Tüpraş
Türkiye Petrol Rafinerileri A.Ş.
İzmir Rafinerisi

Tüpraş İzmir Refinery Hazardous Substances Guide

Prepared on: 1 January 2016

Arda Yıldırım

REVISION PAGE

Row No	Revision No	Revision Content	Revision Date	Revised by	
				Name	Surname
1	1	Commercial details are removed	25.01.2018	Anıl DOĞAN	

1. Facility information form

1	Name/title of facility operator	Tüpraş İzmir Refinery Directorate		
2	Contact details (address, phone, fax, e-mail and website) of facility operator	TÜPRAŞ İzmir Refinery Aliağa-İZMİR Tüpraş İzmit Refinery Atatürk Mah. İnönü Bulvarı No: 52 35800 Aliağa-İzmir Phone: 0 232 498 55 55 Fax: 0 232 498 55 00 www.tupras.com.tr		
3	Facility's Name	Tüpraş İzmir Refinery Port		
4	Facility located at	İzmir		
5	Contact details (address, phone, fax, e-mail and website) of facility	TÜPRAŞ İzmir Refinery Aliağa-İZMİR Tüpraş İzmit Refinery Atatürk Mah. İnönü Bulvarı No: 52 35800 Aliağa-İzmir Phone: 0 232 498 55 55 Fax: 0 232 498 55 00 www.tupras.com.tr		
6	Geographical region of the facility	Aegean Region		
7	The Port, to which the facility reports, and contact details.	Aliağa Port Office Kültür Mahallesi Fevzipaşa Cd. No:10 Aliağa / IZMIR Tel:0232 616 19 93 Fax:0232 616 41 06		
8	The Municipality, to which the facility reports, and contact details.	Izmir Metropolitan Municipality (Aliağa Municipality)		
9	Name of Free Zone or Organized Industrial Zone, at which the Facility is located	Within the borders of Aliağa Municipality, reporting to Izmir Metropolitan Municipality		
10	Expiration date of Shore Facility Operation Permit/Temporary Operation Permit Certificate	12.04.2018		
11	Operating status of the facility (x)	Own load and additional 3rd person (X)	Own load (….)	3rd person (….)

12	Name & surname, contact details of person responsible for the facility (phone, fax, e-mail)	Arda Yıldırım Phone: 0 232 498 5010 Fax: 0 232 498 50 00 Bekir.yumuk@tupras.com.tr
13	Name & surname, contact details of person responsible for hazardous substances operations of the facility (phone, fax, e-mail)	Anıl Doğan Phone: 0 232 498 51 91 Fax: 0 232 498 50 00 anil.dogan@tupras.com.tr
14	Name & surname, contact details of Hazardous Substance Safety Consultant of the facility (phone, fax, e-mail)	Boran Kaya Phone: 0 318 261 2071 Fax: 0 318 261 3724 Boran.kaya@tupras.com.tr
15	Sea coordinates of the facility	Latitude Longitude Not written as it is a strategic facility.
16	Types of hazardous substances handled at the facility (Loads covered by MARPOL Annex-1, IMDG code, IBC code, IGC code, IMSBC code, Grain code, and TDC code and asphalt/bitumen and scrap loads)	Piers: Crude oil - product - fuel / bulk liquid load / chemicals / LPG / mineral oil and base oil derivatives
17	Types of ships that can berth to the facility	Crude oil / product - fuel / bulk liquid load / chemicals / LPG
18	Distance of facility to the highway (kilometers)	1 km
19	Distance of facility to the railroad (kilometers) or railroad connection (Available/Not Available)	1 km Not Available
20	Distance of facility to the airport (kilometers)	100 km
21	Facility's handling capacity (Tons/Year; TEU/Year; Vehicle/Year)	- Tons/year Crude oil, - TEU/Year, Not written as it is a trade secret.
22	Whether scraps will be handled or not at the facility	Will not be handled
23	Is there any Border Crossing? (Yes/No)	No

24	Is there any Customs Bonded Area? (Yes/No)	Yes	
25	Load handling equipment and capacities	Loading arms and hoses	
26	Storage Tank capacity (m^3)	Crude oil: By-product: Product: TOTAL:	
27	Outdoor storage area (m^2)	Not Available	
28	Semi-indoor storage area (m^2)	Not Available	
29	Indoor storage area (m^2)	-	
30	Designated fumigation and/or defumigation area (m^2)	-	
31	Name/title and contact details of Pilotage & Towage service provider	Tüpraş Pilotage & Towage Organization	
32	Is a safety Plan prepared? (Yes/No)	Yes	
33	Capacity of Waste Receiving Facility (This section will be prepared separately, based on the wastes received by the facility)	Waste Type	Capacity (m3)
		Dirty Ballast, Slop, Sludge, Bilge water, Waste water, Garbage	-
34	Specifications of dock/pier, etc.		

Dock/Pier No.	Length (meter)	Width (meter)	Maximum water depth	Minimum water depth	Tonnage and length of the largest ship that can berth (DWT or GRT - meter)

Name of pipeline (if available within the facility)	Number (piece)	Length (meter)	Width (inch)

1.2. Procedures for handling the hazardous substances are given below.

Ship filling/discharging procedures:

Ships arriving to Aliağa port inform the marine loading unit about their arrival date and time via marine radio (VHF - very high frequency) Marine loading unit examines the sizes, filling/discharge order (purchase order), product status, available pier and availability of lines and then informs the ship about their anchoring and/or berthing conditions.
Pier details and berthing time of the ships are notified to harbour pilot in accordance with prepared filling/discharge schedules. The harbour pilot evaluates the sizes of ships, the piers that they will berth and weather conditions and berth the ships with sufficient number/power and type of marine vehicles (towboats, moors and pusher tugs).
Initially several protocols for safety and filling/discharging methods and rules are executed with the berthed ship. Hose/loading arm is connected to the ship and the ship is loaded/unloaded. While the ship is being loaded, quality and quantity of the product to be loaded are highly important. Therefore, temperature, level and density values of shore tank and ship tanks are read separately before and after the loading. After the loading is completed, the product within the ship as well as the product remaining in the shore tank, from which the loading was made, are calculated and the amount of product available within the ship's tanks / the amount of product remaining within the shore tank are calculated. For this purpose, calibration charts of the ship tank/shore tank are used. Product test report, prepared by the laboratory is given to the ship as a quality certificate. Documents of the ship, the loading/unloading operations of which are completed, are prepared and then signed by TÜPRAŞ, supervising company and the ship and the ship is made ready to leave after all procedures regarding loading/unloading are completed. Documents, such as time schedules, protocols, ship tank reports, loading documents, etc. are prepared during the loading/unloading of the ship. The loaded ship leaves the pier with the help of appropriate marine vehicles under the supervision of harbour pilot in accordance with the schedule to be prepared by the pier.

2. Responsibilities

Responsibilities of the persons involved to loading/unloading are written below.

- All ships that arrive to and leave from, anchor at, berth to the piers and docks of ALİAĞA port receive service from TÜPRAŞ pilotage/towage organization, which is authorized to provide such services in the said port.

- Pilotage/towage and mooring services are provided to the ships, which berth to TÜPRAŞ's fuel piers, by TÜPRAŞ pilotage and towage organization.

- Ships that will arrive to TÜPRAŞ's Izmir refinery piers for loading/unloading purposes will inform the harbour pilot and TÜPRAŞ's Izmir refinery about their ETA in every 8 hours, starting from 48 hours before they arrive, either directly or through their authorized agencies. Such ETA notifications should include details of the ship, such as flag, port, length, GRT, draft, load type, etc.

- Port order is received from Aliağa Port Office and delivered to the harbour pilot by the relevant agency before the ship arrives (Anchoring/berthing/leaving, etc.).

- Port service fees are deposited to the bank account of authorized pilotage/towage organization before the ship arrives.

- The port that arrives to Aliağa port territory calls Aliağa pilotage/towage organization and TÜPRAŞ pier via VHF Channel 16 and provides preparation letter and receives necessary information about the current condition.

- TÜPRAŞ pier informs Aliağa harbour pilot for berthing or anchoring of the ship and then the harbour pilot contacts with the ship and informs about berthing or anchoring location.

- The ship is berthed to the scheduled pier by TÜPRAŞ pilotage and towage organization.

- After the ship is completely moored, stairs are put up through the pier / ship side.

- Agency and customs procedures of the ship are completed by the ship's agency.

- If there is any authorized staff of the pier, he/she goes aboard the ship together with loading master and completes Ship / Shore Safety Checklist after completing necessary safety checks with the ship officer. Routine checks are made and the form is signed by both parties.

- Checks required by ISPS code are made and, if requested, safety declaration is signed.

- Relevant filling/discharging protocols are made.

- Solid/fluid waste transfer forms, prepared by the Ministry of Environment and Forestry of the Republic of Turkey, are completed.

- Communication channel is determined (Tüpraş Izmir: VHF 14)

- Necessary safety measures are taken on the shipboard and the pier.

- The ship's crew and pier staff monitors the filling/discharging throughout the filling/discharging process.

- If necessary, the ship's officer contacts with the harbour pilot and requests marine vehicle (towboat/mooring) or hawser.

- No other marine vehicle is allowed to berth to the ships at TÜPRAŞ pier for any other purpose.

- No service is provided to third parties through fuel docks of TÜPRAŞ

- No maintenance/repairing work can be done for the berthed ships. Operations, such as lifeboat test, etc. are not allowed.

- Bunker fuel, tap water, and solid and liquid waste collection services are provided by TÜPRAŞ to the ships that berthed to TÜPRAŞ's piers. Victualing and agency services can be provided by the agencies while the ship is berthed.

- Ship crew's transportation needs to Aliağa are met by TÜPRAŞ by hourly shuttles.

- Services are provided for 24 hours a day and 7 days a week at TÜPRAŞ's piers. Calls made through VHF channels 16 and 14 are listened, answered and recorded for 24 hours a day.

- TÜPRAŞ's pilotage and towage organization provides services for 24 hours a day and 7 days a week and calls made through VHF channels 16 and 13 are listened, answered for 24 hours a day.

- Maneuvers to berth to/unberth from TÜPRAŞ's LPG platform are made during the daylight and no maneuver is allowed at night. (See Aliağa Port Regulations)

- Ships that will berth to TÜPRAŞ's piers complete their manifold preparations during the arrival. The number and specifications of manifolds are notified in advance to the ship either directly or through the agency.

- Ships smaller than LOA: 150 meters arriving to Aliağa port anchor at inner port whereas ships bigger than 150 meters anchor at outer port.

- Ships that have berthed to TÜPRAŞ's ports have to comply with the terminal rules and they must observe the terminal's instructions.

- It is certainly not allowed to discharge any boiler ash to the sea at TÜPRAŞ's ports and within the borders of Aliağa port. If any ship discharges its boiler ash, necessary actions are taken immediately and unit chief and relevant units are reported.

- Ships that will berth to the piers of TÜPRAŞ IZMIR REFINERY must comply with the provisions of TÜPRAŞ's "Standard on Safety Precautions to be taken for Fuel Loading and Unloading Pier".

3. Rules and Measures to be Complied/Imposed by Shore Facility

The rules that must be follower by the ships berthing to the refinery's piers and their crews are described in this section.

Ship captains must ensure that their entire crew learn the safety measures and comply with the given instructions.
An operator to be designated by the pier chief will act as "Pier Safety Guard" and his name will be written on the shift book.
"Ship/Pier Safety Checklist" is provided by the pier safety guard to the ship's captain. The ship's captain signs the second copy and ensures that listed conditions are met.
Pier safety guard makes necessary safety checks, marks the checked issues on the checklist, corrects any problem that he notices and notes these issues down on the backside of checklist and signs it. Before delivering the shift to the upcoming pier safety guard, he writes down necessary notes as well as the relevant date and shift and signs the checklist.
Ship/Pier Safety Checklists are kept in a file.

GENERAL RULES

Smoking:

It is not allowed to smoke and carry any lighter on the pier and the shipboard. If there is any safe ventilation system, it might be allowed to smoke within the hall, provided that doors and windows are kept closed. If it is deemed unsafe, refinery officer may ask not to smoke within the hall.
The ship's crew cannot go down to and work on the pier without prior permission of the Pier's Chief or chief operator.

Petroleum/Petroleum Product Spills:

- It is not allowed to discharge or drain water mixed with oil and bilge to the sea. Such oily water will be transferred to the ballast line available at the refinery pier.
- Any fuel or water, mixed with fuel, available on the shipboard cannot be discharged to the sea or out of the ship. Sufficient amount of sawdust, absorbent, pad and dispersants will be kept ready for use at the shipboard and scupper holes on the shipboard will be kept closed.
- In case of a pollution caused by the ship, the ship will provide sufficient staff, materials and equipment for cleaning the pollution under responsibility of the ship's captain.
- Costs of opening and collecting the barrier that is used to clean the pollution, assignment of staff, operation of boats/moors, etc. shall be charged by TÜPRAŞ to the agency of the ship that caused pollution.

Fire Safety Lines:

Ships must hang down steel tow ropes up to a level close to the sea surface from the front and rear sides in order to move away from the ship in case of a fire.

Stairs between Pier and Ship: The Captain must pay attention that the path to and from his ship is suitable, safe and secure. These are under the Ship Captain's responsibility. A life buoy tied to a rope with sufficient length must be placed close to the pier's stairs.

Radio and Electrical Devices: Radar, radio and other transmitters cannot be operated after the ship has berthed. Unsafe cables and electrical devices are also not allowed to be used.

Fire, Lights, Lamps, etc.: While the ship is berthed, only ex-proof lights and flashlights, which are safe against oil vapor, will be used and hot works, such as welding, cooking with open fire, etc. will never be performed.

Cleaning of Boiler Tubes: (Soot Cleaning) Boiler tubes will never be cleaned while the ship is berthed and soots and black fumes will be allowed to exit from the ship's funnel.

Cleaning Works: Tank cleaning works are not allowed.

Repairing Works: No maintenance and repairing work can be performed without written permit of pier's chief.

Material Pontoons: Pontoons for the ship's materials cannot be kept around the ship without permit of the Ship's Captain and pier's chief.

Wastes: No wastes will be thrown out of the ship (to the sea or the pier).

Firefighting: Firefighting and emergency equipment will be kept ready to use at all times as long as the ship is berthed.

Emergency Alerts: The ship's siren will be sounded shortly for 10 times in case of fire or any other emergency.

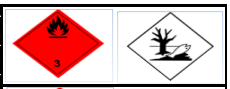
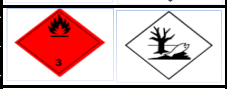
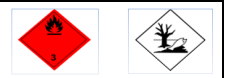
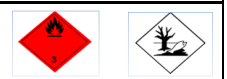
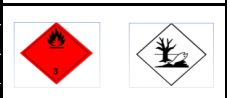
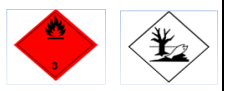
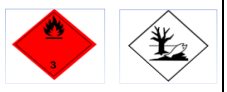
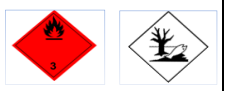
Machines: The machines will be kept running to ensure that the ship leaves the pier quickly.

No drunk person will be allowed to enter the ship.
Control: The pier officer and/or authorized port officers will be allowed to check whether necessary safety measures listed above are taken and implemented within the ship or not. Permission documents with photo, issued by governor's office for these persons, are provided by the officers of Defense Secretary.

Permission to Enter the Refinery: The ship's crew is not allowed to enter the refinery on foot. It is allowed to pass through the refinery only by a vehicle to be provided by the pier's chief.
If the ship's crew requests to enter the refinery as required by his/her job, actions will be taken in accordance with the Instructions on Entering to and Safety within the Refinery.
The ship's crew is transported between pier and refinery entrance gate by Maritime Affairs.

4. Classes, Shipment/Discharging, Handling, Separation, Stacking and Storage of Hazardous Substances

Classes, UN codes, packaging groups and hazard warning signs of hazardous substances being handled in our refinery are given in the below table.

DİZEL	1202	3	30	3	30 1202	
K.BENZİN	1203	3	33	2	33 1203	
LPG	1965	2	23		23 1965	
JET A1	1863	3	30	3	30 1863	
GAZ YAĞI	1223	3	30	3	30 1223	
AS.JET F-34	1223	3	30	3	30 1223	
B.BAĞLAYICI	3256	3	30	3	30 3256	
BİTÜM	3257	9	99	3	99 3257	
Y.K. FUEL OİL	3082	9	90	3	90 3082	
NAFTA	1268	3	33	1	33 1268	
İZOMERAT	1268	3	33	2	33 1268	
PLATFORMAT	1268	3	33	1	33 1268	
HVGO	3082	9	90	3	90 3082	
HC DİP	3082	9	90	3	90 3082	
HAM PETROL	1267	3	33	3	33 1267	

Hazardous substance classification table is given below.
General classification rules for various hazardous substance classes are shown in the below “classification table”.

Since specifications of substances, materials or objects in each class might be quite different, if there are conflicting rules about classification, the list of hazardous substances must always be referred first since this list will have the priority.

CLASS	1.1	1.3	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
Poisonous and	2	2	1	X	X	X	1	X	1	X	X	1	X	2	1	X	X
Poisonous 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 (incl. self 4.1 reacting substances and	4	3	2	1	X	X	X	X	1	X	1	2	X	3	2	1	X
Substances prone to 4.2 immediate bursting	4	3	2	2	1	2	2	1	X	1	2	2	1	3	2	1	X
Substances revealing 4.3 flammable gases in contact with water	4	4	2	X	X	X	1	X	1	X	2	2	X	2	2	1	X
Oxidising substances	4	4	2	2	X	X	2	1	2	2	X	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
Poisonous substances	2	2	X	X	X	X	X	X	1	X	1	1	X	1	X	X	X
Contagious substances	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
Abrasive substances 8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X
Various hazardous substances 9 and items	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Numbers and symbols used in the table have the following meanings:

1 – “Must be kept away”;

2 – “Must be separated”;

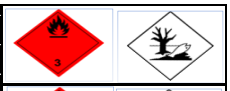
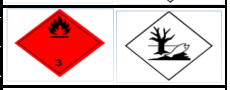
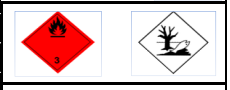
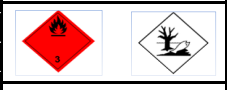
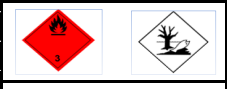
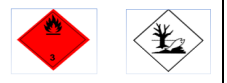
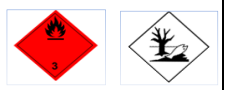
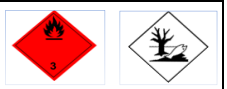
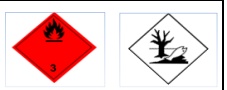
3 – “Must be kept separated through an entire compartment or section”;

4 – “Must be separated longitudinally through an intervening compartment or section”

X- “There is not any interaction”

5. Manual for Handling of Hazardous Loads in Shore Facilities

Classes of hazardous substances being handled in our shore facilities and packages, labels, marks, packaging groups and classification tables of these hazardous substances are given below.

