hours in 3 shifts.

The Procedure of Loading Erdemir Benzole and Coal Tar:

For the purchased benzole and coal tar, the SDS form is sent after the ship connection is made by the Purchasing Directorate.
The form is shared with the relevant groups by the Sea Transport Coordination and Control Department.
After obtaining the SDS for each dangerous substance by authorized persons, it is checked and printed and kept in its file. Warnings and warnings indicated in the ship's ETA and SDS form are shared through control forms before the ship arrives to the persons in charge of the operation.
After the vessel is docked, the persons concerned go to the ship and fill in the Ship Shore Check list prior to loading and confirm that they will be done before, during and after the operation. This form shall be kept in the ship's file after being mutually signed.
During the operation, the Coke Directorate personnel supervise the operation for 24 hours in 3 shifts.

The Procedure of Unloading Ferro Silicon

For the purchased benzole and coal tar, the SDS form is sent after the ship connection is

made by the Purchasing Directorate.
The form is shared with the relevant groups by the Sea Transport Coordination and Control Department.
After obtaining the SDS for each dangerous substance by authorized persons, it is checked and printed and kept in its file. Warnings and warnings indicated in the ship's ETA and SDS form are shared through control forms before the ship arrives to the persons in charge of the operation.
After the vessel is docked, the persons concerned go to the ship and fill in the Ship Shore Check list prior to loading and confirm that they will be done before, during and after the operation. This form shall be kept in the ship's file after being mutually signed.
Safety precautions are taken by all personnel as the product emits hydrogen gas and various toxic gases when it interacts with water.

Procedure About Coal Operations:

Coal load SDS form is forwarded to the Port by the agency before the ship arrives at the port. SDS forms are stored in Port records.

After obtaining SDSs for each dangerous cargo by authorized persons, control is made. Persons in charge of the operation are informed.

After the ship has berthed, the relevant persons go to the ship and fill the Ship Shore Check list before loading and confirm what will be done before, during and after the operation related to the ship. After this form is mutually signed, it is kept in the ship's file.

The Procedure about 3rd Parties Benzole Loading

3rd party companies make the demand for benzol loading to Erdemir Port.

Erdemir Port requests from the company to provide the necessary conditions under the "Notification and Special Permission Directive Regarding Dangerous Cargoes Carried by Sea and its Annex" dated 12 April 2019 and numbered 29486 regarding Supalan handling.

After the conditions are met, the port applies to the Ministry of Transport and Infrastructure together with the relevant documents.
After the application has been concluded, the protocol signed between the company and Erdemir, which sets out the rules regarding the general lines of the shipment to be made, shall be signed to the parties and removed to the ship file.
The measures / additional measures / requests to be put forward by the Ministry shall be met by the relevant parties before, during and after the activity.
Marine Transportation Coordination and Control Management makes the entry of the vehicles that will come to the port during the operation. During the operation, the company is in constant contact with the personnel in charge and instant discussions are made about the current situation. Every vehicle is inspected according to the check list prepared by Erdemir Gülüç at the door within the scope of ADR by the Occupational SafetyMaanagement. Otherwise, entry to the factory site is prohibited until the vehicle

meets the required conditions.
The fire department assigned by the Occupational SafetyManagement will accompany the operation during the operation. 7/24 ready for instant intervention.

Registration and Documentation:

The records and statistical data of dangerous cargoes that are indexed through Port Management System, and instant tonnage, last tonnage, all occurrences report, the events and problems (if there is) that occurred during the operation in loading unloading processes of all the ships, are added to the Notes section.
In the vessel files the vessel's nomination stages, SDS form provision, the ship technical properties taken before the operation, billing details, SOF, Vessel Shore Check List, etc. all documents are archived in hard copy.

8. IN CASE OF EMERGENCY, BEING READY FOR EMERGENCY CASES AND INTERVENTION

In The Fires While The Pressing Work Is Carried Out In Benzole Fixed Lines:

OYAK Shipping

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: In a possible fire situation the emergency safety hooks a dropped by the sailors and with the purpose of drifting the vessel away by using the steel emergency toe ropes, the vessel is quickly pulled out of the port borders.

Occupational Safety Department / Fire Department

During Emergency: In a possible emergency situation Occupational Safety Department applies the Erdemir Emergency Plan according to the degree of the situation. In case, when reinforcement is necessary provides connection with the center. Intervenes to the fire using the firefighting vehicles and the fire ball found in the region.

Coke Plant/Secondary Products Business Management

During Emergency: in a possible emergency situation ÇYS.TAL4.00232 document intervenes in accordance with numbered 'Benzole Plant Accident and Emergency Conditions' work instructions. The Working Staff uses the emergency shower.

Loading Benzole Aboard The Vessel By The Land Tankers:

OYAK SHIPPING

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: In a possible fire situation the emergency safety hooks a dropped by the sailors and with the purpose of drifting the ship away by using the steel emergency toe ropes, the vessel is quickly pulled out of the port borders.

Occupational Safety Department / Fire Department

During Emergency: In a possible emergency situation Occupational Safety Department aplies the Erdemir Emergency Plan according to the degree of the situation. In case, when reinforcement is necessary provides connection with the Center. Intervenes to the fire using the firefighting vehicles and the fire ball found in the region. The tanker drivers intervene to the situation with the fire extinguishers found in their tankers.

Transportation Company (Tanker)

During Emergency: In a possible emergency situation acts in a coordinated way with firefighting officers. In case of environmental accidents must have a overflow container under the connections.

Unloading Of Sulfuric Acid By The Vessel To The Line:

OYAK SHIPPING

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: In a possible fire situation the emergency safety hooks a dropped by the sailors and with the purpose of drifting the vessel away by using the steel emergency toe ropes, the vessel is pulled to the safely area.

Occupational Safety Department / Fire Department

During Emergency: In a possible emergency situation Occupational Safety Department aplies the Erdemir Emergency Plan according to the degree of the situation. In case, when reinforcement is necessary provides connection with the Center. Intervenes to the fire using the firefighting vehicles and the fire ball found in the region.

Coke Plant/Secondary Products Business Management

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Loading Coal Tar Aboard The Vessel By Pipelines:

OYAK SHIPPING

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: In a possible fire situation the emergency safety hooks a dropped by the sailors and with the purpose of drifting the vessel away by using the steel emergency toe ropes, the vessel is pulled to the safely area.

Occupational Safety Department / Fire Department

During Emergency: In a possible emergency situation Occupational Safety Department aplies the Erdemir Emergency Plan according to the degree of the situation. In case, when reinforcement is necessary provides connection with the Center. Intervenes to the fire using the firefighting vehicles and the fire ball found in the region.

Coke Plant/Secondary Products Business Management

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Ferro Silicon Discharging from the Ship:

OYAK SHIPPING

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: Tugs are available. The Incident acts within the scope of the Commander's instruction.

Occupational Safety Department / Fire Department

During Emergency: In case of a possible emergency, Erdemir activates the Emergency Plan according to the degree of the Occupational SafetyDirectorate. In cases where reinforcement is required, it provides the connection with the Center.

Coal Discharging from the Ship:

OYAK SHIPPING

During Emergency: In the event of a possible fire, Erdemir Port will act in accordance with the Dangerous Cargoes Emergency Plan.

Erdemir Port Marine Services

During Emergency: Tugs are available. The Incident acts within the scope of the Commander's instruction.

Occupational Safety Department / Fire Department

During Emergency: In case of a possible emergency, Erdemir activates the Emergency Plan according to the degree of the Occupational SafetyDirectorate. In cases where reinforcement is required, it provides the connection with the Center.

EMERGENCY SITUATION SCENARIOS AND INTEVENTION METHODS

During sulfuric acid uptake, benzole discharging there are people in charge at the pump station and pipe connections. The operating pressure is at most 4 bars. In any leakage case the pump will be stopped within at most 1 minute with radio communication

Acid Line Spillages Scenarios: If the occurence of a full breakage in the acid line and within 1 minute the stopping of the pomps would be thought; 1.67 tons of acid, will spread from the line to the outside surroundings. In case of a possible spillage, by taking the spilling area inside a circle, a 50 m2 area must be immediately evacuated. (Emergency Guide Book, 2004, USA)

Benzole Line Spillages Scenarios: If the occurence of a full brekage in the benzole line and within 1 minute the stopping of the pomps would be thought; 1.34 tons of benzole, will spread from the line to the outside surroundings.

Coal Tar Line Spillage Scenarios: If the occurence of a full breakage in the coal tar line and within maximum 1 minute the stopping of the pomps would be thought; 5 tons of tar, will spread from the line to the outside surroundings.

DEFINITON	PIPE DIAMETER AND THICKNESS	LINE LENGTH	PIPE INTERIOR VALUME	COMPLETELY DISCHARGING OF GOODS FROM THE PIPE
ACID LINE	168.3*10.97	110	4.1	7.7
	168.3*7.11	35	0.6523	5.7
BENZOLE LINE	168.3*7.11	305	56.841	5
COAL TAR LINE	10	330		20

Table 3: Fully Discharge Status Of the Lines

According to these scenarios; because Benzene, compared to Sulfuric Acid is handled more in operating conditions the precautions needed to be taken against this chemical at the end of an intervention scenario will be assessed.

As shown in Table 3: against a possible unwanted situation in Benzole line, an intervention to the line can be performed within 1 minute. Within this time period the spreading of nearly 5-6 tons of benzole is expected. This spread will be controlled and cleaned in the area by the Port Management, considered as a 1st degree small operation spread (Source); Erdemir Port Sea pollution Emergency Plan, Part 5, Page 11/35)

In the case when intervention is considered first knowing about the properties and risks of the related chemical (Benzene) is necessary

Benzene Properties And Risks:

Benzene is a hydrocarbon with carcinogenic effect on humans, has very low water solubility and therefore has a direct effect on the living organisms, colorless and flammable. As a result of its combustion CO2 gas is released.

Benzene's physical properties are given in Table 4, main risks in Table 5, classification according to IMDG Code in Table 6.