DİZEL	1202	3	30	3	30 1202	
K.BENZİN	1203	3	33	2	33 1203	
LPG	1965	2	23		23 1965	
JET A1	1863	3	30	3	30 1863	
GAZ YAĞI	1223	3	30	3	30 1223	
AS.JET F-34	1223	3	30	3	30 1223	
B.BAĞLAYICI	3256	3	30	3	30 3256	
BİTÜM	3257	9	99	3	99 3257	
Y.K. FUEL OİL	3082	9	90	3	90 3082	
NAFTA	1268	3	33	1	33 1268	
İZOMERAT	1268	3	33	2	33 1268	
PLATFORMAT	1268	3	33	1	33 1268	
HVGO	3082	9	90	3	90 3082	
HC DİP	3082	9	90	3	90 3082	
HAM PETROL	1267	3	33	3	33 1267	

CLASS	1.1	1.3	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
Poisonous and	2	2	1	X	X	X	1	X	1	X	X	1	X	2	1	X	X
Poisonous 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 (incl. self 4.1 reacting substances and	4	3	2	1	X	X	X	X	1	X	1	2	X	3	2	1	X
Substances prone to 4.2 immediate bursting	4	3	2	2	1	2	2	1	X	1	2	2	1	3	2	1	X
Substances revealing 4.3 flammable gases in contact with water	4	4	2	X	X	X	1	X	1	X	2	2	X	2	2	1	X
Oxidising substances	4	4	2	2	X	X	2	1	2	2	X	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
Poisonous substances	2	2	X	X	X	X	X	X	1	X	1	1	X	1	X	X	X
Contagious substances	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
Abrasive substances 8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X
Various hazardous substances 9 and items	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Numbers and symbols used in the table have the following meanings:

1– “Must be kept away”;

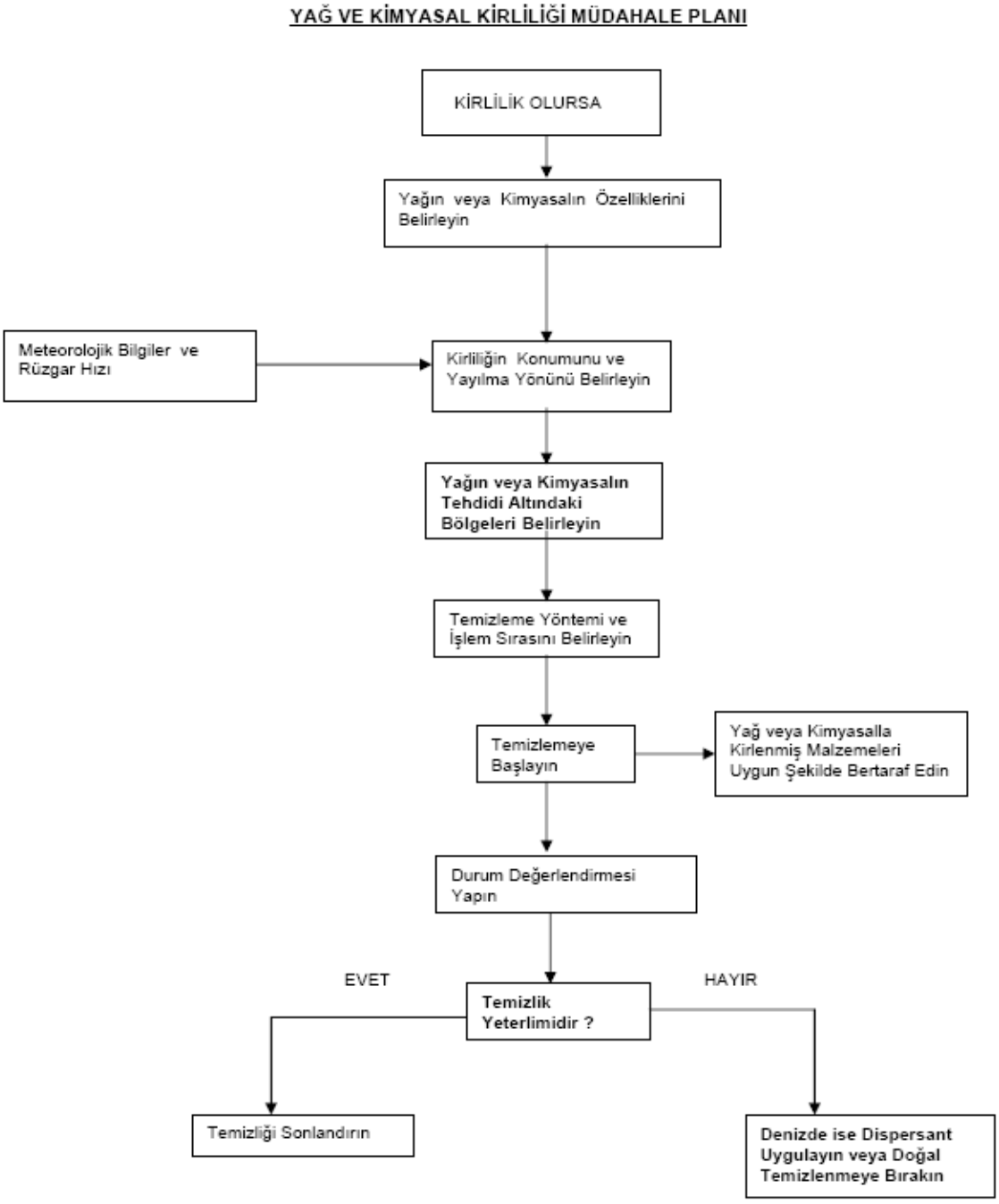
2– “Must be separated”;

3– “Must be kept separated through an entire compartment or section”;

4– “Must be separated longitudinally through an intervening compartment or section”

X- “There is not any interaction”

In case any chemical or oil spread throughout the sea due to the facility’s operations, the incident is responded for cleaning purposes in accordance with Oil and Chemical Pollution Response Plan. Equipment, materials and chemicals used for such response as well as contaminated environments (soil, water, underground water) due to spillage of pollutants (petroleum and petroleum products) and wastes caused by spilled petroleum and petroleum products occur as a result of such spillages.



Another emergency that might occur in our facility during the handling of hazardous loads is fire. The emergency response plan for fire is given below.

1- Product flow is stopped. Filling arm is separated from the tanker.

2- Cooling water is applied to the area of cargo tanks of the tanker in order for cooling purposes.

3- Fires at the ship manifolds are extinguished with high pressurized water mist or by using dry chemical powdered extinguishers.

4- If the ship's tanks are ruptured as a result of an explosion, foam is applied to the ruptured part, depending on the type of product.

5- Pier loading and unloading area are protected with water monitors.

6- If possible, the ship is removed from the pier zone to a safe area.

6. Operational Issues

Calling the Ships to Pier:
Each ship that enters Izmir Port and submits preparation letter for loading/unloading at our Refinery is not required to berth to our piers. The only sine qua non for berthing of ships that arrived for loading purposes is the existence of loading order. Loading order is created by Sales Coordinator Unit of Planning and Sales Department (PSM) of our Refinery through SAP system. Berthing order is determined by PSM for the ships with a loading order. Marine Loading Unit displays loading orders on VL10H page of SAP system and ships with loading order inform Petroleum Movements Unit when they enter the Port and issue NOR. After two units reach an agreement the ships berth. Marine Loading Unit may change the piers to be berthed due to technical requirements, provided that prioritizations assigned by PSM are not changed.
After all procedures are completed the ship is called by radio to berth to the decided pier. Pilotage organization as well as the ship's agency are also notified to inform the ship in addition to notifications made by radio for importation/exportation shipments. The time, on which the ship was called to berth, is noted at Remarks section of the Time Sheet for importation/exportation shipments.

Pilotage, Towage and Mooring Services:
Provisions of Izmir Port Regulations, published on the Official Gazette, dated 25.02.1982, are applied for pilotage and towage services to be provided in Aliağa Port.

Pilotage service:
It is regulated by Article 23 of Aliağa Port Regulation. Accordingly, Turkish flagged merchant ships of 1000 GRT and higher capacity and foreign flagged ships of 500 GRT and higher capacity, which berth to piers and docks and moor to pontoons within or leave Aliağa Port are required to take a harbour pilot. Such ships are required to take harbour pilot even when they are shifting between our piers.
Towage service is regulated by Article 23 of Aliağa Port Regulation. Accordingly, ships between 2000 and 5000 GRT are required to take one tow boat with 16 tons of pulling force, ships between 5000 and 15000 GRT are required to take two tow boats with 18 tons of pulling force, ships between 15001 and 30000 GRT are required to take two tow boats with 27 tons of pulling force or three tow boats with 18 tons of pulling force, and ships more than 30000 GRT are required to take two tow boats with 30 tons of pulling force or three tow boats with 20 tons of pulling force.
If the number of tow boats is more than the number specified in the Regulations due to safety reasons, no fee is requested for the tow boats provided more than the numbers described in "Tüpraş Izmir Refinery Port Services Tariff Procedure".
"In case the owner, agency or operators of the ship with fore and stern impellers, which arrives the port, notifies the port office in written that impellers are operating at full capacity and the port office determines that meteorological and oceanographic conditions during maneuvering of the ship on the pier or dock to be berthed/departed are not posing any problem to reduce the number of tow boats", the number of tow

boats can be reduced. However no reduction in the number of tow boats is applied to ships that carry petroleum products, LNG, PNG and hazardous chemicals.
As stated above, towage service includes both tow boat and pontoon boat services. For this purpose, all domestic and foreign ships within our Refinery's authorization borders are required to use tow boats as well as pontoon boats in accordance with the provisions of Port Regulations and Tüpraş's Procedures when entering to and departing from our port field and/or relocating within the port for any reason.

Pontoon boat service:
These are the services to give the breast fast of the ship while the ship is berthing and to take the breast fast from the pier while the ship is departing in order to help the ship in maneuvering.

Our procedures for keeping combustible, flammable and explosive substances from operations that cause/may cause sparks and for not operating any tool, equipment and device that causes/may cause spars at hazardous load handling, stowage and storage fields are given below:

The area or equipment, at which Hot Works will be performed, must be cleaned from hydrocarbons.
For this purpose, 0% LEL value, stating that the system/field/equipment is completely cleaned from hydrocarbons, must be achieved and confirmed by a Gas Detector, the calibration of which is valid and verified by Bump Test. If it is found suitable to perform the work after taking necessary precautions and completing Risk Assessment, it is allowed to perform the Hot Work.
Gas measurement frequency is determined by the Operational Safety Expert, based on the work to be performed and conditions of the location.
The possibility of generation of heat or spark within 15 m. radius of the area to be worked is evaluated and necessary controls are made and precautions are taken.
If there is not enough firefighting equipment, Hot Work Certificate is not issued.
If the system, field or equipment cannot be completely cleaned from hydrocarbons and 0% LEL value cannot be achieved despite of all precautions, Hot Work can be performed under the following conditions. No Hot Work is allowed at areas, at where LEL value is more than 10%.
Regardless of the person performing the work and the work method, a comprehensive risk assessment is made by Work Requester, Permit Requester, and Permit Owner. Prepared Work Hazard Analysis is reviewed and signed by Chief Engineer of relevant unit. This approval is given by On-Call Shift Supervisor on weekends and holidays if the unit's chief engineer is not available.
After Work Hazard Analysis is prepared for the work to be performed, the measures that have been planned to be taken by IEU and Permit Officer are verified on the field. In case 0% LEL value cannot be achieved, gas is continuously measured and the environment as well as relevant equipment are always kept under control.

A supervisor is kept continuously on the field and Hot Work is allowed to be performed in a controlled manner.

7. Documentation, Control and Records

After hazardous substances are handled in our shore facility, following documents are prepared and the load is delivered to the maritime vehicle.

Documents prepared by the shore facility: Time sheet, Ullage Report, Load Report, Packing Slip and Analysis Report

Documents prepared by the agency: Time sheet, port departure documents and customs declaration

Documents prepared by the inspector company: Document receipt, time sheet, ullage report, ship tank cleaning certificate, Vef, OBQ report, Sample Receipt, bunker report on arrival, bunker report on sailing, certificate quantity

The list of hazardous substances handled in our shore facility and their transportation methods are given in the manual for hazardous loads handled in the shore facilities. SDS forms of these listed hazardous loads are recorded in our refinery's QDMS system and this form is given to the maritime vehicles that carry these loads. Records and statistics of hazardous loads handled in our refinery are recorded to SAP system and it is possible to access inventories retrospectively.

8. Being Prepared for and Responding to Emergencies

The Contingency Plan that was prepared for hazardous substances that do/may pose a risk to life, properties and/or environment and dangerous situations that involve such hazardous substances is given below.

CONTINGENCY PLAN

PURPOSE and SCOPE

Contingency Plan includes determination of tasks, authorities and responsibilities for incidents that require emergence response, first aid or evacuation, such as fire, explosion, spillage of hazardous chemicals, natural disasters, etc. which might occur at Tüpraş Izmir Refinery.
This plan covers the operating sites of Izmir Refinery as well as the administrative building, social facilities and task buildings of Refinery Department.

DEFINITIONS

Emergency Management Center (ADYM)	The place with appropriate size, equipped with necessary and sufficient amount of documents, plans, standards, maps, sketches, materials and communication equipment in order to manage, direct and control emergency(ies) and to ensure collaboration and coordination with relevant persons and companies.
Facility	Operational sites, administrative buildings, social facilities and task buildings of Tüpraş Izmir Refinery.
Firefighting Team	The team that responds to fire in accordance with the instructions of Fire Supervisor in compliance with predetermined firefighting strategy.

IMPLEMENTATION

First Response to Fire and Making the Fire Call

- Fire call number is 8888 in Tüpraş's Izmir Refinery.
- There are landline phones at certain locations throughout the refinery in order for communication in case of emergency.
- Emergency phone calls are written on these landline phones within the facility.
- If person(s) that saw the fire first can extinguish the fire with existing facilities (portable fire extinguisher, fire protection water hose) without risking himself/herself, the fire is responded and if it is understood that this intervention is or will be insufficient with existing facilities at the fire site, a call is made regarding the fire.
- If the fire is extinguished with the first response, the burned product, fire site, how it is extinguished and other additional details are explained to site officers and Technical Safety Staff as soon as the fire is extinguished.
- Firefighting Organization Chart of Izmir Refinery is given in ANNEX-1.
- The plot plan that shows firefighting equipment and fire water lines of Izmir Refinery in details is given in ANNEX-2.
- The list of firefighting equipment of Izmir Refinery is given in ANNEX-3.

Making the Fire Call

- Fire calls are made by calling "8888" Fire Call hotline from the closest landline phone or by announcing through the central radio channel.

- At least following details must be provided during the fire call:
  - **Name, surname and task of the calling person;**
  - Location of fire;
  - If known, details of burned product and equipment, whether there is any poisonous gas in the environment or not (H_2S, etc.).

    For example: I'm ……..…… (please tell your name and surname)*, there is fire at …… (location of fire, name of tank, unit, building and equipment and, if known type of burning product/material).
- The notification is repeated by the Refinery Security Department (RGM) Staff that received the call in order to prevent any misunderstanding and both parties mutually confirm that the notification is understood.
- After the fire call, the person immediately returns to the fire site and assists in fire extinguishing works.
- The Security Staff that received the fire call records name and surname of the calling person, location of fire, time of call and alert to "Fire Call Record Book".

Fire call is checked as described below:

- There is a fire call hotline in Izmir Refinery, which is connected in parallel within RGM, Technical Safety and Environment Department (TÇM) and Quality Systems Department (KSM).
- Technical Safety Chief Engineer calls fire call hotline "8888" everyday in order to control that fire call hotline is active and prepares monthly phone list so as to cover contractor offices/living quarters and submits it to relevant unit supervisors. Fire call hotline is tested by calling the number everyday according to the list and these daily controls are tracked and recorded through "TPR.TEM.FRM.0128 Fire Call Hotline Monthly Control Form" (ANNEX-4).

Fire Alarm Siren

- Fire alarm siren is sounded by RGM staff that received the call.
- Alarm sirens in the refinery and lodgement sites shall be sounded together during nonbusiness hours and on holidays.
- Fire Alarm Siren: It is in the form of a fluctuating (increasing - decreasing) sound, which will be activated twice for 30 seconds each in every 30 seconds.
- Refinery's Security Staff that sounded the Fire Alarm siren introduces himself/herself on the central radio channel and tells the location of fire.
- Refinery's Security Staff that learned the fire with the fire call tells the location of fire to other gates via radio or phone. Refinery's Security Staff at the gates write

the location of fire on “LOCATION OF FIRE” boards, placed on entrance and exit gates, legibly and in capital letters and opens entrance or exit gates.

- If alarm sirens are not sounded for any reason, he/she uses other communication means (radio, phone, megaphone, ambulance siren, etc.).
- When the fire is extinguished, “Fire is extinguished” announcement shall be made through the central radio channel upon instruction of Headquarters Supervisor. Refinery’s Security Staff that heard the announcement shall sound “Fire is Extinguished” siren.
- Fire is Extinguished Siren: Straight sound for 10 seconds to be sounded for once.

Fire Alarm Sirens are tested on the times as stated below:

- Sirens at the Refinery sites are sounded straight for 5 seconds at 8 am and 5 pm everyday.
- Sirens at Social Facilities are sounded straight for 30 seconds at 6.30 pm every Monday.
- “Fire Alarm Siren” and “Fire is Extinguished” siren are sounded in each fire drill.
- All failures in fire call phones and sirens are notified by Refinery Security Department to Maintenance Group Department in order to ensure that they are repaired as soon as possible and it is also ensured that these phone lines and sirens are always kept functional.

Tasks of Units in case of Fire

Refinery units take role in accordance with their responsibilities described below in case of fire, explosion, etc.