COLOR FEATURES	COLORLESS
Flammable Features (fiery)	(LEL[1]: % 1,2– 12.000ppm), (UEL[2]: % 8 – 80.000 ppm)
Melting Point	5.5 ^{0}C
Boiling Point	80.1 ^{0}C
Chemical formula	C_6H_6
TVL	10 ppm
MAC	10 mg/m^3

Table 4: Benzene Features

Table 5: Benzene Risk Class (Glare and Poisoning)

Chemical Name	IMDG Code	IMDG Marine Pollution	Behavior in Water	Damages
Benzene	 Class 3 Flammable Liquids Mid-point Explosion	Marine Pollutant	Float and Evaporate	Air explosive toxic carcinogen

Table 6: Benzene is Classifying According to the IMDG Code

Intervention:

- Benzene forms flammable mixture with air atmospheric temperature. Therefore the benzene concentration in the medium must be measured with a gas meter (LEL meter). According to its concentration in the air the distances that can be reached by benzene in 3 m/s and 10 m/s wind velocities and the protection methods in these conditions must be considered. (Source); Erdemir Port Sea Pollution Emergency Plan, Part5, page 22/35)
- If the measurement result of benzene LEL values is under 10% , the intervention must be continued by observing the concentration of the substance in the air.
- If the measurement result of benzene LEL values is more than 10%, an area of isolation of at least 100 m-200 m in all directions of the spillage or leakage area. Entrance-Exitsin the scene of the incident must be banned by surrounding the dangerous area. The public should be kept away from incident area and out of the safety band providing public and environment safety.
- If the measurement result of benzene LEL values is more than 25 %, they must wait until the value drops.

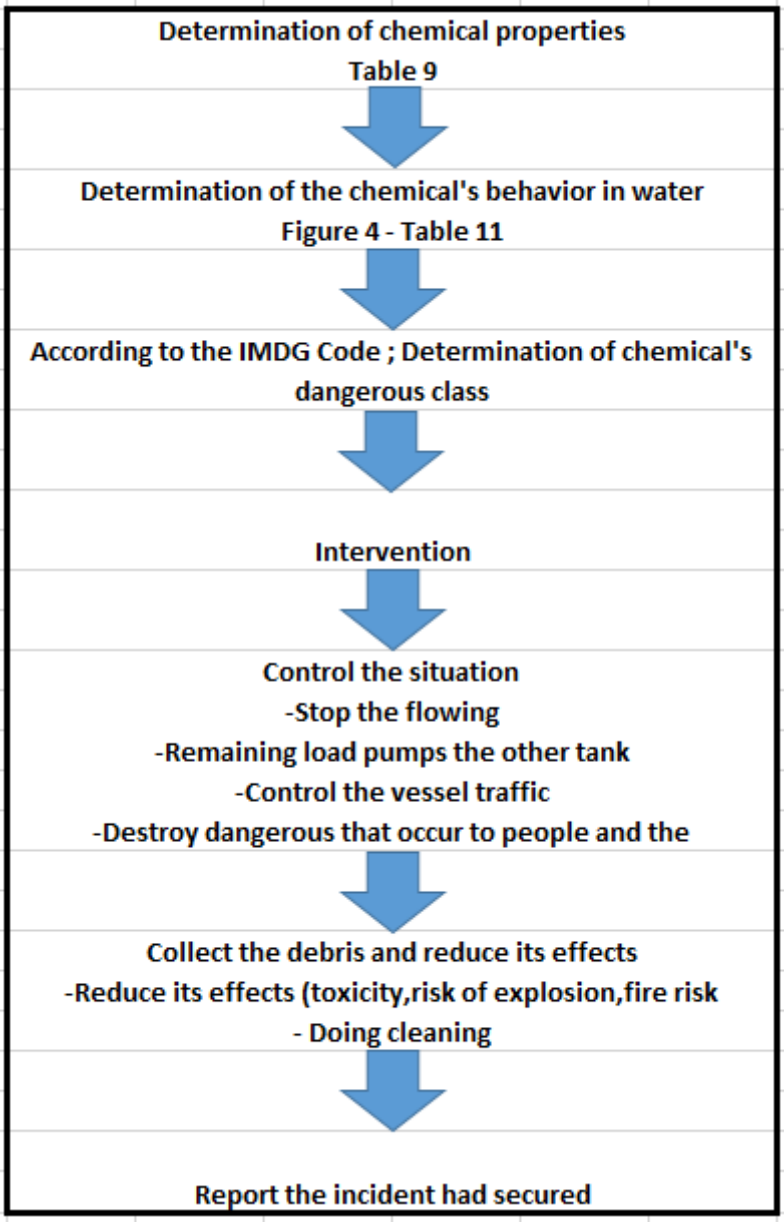


Table 7: Intervention In The Benzene Spill Stages

- After the warning and intervention teams reach the incident scene, the first thing to be done is to determine whether the spillage is continuing or not, and whether the spillage continuation will be stopped or not.(closing the valve or pumps, or in another way). Firstly the leakage should be stopped, if not possible the spreading of the spillage should be impeded.
- Unless it is a situtation that constitutes risk for human life, the leakage region should be closed. The apropriate substances to close the leakage region: polyester, polyurethane foam and epoxy resin.

- Because benzene is quite volatile, the benzene spillage on the surface of the water should be surrounded by barriers as quickly as possible. The benzene trapped inside the barriers can be collected with absorbent materials.

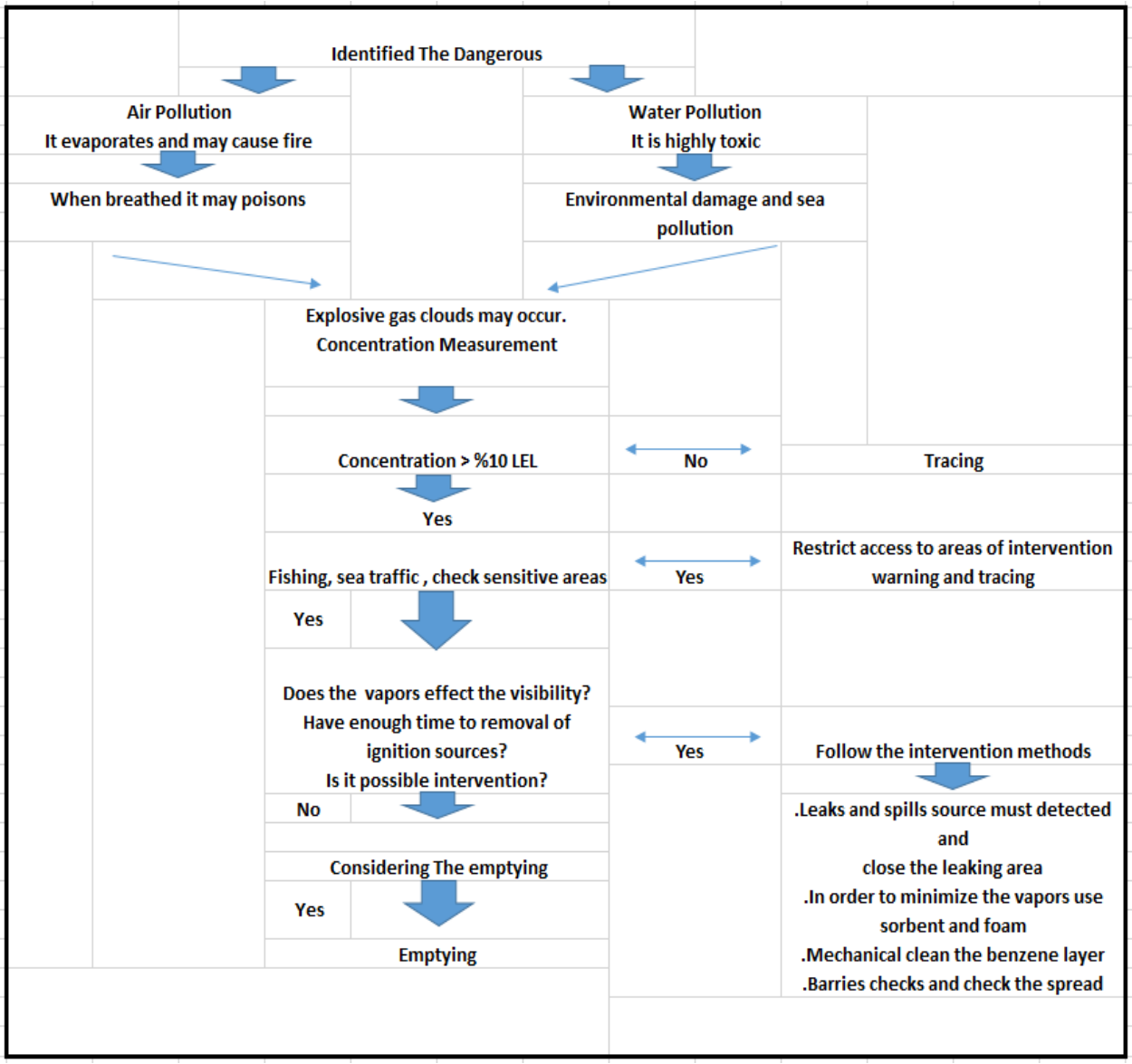


Table 8: Risks and Intervention In The Benzene Spill That May Occur

If the spilled benzene encounters a fire source, it starts to burn. The fire flow is given in Table 9. In such a case, the way to be followed for intervention is explained below in details;

- First thing to do is evacuate all people that are inside the circular area of 800 meters radius acepting the place where the fire is as the center. Later the intervention can continue.
- If spillage has not stopped, extingushing the fire should not be attemted. Because if the amount of benzene in air has reached a certain level (at least 1,2%, at most 8%) an

explosion can occur.

- If the spillage or leakage is not continuing, as fire extingusher chemical foam or dry carbodioxide can be used.
- The containers and tanks containing benzene or any other flammable substance, that are found in the area where the fire is must be cooled with water.
- If a whisper is coming from the pressure valves, the area must be evacuated immediately

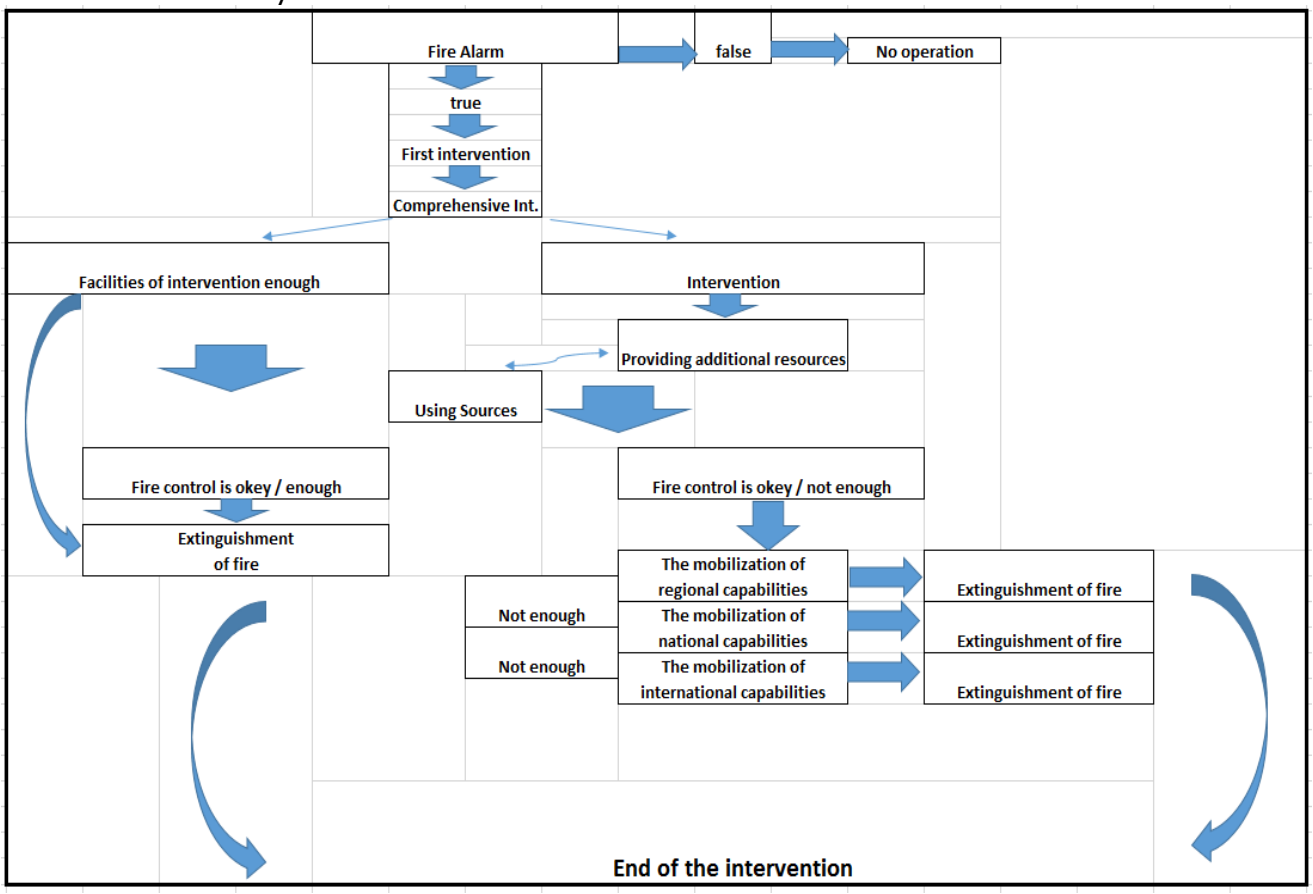


Table 9: Fire Intervention Flowchart

While intevening in a fire the precautions bellow must be taken.

- Take the wind on your back and if possible make it move contrary to the flow. All team must use personal protective materials and carbon monoxide detectors.
- Must stay away from flame, spark and heat sources. Equipment that does not cause sparks must be used.
- Intervention from air is not advised.

At the ending of Benzene spilling intervention together with the observation of swimming layers situation, the concentration of benzene in air must be continuously monitored, and according to the measurement result decisions need to be taken. If the measurement result of benzene LEL values is less than 10%, since there is no risk of explosion or fire, the

intervention can be ended. Since benzene vapor is at the same time a poisonous substance, the need for the concentration of benzene in air to be even lower than benzene's MAC (Maximum Acceptance Concentration) value must be taken into account while ending the intervention.

9. OCCUPATIONAL HEALTH AND SAFETY

Hardware and Risks of Emergency Intervention Team:

The primary purpose of the intervention in an Emergency Intervention is life safety. Therefore securing the safety of the staff is as important as securing the safety of the work area. In this perspective the minimum personal protective equipments of the staff that will be intervening have been determined.

Personal Protective Equipments:

For Benzene:

- If we dont know the concentration of benzene vapor on air, a mask with pozitive pressuse that will protect the entire face (SCBA= Self-Contained Breathing Apparatus)
- Chemical-resistant mask the covers the face ; chemical-resistant eyewear
- Chemical-resistant hard toed boots.
- Chemical-resistant gloves.
- If its not necessary to stay in the area for more than 4 hours, protective clothing/ hazardous material suit, made of Viton and Teflon, with long cuffs and sleeves;

For Sulfuric acid:

- Helmet (must not react with sulfuric acid)
- If sulfuric acid in the air is 15 mg/m3 or more, acid cartridge air purifying, mask whose particle filters allow continuous breathing, or full-face mask with the same charateristics.
- Sulfuric acid-resistant full-faced mask (necessary even if sulfuric acid is in an open area), chemical-resistant glasses.
- Chemical resistant boots with hard toe.
- Chemical resistant gloves should be used. Natural rubber, neoprene, nitric and PVC gloves should not be used if they are 0.3 mm or thinner.

For Coal Tar:

- Helmet
- Appropriate protective Glasses/eyewear (EN166) must be used. No eye and body showers should be found near the working area.
- Dust mask must be used (EN149)Chemical-resistant gloves.
- Nitrile rubber gloves (EN374) and safety shoes (EN345) and must wear special work clothing to protect against the chamicals depending on the concentration of Dangerous materials.

For Ferro Silicon:

- Helmet
- Dust glasses, Dust mask
- Work clothes, safety boots,
- Work gloves should be worn.
- When the load comes into contact with water, the operation should be stopped. In case of emergency, a mask (SCBA = self-airing device) that protects the entire face with positive pressure should be used.

For Coal:

- Helmet
- Dust glasses, Dust mask
- Work clothes, safety boots,
- Work gloves should be worn.

Safety Precautions:

For Benzene:

Before Touching:

- Ask all unecessary staff to clear the area
- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Extinguish all substances that are on fire.
- Determine all sources of sparkle, if possible cut the electricity in the lines near the area. Remove the sources that can create stati electricity. Benzene vapor is heavier than air and it can accumulate in lower points.
- When suspecting about terorizm or sabotage, one after another explosions are expected.

Touching:

- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Use two workers, while one of them is approaches, the other observes from a safe distance.
- If possible aproach by taking the wind at your back and from the top. Plan the escape way.
- Aviod entering small pools and pond beds where there might be dangerous atmosphere because of hot weather, explosive, oxygenless, or other reasons.
- Do not enter the closed areas including the tanks and buildings. Wait for the arrival of the staff with the proper training and equipment. Especially, entering closed areas with the

purpose of saving staff members that have lost their senses is included

For Sulfuric Acid:

Before Touching:

- Rig out on the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Ask all people and unecessary staff to clear the area
- If there are substances on fire put them out with appropriate fire extingusher.
- In no circumstance do not sprinkle water over acid. It causes the release of hydrogen gas, and hydrogen gas is explosive.
- Determine all sources of sparkle, if possible cut the electricity in the lines near the area.

Touching:

- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Use two workers, while one of them is approaches, the other observes from a safe distance.
- If possible aproach in the direction of the wind and from the top. Plan the escape way.
- Do not enter the closed areas including the tanks and buildings. Sulphuric acid vapor might affect human health. Wait for the arrival of the staff with the proper training and equipment. Especially, entering closed areas with the purpose of saving staff members that have lost their senses is included.

For Coal Tar:

Before Touching:

- Ask all unecessary staff to clear the area
- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Air the area of the spilling.
- Determine all sources of sparkle, if possible cut the electricity in the lines near the area. Remove the sources that can create stati electricity.

Touching:

- Rig out the necessary equipment (mask, protection glasses, gloves, protective clothes, boots)
- Use two workers, while one of them is approaches, the other observes from a safe distance.
- If possible aproach by taking the wind at your back and from the top. Plan the escape way.
- If you can do it without taking risks stop the leakage.

- Use water spray to reduce the vapors.
- Small spills: cover with sand or other non-combustible absorbent materials and store it in containers for later usage.
- Large spills: build a barrier to the area, put the materials in islah/corrective or impermeable containers for imha/disposal/destruction
- Do not enter the closed areas including the tanks and buildings. Sulfuric acid vapor might affect human health. Wait for the arrival of the staff with the proper training and equipment. Especially, entering closed areas with the purpose of saving staff members that have lost their senses is included.

Safety Precautions and Personal Protective Equipment for Ferro Silicon:

SPECIAL EMERGENCY EQUIPMENT REQUIRED Gas Mask
EMERGENCY PROCEDURES Wear gas mask **EMERGENCY MEASURES TO BE TAKEN IN THE EVENT OF FIRE** Keep fire free and use CO2 if present. Do not use water. **MEDICAL FIRST AID** See Medical First Aid Guide (MFAG) in its revised version.