Production Department

- They ensure the safety of their lives at first in the fire site and makes the first response with existing facilities.
- They direct the persons (contractor, visitor, etc.), which do not have any assignment at the unit site regarding emergency condition, to safe zones located out of the fire site.
- They assign a unit operator to fire protection water pumping station within their site in order to activate these pumps in case of necessity. They contact with the staff of Technical Safety before activating fire protection water pumps.
- They detect and stop poisonous and explosive gas leakages.

- In case any poisonous and explosive gas leaks, they inform emergency response teams and other units to isolate the site.
- They provide information and give support to emergency response teams regarding the fire and operational status.
- They ensure continuous communication between ADYM and units.
- If necessary, they completely or partially stop the units.
- They keep facilities always safe and under control.
- They control electricity, steam, air, raw water, cooling water, and service water systems of the refinery in a manner to meet the requirements.

Process Chief Engineer:

- A staff is assigned as despatcher among process chiefs/engineers.
- The staff that acts as despatcher accompanies to Headquarters Supervisor, Senior Supervisor, Operations Supervisor, Fire Superivsor and RAK Team Supervisor with “Despatcher Vest”.

Shift Chief:

- He/she immediately moves to the fire site within the refinery, acts in replacement of Senior Supervisor until Senior Supervisor arrives, and supervises the firefighting works.
- He/she transfers the responsibility to Senior Supervisor after he arrives the incident site and immediately coordinates the works of units, based on directives of Senior Supervisor.

Tasks of KSM Laboratory Staff

- Covered laboratory staff, other than Chief Laboratory Technician, safely stops their works, wear their firefighting clothes, arrive to the fire site and form fire hose teams.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor’s staff working at the site.

Tasks of Refinery Security Department

- It is responsible to sound the fire siren according to the fire call that it has received by phone or through the radio.
- It is responsible to keep Fire Call Record Book.

- It is responsible to write the location of fire on Location of Fire Board, located at the refinery entrance gate.
- In case of fire, it prevents any staff/person, who is not assigned for a task, other than Tüpraş's staff to enter the refinery without permission.
- It ensures that Refinery Search & Rescue (RAK) team is ready for intervening at the incident site in accordance with the instructions of Headquarters Supervisor and Senior Supervisor. The list of Refinery Search & Rescue team is given in ANNEX-5.
- It manages the actions of RAK team in accordance with TPR.TGM.STD.0135 Search & Rescue Standard.
- It is responsible to ensure safety at the fire site.
- It is responsible to record the number of staff moving to the assembly points and to evacuate staff and vehicles in accordance with instructions of Crisis Center.
- It monitors fire site and surrounding area with security cameras located around.
- It ensures that video is shot or recorded at the fire site.

Tasks of Maintenance Group Department

- Maintenance staff, which form the first level staff in case of fire, immediately move to the fire site, form the hose teams, and other staff not included to a hose team stay ready for duty at the headquarters.
- One of not covered staff, who will be assigned by Maintenance Group Manager, acts as Supervisor of Hose Teams.
- It brings toolkits that might be needed for maintenance and repairing works to the incident site and ensures that these toolkits are kept at the headquarters for intervening.
- Maintenance Group Manager/Chief Engineer assigns electricity and mechanics maintenance staff to fire protection water pumping stations.
- Maintenance Group Manager keeps work machines and operators ready for transport at the garage in order to be used in case of necessity and keeps work machines, such as crane, manlift, etc. ready for fires, which might need a rescue operation in height. Work machines are kept ready at the worksite.
- It ensures that equipment, such as lighting, power generator, etc., which might be needed in case of emergency, are kept ready to use.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.
- It ensures continuity of radio communication and infrastructure.

- Staff of hose teams provide support to the staff of Technical Safety Department in collecting firefighting equipment and hoses after the fire is extinguished.

Tasks of Workplace Health and Security Unit

- Responsible workplace physician immediately moves to fire site by ambulance with sufficient number of healthcare staff.
- Ambulance is parked to a safe zone next to fire headquarters and kept ready to intervene in case of necessity.

Tasks of Technical Safety and Environment Department

- One of Chief Engineers/Chiefs/Engineers/Experts of Technical Safety Department acts as fire supervisor. The list of Firefighting Staff, which includes the Fire Supervisor and who are in charge of firefighting within the refinery, is given in ANNEX-7.
- Staff of Environment, Process Safety, Workers' Health and Safety Chief Engineer act in accordance with the instructions of Fire Supervisor.
- Technical Safety Staff brings fire brigade vehicles and firefighting equipment to the incident site, makes preparations according to determined response method and responds the fire.
- Workers' Health and Safety staff measure gases at the incident site. They identify necessary safe zones and ensure that zones, which must not be entered, are barricaded.
- Technical Safety Staff provides respiration system, protective clothes and equipment for firefighting and checks suitability of protective equipment of responding straff before they enter the incident site.
- Pressure of fire protection water system is tracked by Technical Safety staff and, if necessary, additional fire protection water pumps are activated.
- It inspects the incident site after the fire is extinguished in order to prevent recurrence of fire at the incident site and takes necessary measures for the security of site.
- It ensures that firefighting vehicles and equipment are ready to use after the fire is extinguished.
- It examines the incident site with site officer after the fire is extinguished in order to find the reason of outbreak of fire.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

Human Resources Department

- One staff is assigned to Emergency Management Center (Crisis Center) to perform secretarial works.
- One staff is assigned to main gate of the refinery in coordination with Corporate Communication Department and Crisis Center in order to manage relationships with persons, such as public, media, representatives of official authorities, employees, etc. that have arrived to the main gate.
- It provides transportation in coordination with RGM for evacuation of the staff at the assembly area.
- It ensures that staff, contractors, visitors and interns are evacuated and transported.
- It ensures that catering needs (water, meal, transportation, etc.) of firefighting staff are met.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

Procurement Department

- A staff is assigned to Emergency Management Center (Crisis Center).
- A staff is assigned at headquarters in order to respond to the requirements quickly.
- It ensures that required materials are obtained from the warehouse, other refineries and external resources and then distributed.
- It ensures that warehouses are opened and kept ready to supply materials in case of necessity.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

Project and Investments Department

- It assigns a staff to organize the traffic on the roads towards the fire site.
- This staff wears the vest, indicating that he/she is assigned for traffic duty, and ensures that the roads to incident site are kept open and prevents vehicles other than emergency response vehicles to enter the incident site.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

Operational Reliability Department

- A staff, equipped with thermal camera and digital thermometer, is assigned to the headquarters in order for utilization of these equipment at the fire site in case of necessity.

Information Technologies Department

- It assigns a staff at Emergency Management Center (ADYM).
- It keeps the technical infrastructure functional in order to ensure that wired and wireless communication is not interrupted.
- It ensures that data bus traffic is organized to transfer video stream of incident site and for video conferencing.

Financial Affairs Department

- It assigns a staff at Emergency Management Center.

Planning and Sales Department

- It assigns a staff at Emergency Management Center.
- It assigns the staff, who will be responsible for refinery's external and internal gates.
- It ensures coordination of planning and sales activities and manages filling and evacuation activities in accordance with the refinery's safety requirements.

Tasks of Staff Residing at Assignment Houses and Social Facilities

Any person, who saw the fire or, at whose house a fire outbreaks, acts as stated below.

- Fire Call Hotline (8888) is called in case of fire.
- The location of fire is reported in the shortest and most accurate manner and, if possible, type of fire is reported too. (Building, LPG, motorized vehicle, etc.)
- The fire is announced to the surrounding people.
- The fire is responded with existing firefighting equipment (portable fire extinguisher, fire protection water hose, etc.) in order to extinguish the fire until TÇM staff arrives. If it is not possible to extinguish the fire, the door of the room or kitchen, in which the fire has started, is closed but not locked. Closing the door prevents the fire to splash other rooms.
- Do not endanger yourself and others while taking these actions.

- Do not allow any person other than assigned staff to enter the fire site.
- Keep the outer door open to allow assisting persons to enter inside the building easily.

Tasks of Chief of Social Facilities

- They call the Fire Call Hotline and report the location and status of fire.
- They ensure coordination of fire extinguishing team at the fire site until assistance arrives.

Firefighting Organization

- Firefighting Organization Chart of Izmir Refinery is given in ANNEX-1.
- Each unit acts in accordance with instructions of its supervisor according to the hierarchy shown in Firefighting Organization Chart of the Refinery. Each staff only reports to and informs his/her supervisor.
- Vests, specified in the Table of Supervisor Vests of Emergency Response Team (Table 3.3.1), are used by relevant staff in order to increase visibility of supervisors available on site.

Table 3.3. 1 Table of Supervisor Vests of Emergency Response Team

Letter on Vest	Vest Color	Font Color
Senior Supervisor	White	Red
Operations Supervisor	Yellow	Orange
Fire Supervisor	Red	White
Hose Teams Supervisor	Blue	White
RAK Team Supervisor	Green	Gray
Despatcher	Orange	Gray
Traffic Organizer	Yellow	Gray

Emergency Management Center

When a fire outbreaks, Emergency Management Center (ADYM) is opened and operates in accordance with ADYM Standard, TPR.TGM.STD.0023 (ANNEX-8).
If required and depending on the size of fire and agreed responding strategy, the refinery's staff, who are not at the refinery at that time and who are assigned to units as stated in Firefighting Organizational Chart, are called to duty by authorized representatives of ADYM upon a request of Headquarters Supervisor.

Authorized representatives of Emergency Management Center (ADYM) contact with Headquarters Supervisor to receive information about responding to the incident.

Headquarters

The place, through which the teams that will respond to the fire will be directed, the support needed to respond to emergency is provided and Emergency Management Center is communicated.
Representatives of units and all staff in the headquarters act in accordance with their duties and responsibilities.

- Organization of Headquarters is given in Firefighting Organization Chart.
- Managers of Technical Units stated in the organizational chart provides consultancy to the Headquarters Supervisor regarding the areas under their responsibility.
- Headquarters is located on a safe place by taking the growth of fire, toxic gas spreading hazards and direction of wind into consideration.
- The Headquarters Supervisor determines the location of headquarters by consulting to senior supervisor.
- After its location is determined, “Headquarters Sign” is taken by despatcher from fire brigade vehicle and placed on the location of headquarters.

Headquarters Supervisor and his/her Duties

Headquarters Supervisor is the relevant site manager. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the Headquarters with Senior Supervisor, Despatcher, Traffic Organizer, First Aid Supervisor, Fire Site Security Supervisor and Supporting Teams as well as the Managers of Technical Units that provide consultancy services to him/her.
- He/she ensures coordination with ADYM regarding intervening to incident site and requirements.

Senior Supervisor and his/her Duties

Senior Supervisor is the Superintendent/Coordinator of relevant site. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she determines the strategy to respond to the emergency together with Operations Supervisor, Fire Supervisor and RAK Team Supervisor that are reporting to him/her and he/she manages fire, rescue and unit operations.

- He/she ensures coordination with Headquarters Supervisor regarding intervening to incident site and requirements.
- He/she wears the white vest, on which it is written “Senior Supervisor”.
- He/she requests materials, staff, tools and equipment, which might be needed in accordance with the strategy to respond to emergency, from Headquarters Supervisor.

Operations Supervisor and his/her Duties

Operations Supervisor is the relevant Unit/Site Chief. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the unit’s operations together with the unit/site staff reporting to him/her.
- He/she ensures coordination with Senior Supervisor regarding operational responding requirements.
- He/she is responsible to operate, halt and protect the unit/site from fire in acordance with the directives of Senior Supervisor.
- He/she wears the yellow vest, on which it is written “Operations Supervisor”.

Fire Supervisor and his/her Duties

Fire Supervisor is Technical Safety Superintendent. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the operations for responding the fire together with the staff reporting to him/her.
- He/she ensures coordination with Operations Supervisor regarding operational responding requirements.
- He/she manages the hose teams and firefighting staff in accordance with the directives of Senior Supervisor and determined firefighting strategy.
- He/she wears the red vest, on which it is written “Fire Supervisor”.

Duties of Workers’ Health and Safety (WHS) Superintendent

- He/she directs Workers’ Health and Safety staff to the site to be measured in order to conduct gas measurements at the incident site and informs Fire Supervisor about current condition.

- He/she identifies necessary safe zones and ensures that zones, which must not be entered, are barricaded.
- He/she provides the support of WHS staff for First Level Firefighting Team.

Supervisor of Hose Teams and his/her Duties

Supervisor of Hose Teams is either Maintenance Superintendent/Chief/Engineer, responsible for the relevant unit/site, who will be assigned by Maintenance Group Manager.

- He/she ensures that the staff of Maintenance Department and KSM, who will form the hose teams, are ready at the headquarters with their firefighting equipment.
- He/she manages replacement of firefighting team in accordance with directives of Fire Supervisor.
- He/she is responsible for cleaning and collecting the firefighting eqipment together with firefighting staff after the fire is extinguished.
- He/she wears the blue vest, on which it is written “Supervisor of Hose Teams”.

First Level Firefighting Team

First Level Firefighting Team performs the operations to respond the fire in accordance with the instructions of Fire Supervisor in compliance with predetermined firefighting strategy.
First Level Firefighting Team is composed of the staff written below.

During regular workdays in business hours:

- TÇM staff
- Laboratory staff
- Maintenance Department staff
- Refinery staff on duty at the unit/site

During nonbusiness hours and holidays:

- TÇM shift staff
- Laboratory shift staff
- Maintenance Department shift staff
- Shift staff on duty at the unit/site

Refinery Search & Rescue (RAK) Team Supervisor

RAK Team Supervisor is the staff, selected by Refinery Security Department.

He/she manages RAK Team in accordance with the instructions to be given by Senior Supervisor and the determined rescue strategy. It manages the actions of RAK team in accordance with TPR.TGM.STD.0135 Search & Rescue Standard.

Dispatcher and his/her Duties

Dispatchers are Production Department's Process Chiefs and Engineers.
One staff is assigned for each of Headquarters Supervisor, Senior Supervisor, Operations Supervisor, Fire Supervisor and RAK Team Supervisor.

- They are responsible for delivering the information and instructions to be given by Senior Supervisor, Operations Supervisor, Fire Supervisor and RAK Team Supervisor accurately to relevant addressees.
- Dispatchers wear the vests available in fire brigade vehicle, on which it is written "DESPATCHER" and they take the sign of Headquarters from the fire vehicle and place it on the site to be selected by Headquarters Supervisor.
- Vests of supervisors are taken by dispatchers from fire brigade vehicle and delivered to the applicable supervisor.
- In case the radio communication has any problem, they take megaphones of supervisors from the fire brigade vehicle and carry them for supervisors as long as the fire is being responded.

Traffic Organizer and his/her Duties

PYM Manager assigns enough number of staff as traffic organizer in accordance with the directives of Headquarters Supervisor in order to take entrances to fire site and firefighting site under control.
Traffic Organizers are Chiefs / Engineers / Technicians of PYM department.

- Locations, at which a traffic organizer shall be assigned, are determined in accordance with the results of gas measurements to be conducted by Workers' Health and Safety (WHS) Superintendent / Chief / Engineer and the routes to responding site and Headquarters Supervisor is asked to assign traffic organizers.
- Traffic organizers wear yellow colored vests, available in their vehicles or fire brigade vehicle, on which it is written "TRAFFIC ORGANIZER" and they stay at their posts.
- Traffic organizers are responsible to manage the traffic at the fire site, to show parking area for arriving vehicles and to keep the roads at the fire site always open.

First Aid Team Supervisor

First Aid Team Supervisor is the Workplace Physician on duty. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she is positioned at a safe zone on the incident site with the ambulance and manages first aid and healthcare operations.

Fire Site Security Supervisor and his/her Duties

Fire Site Security Supervisor is the Refinery's Security Supervisor. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she ensures security at the site and in the refinery by reporting to Headquarters Supervisor.

Support Team

Izmir Refinery's support team, Operational Safety Expert, Warehouse Staff, Garage Transport Staff and staff of Information Technologies Department stays at the Headquarters as the support team.

- They join and support the firefighting team based on their duties and area of responsibility.

Fire Investigation Report

A Fire Investigation Report (TPR.TEM.FRM.0011) (ANNEX-9) is prepared for all fires occurred within Tüpraş's facilities.
The fire investigation report is prepared and signed by the staff of Technical Safety Department after investigating the incident site together with relevant site officer.
After the report is signed, it is submitted to relevant unit supervisors of the refinery and Technical Safety Department in Head Office via e-mail. Fire Investigation Report is archived in TÇM.
Fire Investigation Report is uploaded to Incident Investigation System by relevant superintendent/coordinator of the site.

GENERAL FIREFIGHTING RULES

- It is FORBIDDEN to park vehicles and stack materials in front of of in a manner to obstruct utilization of fire hydrants and emergency responding equipment within Tüpraş Izmir Refinery. Emergency responding vehicle must always be accessible and ready to use.
- When fire alarm is sounded all staff must move to their assignment locations as stated in the contingency plan. Contractors, visitors and interns stop to work in a safely manner and move to Assembly Points.
- If sirens of firefighting and emergency response vehicles (Fire Brigade Vehicles, Ambulance, RAK Team's Vehicle, etc.) are sounding, these vehicles have the priority to pass.
- All staff must know the location of and how to use firefighting equipment at their site/building and if they see any empty or malfunctioning fire extinguishing equipment, they must inform Technical Safety and Environment Department (TÇM) to ensure that they are refilled/repaired.
- All staff must know the locations of underground channels and storm drains as well as their entrances and ventilation locations of storm drains. Gaskets of vents, storm drain covers and field drain systems must be checked, choked vents must be cleaned and damaged drain covers and gaskets must be repaired.
- All staff must know the locations of fire hydrants and circuit breaker valves at their sites.
- Any staff, who is not assigned for firefighting, must act in a manner so as not to obstruct vehicle traffic, stay away from the fire site and must not use their radios and phones unless necessary during the fire.

Measures

Precautions on Electricity Installation

- Devices, that cannot be served by the electricity installation due to its design capacity, must not be used.
- Electricity cables that lost their integrity (extended, damaged isolation, etc.) and have not been controlled shall not be used.
- Maintenance, repairing and controls of electrical and electronic devices shall be made by trained and qualified staff and unauthorized persons shall not intervene.
- Plugs of electrical devices, which were not designed to be left on the socket, shall not be left on the socket after they were used.

Precautions to be Taken in Offices

- Flammable and combustible materials, such as gasoline, spirit, gasoil and fuel oil shall not be used in offices.
- Employees shall close, if open, the windows, check the fire office for fire and safety, and switch off the lights before they leave the office at the end of business hours.

Preventive and Restricting Measures that have been Taken

- Matches, lighters, etc. shall never be kept and used for any reason when supplying fuel and checking the lubricants of motorized vehicles.
- There shall not be any good or combustible and flammable material on the roof other than those required for protection from fire. It is not allowed to climb to, smoke at and use fire causing equipment at the roofs.
- The instructions to use fire extinguishing equipment within buildings are hung on same places.
- Plans that show emergency exit doors and fire extinguishing equipment shall be hung on appropriate locations of the halls of administrative building of Izmir Refinery.
- Combustible, flammable and explosive materials shall not be kept at places, such as boiler room, tea house, etc.
- Equipments are controlled and their sufficiency is checked regularly in Izmir Refinery. Modernization projects and state-of-the-art firefighting systems are still in progress at the units and sites in order to use advanced technologies and improve fire response capabilities.
- 36” fire water line is built and the systems to provide sea water throughout the refinery by sea water pumps have been installed and commissioned.
- High capacity firefighting monitors, such as 1 piece of Ambassador monitor (22700 lt/m. capacity) and 2 pieces of Battler monitors (each 37854 lt/m. Capacity), have been purchased and activated in order to respond to large fires that may outbreak within the unit and all surface tank fires.
- Operational sites are supported with remotely controlled, high capacity monitors for situations, in which it will be difficult to respond and to approach fire.
- Fire detection and automatic fire extinguishing systems are installed throughout the refinery based on risk analyses and it is possible to activate them automatically or manually in case of emergency, based on the results of such risk analyses.
- Heat changes that might occur at the seal zone can be monitored with linear heat detectors, placed on the tanks, and it is possible to response seal fires with fixed (connected to foam tank and foam generator) and semi-fixed (the system that transfers foam solution from foam rooms to rim seal area through fire brigade vehicle) fire extinguishing systems available on the tanks.

- There are more than 2000 fire extinguishers within the unit sites of Izmir Refinery and all of them are controlled every month. Furthermore, a contracted outsourcer conducts annual periodical checks and reports the results.
- It is ensured by daily checks that fire brigade vehicles are always kept functional.
- Except the maintenance works to be performed in case of any failure, fire brigade vehicles are periodically checked by the company staff in every year, necessary tests are conducted and results are reported to us.
- The quantity of foam to be used for firefighting is monitored monthly and, in case of necessity, it is obtained immediately.
- Fixed gas detection systems are checked in every 3 months and periodical check and conformity reports are prepared by the contracted outsourcer.

General Information on Fire

Burning is a chemical reaction resulting from combination of combustible materials with oxygen in certain ratios under heat.
Following elements must combine together in order to start fire:

1. Fuel	:Combustible and flammable materials
2. Oxygen	:The natural element that forms 21% of atmosphere
3. Ignition Source	:The source that starts burning
4. Chemical Chain Reaction	:The reaction that causes the fire to continue.

It is explained with the state of burning, triangle of burning. A fire does not occur if any of above does not exist. The combustible material and ignition source or oxygen must be kept away from each other in order to prevent fire. It is also needed to

eliminate one or two of these elements in order to prevent or distinguish fire. The safety against fire is based on this principle.

Reasons of Fire

General reasons of fire:

- Failure to comply with bylaws, regulations and circulars on protection from fire;
- Lack of knowledge and training in protection from and extinguishing fire;
- Negligence, lack of measures, carelessness and intentional actions of staff;
- Sabotage;
- Accidents and fires with external origin;
- Natural disasters;
- Nonconformity of electricity and heating installations of refinery facilities with standards, insufficiency of fire protection water systems, failure to know and comply with utilization instructions of firefighting equipment.

General reasons of fire in refineries:

- Collection of combustible gases at a point;
- Accumulation of hydrocarbon (fluid, gas) in underground channels;
- Using faulty and non-ex-proof electricity installations;
- Debris of oily rags, oakums, papers, grasses, woods or hydrocarbon products;
- Hot surfaces or exhaust pipes;
- Leaving iron sulphur or equipment and devices containing iron sulphur in direct contact with air;
- Streak of lightning;
- Smoking at places other than designated areas;
- Static electricity;
- Sparks arising out of sand blasting or operation of internal combustion engines of mechanical devices;
- Working without taking necessary precautions and obtaining permissions for works, which require Hot Works Permission;
- Performing hot works without taking necessary precautions near to raw sulphur, stored in bulk;
- Performing hot works near to accumulators when they are being charged;
- Dragging of excessive amounts of fluid to flare lines;
- Contact of oxidising and combustible materials, stored together in warehouses and laboratories, with each other due to earthquake and similar reasons and leaving stacks of self-igniting coal, sulphur, etc. without taking any precaution.

In administrative buildings, social facilities and assignment houses:

- Turning on kitchen ovens late after opening the gas or turning off of the oven due to overflown meal, milk, etc. that was cooked on the oven and turning on the oven again without ventilation;
- Keeping electrical devices, which were not designed to be left on socket, on sockets;
- Failure to put off the cigarette at appropriate places;
- Allowing children to play with combustible and flammable materials;
- Short circuits on electricity installation;
- Leaving ovens and chimneys too much oily and dirty or causing overheated oil to ignite;
- Storage of gasoline and other similar products in residences and offices within incompatible containers for any reason or using them for cleaning purposes;

8.2. Details of the Shore Facility's Capabilities and Capacity to Respond to Emergency

Equipment to be used in Tüpraş Izmir Refinery for responding to a possible oil spill and capacities of these equipment are given below.

Equipment name: Ro-Boom 1300 Model Inflatable Type Barrier
Equipment length: 1250 meters
Equipment specifications: Ro-Boom 1300 Type Barrier is composed of an external layer, made of Dupont neoprene, and two internal layers, one of which is composed of a material reinforced with polyester/polyamide and the other one is composed of a synthetic rubber that is resistant to oil and weather conditions. The barrier is kept as wound on a hydraulic spool, each of which is 250 meters long. Total barrier length is 1250 meters, which is kept as wound on 5 different spools in separate containers. 250 meters long barrier is composed of 5 sections. Each section is 50 meters long. There are 16 air chambers in each 50 meters. There are 80 air chambers in 250 meters. Air chamber's length is 3 meters. The volume of each air chamber is 250 liters and 1 meter of barrier filled with air weighs 9 kg. Tensile strength of ballast chain connected to the barrier is 110 kN and barrier's height is 1.30 m. Draft is 63 cm and freeboard is 45 cm. Tensile stress of barrier material is 250 N/mm and each section of 50 meters is connected to other section with ASTM-Z coupler. Rupture strength of couplers is 30 kN, filling pressure of air chambers is 0.15 bar, operating temperature of the barrier changes between - 40 centigrade degrees and 60 centigrade degrees. There is a power unit supported with a diesel engine to inflate and deflate the air chambers of the barrier and to rotate the hydraulic spool. Furthermore there are 5 portable blowers to inflate the barrier. The barrier is efficient up to 3 meters high waves and stays stable

on the sea surface up to 3 Knots of wave speed. 200 meters of barrier is laid on the sea in 12 minutes in average and pulling speed of barrier in the form of a flat line is maximum 10 Knots.

Equipment name: Ro-Boom 1000 Model Inflatable Type Barrier
Equipment length: 500 meters
Equipment specifications: Ro-Boom 1000 Type Inflated Barrier is composed of an external layer, made of Dupont neoprene, and two internal layers, one of which is composed of a material reinforced with polyester/polyamide and the other one is composed of a synthetic rubber that is resistant to oil and weather conditions. The barrier is kept as wound on a hydraulic spool, each of which is 250 meters long. Total barrier length is 500 meters, which is kept as wound on 2 different spools. 250 meters long barrier is composed of 5 sections. Each section is 50 meters long. There are 16 air chambers in each 50 meters. There are 80 air chambers in 250 meters. Air chamber's length is 3 meters. The volume of each air chamber is 230 liters and 1 meter of barrier filled with air weighs 7 kg. Tensile strength of ballast chain connected to the barrier is 90 kN and barrier's height is 1 meter. Draft is 43 cm and freeboard is 36 cm. Tensile stress of barrier material is 250 N/mm and each section of 50 meters is connected to other section with ASTM-Z coupler. Rupture strength of couplers is 30 kN, filling pressure of air chambers is 0.15 bar, operating temperature of the barrier changes between - 40 centigrade degrees and 60 centigrade degrees. There is a power unit supported with a diesel engine to inflate and deflate the air chambers of the barrier and to rotate the hydraulic spool. Furthermore there are 5 portable blowers to inflate the barrier. The barrier is efficient up to 2 meters high waves and stays stable on the sea surface up to 3 Knots of wave speed. 200 meters of barrier is laid on the sea in 9 minutes in average and pulling speed of barrier in the form of a flat line is maximum 10 Knots.

Equipment name: Fence Barrier
Equipment length: 1000 meters
Equipment specifications: Fence type barrier is made of PVC resistant to ultraviolet rays, its freeboard is 40 cm, its draft is 70 cm and it has ASTM-X couplers.

Equipment name: Fence Barrier Drum and Power Unit
Equipment length: 4 Drums x 250 meters
Equipment specifications: It is used to lay and pick up the fence barrier. It operates by a hydraulic system, which is pressurized with a diesel powered engine with 10 Horsepower.

Equipment name: Oil collector for Mild and Medium Viscosity Oil Spills
Equipment length: 1 piece
Equipment specifications: It is designed to collect the spills of mild and medium viscosity hydrocarbons. The oil collector has E159 Type helical geared pump to collect mild and medium viscosity oils. It also has two drums, on which there are channels.

The oil collector's weight is 45 kg. Its pump capacity is 32 m3/hour. The oil collector is operating by a hydraulic power unit with a capacity of 10 horsepowers, powered by a diesel engine. Oil collection productivity is 98%.

Equipment name: Oil collector for Heavy Viscosity Oil Spills
Equipment length: 1 piece
Equipment specifications: It is designed to collect the spills of heavy viscosity hydrocarbons. The oil collector has ES 400 Type helical geared pump to collect heavy viscosity oils. The pump's weight is 21 kg. Maximum pump output pressure is 5.6 bar. It also has two drums, on which there are channels. The oil collector's weight is 45 kg. Oil collection capacity is 32 m3/hour. The oil collector is operating by a hydraulic power unit with a capacity of 22 horsepowers, powered by a diesel engine. Oil collection productivity is 98%.

Equipment name: Sorbent barrier
Equipment length: 5000 meters
Equipment specifications: It is made of 3 meters long polypropylene material and there are 7 of them in each bag, 21 meters/bag.

Equipment name: Absorbing pad
Equipment length: 10000 pieces
Equipment specifications: It is made of polypropylene material in the size of 45 cm x 45 cm and one bag contains 200 pieces.

Equipment name: Inflatable marine boats
Equipment length: 2 pieces
Equipment specifications: It is used to fight with marine pollution. Each of these 3.6 meters long boats operates by outboard gasoline engine with 15 horsepower capacity.

Equipment name: Catamaran boat
Equipment length: 1 piece
Equipment specifications: It is used to fight with marine pollution. 6 meters long and 5 meters wide. The boat's body is fiber and it operates by outboard gasoline engines with 130 horsepower x 2 capacity.

Equipment name: Portable Tank (10 m3)
Equipment length: 2 pieces
Equipment specifications: It is a tank of 10 m3 capacity, in which collected oils are stored temporarily.

Equipment name: Floating Storage Tank (10 m3)
Equipment length: 3 pieces

Equipment specifications: A floating storage tank used to store the oils, collected by the oil collector, on the sea. Its capacity is 10 m3.

Equipment name: Waste Containers, plastic (240 lt)
Equipment length: 2 pieces
Equipment specifications: They are used for contaminated wastes while fighting with the pollution.

Equipment name: Plastic Bags (boxes)
Equipment length: 50 pieces
Equipment specifications: They are used to store the wastes temporarily.

Equipment name: Wheelbarrows
Equipment length: 2 pieces
Equipment specifications: They are used to carry the wastes while fighting with pollution.

Equipment name: Back carry air blower
Equipment length: 5 pieces
Equipment specifications: They are used to inflate air chambers of inflatable type barriers.

Equipment name: Pressurized Washers with Hot Water
Equipment length: 2 pieces
Equipment specifications: To use pressurized water for cleaning purposes in case of marine pollution.

Equipment name: Large Industrial Working Tent
Equipment length: 2 pieces
Equipment specifications: To use as staff tent at places close to incident area in case of marine pollution.

Equipment name: Plastic Table/Chairs
Equipment length: 1 piece/10 persons
Equipment specifications: They are used as working tables and chairs.

Equipment name: First Aid Kits
Equipment length: 4 sets
Equipment specifications: For first aid.

Equipment name: Portable Eyewash
Equipment length: 10 pieces

Equipment specifications: To use for emergency response in case of spillage of hydrocarbon to the eyes of staff.

Equipment name: Washtubs
Equipment length: 10 pieces
Equipment specifications: For temporary storage of contaminated water or similar materials in order to prevent them to contact with soil or ground.

Equipment name: Rags (stacks)
Equipment length: 5 pieces
Equipment specifications: They are used for cleaning purposes in fighting with pollution.

Equipment name: Tyvek Clothes (classified based on size)
Equipment length: 200 pieces
Equipment specifications: Protective clothes of staff in fighting with pollution.

Equipment name: Goggles
Equipment length: 200 pieces
Equipment specifications: They are used to protect eyes.

Equipment name: Work gloves
Equipment length: 400 pieces
Equipment specifications: They are used as personal protectors.

Equipment name: Chemical Gloves
Equipment length: 400 pieces
Equipment specifications: To protect the hands of staff from the effects of hydrocarbon while fighting with pollution.
Equipment name: Steel Toed Boots
Equipment length: 200 pieces
Equipment specifications: They are used as personal protectors.

Equipment name: Safety Helmet
Equipment length: 200 pieces
Equipment specifications: They are used as personal protectors.

Equipment name: Dust Masks, Paper, Boxes of 50
Equipment length: 20 pieces
Equipment specifications: They are used as personal protectors.

Equipment name: Earplugs, Boxes of 100
Equipment length: 10 pieces
Equipment specifications: They are used as personal protectors against noise.

Equipment name: Life Vests (classified based on size)
Equipment length: 100 pieces
Equipment specifications: They are used as personal protectors.

Equipment name: Folding Stretcher
Equipment length: 2 pieces
Equipment specifications: For first aid purposes

Equipment name: Fire Extinguishers
Equipment length: 10 pieces
Equipment specifications: To use for firefighting purposes

Equipment name: Reinforced Garbage Bags
Equipment length: 50 pieces
Equipment specifications: They are used to put wastes.

Equipment name: Generator with Lighting Mast, 20 kV
Equipment length: 2 pieces
Equipment specifications: Portable and it is used for lightning purposes and to provide necessary electricity (220 v and 380 v) to operate equipment.

Equipment name: Portable Toilets
Equipment length: 2 pieces
Equipment specifications: They are used for personal needs.

Equipment name: Long-range Binoculars
Equipment length: 1 piece
Equipment specifications: It is used to observe the condition of pollution from a long distance.

Equipment name: GPS Portable
Equipment length: 1 piece
Equipment specifications: It is used to determine the coordinates of pollution.

Equipment name: Radio (suitable for maritime communication) (fixed)
Equipment length: 1 piece
Equipment specifications: It is used for communication purposes.

Equipment name: Radio (suitable for maritime communication) (portable)
Equipment length: 4 pieces
Equipment specifications: It is used for communication purposes.

Equipment name: Flashlights/Batteries

Equipment length: 50 pieces
Equipment specifications: They are used for illumination purposes at dark.

Equipment name: Sledgehammers
Equipment length: 5 pieces
Equipment specifications: They are used for fighting with pollution.

Equipment name: Shovels
Equipment length: 50 pieces
Equipment specifications: They are used for fighting with pollution.

Equipment name: Rubber Banded Wipers with a Handle
Equipment length: 20 pieces
Equipment specifications: They are used for fighting with pollution.

Equipment name: Washing Brushes in Various Sizes
Equipment length: 20 pieces
Equipment specifications: They are used for fighting with pollution.

Equipment name: Tools to Shoo Birds and Wild Animals Away (Hand Horns)
Equipment length: 1 piece
Equipment specifications: To send the birds away from the polluted area.

Equipment name: T-Damla 5 Pontoon
Equipment length: 1 piece
Equipment specifications: It is used to open the barrier, to surround the pollution with the barrier, and to pick up the barrier. Width: 4.5 meters, Length: 12.8 meters, Water pulling: 1.5 meters, Freeboard: 20 cm., Speed: 10 knots.

Equipment name: İzmir Refinery Draft
Equipment length: 1 piece
Equipment specifications: It is used to open the barrier, to surround the pollution with the barrier, to pick up the barrier, and to transport oil collector and other equipment to pollution zone. Width: 4.2 meters, Length: 12 meters, Water pulling: 1.4 meters, Freeboard: 80 cm., Speed: 7 knots.

Equipment name: Necati Pehlivan
Equipment length: 1 piece
Equipment specifications: It is used to open the barrier, to surround the pollution with the barrier, and to pick up the barrier. Width: 3.3 meters, Length: 10.4 meters, Water pulling: 60 cm., Freeboard: 20 cm., Speed: 5 knots.

Equipment name: Moors-13
Equipment length: 1 piece

Equipment specifications: It is used to open the barrier, to surround the pollution with the barrier, and to pick up the barrier. Width: 3.1 meters, Length: 9.8 meters, Water pulling: 60 cm., Freeboard: 20 cm., Speed: 5 knots.

Equipment name: Tüpraş İzmir Refinery-1 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 9.1 meters, Length: 33.7 meters, Water pulling: 4.1 m., Freeboard: 41 cm., Speed: 12 knots.

Equipment name: Tüpraş İzmir Refinery-2 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 9.1 meters, Length: 33.7 meters, Water pulling: 4.1 m., Freeboard: 41 cm., Speed: 12 knots.

Equipment name: Tüpraş İzmir Refinery-3 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 9.3 meters, Length: 32 meters, Water pulling: 4.8 m., Freeboard: 63 cm., Speed: 12 knots.

Equipment name: Tüpraş İzmir Refinery-4 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 9.3 meters, Length: 32 meters, Water pulling: 4.8 m., Freeboard: 63 cm., Speed: 12 knots.

Equipment name: T-Damla -3 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 10.5 meters, Length: 32.7 meters, Water pulling: 4.8 m., Freeboard: 105 cm., Speed: 13 knots, Oil storage tank capacity: 46 m3.