- It is forbidden to smoke and have open flames in the cargo volume or on the deck near the cargo volume during loading or unloading.
- All portable lighting elements will be of a safe type suitable for use in explosive atmospheres.
- The cargo will be kept dry and the hatches will be closed in rainy weather conditions.
- There will be a lifeline and gas detector as well as scuba gas mask kits on board and will be kept ready for immediate use.
- Before evacuation, it will be tested whether there are toxic and flammable gases in the atmosphere in the cargo volume.
- The concentration of dangerous gases will be checked every 30 minutes while there are personnel in the cargo volume.
- If the gas concentration exceeds the thresholds for phosphine (0.3 ppm) and arsine (0.05 ppm), or if the oxygen level falls below 18%, access to the cargo volume will not be permitted.

Safety Precautions and Personal Protective Equipment for Coal:

SPECIAL EMERGENCY EQUIPMENT REQUIRED

No

EMERGENCY PROCEDURES

No

EMERGENCY MEASURES TO BE TAKEN IN THE EVENT OF FIRE

Leave the fire without air. Airing may be sufficient to control the fire. Do not use water. Get expert opinion, consider the option of heading to the nearest and most convenient port.

MEDICAL FIRST AID

See Medical First Aid Guide (MFAG) in its revised version.

- The use of CO_2 or inert gas should not be resorted to until the fire is visible.

First Aid:

For Benzene:

Exposure Through Airways

- Both the first aid personnel wearing protective equipment and the victim too must be taken out to fresh air.
- Heart rate, number of breaths and any kind of taruma like vital sighns should be examined. If the is no heartbeat or breathing, artificial respiration and heart massage should be performed. If breathing is irregular oxygen should be given.
- The condition of the victim should be reported to the health institution and must be urgently sent to the health institution.

Skin contact

- The skin and hair must be wahed for 2-3 minutes. After which the washing process should continue with a delicate soap. The skin and hair should be dryed properly. The condition of the victim should be reported to the health institution and must be urgently sent to the health institution.

Eye contact

- Should be washed with salty or normal water for at least 15 min until the pain is diminished. If there are contact lenses they should be removed.

For Sulfuric Acid:

Exposure By Air

- The victim should be taken out to fresh air. Emergency aid team contact with sulfuric acid should be avoided.
- Heart rate, number of breaths and any kind of taruma like vital sighns should be examined. If the is no heartbeat or breathing, artificial respiration and heart massage should be performed. If breathing is irregular oxygen should be given.
- The condition of the victim should be reported to the health institution and must be urgently sent to the health institution.

Skin And Eye Contact

- The victim should be taken out to fresh air. Emergency aid team contact with sulfuric acid should be avoided.
- The clothes that had contact with the chemical should be removed as soon as possible.
- Heart rate, number of breaths and any kind of taruma like vital sighns should be examined. If the is no heartbeat or breathing, artificial respiration and heart massage should be performed. If breathing is irregular oxygen should be given.
- The exposed skin must be washed properly with soap water.
- When there is contact with the eyes, the eyes should be washed with warm water for at least 15 minutes.
- The condition of the victim should be reported to the health institution and must be urgently sent to the health institution.

For Coal Tar:

Exposure Limits

According to NIOSH (National Institute of Occupational Safety and Health) data records the occupational exposure values:

	NIOSH REL (mg/m3)	OSHA PEL (mg/m3)
TWA	0,1	0,2

Personal Protection Equipments
Eye: Appropriate protective eyewear(EN166) must be used. No eye and body shower should be located in the proximity of the Work site
Respiration: Dust mask must be used (EN149).
Skin: Nitryl plastic gloves(EN374) and safety shoes (EN20345) and work clothes that protects agsinst the chemical depending on the concentration of dangerous material
Toxicity Records/Data:
Through normal way of exposure no LD50, LC50 record was encountered

Symbol: T
Risk And Safety Statements:
R: 45: May cause cancer.

S: 45: In case of accident or if you feel unwell, seek medical advice immediately.
S: 53: Avoid exposure, obtain the instructions before using.

a) **Eco toxicity:** There is no known effect.

For Ferro Silicone:

General warnings

Symptoms of poisoning may occur after many hours. For this reason, the physician should be checked for at least 48 hours after an accident.

Respiratory

Clean air should be provided, should go to the doctor in case of complaints.

Skin
Rinse thoroughly with soap and water.

Eye
Rinse opened eye for several minutes under running water.

Swallowing
Rinse your mouth. Do not induce vomiting. Seek medical treatment.

For Coal:

Swallowing

This material does not require special treatment as it is unlikely to be dangerous if swallowed. However, if irritation or discomfort occurs, seek medical attention.

Respiratory

If symptoms occur, remove source of contamination or move personnel to fresh air. Get medical advice.

Skin
No health effects are expected. If irritation occurs, rinse with warm, gently running water for 5 minutes. If irritation persists, seek medical attention.

Eye
Wash face quickly and gently. Flush eyes with plenty of clean water for at least 5 minutes. Get medical advice.

Risks and Precautions:

For benzene;

Risks and Measures Of Intervention Team	
Irritation	
Risk	Skin irritation, swelling of the skin , redness on the body's open spaces (face and hands etc.)
Prevention	Using of personal protective equipment is must. Showers should be made to the available place.
Damage To The Face And Eyes	
Risk	If splashed in the eye , it cause corneal damages. Constantly in touch with skin , drying problems may occur. If it spreads into the skin , systemic poisoning may occur.
Prevention	Using of glasses (benzene resistant) and must be eyewash areas.
Protect The Body	
Risk	Irritation etc.
Prevention	Coveralls , rubber boots , gloves should be used.
Heatstroke	
Risk	Heatstroke.
Prevention	Suitable liquids, rest time, the shade must be provided.
Asphyxiation At Sea	
Risk	During cleaning , this situation may occur.
Prevention	It is essential to use lifejackets in the sea.
Respiratory	
Risk	Benzene evaporates(vapor) very quickly. So, exposed to air which containing benzene very easily. A person should not be exposed to benzene vapor more than 1ppm in 8 hours. If more than 15 minutes ; more than 5 ppm is so dangerously for healthy. benzene vapor which into the body by inhalation , it effects the central nervous system. Maybe seen ; headache , drowsiness , difficulty concentrating , tremors , palpitations , irregular heart rhythm and accordingly ; some symptoms are seen as ; coma, nausea, vomiting and death. benzene is a carcinogenic good. When longly exposure it effects the production of blood. It causes destruction of red blood cells. It damages to the immune system.
Prevention	Choising suitable masks for benzene is must. Comprehensive trainings should be given. Regular and appropriate practice should be done.

Table 10: In The Benzene Spills, Intervention And Prevention of Risks Receieved By The Team

Sulfuric Acid:

Risks and Measures Of Intervention Team	
Irritation	
Risk	Skin irritation, swelling of the skin , redness on the body's open spaces (face and hands etc.)
Prevention	Using of personal protective equipment is must. Showers should be made to the available place.
Damage To The Face And Eyes	
Risk	If splashed in the eye , it cause corneal damages. Constantly in touch with skin , drying problems may occur. If it spreads into the skin , systemic poisoning may occur.
Prevention	Using of glasses (sulfuric acid resistant) and must be eyewash areas.
Protect The Body	
Risk	Irritation , burning , peeling etc.
Prevention	Coveralls , rubber boots , gloves should be used.
Heatstroke	
Risk	It may occurs heatstroke.
Prevention	Suitable liquids, rest time, the shade must be provided.
Asphyxiation At Sea	
Risk	During cleaning , this situation may occur.
Prevention	It is essential to use lifejackets in the sea.
Respiratory	
Risk	When inhaled with air ; coughing, gagging, burning sensation in the chest , slowdown in breathing may occur , Blooding from the nose and gums, ulceration on nasal and oral mucosa , ulcers in the lungs , chronic bronchitis and pneumonia etc. illnesses may occur.
Prevention	Choising suitable masks for sulfuric acid is must. Comprehensive trainings should be given. Regular and appropriate practice should be done.

Table 11: In Sulfuric Scid Spill, Rısks And Precautions Of Intervention Teams

10. OTHER ISSUES

Within the scope of the special permission obtained from the Ministry, the third party companies are shipped to the port of Erdemir by benzol shipments. Notifications are made to the companies on: 3rd party companies in their benzole loading are shipping to Erdemir port with companies land tankers in addition to the protocol mutually signed with ship nomination

and binding stage company, load documents, load properties, MSDS forms, ship ETA information, port applications, notification of issues that must be followed in the port (speed applications, etc.), the land tanker entry information, the fact that certain number of tankers will be taken into the factory area, the fact that the tankers inappropriate according to ADR are not going to be taken into the factory and port area topics.