Equipment name: T-Damla -4 Tow Boat
Equipment length: 1 piece
Equipment specifications: It is used as a tow boat. Width: 10.5 meters, Length: 32.7 meters, Water pulling: 4.8 m., Freeboard: 105 cm., Speed: 13 knots, Oil storage tank capacity: 46 m3.

8.3 Regulations on the First Response to be Made Against Accidents Involving Hazardous Substances (Procedures of First Response, First Aid Capabilities, etc.)

When TÇM Control Room receive a call for marine pollution, TÇM staff shall act in accordance with the below instructions.

Below instructions are followed for calls received during the business hours (between 08:00 - 17:00) on weekdays:

1. Following details are requested from the caller:
    a. Name, surname and position of the caller;
    b. Location of pollution;
    c. Details of fluid (product) that caused the pollution;
    d. Estimated quantity of spillage;
    e. Whether the incident is responded with absorbing pads and sorbent barriers or not.
2. Inform Environmental Control Chief Engineer by radio or call the phone no. 65505 and receive information about how to respond and whether additional teams should be called or not.
3. Call Environmental Technician by the radio channel and inform him.
4. Respond to the incident in accordance with the instructions and under the coordination of Environmental Control Chief Engineer or Environmental Technician.

Below instructions are followed for calls received on weekends, public holidays and weekdays after 17:00:

1. Following details are requested from the caller:
    a. Name, surname and position of the caller;
    b. Location of pollution;
    c. Details of fluid (product) that caused the pollution;
    d. Estimated quantity of spillage;
    e. Whether the incident is responded with absorbing pads and sorbent barriers or not.
2. Inform the Fire Supervisor on Duty by phone or radio channel.
3. Inform Environmental Control Chief Engineer by radio or call the phone no. 65505 and receive information about how to respond and whether additional teams should be called or not.
4. Call Environmental Technician by the radio channel and inform him.
5. Call the Contractor's staff according to the phone list available in TÇM Control Room and inform them about the situation.
6. Respond to the incident in accordance with the instructions and under the coordination of Environmental Control Chief Engineer or Environmental Technician or Fire Supervisor on Duty.
7. If the barrier must be opened, open the barriers according to "Barrier Opening Instructions" given below.

Instructions to Open the Fence Barrier

1. Call Pier Control Room **(5190)** and ask for 1 moor to the front of Barrier Building.
    ⚠ **If the pollution is off the shore, ask for 2 moors for both ends of the barrier!**

2. Go to barrier building under the coordination of Shift Supervisor.
   ⚠ **Outer door of Barrier Building is <u>not locked.</u>**
3. Untie the canvas covering the fence barrier and power supply.
4. Give the rope at the end of barrier and 1 radio (on EÇK channel) to moor's captain.
5. Direct the moor's captain by hand signals and radio (on EÇK channel).
6. Switch on the engine of fence barrier. If it doesn't operate, strongly pull the arm manually.
   (If the mechanism doesn't operate, rotate the drum counter clockwise simultaneously with hawser after giving the end of barrier to him.)
7. Push the drum's arm forward to open the barrier. Meanwhile direct the moor by the radio channel. (Direct the captain with commands, such as Fast - Slow, Right - Left, etc.)
8. After the entire barrier, wound on the drum, is opened, instruct the moor to stop.
9. Untie the barrier, connected to the drum.
10. If it is requested to tie the barrier to the second fence, tie the barrier's rope to the end of other barrier.
11. Direct the moor to pollution zone.
12. Wait for Environment Team to arrive.

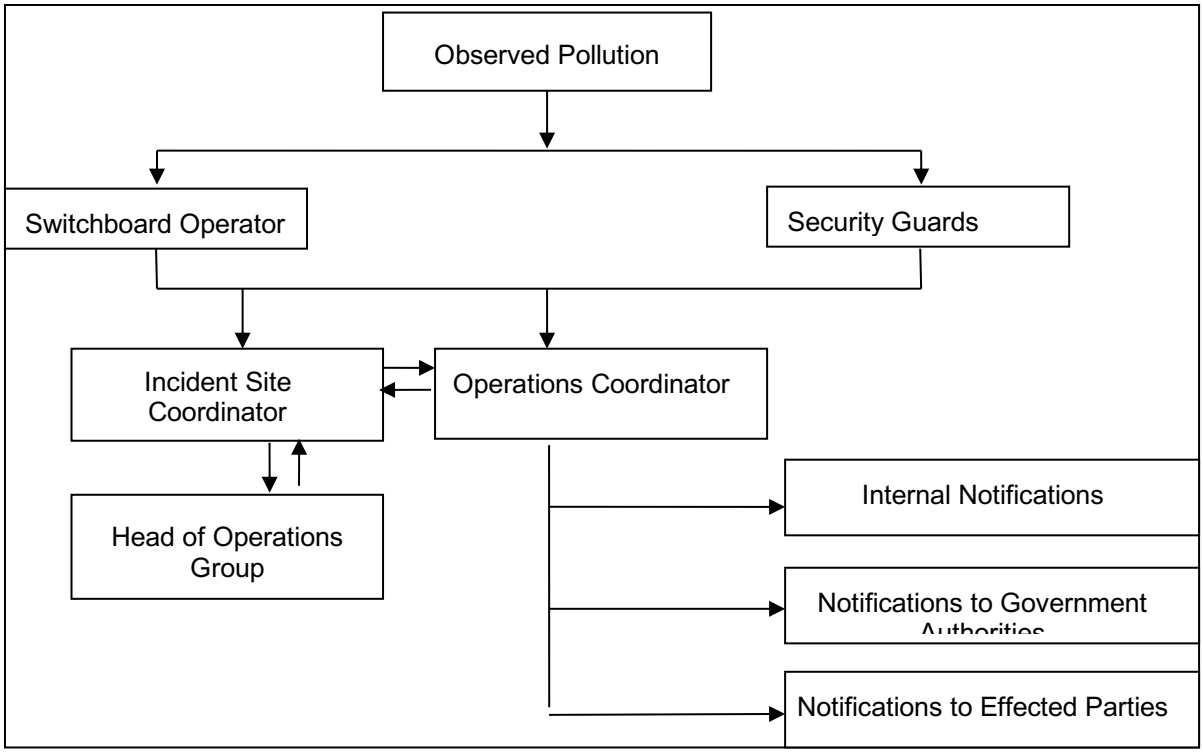
Furthermore, marine pollution exercises are performed twice in a year in accordance with the provisions of the Law no. 5312 on the methods and skills to respond to marine pollutions caused by hazardous substances (crude oil and its products).
These exercises show the methods to be applied for responding to marine pollution accidents.

8.4. Notifications to be Made Internally and Externally in case of Emergency

If an oil spillage occurs in Tüpraş Izmir Refinery, notifications will be made in three ways:

- Internal notifications
- Notifications to government authorities
- Notifications to neighboring facilities that might affected from the incident

The network of notifications to be made after the spillage is given below.



8.5. Procedure for Reporting the Accidents

The procedure to report any accident that occurs in our shore facility, in which hazardous substances are handled, is written below.

PURPOSE and SCOPE

The purpose of this standard is to determine the principles for classifying, investigating and reporting the incidents that occur at work sites of Tüpraş and work accidents that occur during the works performed by contractors on behalf of Tüpraş.

This standard covers the Head Office and all reporting refineries.

DEFINITIONS

Incident: An unplanned incident or chain of incidents that might end or has ended with an adverse effect on humans, assets, environment and reputation.

Incidents are classified as follows:

Work Accident

The work accident in relation with employees is the incident that occurs in any of the following situations and physically or mentally affects the insured person in an adverse manner immediately or later.

The accidents that occur under the following conditions are considered as “work accident”:

- While the staff is located within the workplace;
- During a work being performed on behalf of the employer;
- At the time while the staff was not performing his/her main job since he/she was sent by the employer to another place on duty;
- During the nursing of women employees;
- Transportation of the staff to the workplace by a vehicle provided by the employer.

Asset Accident Incident

The incidents, which directly damage or cause the loss of enterprise, equipment or materials. When an incident involving an asset’s damage occurs, Osar Reliability Works 5 Reasons Report will be completed. Detailed works on this incident will be performed by Chief Engineers of Operational Reliability.

Environmental Accident Incident Fire/Explosion Incident

These are unexpected incidents causing the legal limits to be exceeded, which have high potential to damage the ecosystem and natural resources and cause environmental effect out of the facility. Incidents with 3-5 severity in RDT will be considered as Environmental Accident. When an environmental accident occurs, Environmental Accident Incident Report will be completed.

Fire/Explosion Incident

Incidents that require utilization of a firefighting equipment or taking other fire extinguishing measures, such as turning off any fuel and electricity source. Fires, the flame of which cannot be seen, and all combustible or high pressure explosions are included to this group. When a fire/explosion incident occurs, Fire / Explosion Incident Report will be completed.

Ignition/Flashing Situations

Small sized fire and flashing incidents, which can be easily extinguished by the unit. When an ignition and flashing incident occurs, Ignition / Flashing Incident Report will be completed.

Leakage/Spillage Incident

These are the incidents of leakage, spillage and overflowing of substances, such as hydrocarbons, chemicals, etc, which occur in an uncontrolled or unscheduled manner, do not cause any environmental accident or can be partially or completely recovered. The leakage/spillage might be solid, fluid or

gas. Incidents with 0-2 severity according to RDT will be considered under this category.

When a Leakage/Spillage incident occurs, Leakage / Spillage Incident Report will be completed.

Unsafe Situation/Near Miss Incident

Near Miss Incident

Incidents that do not cause any sickness or injury or do not result with any asset damage or adverse effect on the environment or company's reputation. When a Near Miss Incident occurs, Near Miss Incident Report will be completed.

Unsafe Situations

These are the situation caused by conditions that impair the work safety at the workplaces and cause danger in the working environment and they usually arise out of environment, machines, materials and actions of employees that endanger the work safety. In case of unsafe situations, Unsafe Situation Report will be completed.

Minor Response Incident

Incidents that are responded by the company's physicians and do not cause any lost time. When a Minor Response Incident occurs, Minor Response Incident Report will be completed.

First Aid Situations

It covers minor healthcare issues, such as simple treatments and scratches, cuts, burns and prick of chips, which do not require medical treatment by a physician. Such type of treatments and observations are considered as first aid situation even if they are performed by certified staff or physician.

Medical Treatment Situations

Work related incidents that do not involve any loss of a complete or partial work day but require treatment by a physician or medical expert.

Limited Service Situation

Any work related incident which temporarily prevents the injured person to perform his/her regular job and causes him/her to perform only a part of his/her job on the incident day or on the following days.

IMPLEMENTATION

Reporting the Incidents

When an incident occurs:

- Actual RDT is made and Incident Report is completed by the relevant chief operator / foreman / chief technician / chief officer of the shift, in which the incident occurred.
- Detailed Incident Report is completed by relevant Chief / Supervisor by preparing actual and potential RDT.
- Attached forms in relation with identified Incident Type are completed.

If a work accident occurs as a result of the incident, following process will be applied.

First Responder Application, Work Accident Medical Report

- The staff that had an accident will immediately go/be sent to Workplace Doctor for first response. If necessary, an ambulance will be requested from Workplace Healthcare Unit.
- Upper section of Work Accident Medical Report will be completed by supervisor (Shift Supervisor in the first and third shifts) of the staff that had the accident and it will be submitted to Workplace Doctor.
- Doctor will complete relevant section of Work Accident Medical Report after the first response. Completed Work Accident Medical Report will be distributed by Workplace Doctor's Office. The original copy of this report will be submitted to Human Resources Department (IKM), 1 (one) copy will be submitted to the department of the staff, who had the accident, 1 (one) copy will be submitted to TEM/TÇM, 1 (one) copy will be submitted to Workplace's Labor Union Representative and 1 (one) copy will be kept by Workplace Doctor's Office.
- If the staff that had the accident will be dispatched to a hospital, Workplace Doctor's Office will complete Hospital Dispatch Form, accompanied with a photocopy of Work Accident Medical Report and Medical Examination Form to be prepared by IKM and these documents will be submitted to the hospital together with the patient.
- After the staff that had the accident had his/her first medical treatment and/or dispatched to a hospital, his/her supervisor completes Detailed Incident Report and Work Accident Report. These reports will be distributed by relevant supervisor.

  Original copies of these reports will be submitted to IKM and one copy of each report will be sent to the staff's department, Workplace Doctor's

Office and TEM/TÇM and IKM will also submit one copy to the Head Office.

- IKM will submit the documents, required to fulfill legal liabilities, to Social Security Institution's Provincial Directorate of Insurance within one day and to Regional Directorate of Labor within two days.

  If the incident is major (loss of organ, serious injury, death, etc.), Tüpraş Security Department / Refinery Security Department, IKM, Chief Legal Advisor / Legal Advisor and Financial Affairs Department will be informed immediately by authorized representative of the relevant department and, if any, their opinions will be received.

  Tüpraş Security Department / Refinery Security Department will inform the authorized Security officials within the region about the incident.

  The staff that had an accident will be dispatched to a State Hospital or any public or private healthcare institution, which is specialized in a certain medical treatment, upon a proposal of the Workplace Chief Doctor by informing the General Manager, Assistant General Manager or Refinery Manager. If the accident occurs on weekend and if it is required to take a decision urgently, the Manager on Duty may also exercise his authority. The support group to be formed by Workplace Doctor's Office and Human Resources Department will follow up all procedures until the patient is recovered, depending on severity and size of the accident. Furthermore, the possibilities of compensation of medical treatment costs, requested by the healthcare institution, to which the patient was hospitalized, by Social Security Institution are investigated by Refinery Directorates and necessary attempts are made. Any part of medical treatment costs not compensated by Social Security Institution is paid by Tüpraş.

  In case of a burn, Procedure for Emergency Actions for Burns (ANNEX-18) is applied.

  The money needed for emergency response is paid by Head Office or Refinery Directorate as advanced payment. In case of emergency, the patient can be dispatched by "Air Ambulance" upon obtaining the approval of Management.

MISCELLANEOUS

Other Provisions

- If any staff, who had a Work Accident that not Caused Loss of Day, takes sick leave from Workplace Doctor or State Hospital due to such work accident after he/she comes to work on the next day, this situation will be considered as Work Accident that Caused Loss of Day and necessary procedures will be applied accordingly.

- Work accidents of contractors are also reported according to this standard as of 01.01.2008. Reporting procedures are performed by authorized representative of the contractor together with relevant unit of Tüpraş. Legal liabilities are fulfilled by the contractor.

- Incidents will be classified, investigated, and reported by
  - The unit that issued work permit for works that were performed under a work permit;
  - The unit that granted the tender for works that were performed after allocating a certain area.

  Relevant departments will receive necessary support from Incident Coordinator (OK) and General Incident Coordinator (GOK), which were formed within TEM/TÇM, for these issues.
- The reports will be prepared by completing attached forms until computer software is commissioned.

8.6. Method of Coordination, Support and Collaboration with Official Authorities

If necessary, the official authorities, contact details of which are given in ANNEX-3, are informed about the emergency.

8.7. Emergency Evacuation Plan for Removing Ships and Marine Vehicles from the Shore Facility in case of Emergency

Evacuation Plan:

- If it is not activated automatically, emergency alert system is manually activated.
- The emergency (fire, explosion, overflowing, etc.) is explained by radio or phone (8888) to Technical Safety and Environment Department. Security Department

- If they are still continuing, loading/unloading operations are stopped immediately in coordination with Petroleum Movements Unit. (5182-5183)
- If needed, Fixed fire extinguishing systems of the pier are activated.
- Relevant first response teams move to the incident site.

    - Fire : Technical Safety and Environment Department's staff
    - Marine Pollution : Technical Safety and Environment Department team
    - First aid and rescue : First aid staff and Security Department's search & rescue staff
- Port Office is notified about the emergency.

  (232) 616 19 93 / 616 19 99
- If necessary, harbour pilot is called (5194-5195) and tow boats are sent to the incident site for fighting with the fire from the sea.
- If necessary, operations for fighting with marine pollution begin in accordance with the shore facility's response plan.

- Loading arms or hoses are removed and preparations are made for departing of the ship from the pier in case of necessity.
- The incident must be responded while the ship is berthed but if it is found that the ship must depart, departure maneuvers are initiated in coordination with the Port Office. In very urgent cases, information can be provided later.
- If the ship cannot move on its own, it is pulled by tow boats to a safe zone out of the port's borders, which is determined in coordination with Port Office, by using steel safety lines.
- Actions to respond to the incident continue in coordination with Port Office.

8.8 Procedures for Handling and Disposal of Damaged Hazardous Loads and Wastes Infected with Hazardous Loads

Methods for handling and disposal of hazardous wastes are given in the following Table, based on waste types.

TYPE	NATURE	SOURCE	EVALUATION					
			DISPOSAL	RECYCLING	REUSE	TEMPORARY STORAGE SITE	WASTE SITE	LAST DISPATCHED TO
Dispersant	liquid	Substances used for spills	×			Hazardous Waste Site	Waste Chemicals Section	Disposal Facility
Mineral oils and oily substances	liquid	Units, ships, tools, equipment	×	×	×	Hazardous Waste Site	Waste Oils Section	Disposal Facility, Recycling Facility
Oil/water, hydrocarbon/water mixtures, emulsions	liquid	Units, ships, tools, equipment	×	×	×	Hazardous Waste Site	Waste Oils Section	Disposal Facility, Recycling Facility, Industrial Refining
I. Category Waste Oils	liquid	Units, ships, tools, equipment		×	×	Hazardous Waste Site	Waste Oils Section	Disposal Facility, Recycling Facility
II. Category Waste Oils	liquid	Units, ships, tools, equipment			×	Hazardous Waste Site	Waste Oils Section	Disposal Facility
III. Category Waste Oils	liquid	Units, ships, tools, equipment	×			Hazardous Waste Site	Waste Oils Section	Disposal Facility

TYPE	NATURE	SOURCE	EVALUATION					
			DISPOSAL	RECYCLING	REUSE	TEMPORARY STORAGE SITE	WASTE SITE	LAST DISPATCHED TO
Waste chemicals	liquid, solid	Units, ships, tools, equipment	x			Hazardous Waste Site	Waste Chemicals Section	Disposal Facility
Bituminous substances	liquid, solid	Refining, distillation and any pyrolytic operation	x			Hazardous Waste Site	Waste Chemicals Section	Disposal Facility
Oil leakages and spillages	liquid	Oil accumulations and spills out of oily water channel system		x		Oily Water Tanks	–	Industrial Refining
Petroleum derivatives oily water	liquid	Oily waters discharged from units and ships		x		Oily Water Tanks	–	Industrial Refining
Soil, sand and clay including combings	waste	Oily soil and sand bags collected during the cleaning of product spillages or channels	x			Hazardous Waste Site	Waste Oily Sludge Section	Disposal Facility
Wastes from the cleaning of tanks and/or equipment	liquid, solid	Cleaning of equipment, which are used for emergency response and which can be reused	x			Hazardous Waste Site, Oily Water Tanks	-	Disposal Facility, Industrial Refining

TYPE	NATURE	SOURCE	EVALUATION					
			DISPOSAL	RECYCLING	REUSE	TEMPORARY STORAGE SITE	WASTE SITE	LAST DISPATCHED TO
Contaminated equipment*	solid	Equipment used during emergency response	×		×	Hazardous Waste Site	Contaminated Waste Section	Disposal Facility
Contaminated containers*	solid	Containers used during emergency response	×		×	Hazardous Waste Site	Contaminated Waste Section	Disposal Facility
Packaging materials, cleaning rags, filter materials	solid	Rags covered with chemicals and oil, used for cleaning	×			Hazardous Waste Site	Contaminated Waste Section	Disposal Facility
Absorbents*	solid	Absorbing substances used for spills	×		×	Hazardous Waste Site	Contaminated Waste Section	Disposal Facility, Recycling
Protective cloth wastes*	solid	Dirty or worn work clothes, overalls, etc. that cannot be used again	×		×	Hazardous Waste Site	Contaminated Waste Section	Disposal Facility, Recycling

8.9. Emergency Exercises and Their Records

SCENARIO OF A SAMPLE EXERCISE:

A Marine Pollution Exercise will be performed at TÜPRAŞ Izmir Refinery and all staff that will assume a duty in the exercise will communicate through the central channel. The exercise will be performed in accordance with the provisions and requirements of TUPRAŞ CRISIS CENTER AND EMERGENCY MANAGEMENT STANDARD TPR.TGM.STD.0023, TUPRAŞ EXERCISE STANDARD TPR.EÇM.STD.037, and TUPRAS IZMIR REFINERY SHORE FACILITY EMERGENCY RESPONSE PLAN UNDER THE LAW NO. 5312.
Some products are spilled on the sea as a result of failure of filling valve of the tanker, which loads fuel oil at the old pier (no. 4).
The pollution begins to spread through the sea with the current and wind.

Marine Filling Field Operator calls Marine Operations Officer by radio through the central channel and informs about the marine pollution. Then Marine Operations Officer informs Operations Coordinator.
Operations Coordinator requests from Operations Group Manager to take action for fighting against marine pollution. Operations Coordinator instructs Operations Group Manager to open a barrier and start to fight with marine pollution.
Operations Group Manager calls Environmental Technician and Emergency Response Ship to start responding to the incident in two teams. He requests Emergency Response Ship to lay the barrier for 200 meters on the north of cargo pier, located in the old pier zone, in order to prevent the pollution to spread further and requests the second team to surround the southern end of old pier and stern of the ship with a barrier of 250 meters.
Operations Group Manager requests from Marine Operations Officer to send hawsers to the south of old pier in order to be used for opening the barriers.
A Crisis Center is opened and Crisis Center officers meet at the center.
Crisis Center informs the Head Office and other Tüpraş Refineries to open their Crisis Centers.
Operations Group Manager calls Environmental Technician and asks him to examine the pollution zone with an inflatable boat.
The Crisis Center informs Provincial Directorate of Environment and Urban Planning, Coast Guard and Port Office that a black product is spilled on the sea at the new refinery pier.
Operations Group Manager informs Operations Coordinator that approximately 05 m3 black colored product has spilled on the sea and provides information about the current condition of pollution.
The Environmental Technician reports that catamaran ship is at Marine Pollution Emergency Response Center and it has started to pull the barrier from there.
Refinery physician moves to the old pier with the ambulance to determine persons that might be affected and to make first response.
Operations Group Manager informs that Emergency Response Ship and hawsers have arrived to the old pier.
General Manager, KIM and Assistant General Managers are informed by Crisis Center about the incident. (It is noted that this is an exercise)
Security Officer/Protection and Security Supervisor moves to the incident site in order to keep the staff, who are not involved to the emergency response, away from the incident site and to prevent them entering the facilities. He also provides necessary information to Gate Security Guard during this process.
He ensures that Crisis Center prepares Annex-1 Participating Staff Form, Annex-2 Emergency Order Schedule, Annex-3 Emergency Result Report, Annex-4 Emergency Management Control Form, and Annex-5 Corporate Communication Information Form for Emergency Management, which are included to TPR.TGM.STD.0023 CRISIS CENTER AND EMERGENCY MANAGEMENT STANDARD and submits them to Head Office and KIM and prepares all reports required by the standard. Additionally, information is received from the person that saw the pollution and Work Log Form

(Annex-1) is completed. Crisis Center completes Pollution Call Receipt Form (Annex-2) and informs the Ministry of Transportation, Maritime and Communication and the Ministry of Environment and Urbanization that there is a black colored product spillage at the old pier.
Environmental Technician informs Operation Group Manager about expansion of pollution.
Emergency Response Ship informs Operation Group Manager that one end of fence barrier on the Emergency Response Ship is given to the hawser and pollution is started to be surrounded.
Traffic staff of Projects and Investments Department controls all entry and exit ways to/from the refinery field and regulates traffic flow.
Experts/engineers/chiefs from Production Planning and Sales Departments ensure communication and they are responsible for communication of instructions and information to be given by their supervisors at the incident site.
Operations Group Manager reports that 250 meters long fence type barrier is completely opened and one end of the barrier is tied to the pier whereas the other end is tied to the hawser.
Operations Group Manager requests from Emergency Response Ship to collect the pollution with oil collector.
Environmental Technician reports to Operations Group Manager that 100 meters of the second barrier is opened
Aliağa Port Manager, officers of port office, authorized representatives of Provincial Directorate of Environment and Urbanization and neighboring facilities, who enter the refinery, are directed to Meeting Hall of the Refinery.

The information gathered by the Crisis Center (size of spread, environmental risks, etc.) are communicated to Izmir Governor's Office, AAKKM (Main Search, Rescue and Coordination Center) and Aliağa Port Office and it is agreed that the incident is a Level 1 Petroleum Pollution. Port Office informs the shore facilities within the administrative borders of the port and instructs them to be ready for barrier and skimmer operations to be performed (Annex.4 Detection Report for Spread of Petroleum on the Sea) (Annex.5 Relevant Organizations to be Informed and Their Contact Details).
Operations Group Manager informs Operations Coordinator that oil collector is activated by the emergency response ship and it is started to collect the pollution.
Work Safety Department performs necessary gas measurements and controls the incident site for other hazards.
Workers' Health and Safety Officer checks whether there is sufficient amount of response and work safety equipment (Gloves, Boots, Tyvek Suits, Dust Mask, Goggles) or not.
Transportation Officer makes necessary arrangements for transportation ways and vehicles needed during the response.
Aliağa Express Newspaper calls Izmir Refinery's Crisis Center and urgently requests information. This will be simulated by a staff from HR Department.

Administrative Affairs Officer from Planning and Sales Department keeps a record of calls received from media and other stakeholders (Media/Stakeholder Phone Record Form (Annex 4)) and ensures that these calls are responded by contacting with Tüpraş Corporate Communication Department and provides necessary information for First Disclosure to Media Document to be prepared by Corporate Communication Manager.
Work Safety Technician prepares Field Safety Control Form in accordance with the Law no. 5312, makes necessary warnings to minimize the damage that might be suffered by employees when responding to the incident and completes Staff Safety Data Form.
Environmental Technician reports to Operations Group Manager that totally 5 m3 black product has been collected.
Operations Group Manager requests from Environmental Technician to take samples from the polluted area and clean sea water.

If any compensation is claimed by persons and organizations that have been affected from the pollution, Legal Advisor follows up these claims together with appropriate advisors in accordance with applicable national and international legislations.
Legal and Financial Affairs departments establish a damage compensation commission for the pollution caused by the ship.
Dining Officer ensures that food and beverage needs of the staff and other relevant persons have been met during the response.
Environmental Technician reports to Operations Group Manager that the second barrier of 250 meters long is completely opened.
Environmental Technician reports to Operations Group Manager that the operation to surround with the second barrier is completed.
Operations Group Manager informs that totally 9 m3 black product has been collected.
Operations Group Manager requests to to collect remaining products, which couldn't be collected with oil collector, by using sorbent pads with an inflatable boat.
If there are any living creatures, such as birds, fish, etc., affected from the pollution, Environmental Technician provides information about them.
Pollution, remained from oil collector, is cleaned by sorbent pads by using an inflatable boat.
Environmental Technician informs Operations Group Manager that the pollution is collected by absorbing pads.
Samples are taken from the sea together with authorized officials and these samples are shown to the authorized representative of Provincial Directorate of Environment and Urbanization and they are stored under special conditions in the laboratory before they are sent to TÜBİTAK Gebze for analysis purposes.
Environmental Technician informs that arrangements for collection, transportation, temporary storage and disposal of wastes, which occurred as a result of marine and shore operations, have been started in accordance with applicable domestic legislations. Approximately 15 m3 black product and 500 kg. contaminated waste (sorbent booms and pads contaminated with hydrocarbon) have been collected from the sea. These wastes are transferred to temporary hazardous waste storage site.

The commission, established by Financial Affairs and Legal departments prepare damage compensation form for the pollution caused by the ship.

Operations Group Manager informs Operations Coordinator that marine pollution works have been completed and the sea is recovered back to its clean state.
Operations Coordinator inspects the incident sites on the sea and the shore and agrees that the marine environment has been cleaned and recovered and then the latest situation is evaluated at the Crisis Center. The situation is presented to the opinions of Port Manager and authorized representatives of Provincial Directorate of Environment and Urbanization. The operation is ended upon obtaining the approval of Refinery Manager.
The final press release, stating that the response and cleaning operations have been completed, and General Spread Response Report are prepared by Corporate Communication Department in order to be announced to the public, relevant organizations and media.
The exercise is completed, the equipments are cleaned and dispatched to their storage sites. Equipment Logs are completed.
All staff, who had a role in the exercise, meet at the Refinery's Conference Hall at 11:15 in order to evaluate the exercise.

8.10. Details of Fire Protection Systems

Firefighting Systems of Piers

Fire System

All firefighting systems, installed at the unit sites to respond to any fire that might outbreak at the piers, are fully functional and they are checked every month.

Fire Water and Hydrant System
There is a fire water line from a single point to the new pier unit. This fire water line feeds 19 fire water collectors, located at various places within the unit. There are water cannons on these collectors to respond the fire. Furthermore, the fire water line is connected to the sprinkler system within the unit.
There is a fire water line from 2 points to the old pier unit. This fire water line feeds 7 fire water hydrants, located at various places within the unit. There are water cannons on these collectors to respond the fire. Furthermore, the fire water line is connected to the sprinkler system within the unit.
There is a fire water line from 2 points to the cargo pier unit. This fire water line feeds 11 fire water hydrants, located at various places within the unit. Furthermore, the fire water line is connected to the sprinkler system within the unit.

Fire Extinguisher

There are 10 fire extinguishers with dry chemical powder and 3 fire extinguishers with CO2 to respond to any fire that might outbreak at the new pier. The fire extinguishers with dry chemical powder have chemical powders as well as nitrogen gas to spray the powder and the fire extinguishers with CO2 have carbondioxide and nitrogen.
There are 16 fire extinguishers with dry chemical powder and 5 fire extinguishers with CO2 to respond to any fire that might outbreak at the old pier. The fire extinguishers with dry chemical powder have chemical powders as well as nitrogen gas to spray the powder and the fire extinguishers with CO2 have carbondioxide and nitrogen.
There are 6 fire extinguishers with dry chemical powder and 4 fire extinguishers with CO2 to respond to any fire that might outbreak at the unit. The fire extinguishers with dry chemical powder have chemical powders as well as nitrogen gas to spray the powder and the fire extinguishers with CO2 have carbondioxide and nitrogen.

Fire Water Reels
There is 1 1” fire water reel in the new pier to respond to the fire at the beginning.
There are 2 1” fire water reels at various locations in the old pier to respond to the fire at the beginning.
There are 2 1” fire water reels at various locations in the cargo pier to respond to the fire at the beginning.

Emergency Shower
There is 1 eye and body shower for the staff to wash their bodies and eyes in case they are exposed to chemicals while working at the new pier.
There are 2 eye and body showers for the staff to wash their bodies and eyes in case they are exposed to chemicals while working at the old pier.
There is 1 eye and body shower for the staff to wash their bodies and eyes in case they are exposed to chemicals while working at the cargo pier.

New Pier High Monitor
There are 4 high monitors at the new pier. 2 of them are water driven and the remaining 2 are electrical. These monitors are used to extinguish fires that might outbreak at the new pier or incoming ships by using water and foam and they are activated from remote control center.

Old Pier High Monitor
There are 5 high monitors at the old pier. 2 of them are water driven and the remaining 3 are electrical. These monitors are used to extinguish fires that might outbreak at the old pier or incoming ships by using water and foam and they are activated from remote control center.

Cargo Pier High Monitor
There are 2 high monitors at the cargo pier. These monitors assist in responding to fires that might outbreak at the cargo pier or incoming ships by spraying water and foam.

New Pier Foam Pumps
There are 2 foam pumps at the new pier, 1 of which is electrical and the other one is water driven. These pumps are used to respond by injecting foam to the system in case of emergency.

Old Pier Foam Pumps
There are 2 foam pumps at the old pier, 1 of which is electrical and the other one is water driven. These pumps are used to respond by injecting foam to the system in case of emergency.

Cargo Pier Foam Pumps
There are 2 foam pumps at the cargo pier, 1 of which is electrical and the other one is diesel. These pumps are used to respond by injecting foam to the system in case of emergency.

New Pier Sprinkler Systems
There are sprinkler systems at high monitor platforms and gateways at the new pier. The system is activated from the command center.

Old Pier Sprinkler Systems
There is a sprinkler line at 2059 meter stations of the old pier. There is an overflow cabinet, which is activated in 3 ways.
1) The system is automatically activated when flare eyes are detected 2) It is manually activated with switch buttons available in front of the meter station and within foam pump room. 3) The system is also activated by opening the drain area within overflow cabinet.
There are sprinkler systems at high monitor platforms and gateways at the old pier. The system is activated from the command center.

Cargo Pier Sprinkler Systems
There is a sprinkler line at the pumps within cargo pier. It is activated manually through the valves in order to respond to fires.

Mobile Reel for Piers
There is 1 mobile reel for emergency at the new pier. It is designed to be used for first response. It has 3 pieces of 2.5” hose, 2 pieces of 1.5” hose, 1 piece of waygate and 2 pieces of 1.5” nozzle.
There are 3 mobile reels for emergency at the old pier. It is designed to be used for first response. It has 3 pieces of 2.5” hose, 2 pieces of 1.5” hose, 1 piece of waygate and 2 pieces of 1.5” nozzle.
There is 1 mobile reel for emergency at the cargo pier. It is designed to be used for first response. It has 3 pieces of 2.5” hose, 2 pieces of 1.5” hose, 1 piece of waygate and 2 pieces of 1.5” nozzle.

Safety cabinet for piers

There is 1 safety cabinet at the new pier. It contains 2 mask with fresh air cannister and 6 fire extinguishers with dry chemical powder in order to be used for emergency response.

There are 3 safety cabinets at the old pier. It contains 4 mask with fresh air cannister and 4 fire extinguishers with dry chemical powder in order to be used for emergency response.

There is 1 safety cabinet at the cargo pier. It contains 1 mask with fresh air cannister and 6 fire extinguishers with dry chemical powder in order to be used for emergency response.

Fire Water Pumps

The new pier has 2 fire water pumps, one of which is electrical and the other one is diesel, to pull 550 m3 water from the sea. They are used to feed the system in case of emergency.

Gas Detection and Alert System for Piers

The new pier has 2 gas detectors to detect any possible gas leak and to warn with light and sound. These detectors do also send signal to the board for the gas leak on the site.

The old pier has 1 gas detector to detect any possible gas leak and to warn with light and sound. This detector does also send signal to the board for the gas leak on the site.

The cargo pier has 1 gas detector to detect any possible gas leak and to warn with light and sound. This detector does also send signal to the board for the gas leak on the site.

FM-200 Fire Extinguishing System

The new pier has one FM-200 system, which is automatically activated by the detectors. It can also be activated manually by pressing the button on the gate. It flashes in front of the gate and generates an audible alert. It can be displayed through TÇM Board MM-8000 program.

There are 2 FM-200 systems at the old pier, one of which is located at transformer and the other one is located within 2059 meter station control building. The system is automatically activated by the detectors. It can also be activated manually by pressing the button on the gate. It flashes in front of the gate and generates an audible alert. It can be displayed through TÇM Board MM-8000 program.

The cargo pier has 2 FM-200 systems located at transformer. The system is automatically activated by the detectors available within the transformer. It generates light and audible alert around the unit. It can be displayed through TÇM Board MM-8000 program.

Surveillance System

The new pier has 1 camera, monitored from the Board, in order to monitor the loading process.

The old pier has 1 camera, monitored from the Board, in order to monitor the loading process.

The cargo pier has 1 camera, monitored from the Board, in order to monitor the pumps.

Warning and Caution Signboards

There are warning and caution signboards at risky locations of the unit.

8.11 Procedures for Approving, Inspecting, Testing, Maintenance and Availability of Fire Protection System

Firefighting Cloth

They must be made of high temperature and water resistant materials in order to protect Firefighting Staff from radiant heat. Staff must not approach directly to the flame with this cloth without water mist.

Firefighting Hard Hat and Face Guard

They must be made of materials that will protect the had of Firefighting Staff from flame, heat and impacts. Face guard should be fixed on the hat and it must be made of a material that can provide a clear view and is not affected from heat (thermoplastic, etc.).

Firefighting Gloves

It must have long stockings and be made of heat and water resistant materials.

Firefighting Boot

It must have long stockings and be made of heat and water resistant materials.

Fire Protection Water Pumps and Lines

Periodical Control of Fire Protection Water and Foam Pumps

All pumps shall be operated at least once in a day by the units that are responsible for operation of these pumps and they shall be operated and controlled also by the staff of relevant unit, Technical Safety and Environment Department (TÇM) and Maintenance Department at least once in a week. Diesel pumps shall be controlled

once in a week. The unit, which is responsible for operation of the diesel pump, shall complete an Urgent Maintenance Request Form for the failures that were found.