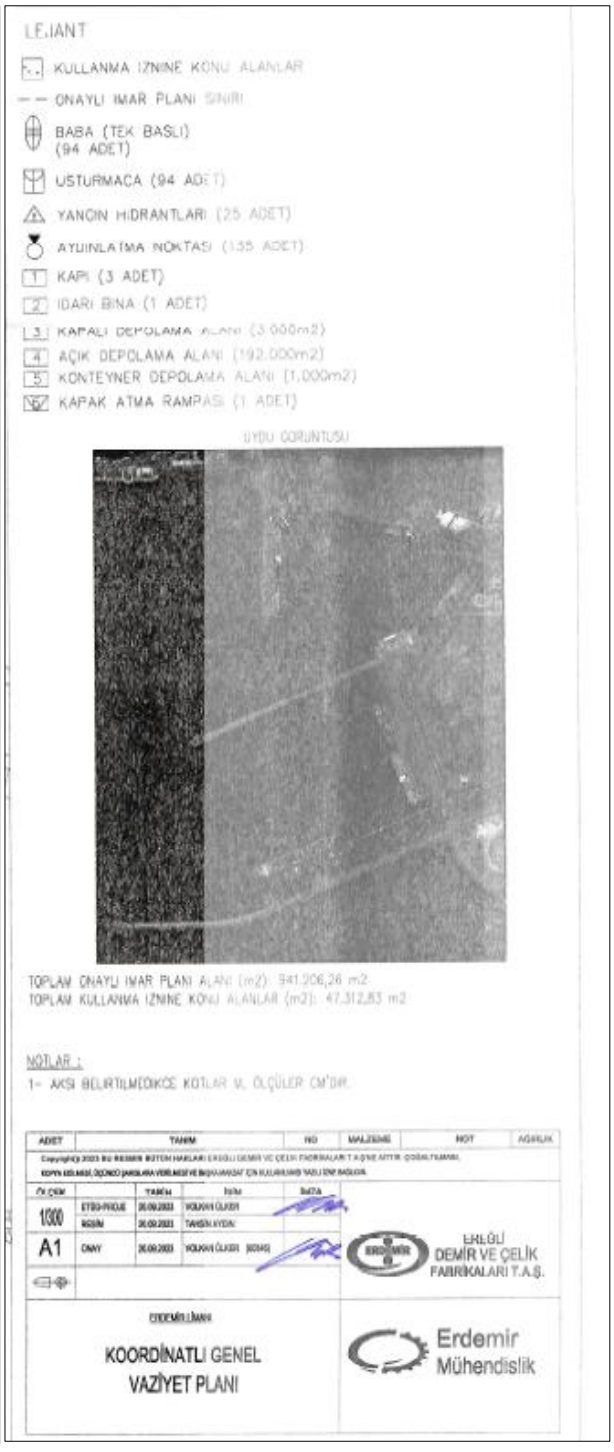
A mutual agreement is reached on a lot of topics, like on topics about the load and operation in the tanks arriving by Seaway with Ship Shore Check List defined according to IMDG code, information exchange before the transfer has started, additional measures that will be applied during the operation, what kind way will be followed in encountered unusual situations, keeping the line clear after loading or unloading, installation or the line after discharge to be kept clear, in the bezole loading the determination of nitrogen value at the end of the loading etc. The ship shore tanker check list that is made is saved in the ship's file. In filling the Ship shore check list the Coke Plant Department Engineer is appointed. His/her view on technical issues is taken. Communication with ship is provided by The Port Management.

The information that will be used during the operation, is shared with the employees of Coke Plant Authority that perform the loading process.

ADDS

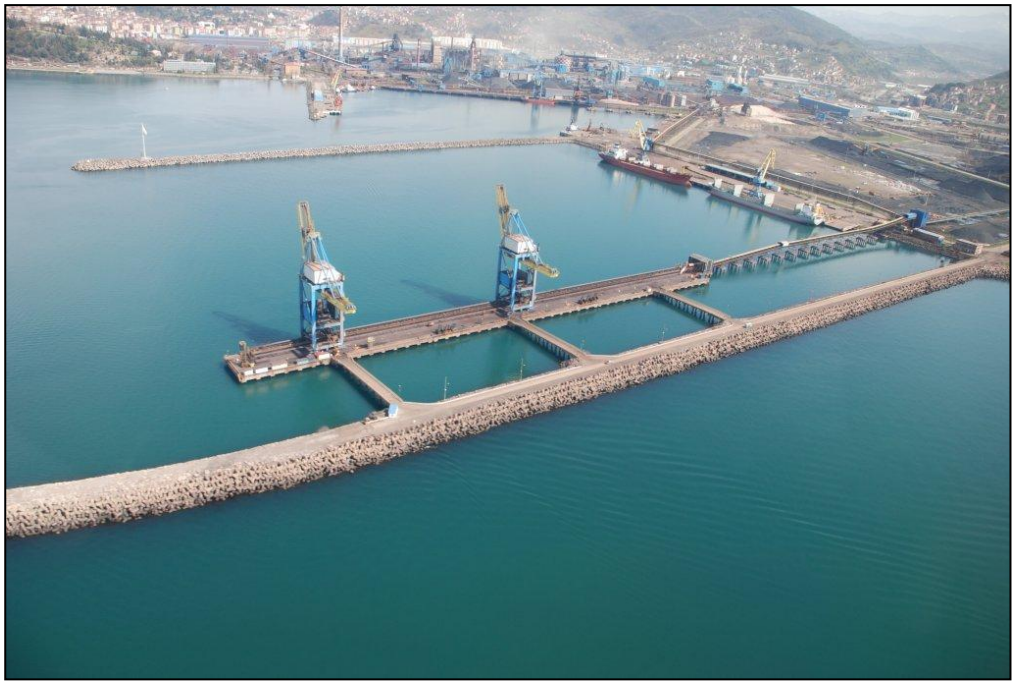
1. General Site Plan of Coastal Facility
2. General view photos of the coastal facility
3. Emergency Contact Points and Contact Information
4. General Situation Plan of the Areas in which Dangerous Cargoes are Handled
5. Fire Plan of Areas where Dangerous Cargoes are Handled
6. General Fire Plan of the Facility
7. Emergency Plan
8. Emergency Meeting Places Plan
9. Emergency Management Scheme
10. Dangerous Cargoes Handbook
11. Leakage Areas and Equipment for CTU and Pachets, Input / Output Drawings
12. Inventory of Port Service Ships
13. Marine Limits of the Port Authority's Administrative Borders, Mooring Places and Pilot's Landing / Boarding Points
14. Emergency Response Equipment Against Marine Pollution in Port Facility
15. Personal Protective Equipment (PPE) Usage Map
16. Dangerous Cargoes Incidents Notification Form
17. Control Results Notification Form for Dangerous Cargo Handling Units (CTUs)

Add-1 General Layout Plan Of Coastel Facility



Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

Add-2 General View Photos Of Coastel Facility



Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

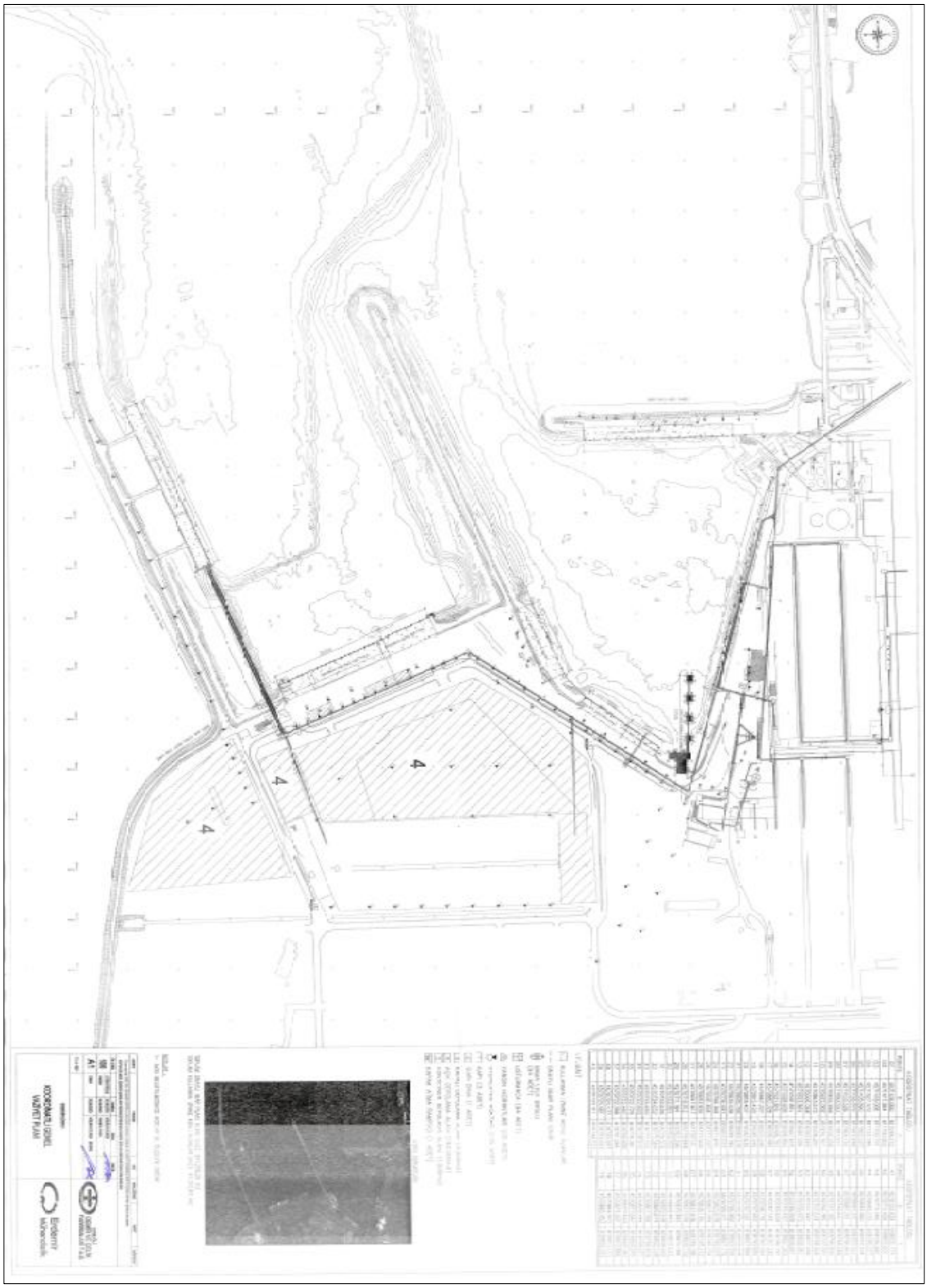
Add-3 Contact Points And Informations Of Emergency

OYAK SHIPPING Port Operations Manager: +90 536 0655011 (07: 30/17: 30)
OYAK SHIPPING Port Operations Officer: +90 536 0655013 (7/24)
ERDEMİR Marine Transportation Coordination and Control Manager: +90 (372) 3293592 (07: 30/17: 30)
ERDEMİR Marine Transportation Customer Relationship Management: +90 (372) 3295198 - 3182 (07: 30/17: 30)
ERDEMİR Port Waste Management Specialist: +90 (372) 3295198 - 3182 (07: 30/17: 30)
ERDEMİR Port Marine Services Guide: +90 (372) 3293834 / VHF Channel 12–16 (7/24)
ERDEMİR Marine Transportation Coordination and Control Management Fax: +90 (372) 3331505
E-mail: erdemirport@erdemir.com.tr