These pumps shall be operated and controlled by authorized representatives of TÇM and/or Human Resources Department (İKM) in every fifteen days and TÇM and/or İKM shall complete an Urgent Maintenance Request Form for the failures that were found.

Annual Performance Control of Fire Protection Water Pumps

All fire protection water pumps are controlled by relevant units in terms of their capacities. Performance test report, prepared by relevant units, shall be submitted to TÇM.

Control of Fire Protection Water Circuit

TÇM controls the lines, hydrants, fixed water / foam monitors and valves of fire protection water circuit once in a month in order to determine whether they are functioning or not.

Some amount of water is discharged once in a year by opening sufficient number of hydrants or flush valves in order to clean fire protection water circuit. Furthermore, circuit breaker valves are closed and then opened in order to be lubricated once in a year.

Anode test is made by Technical Control Chief Engineer (TKB) once in a year at cathodic protected fire protection water lines in order to control whether they are functioning or not.

Check valve and bypass on the fire protection water line, routing to platform pier, are controlled every month by TÇM staff and it is checked whether water is flowing smoothly through the check valve and bypass or not (İzmit Refinery).

Protecting the Lines from Frost Hazard

Necessary measures are taken to protect fire protection water lines, hydrants / collectors and 1” pulley hoses from frost hazard in cold weather by the unit staff for those equipment within the unit and by TÇM staff for those equipment available on the main line. Block valves of collectors, hydrants and 1” pulley hoses are closed and their drain valves are opened to flush water. If there is not any block valve, drain valves are opened a little to move the water. If these hydrants and hoses are used again, staff of the relevant unit is responsible for taking these measures again for the equipment within unit whereas TÇM is responsible for equipment located out of units.

Sprinklers and Their Maintenance

TÇM is responsible to control Sprinklers and fire extinguishing equipment equipped thereon in every shift, to determine whether they are functioning or not, and to make necessary maintenance works.

Controlling Firefighting Equipment and Systems

All mobile hose pulleys, mobile water / foam monitors, mist nozzles, and firefighting equipment located in TÇM are controlled once in a month by TÇM's staff in order to determine whether they are functioning or not. Furthermore, the power generator for lighting and fresh air compressors within TÇM are also controlled once in a week and they are recorded to weekly checklist. TÇM is responsible to maintain and keep these equipment fully functional.

Controlling the Fire Hoses

All new fire hoses are tested by TÇM's staff under 22 kg/cm² pressure before they are put into service.

Furthermore, all other hoses available in TÇM's material warehouse, sprinklers and hose cabinets are also tested by TÇM's staff under 22 kg/cm² pressure once in a year.

Recording the Tests

Testing pressure, testing date and name of the staff that made the test are written on the label that is affixed to the hose and bound to a place close to female coupling. These values are also recorded to test form.

Used Hoses

After hoses are used, they are washed, dried and tested by TÇM's staff on shift before they are put into service again.

Controlling the First Respond Materials

1" hose pulleys and water / foam monitors are controlled by unit's staff in each shift to determine whether they are functioning or not. An Urgent Maintenance Work Request is prepared for the failures to be corrected and these failures are notified to TÇM by the unit chief or chief operator.

Also 1" hose pulleys and water / foam monitors are controlled by TÇM's staff on shift in every month and results of these inspections are recorded to monthly control report and card.

Controlling the Hose Pulleys and Other Firefighting Equipment When Unit Stops

Hose pulleys and other firefighting equipment in the units are controlled separately by the Production Group Department and TÇM's staff before each unit stoppage and commissioning in order to ensure that they are fully functional.

Controlling Portable and Fixed Fire Extinguishing Devices

Portable fire extinguishing and safety equipment (portable fire extinguisher, monitor, detection and automatic extinguishing systems) in the units are controlled by the unit's staff in every shift and results of these controls are recorded to shift book. Devices that need maintenance or refilling are notified to TÇM. TÇM's staff controls all firefighting equipment once in a month and affixes/binds a signed label, indicating the date of control and condition of the material on the equipment and records the results to the equipment card.

Fire Protection Water Sprinklers and Fixed Foam Systems

Sprinkler systems of LPG and Land Filling Sites are controlled by TÇM and Operations Department staff once in a week and sprinkler systems of unit pumps are controlled when the unit is being maintained.

Tank sprinkler systems are controlled by TÇM and Operations Department staff in every 3 (three) months.

Relevant unit completes a Maintenance Work Request for the failures that were found.

Tank foam systems are tested by relevant unit's staff and TÇM's staff by producing foam once in a year. As a part of this control, diaphragms of foam rooms within tanks with fixed ceiling are also controlled by TÇM once in a year and relevant unit completes a Maintenance Work Request for the failures that were found.

Fire Protection and Firefighting Materials at Piers

Marine filling staff ensures that hose pulleys, hydrants, automatic and manual operating water and foam monitors available at piers do always function fully.

Water and foam pumps are activated once in a month by Marine Filling Department and TÇM's staff on shift in order to test these water and foam pumps. If there is any failure, Marine Filling Department prepares a Maintenance Work Request. Foam lines are cleaned after the test by being flushed with water.

DİTAŞ ensures that fire protection water and foam systems of towboats are always fully functional. Records of these controls are kept and a copy of them is submitted to TÇM in every 3 months.

Map of Firefighting Systems

Original copy of large sized fire map, which shows the locations of main firefighting equipment as well as the hydrants, valves, etc. of the systems, shall be kept at TÇM. This map is reviewed everyday and open and closed valves of disabled lines are marked on the map.

Controlling Safety Material Cabinets and Safety Showers

Safety cabinets (mask with air cylinder, safety googles, ear plugs, face guards, fire blanket, acid gloves, etc.) located in units and workshops and safety showers are controlled by the unit staff everyday and results of these controls are written to the shift book. Any fault and deficiency that can be found in these materials and equipment are promptly notified to TÇM. These materials and equipment are controlled by TÇM once in a month.

Records of Protective Fire Equipment

Any modification made on protecting equipment, such as hydrants, valves, hoses, fire extinguishing devices, first respond hose pulleys, fresh air masks, etc. and records of their controls and maintenances are kept by TÇM. Conditions of these materials are published by TÇM at the end of every month in the monthly operations report.

Utilization and Maintenance of Firefighting Cloth

Firefighting cloth is worn by 1st level staff in case of fire and drill. It must not be used for any other purpose.

When the cloth gets dirty, it is washed manually by using warm water and soap or detergent. It must not be dry-cleaned.

Clothes must not be folded away until they are completely dried.

Firefighting clothes must be cleaned by the unit that used them.

Utilization and Maintenance of Firefighting Hard Hat and Face Guard

Hard hat protects the head of staff from impacts during firefighting.

Face guard protects the face of staff from flame when he/she is in close contact with the fire.

Any damaged hat or face guard must not be used.

An additional paint must never be used.

They must not be stored in places, where there is direct sunlight.

Only soap, detergent and water must be used as cleaning material.

Chemicals and abrasives, such as benzene, acetone, etc. must not be used for cleaning purposes.

Firefighting hard hat must be maintained and cleaned by the staff of unit, at where it is kept.

No additional accessory must be added to the original design.

9. Worker's Health and Safety

The rules to be followed in the refinery intend to ensure work safety of these employees and to prevent fire, loss of life and property. All employees are responsible to follow these rules and/or ensure that they are followed. These rules are as follows:

- When a fire outbreaks or in case of emergency, such as leakage and spillage of flammable, explosive or toxic gases, the persons that saw the incident must call relevant department through fire hotline (8888) or central radios to ensure that fire alert siren is sounded and entire staff is notified.
- If alert siren is in the form of a fluctuating (increasing - decreasing) sound, which will be activated twice for 30 seconds each in every 30 seconds, then this is a fire siren.
- If alert siren is in the form of a flat sound for 30 seconds, then this is an electricity outage siren.
- When the fire is extinguished, fire alert siren is sounded straight for 15 seconds.
- Staff will leave the dangerous area towards the direction of wind in order not to be affected from the smoke or spreading gases and move to the safe zones.

- Staff will not stay on or close to underground resources and manhole covers throughout the emergency.
- If they are driving a vehicle, they will pull over on the right lane in a manner not to block the traffic.
- If any medical assistance is needed, 4444 is called from the closest phone.
- Liquid or gas petroleum leaks, oil spillages, etc., which may cause fire, must immediately be prevented. Control department, relevant unit and TÇM (2222-5510) staff must be notified.
- Overalls, safety hats and safety boots must be certainly worn at the units and sites.
- It is not allowed to
    - Run
    - Joke around
    - Yell
    - Whistle
    - Act in a manner to panic others within the refinery borders.
- All staff must certainly comply with all warning signs and boards.
- It is mandatory to wear personal protective clothes (working clothes, hard hat, goggles, earplugs, gloves, etc.).
- It is prohibited to bring or be under the effect of alcoholic beverages or drugs within the refinery.
- It is not allowed to sit, lie down and eat within the units during the lunch breaks.
- Maximum speed limit within the refinery is 40 km/h and within the land filling site is 20 km/h.
- It is forbidden to overtake a vehicle within the refinery.
- Vehicles must not be parked on the road, but at the parking lots within the refinery for fire and traffic safety purposes.
- It is not allowed to park in front of any fire hydrant within the refinery.
- Vehicles must be kept ready to move urgently and they must be parked towards the exit direction.
- Doors of vehicles, which were parked at the refineries must not be locked and their ignition keys must be left on the vehicle.

- Persons must walk on, if any, pavements or, if there is not any pavement, on the left side of the road. It is not allowed for more than 2 persons to walk side by side.

- It is forbidden to run or walk in the middle of the road within the refinery except for emergency (fire, injury, operational problems, etc.).

9.2. PERSONAL PROTECTIVE CLOTHES

Hard Hat (Safety Hat)

- It protects the head from the danger of any item that might fall down and from hitting the head to any place.
- Any person, who enters the refinery's operational site and any dangerous area, must wear safety hat (hard hat) even if he/she is a guest.
- Supervisor and staff of relevant units must remove the persons, who enter the unit without any hard hat, from the unit.
- Safety hat shall conform to EN 397 norms and be screwed type that can be adjusted according to the head.

Work Clothes

- Work clothes, made of 100% cotton fabric, are provided for twice in a year as summer and winter clothes.
- They will be provided as jacket, trousers or overalls.
- The word "Tüpraş" and its logo will be written on the front and back side of the work jacket.
- Work clothes will be long sleeved.
- No apron will be worn in maintenance and process units.
- Details of work clothes will be written on the relevant specifications.

Safety Shoes/Boots

- They will protect the staff's feet from falling items and the risk of crushing of feet.
- They will be worn at maintenance sections and boiler rooms of units.
- Safety shoes/boots will conform to TS EN ISO 20345:2007 norms.
- The leather will be waterproof.
- Base of the safety shoes/boots will be made of nitryl or polyurethane material, it will resist to acidic, caustic and fluid hydrocarbons and it will not deform easily.
- Leather of safety shoes/boots will resist to at least 2000 volts and base will resist to at least 10000 volts.
- Safety shoes/boots will have non-slippery base.

- Front of the safety shoes/boots will have composite toe protector. Electricity isolation will be performed particularly at the steel toe of safety shoes/boots.
- Shoe laces will be opened easily in case of emergency.
- The boot will not be heavy, be comfortable and ergonomic and it will fit to any foot shape.

Work Gloves

- The gloves will be completely made of the best quality leather. The leather used for palms and outer section will have the same specifications.
- The gloves will be ergonomic and fit any size of hand.
- Used gloves will be kept within hazardous waste barrels.
- Other details will conform to the applicable specifications and TS EN 420.
- Gloves used depending on the works being performed will be provided by TÇM Departments upon request.

Goggles and Face Shield

- Persons that are performing works that might be dangerous for eyes and persons that are close to such type of works must wear goggles or face shields. Works that require use of eye and face shields are written below:
- Works, in which grinding wheel and any kind of leveling tool is used;
- While working with a hammer or performing any work that require contact of metals with each other;
- Works for drilling, cutting or leveling the surfaces of metals;
- When using pneumatic concrete or paint guns;
- At places, where dusts or other similar materials are dispersed;
- When cleaning bricks, tiles and construction materials;
- Glass cutting works;
- When working with melted asphalt and tar;
- Works of electric arc cutting and oxygen cutting;
- When using pressurized air for cleaning;
- When working with chemicals, hot liquids or vapor;
- No vapor must occur within the goggles and their sides must be closed and they must be framed type.
- Under normal conditions, it will be possible to adjust them in a manner to allow any staff, who uses glasses, to put goggles on top of glasses.

Safety Belt

- Safety belts (in conformity with TS EN 361) must certainly be used at places higher than at least 2 (two) meters from the ground, at where there is a risk of falling.
- Safety belt must be parachuter type.
- Belts must be checked thoroughly before they are used. Any faulty safety belt must not be used.
- Rope hook of the belt must be fixed safely to a solid place.
- The gap at the safety belt must be kept at minimum, based on the nature of the work. Rope hook must never be secured at or lower than the waist level. Otherwise, the safety belt may damage the back or waist of the working staff.
- If necessary, depending on the condition of the work, reinforcing ropes must be used together with the safety belt.
- Rupture strength of the rope and hook of safety belt must at least be 1160 kg.

Hot Work Gloves

- In case of non-liquid or non-vapor works that are performed as dry hot lines and valves, hot work gloves must be used as a protector.
- The gloves must be made of kevlar.
- The gloves must have long sleeves.
- Hot work gloves are supplied from TÇM.

Protective Gloves against Chemicals

- Long sleeved protective gloves must be used when working with chemicals and irritating substances, such as acidic, caustic, catalyst, etc.
- Chemical gloves are supplied from TÇM.

Catalyst Clothes

- Classical TYVEK type catalyst clothes in white color must be used by the staff when loading and unloading catalysts.
- Catalyst clothes must be supplied from TÇM.

Clothes for Chemicals

- Gray colored TYVEK-F type clothes for chemicals must be used when working with chemicals, except acids and TEL-B.
- Clothes for chemicals must be supplied from TÇM.

Acid Clothes with Viewfinder

- There are 2 types of them in white and blue color.
- They are used for the works performed with acids and caustic substances.
- They are used with full face mask with air cannister and airline (fresh air hose) mask.
- Clothes for chemicals with viewfinder must be supplied from TÇM.

Headsets or Earplugs

- The staff must use headsets or earplugs in case the noise level is more than 80 decibels.
- Earplugs reduce the noise level by 25 decibels whereas headsets reduce by 30 decibels.
- Earplugs must be supplied from TÇM.

Masks

- Two types of masks are being used in the refinery against hazardous gases.
- Pressurized air masks (positive pressure masks)
- Gas masks with filters (negative pressure masks)
- If any hazardous gas is detected at closed vessels, confined spaces, pits, etc. as a result of gas measurement, it is required to use appropriate type of masks, depending on the concentration of oxygen and gas.
- If there is not any hazardous gas and the oxygen amount is more than 19% in a confined space as a result of gas measurement, it is allowed to work without a mask.

Dust mask

- Employees must minimize powderization of catalysts when loading and unloading them and they must use FFP2SV / FFP3SV type dust mask.
- Dust mask must be used for metal grinding works and in such type of dusty environments.
- Dust mask is supplied from TÇM.

Pressurized Air Masks

- They must be used in cases, where the oxygen concentration is less than 19% or concentration of hazardous gases is more than maximum workable value (e.g. more than 10 ppm for H2S and more than 30 ppm for CO).
- Usually three types of air masks are used in refineries.
- Air-line system with compressor
- Air-line system with cylinder
- Full face mask with air cylinder is available in the units and TÇM.

Air-line system with compressor

- Available in TÇM.
- It is composed of air filter, air compressor with electrical engine, air drum, pressure regulator, rigid air hose and full face mask. Fresh air can be provided to maximum 5 (five) staff at the same time thanks to Air-Line system.

Air-line system with cylinder

- Available in TÇM.
- It is composed of cylinder (50 liters capacity), pressure regulator, rigid air hose and full face mask. Fresh air can be provided to maximum 3 (three) staff at the same time thanks to Air-Line system with cylinder.

Full face mask with air cylinder.

- Available in the units and TÇM.
- It is composed of a portable air cylinder, backrest, regulator, air hose and full face mask.
- The volume of steel cylinders is 6 liters whereas the volume of carbon composite cylinder is 6.8 liters. Working pressures are maximum 200 or 300 bas.
- The utilization period of masks with air cylinder varies, depending on the breathing speed of the user. In average: Masks with a cylinder of 6 liters air at 200 bar pressure are used for short term works.
- Full face masks with air cylinders, which are kept at technical safety material cabinets of the units, must always be kept ready to use and the unit staff is responsible for keeping them well-maintained. In case cylinder pressure is reduced to less than 100 bars, units are responsible to inform TÇM and request the cylinders to be refilled and TÇM is responsible to refill these cylinders.

Masks with Filter

- They are available in safety cabinets of the units and in TÇM.
- They are used in case oxygen concentration is more than 19% and hazardous gas concentration is less than 30 ppm.
- These filters protect from organic and inorganic substance vapors, acid vapors, sulfur dioxide, ammonia, dusts of heavy metals and catalysts and P3 dust filter protects from any dust as well as dusts of catalysts and heavy metals.
- Since a negative pressure (vacuum) occurs within the mask when taking a breath, it is very important that the mask must fully fit to the face and no air penetrates from the sides of mask. The staff must be sure that no air penetrates from the sides of the mask. After the mask is worn, the filter with cannister is

closed by hand and it is tried to take a breath. If it is not possible to take a breath, this means that the mask fully fits on the face.

- Economic lives of these filters are limited. If the economic life, stated by the company, is expired they cannot be used. As long as the protecting plug under the filter is kept open, the filter is considered as being used and its economic life is shortened. Therefore filters, which were left open or the duration of use of which is not known, must not be used and destroyed.
- If the filter has not expired yet, the person that uses the mask must switch the filter off from the bottom plug. The mask must be washed with soapy water and kept within a nylon bag in order not to be contaminated with dust and other similar materials.
- The units are responsible to ensure that masks and filters within the safety cabinets are always kept clean in sufficient numbers and TÇM is responsible to complete any missing mask and filter.

10. Other Issues

Tasks that have been defined for hazardous substance safety advisor are listed below.