Port Facility Security Officers:
Statement Number: 2767145 UNLOCODE: EN ERE Security Level: 1
Aydın DAĞISTAN: +90 543 431 29 10
Celal KINCI: +90 544 370 74 38

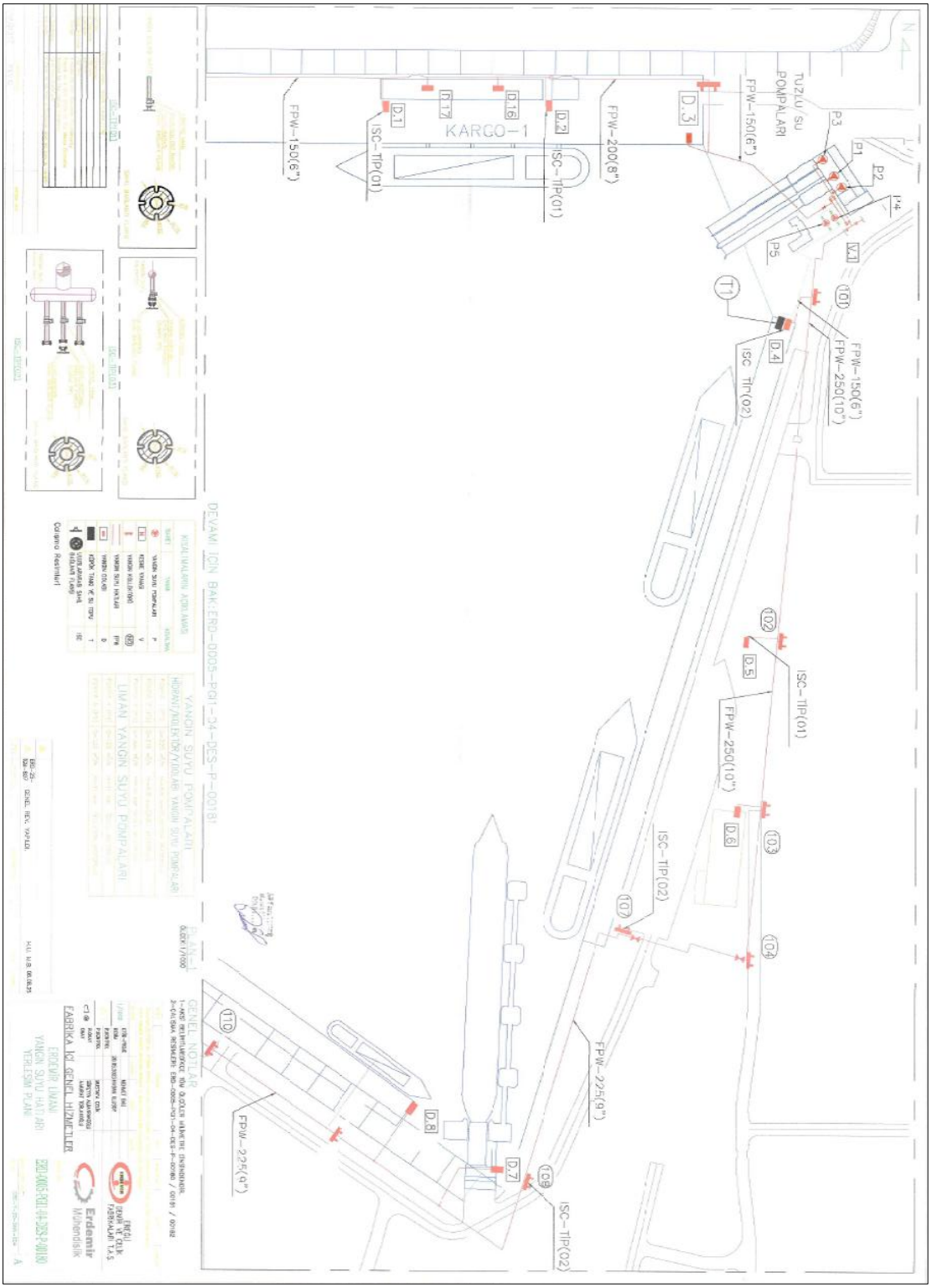
Kdz. Eregli Port Authority Telephone Numbers:
Port Authority: +90 (372) 3161007
Port Authority Fax: +90 (372) 3231169
Ship Inspection Expert: +90 (372) 3161007 _ Internal Number: 15

Add-4 General Layout Plan of Erdemir Port Dangerous Goods Handling Areas



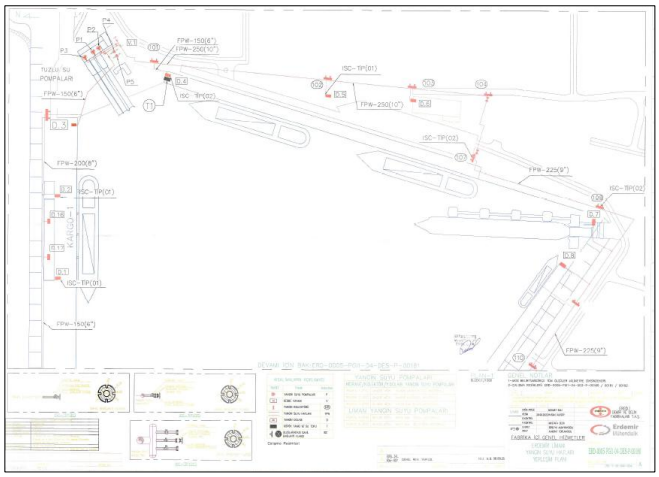
Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

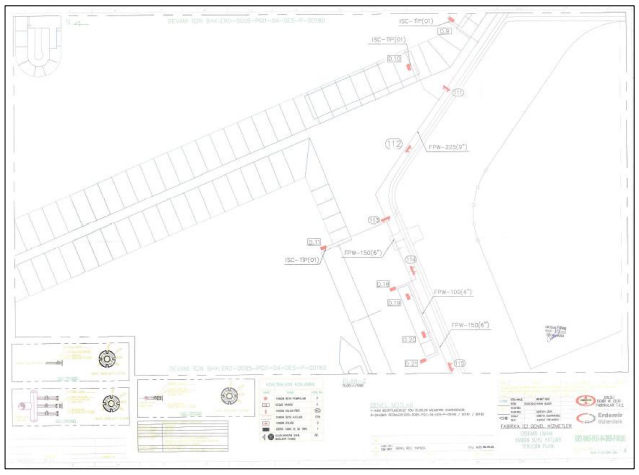
Add-5 Erdemir Port Fire Water Lines Layout Plan ERD-0005-PGI1-DES-P-00180

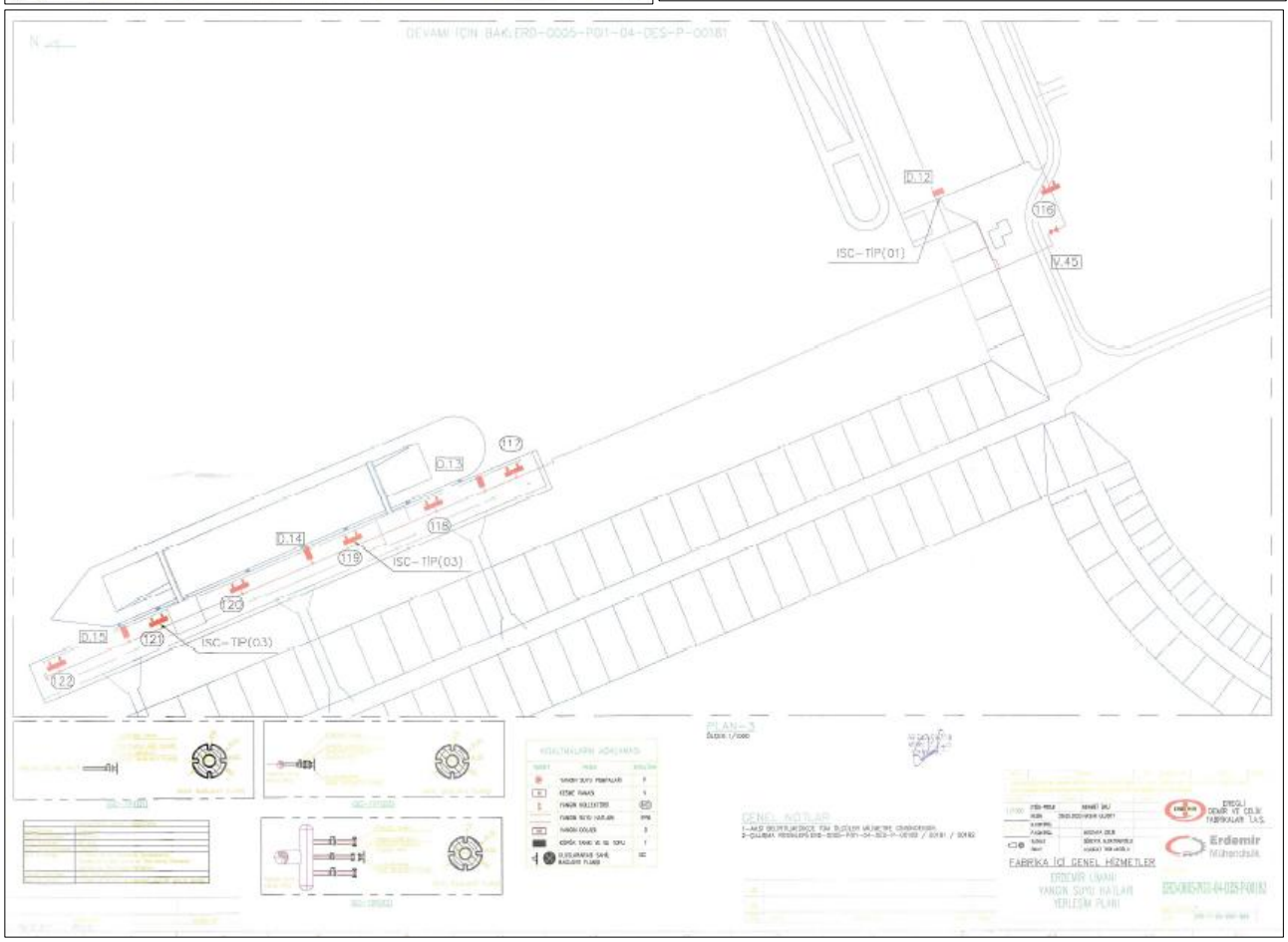


Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

Add-6 Erdemir Port Fire Water Lines General Layout Plan_ ERD-0005-PGI1-DES-P-00180-181-182



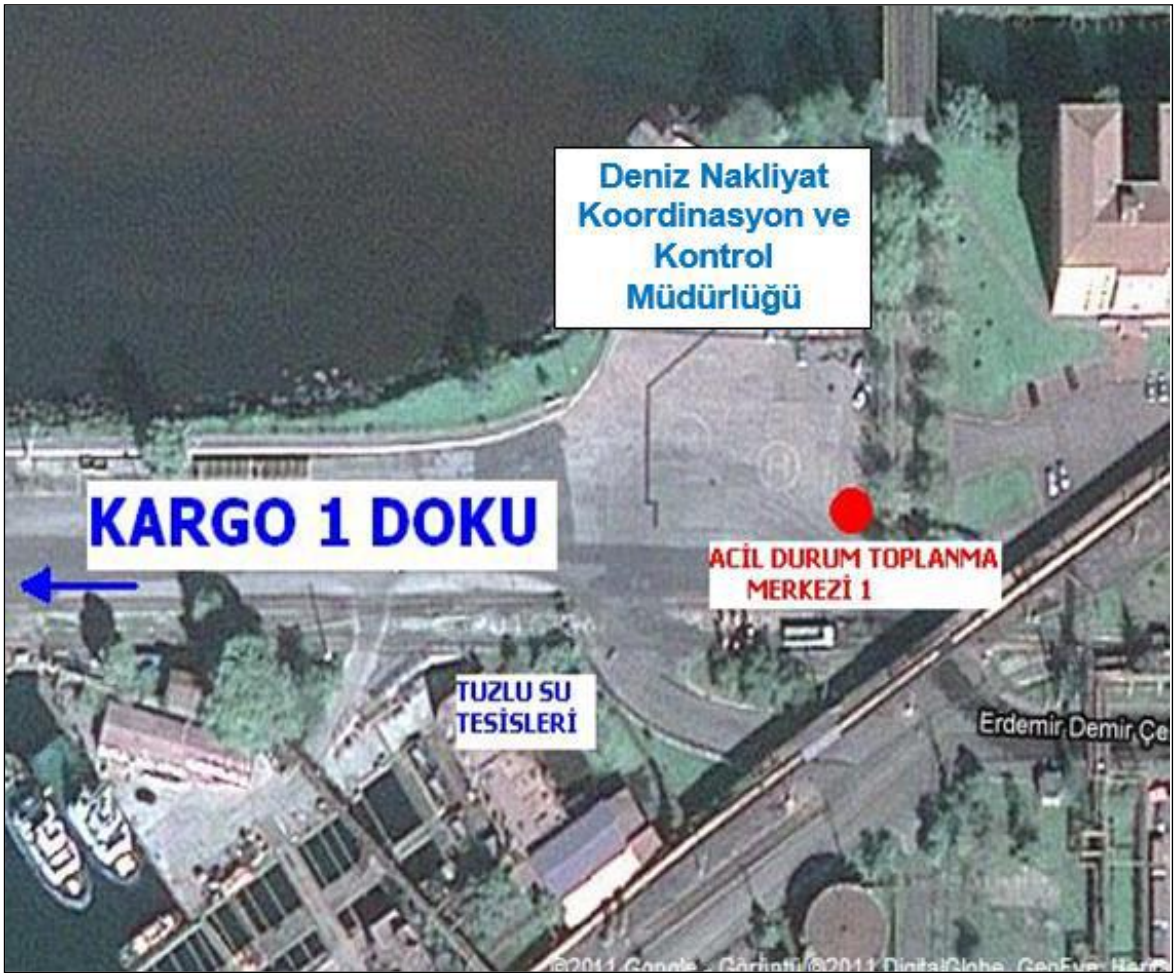




Add 7- Erdemir Port Emergency Plan

See. "ERD.ADP.0042_ERDEMİR PORT EMERGENCY PLAN"

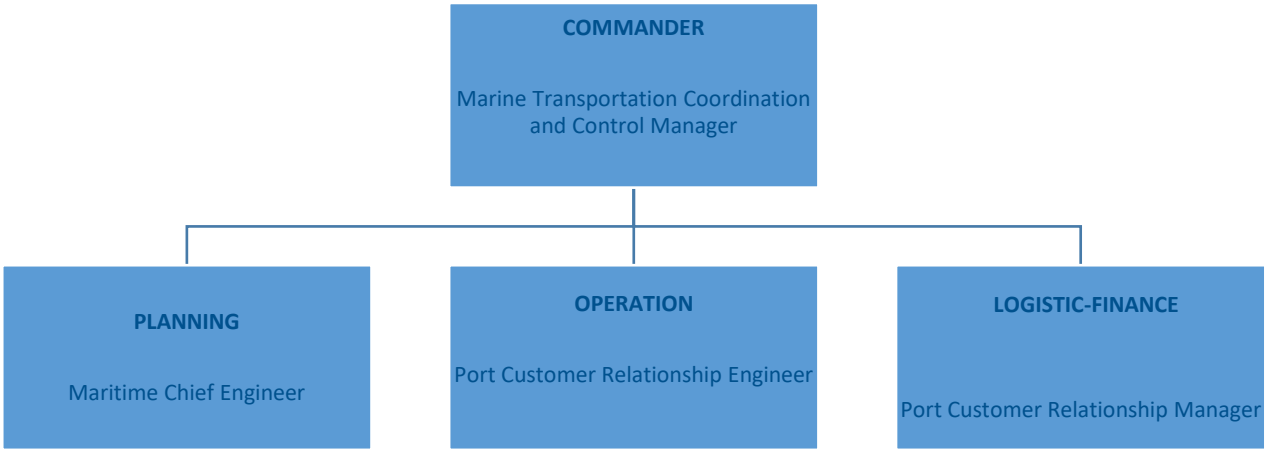
Add-8 Emergency Meeting Places Plan



Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

Add-9 Emergency Management Scheme



Add 10- Port Dangerous Cargoes Hand Book

See "ERD.KLV.0061_ERDEMIR PORT DANGEROUS CARGOES HANDBOOK"

Add-11 CTU And Leakage Areas For Packaged & Add

There is no handling operations of CTU and Packaged Dangerous Cargoes in the Erdemir Port.
Some revisions will be made for the future for the handling and the current leakage fields and input / output drawings will be added.

Add-12 Inventory of Port Services Vessels

The port service vessels consist of the MED MARINE Inventory and the vessels in the ERDEMIR Inventory.

TEKNE İSMİ	GEMİNİN CİNSİ	OWNER	ÇEKME GÜCÜ	İNŞA YILI	SEVK SİSTEMİ	MAKİNE MARKA VE GÜCÜ
ERDEMİR PİLOT 1	KILAVUZ BOTU	EREĞLİ DEMİR ÇELİK FABRİKALARI T.A.Ş.	N/A	2017	KONVANSİYONEL	CUMMINS 2X602 BHP
MED XXVII	AÇIK DENİZ RÖMORKÖRÜ	MED MARİNE	61	2018	ASD	CAT 2X1380 KW
POLIPORT M	AÇIK DENİZ RÖMORKÖRÜ	MED MARİNE	33,2	2000	KONVANSİYONEL	CAT 2X716 KW
MED XXXIII	AÇIK DENİZ RÖMORKÖRÜ	MED MARİNE	32,15	2019	ASD	CAT 2X895 KW
M.BOAT - 26	PALAMAR BOTU	MED MARİNE	N/A	2023	KONVANSİYONEL	VOLVA PENTA 2X368 KW

Add-13 Port Authority Administrative Borders, Anchorage Places and Pilot Coordinate Landing-Finish Points Marine Coordinates

13) KARADENİZ EREĞLİ PORT AUTHORITY

A) Port administrative site limit

The port administrative area of the Karadeniz Eregli port authority is the sea and coastal area between the line drawn in the direction 320º from the (a) coordinate and the line drawn in the north direction from the (b) coordinate and bounded by adjacent Turkish territorial waters.

a) 41º 06 '57 "N - 031º 17' 48" D ((Abolished: RG-13/6 / 2018-30450))

b) 41º 23 '30 "N - 031º 37' 51" D

B) Anchoring sites

a) Mooring area No. 1: The mooring area of merchant ships of 1600 GT and above is the marine area formed by the following coordinates.

1) 41º 15 '00 "N - 031º 24' 00" D

2) 41º 16 '00 "N - 031º 24' 00" D

3) 41º 16 '00 "N - 031º 22' 00" D

4) 41º 15 '00 "N - 031º 22' 00" D

b) Mooring area 2: The mooring area of ships carrying dangerous cargoes, military ships operating with nuclear power and ships to be quarantined, and vessels to be degassed shall be the marine area formed by the following coordinates.

1) (Revised: RG-24/9 / 2019-30898) 41º 13 '48 "N - 031º 23' 24" E

2) (Revised: RG-24/9 / 2019-30898) 41º 14 '24 "N - 031º 23' 24" D

3) 41º 14 '24 "N - 031º 22' 36" D

4) 41º 13 '48 "N - 031º 22' 36" D

c) Mooring area 3: The mooring area of the military ships is the marine area formed by the following coordinates.

1) 41º 13 '48 "N - 031º 22' 12" D

2) 41º 14 '24 "N - 031º 22' 12" D

3) 41º 14 '24 "N - 031º 21' 24" D

4) 41º 13 '48 "N - 031º 21' 24" D

ç) (Amended: RG-24/9 / 2019-30898) Mooring area no. 4: The mooring area of ships not carrying dangerous substances smaller than 1600 GT is the marine area within the line formed by the following coordinates. Mooring in this area may be provided provided that the military is not allowed to enter the prohibited area and not approach the beach for more than 1 gino.

1) 41º 16 '15 "N - 031º 24' 38" D (Beach)

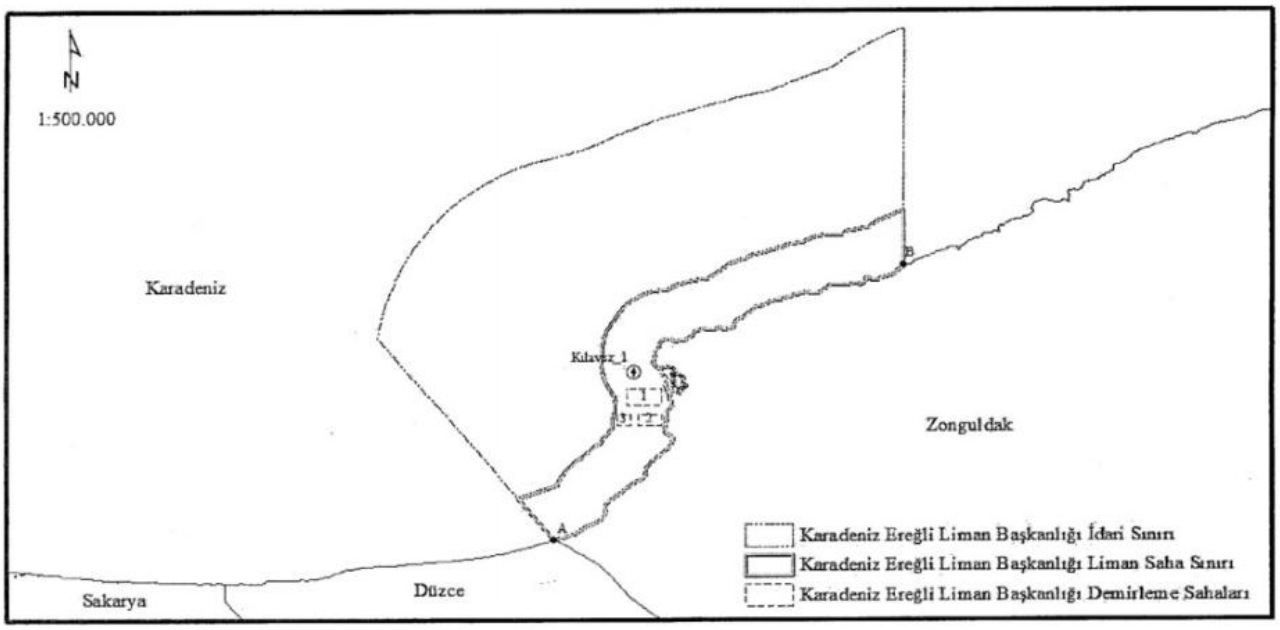
2) 41º 17 '02 "N - 031º 24' 19" D

3) 41º 17 '16 "N - 031º 24' 37" D (Beach)

C) Pilot Pick-up and drop-off location

41º 17 '00 "N - 031º 22' 24" D

Karadeniz Ereğli Liman Başkanlığı



İdari Sınır Koordinatları
A) 41° 06' 57" K – 031° 17' 48" D (Düzce-Zonguldak İl Sınırı)
B) 41° 23' 30" K – 031° 37' 51" D

Demirleme Sahaları
1 - Ticaret Gemileri > 1600 GT
2 - Tehlikeli Yük Gemileri
3 - Askeri Gemiler
4 - Ticaret Gemileri < 1600 GT

Kılavuz Kaptan Koordinatları
Kılavuz_1 - 41° 17' 00" K – 031° 22' 24" D

DAĞITIM YERLERİNE

İlgi : Karadeniz Ereğli Liman Başkanlığı'nın 22/01/2019 tarihli ve 95203718-145.02-E.43 sayılı yazısı.

İlgi yazıda, Kdz. Ereğli Liman Başkanlığınca yapılan incelemede özellikle 13 metre su çekimli gemilerin emniyetine yönelik belirlenmiş olan Kılavuz 1 noktasına ilaveten 13 metre altında su çekimi olan diğer gemilere yönelik verilecek kılavuzluk hizmetinde ikinci bir kılavuz alma-bırakma yeri (Kılavuz 2 : 41° 16' 40" K - 031° 23' 45" D) belirlenmesinin uygun olduğunun değerlendirildiğinden bahisle konuya yönelik Genel Müdürlüğümüzün görüşleri talep edilmektedir.

Bu kapsamda, anılan koordinatın, kılavuz kaptan alma/bırakma noktası olarak belirlenmesinin uygun bulunduğu ve konuya ilişkin gerekli duyuruların yapılması hususlarında bilgilerinizi ve gereğini rica ederim.

e-imzalıdır
Okay KILIÇ
Bakan a.
Genel Müdür

Add-14 Against To The Marine Pollution Emergency Response Equipments In The Erdemir Port

Seviye 1 Ekipmanlar

No	Malzeme	Acil Müdahale Planı Seviye-1	Erdemir	Firma Erdemir Liman Konteyner İçinde	Toplam
1	Bariyer	1.000 m	1.000 m	125 m	1125 metre
2	Yağ Sıyırıcısı (Güç Ünitesi ve Pompa Dahil)	1 Adet 50 m^3/h kapasiteli	1 Adet 50 m^3/h kapasiteli	1 Adet (50 m^3/h)	2 adet m^3/h kapasiteli yağ sıyırıcı
3	Yağ Emiciler	20 Balya (1000 ad.)	50 Balya (2500 ad.)	1.000 Adet	3500 adet
4	Yağ Emici Sosis	3.000 m	3.000 m	3.000 m	6000 metre
5	Geçici Depolama Ünitesi	5 Adet	5 Adet	1 Adet (Şişme)	6 adet
6	Atık Aracı	1 Adet	1 Adet	-	1 adet
7	Seyyar Pompa	1 Adet	1 Adet	-	1 adet
8	Tekne	7 Adet	6 Adet	1 Adet	7 adet

Add-15 Personal Protective Equipments (PPE) Using Map

Dangerous Cargoes Handling operations are made only General Cargo Dock No. 1. Personal Protective Equipments are used by all staff seriously during on their duties.

Personal Protective Equipments

For Benzene:

- If we dont know the concentration of benzene vapor on air, a mask with pozitive pressuse that will protect the entire face (SCBA= Self-Contained Breathing Apparatus)
- Chemical-resistant mask the covers the face ; chemical-resistant eyewear
- Chemical-resistant hard toed boots.
- Chemical-resistant gloves.
- If its not necessary to stay in the area for more than 4 hours, protective clothing/ hazardous material suit, made of Viton and Teflon, with long cuffs and sleeves;

For Sulfuric acid:

- Helmet (must not react with sulfuric acid)
- If sulfuric acid is 15 mg/m3 or more in the air, an air purifier with an acid cartridge, a mask with particle filters that allow continuous breathing, or a mask that covers the whole face with the same features.
- Face-covering sulfuric acid resistant mask (required even if sulfuric acid is outdoors), chemical resistant goggles.
- Chemical resistant boots with a hard toe.
- Chemical resistant work clothes and gloves should be used. Natural rubber, neoprene, nitric and PVC gloves should not be used if they are 0.3 mm or thinner.

For Coal Tar:

- Helmet
- Appropriate safety glasses (EN166) should be used. Eye and body showers should be available close to the work area.
- Dust protection measures (EN149) Chemical resistance.
- Nitrile rubber rubber (EN374) safety shoes (EN345) and 20 work clothes that can be combined as safety materials can be worn.
- For dangerous liquid bulk cargo operations to work only at the General Cargo berth no. 1, Personal Protective Equipment is used extensively in travel at the entrances to the quay for dangerous cargo handling.

For Ferro Silicon:

SPECIAL EMERGENCY EQUIPMENT REQUIRED
Gas Mask

EMERGENCY PROCEDURES
Wear gas mask

EMERGENCY MEASURES TO BE TAKEN IN THE EVENT OF FIRE
Keep fire free and use CO2 if present.
Do not use water.

MEDICAL FIRST AID
See Medical First Aid Guide (MFAG) in its revised version.

Hazırlayan	Yürürlük Onayı
ERDEM AYAN	CANER ÖZLEYEN

- The vessel shall be equipped with a lifeguard rope and a gas detector, as well as cylinder gas mask assemblies and shall be immediately ready for use.

For Coal:

BULUNDURULMASI GEREKLİ ÖZEL ACİL DURUM EKİPMANI Yok	
ACİL DURUM PROSEDÜRLERİ Yok **YANGIN DURUMUNDA ALINACAK ACİL DURUM ÖNLEMLERİ** Yangını havasız bırakın. Havasız bırakma yangını kontrol altına almaya yetebilir. **Su kullanmayın.** Uzman görüşü alın, en yakın ve uygun limana yönelme seçeneğini göz önünde bulundurun. **TIBBİ İLK YARDIM** Bakınız, tadil edilmiş güncel haliyle Tıbbi İlk Yardım Kılavuzu (MFAG)	

- The use of CO_2 or inert gas should not be resorted to until the fire is visible.

Add- 16 Erdemir Dangerous Cargoes Notification Report

See "ERD.FRM.1151 ERDEMİR PORT DANGEROUS CARGOES EVENTS NOTIFICATION FORM"

Add-17 Control Results Notification Form For Dangerous Cargoes Transport Units

There is no handling operations of CTU and Packaged Dangerous Cargoes in the Erdemir Port.
Some revisions will be made for the future for the handling and the current leakage fields and input / output drawings will be added.