- Taşınan tehlikeli malların saptanmasını düzenleyen zorunluluklara uygunluk prosedürleri;

- Taşıma araçları satın alınırken, işletmenin taşınan tehlikeli mallara ilişkin özel zorunlulukları dikkate alıp almadığı;

- Tehlikeli malların taşıma, yükleme ve boşaltımında kullanılan teçhizatların kontrol yöntemleri;

- Mevzuatta yapılan değişiklikler dahil olmak üzere, işletme çalışanlarının uygun eğitimi ve bu eğitimin kayıtlarının saklanması;

- Tehlikeli malların taşınması, yüklenmesi veya boşaltılması sırasında bir kaza ya da güvenliği etkileyecek bir olay meydana gelmesi durumunda uygun acil durum yöntemlerinin uygulanması;

- Araştırma yapılması ve gerektiğinde tehlikeli malların taşınması, yüklenmesi veya boşaltılması sırasında meydana gelen ciddi kazalar, olaylar ya da ciddi ihlaller konusunda rapor hazırlanması;

- Kazaların, olayların ya da ciddi ihlallerin tekrar oluşmasına karşı gerekli önlemlerin uygulanması;

- Alt yüklenicilerin veya üçüncü tarafların seçiminde ve kullanımına ilişkin olarak tehlikeli malların taşınmasıyla ilgili yasal kuralların ve özel gereksinimlerin ne ölçüde dikkate alındığı;

- Tehlikeli malların taşınması, doldurulması veya boşaltılmasında yer alan çalışanların operasyonel prosedürler ve talimatlar hakkında detaylı bilgiye sahip olduklarının onaylanması;

- Tehlikeli malların taşınması, yüklenmesi veya boşaltılmasında yer alan risklere karşı daha hazırlıklı olmak için önlemler alınması;

- Taşıma sırasında bulunması gereken dokümanların ve güvenlik teçhizatlarının, taşıma aracında bulunduğunu temin etmeye yönelik onaylama prosedürlerinin uygulanması ve bu doküman ve teçhizatların düzenlemelere uygunluğu;

ANNEXES

ANNEX-1 General Layout of Shore Facility

Not provided as it is a strategic industrial facility.

ANNEX-2 General Appearance Photos of Shore Facility

ANNEX-3 Emergency Contacts and Contact Details

ACİL DURUMLARDA BİLGİ VERİLECEK KAMU KURULUŞLARI

MAKAM	BULUNDUĞU YER	TELEFON NO	TELEFON NO	FAKS	UYDU TELEFON
Başbakanlık Santral	Ankara	(312) 422 10 00			
Başbakanlık Afet ve Acil Durum Yönetim Başkanlığı	Ankara	(312) 287 26 80	(312) 419 99 47	(312) 419 99 47/58	
İçişleri Bakanlığı Kriz Merkezi	Ankara	(312) 419 77 13	(312) 419 77 14		
Millî Güvenlik Kurulu Genel Sekreterliği	Ankara	(312) 284 43 25	(312) 289 62 19	(312) 285 74 51 (312) 285 74 81	
Ana Arama Kurtarma Kordinasyon Merkezi (AAKKM)	Ankara	(312) 231 91 05 (312) 232 47 83	(312) 231 33 74	(312) 232 08 23 (312) 231 29 02	870 764 142 267
İzmir Valiliği	İzmir	(232) 455 82 82		(232) 483 50 75	
Aliağa Kaymakamlığı	İzmir	(232) 616 10 01		(232) 616 10 75	
Aliağa Belediye Başkanlığı	İzmir	(232) 616 19 80	(232) 616 19 81	(232) 616 37 19	
ALO AFAD	Kocaeli	122			

MAKAM	TELEFON NO	FAKS	KISA KOD
İzmir Valiliği	(232) 455 82 85		
İzmir İl Emniyet Müdürlüğü	(232) 489 05 00	(232) 441 79 00 fax	
İzmir İl Jandarma Komutanlığı	(232) 256 27 78		
Sahil Güvenlik Ege Bölge Komutanlığı	(232) 365 68 25	(232) 365 95 75 fax	
Aliağa İlçe Emniyet Müdürlüğü	(232) 616 21 65	(232) 616 06 84 fax	66016
Aliağa İlçe Jandarma Komutanlığı	(232) 616 30 37	(232) 616 16 31 fax	66014
Aliağa Sahil Güvenlik Komutanlığı	(232) 498 50 59		

ANNEX-4 General Layout Plan of Areas, Where Hazardous Loads are Handled
Not provided as it is a strategic industrial facility.

ANNEX-5 Fire Plan of Areas, Where Hazardous Loads are Handled
Not provided as it is a strategic industrial facility.

ANNEX-6 General Fire Plan of Facility
Not provided as it is a strategic industrial facility.

ANNEX-7 Contingency Plan

1.0 PURPOSE and SCOPE

Contingency Plan includes determination of tasks, authorities and responsibilities for incidents that require emergence response, first aid or evacuation, such as fire, explosion, spillage of hazardous chemicals, natural disasters, etc. which might occur at Tüpraş Izmir Refinery.
This plan covers the operating sites of Izmir Refinery as well as the administrative building, social facilities and task buildings of Refinery Department.

2.0 DEFINITIONS

Emergency Management Center (ADYM)	The place with appropriate size, equipped with necessary and sufficient amount of documents, plans, standards, maps, sketches, materials and communication equipment in order to manage, direct and control emergency(ies) and to ensure collaboration and coordination with relevant persons and companies.
Facility	Operational sites, administrative buildings, social facilities and task buildings of Tüpraş Izmir Refinery.
Firefighting Team	The team that responds to fire in accordance with the instructions of Fire Supervisor in compliance with predetermined firefighting strategy.

3.0 IMPLEMENTATION

3.1 First Response to Fire and Making the Fire Call

- Fire call number is 8888 in Tüpraş's Izmir Refinery.
- There are landline phones at certain locations throughout the refinery in order for communication in case of emergency.
- Emergency phone calls are written on these landline phones within the facility.
- If person(s) that saw the fire first can extinguish the fire with existing facilities (portable fire extinguisher, fire protection water hose) without risking himself/herself, the fire is responded and if it is understood that this intervention is or will be insufficient with existing facilities at the fire site, a call is made regarding the fire.
- If the fire is extinguished with the first response, the burned product, fire site, how it is extinguished and other additional details are explained to site officers and Technical Safety Staff as soon as the fire is extinguished.

- Firefighting Organization Chart of Izmir Refinery is given in ANNEX-1.
- The plot plan that shows firefighting equipment and fire water lines of Izmir Refinery in details is given in ANNEX-2.
- The list of firefighting equipment of Izmir Refinery is given in ANNEX-3.

3.1.1 Making the Fire Call

- Fire calls are made by calling “8888” Fire Call hotline from the closest landline phone or by announcing through the central radio channel.
- At least following details must be provided during the fire call:
  - **Name, surname and task of the calling person;**
  - Location of fire;
  - If known, details of burned product and equipment, whether there is any poisonous gas in the environment or not (H_2S, etc.).

    For example: I’m ……..…… (please tell your name and surname)*, there is fire at …… (location of fire, name of tank, unit, building and equipment and, if known type of burning product/material).
- The notification is repeated by the Refinery Security Department (RGM) Staff that received the call in order to prevent any misunderstanding and both parties mutually confirm that the notification is understood.
- After the fire call, the person immediately returns to the fire site and assists in fire extinguishing works.
- The Security Staff that received the fire call records name and surname of the calling person, location of fire, time of call and alert to “Fire Call Record Book”.

Fire call is checked as described below:

- There is a fire call hotline in Izmir Refinery, which is connected in parallel within RGM, Technical Safety and Environment Department (TÇM) and Quality Systems Department (KSM).
- Technical Safety Chief Engineer calls fire call hotline “8888” everyday in order to control that fire call hotline is active and prepares monthly phone list so as to cover contractor offices/living quarters and submits it to relevant unit supervisors. Fire call hotline is tested by calling the number everyday according to the list and these daily controls are tracked and recorded through “TPR.TEM.FRM.0128 Fire Call Hotline Monthly Control Form” (ANNEX-4).

3.1.2 Fire Alarm Siren

- Fire alarm siren is sounded by RGM staff that received the call.
- Alarm sirens in the refinery and lodgement sites shall be sounded together during nonbusiness hours and on holidays.
- Fire Alarm Siren: It is in the form of a fluctuating (increasing - decreasing) sound, which will be activated twice for 30 seconds each in every 30 seconds.
- Refinery's Security Staff that sounded the Fire Alarm siren introduces himself/herself on the central radio channel and tells the location of fire.
- Refinery's Security Staff that learned the fire with the fire call tells the location of fire to other gates via radio or phone. Refinery's Security Staff at the gates write the location of fire on "LOCATION OF FIRE" boards, placed on entrance and exit gates, legibly and in capital letters and opens entrance or exit gates.
- If alarm sirens are not sounded for any reason, he/she uses other communication means (radio, phone, megaphone, ambulance siren, etc.).
- When the fire is extinguished, "Fire is extinguished" announcement shall be made through the central radio channel upon instruction of Headquarters Supervisor. Refinery's Security Staff that heard the announcement shall sound "Fire is Extinguished" siren.
- Fire is Extinguished Siren: Straight sound for 10 seconds to be sounded for once.

Fire Alarm Sirens are tested on the times as stated below:

- Sirens at the Refinery sites are sounded straight for 5 seconds at 8 am and 5 pm everyday.
- Sirens at Social Facilities are sounded straight for 30 seconds at 6.30 pm every Monday.
- "Fire Alarm Siren" and "Fire is Extinguished" siren are sounded in each fire drill.
- All failures in fire call phones and sirens are notified by Refinery Security Department to Maintenance Group Department in order to ensure that they are repaired as soon as possible and it is also ensured that these phone lines and sirens are always kept functional.

3.2 Tasks of Units in case of Fire

Refinery units take role in accordance with their responsibilities described below in case of fire, explosion, etc.

3.2.1 Production Department

- They ensure the safety of their lives at first in the fire site and makes the first response with existing facilities.
- They direct the persons (contractor, visitor, etc.), which do not have any assignment at the unit site regarding emergency condition, to safe zones located out of the fire site.
- They assign a unit operator to fire protection water pumping station within their site in order to activate these pumps in case of necessity. They contact with the staff of Technical Safety before activating fire protection water pumps.
- They detect and stop poisonous and explosive gas leakages.
- In case any poisonous and explosive gas leaks, they inform emergency response teams and other units to isolate the site.
- They provide information and give support to emergency response teams regarding the fire and operational status.
- They ensure continuous communication between ADYM and units.
- If necessary, they completely or partially stop the units.
- They keep facilities always safe and under control.
- They control electricity, steam, air, raw water, cooling water, and service water systems of the refinery in a manner to meet the requirements.

Process Chief Engineer:

- A staff is assigned as despatcher among process chiefs/engineers.
- The staff that acts as despatcher accompanies to Headquarters Supervisor, Senior Supervisor, Operations Supervisor, Fire Superivsor and RAK Team Supervisor with “Despatcher Vest”.

Shift Chief:

- He/she immediately moves to the fire site within the refinery, acts in replacement of Senior Supervisor until Senior Supervisor arrives, and supervises the firefighting works.
- He/she transfers the responsibility to Senior Supervisor after he arrives the incident site and immediately coordinates the works of units, based on directives of Senior Supervisor.

3.2.2 Tasks of KSM Laboratory Staff

- Covered laboratory staff, other than Chief Laboratory Technician, safely stops their works, wear their firefighting clothes, arrive to the fire site and form fire hose teams.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

3.2.3 Tasks of Refinery Security Department

- It is responsible to sound the fire siren according to the fire call that it has received by phone or through the radio.
- It is responsible to keep Fire Call Record Book.
- It is responsible to write the location of fire on Location of Fire Board, located at the refinery entrance gate.
- In case of fire, it prevents any staff/person, who is not assigned for a task, other than Tüpraş's staff to enter the refinery without permission.
- It ensures that Refinery Search & Rescue (RAK) team is ready for intervening at the incident site in accordance with the instructions of Headquarters Supervisor and Senior Supervisor. The list of Refinery Search & Rescue team is given in ANNEX-5.
- It manages the actions of RAK team in accordance with TPR.TGM.STD.0135 Search & Rescue Standard.
- It is responsible to ensure safety at the fire site.
- It is responsible to record the number of staff moving to the assembly points and to evacuate staff and vehicles in accordance with instructions of Crisis Center.
- It monitors fire site and surrounding area with security cameras located around.
- It ensures that video is shot or recorded at the fire site.

3.2.4 Tasks of Maintenance Group Department

- Maintenance staff, which form the first level staff in case of fire, immediately move to the fire site, form the hose teams, and other staff not included to a hose team stay ready for duty at the headquarters.
- One of not covered staff, who will be assigned by Maintenance Group Manager, acts as Supervisor of Hose Teams.
- It brings toolkits that might be needed for maintenance and repairing works to the incident site and ensures that these toolkits are kept at the headquarters for intervening.

- Maintenance Group Manager/Chief Engineer assigns electricity and mechanics maintenance staff to fire protection water pumping stations.
- Maintenance Group Manager keeps work machines and operators ready for transport at the garage in order to be used in case of necessity and keeps work machines, such as crane, manlift, etc. ready for fires, which might need a rescue operation in height. Work machines are kept ready at the worksite.
- It ensures that equipment, such as lighting, power generator, etc., which might be needed in case of emergency, are kept ready to use.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.
- It ensures continuity of radio communication and infrastructure.
- Staff of hose teams provide support to the staff of Technical Safety Department in collecting firefighting equipment and hoses after the fire is extinguished.

3.2.5 Tasks of Workplace Health and Security Unit

- Responsible workplace physician immediately moves to fire site by ambulance with sufficient number of healthcare staff.
- Ambulance is parked to a safe zone next to fire headquarters and kept ready to intervene in case of necessity.

3.2.6 Tasks of Technical Safety and Environment Department

- One of Chief Engineers/Chiefs/Engineers/Experts of Technical Safety Department acts as fire supervisor. The list of Firefighting Staff, which includes the Fire Supervisor and who are in charge of firefighting within the refinery, is given in ANNEX-7.
- Staff of Environment, Process Safety, Workers' Health and Safety Chief Engineer act in accordance with the instructions of Fire Supervisor.
- Technical Safety Staff brings fire brigade vehicles and firefighting equipment to the incident site, makes preparations according to determined response method and responds the fire.
- Workers' Health and Safety staff measure gases at the incident site. They identify necessary safe zones and ensure that zones, which must not be entered, are barricaded.
- Technical Safety Staff provides respiration system, protective clothes and equipment for firefighting and checks suitability of protective equipment of responding straff before they enter the incident site.

- Pressure of fire protection water system is tracked by Technical Safety staff and, if necessary, additional fire protection water pumps are activated.
- It inspects the incident site after the fire is extinguished in order to prevent recurrence of fire at the incident site and takes necessary measures for the security of site.
- It ensures that firefighting vehicles and equipment are ready to use after the fire is extinguished.
- It examines the incident site with site officer after the fire is extinguished in order to find the reason of outbreak of fire.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

3.2.7 Human Resources Department

- One staff is assigned to Emergency Management Center (Crisis Center) to perform secretarial works.
- One staff is assigned to main gate of the refinery in coordination with Corporate Communication Department and Crisis Center in order to manage relationships with persons, such as public, media, representatives of official authorities, employees, etc. that have arrived to the main gate.
- It provides transportation in coordination with RGM for evacuation of the staff at the assembly area.
- It ensures that staff, contractors, visitors and interns are evacuated and transported.
- It ensures that catering needs (water, meal, transportation, etc.) of firefighting staff are met.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

3.2.8 Procurement Department

- A staff is assigned to Emergency Management Center (Crisis Center).
- A staff is assigned at headquarters in order to respond to the requirements quickly.
- It ensures that required materials are obtained from the warehouse, other refineries and external resources and then distributed.
- It ensures that warehouses are opened and kept ready to supply materials in case of necessity.

- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

3.2.9 Project and Investments Department

- It assigns a staff to organize the traffic on the roads towards the fire site.
- This staff wears the vest, indicating that he/she is assigned for traffic duty, and ensures that the roads to incident site are kept open and prevents vehicles other than emergency response vehicles to enter the incident site.
- Department staff contacts with the authorities of contractor reporting to them and coordinates evacuation of contractor's staff working at the site.

3.2.10 Operational Reliability Department

- A staff, equipped with thermal camera and digital thermometer, is assigned to the headquarters in order for utilization of these equipment at the fire site in case of necessity.

3.2.11 Information Technologies Department

- It assigns a staff at Emergency Management Center (ADYM).
- It keeps the technical infrastructure functional in order to ensure that wired and wireless communication is not interrupted.
- It ensures that data bus traffic is organized to transfer video stream of incident site and for video conferencing.

3.2.12 Financial Affairs Department

- It assigns a staff at Emergency Management Center.

3.2.13 Planning and Sales Department

- It assigns a staff at Emergency Management Center.
- It assigns the staff, who will be responsible for refinery's external and internal gates.
- It ensures coordination of planning and sales activities and manages filling and evacuation activities in accordance with the refinery's safety requirements.

3.2.14 Tasks of Staff Residing at Assignment Houses and Social Facilities

Any person, who saw the fire or, at whose house a fire outbreaks, acts as stated below.

- Fire Call Hotline (8888) is called in case of fire.
- The location of fire is reported in the shortest and most accurate manner and, if possible, type of fire is reported too. (Building, LPG, motorized vehicle, etc.)
- The fire is announced to the surrounding people.
- The fire is responded with existing firefighting equipment (portable fire extinguisher, fire protection water hose, etc.) in order to extinguish the fire until TÇM staff arrives. If it is not possible to extinguish the fire, the door of the room or kitchen, in which the fire has started, is closed but not locked. Closing the door prevents the fire to splash other rooms.
- Do not endanger yourself and others while taking these actions.
- Do not allow any person other than assigned staff to enter the fire site.
- Keep the outer door open to allow assisting persons to enter inside the building easily.

3.2.15 Tasks of Chief of Social Facilities

- They call the Fire Call Hotline and report the location and status of fire.
- They ensure coordination of fire extinguishing team at the fire site until assistance arrives.

3.3 Firefighting Organization

- Firefighting Organization Chart of Izmir Refinery is given in ANNEX-1.
- Each unit acts in accordance with instructions of its supervisor according to the hierarchy shown in Firefighting Organization Chart of the Refinery. Each staff only reports to and informs his/her supervisor.
- Vests, specified in the Table of Supervisor Vests of Emergency Response Team (Table 3.3.1), are used by relevant staff in order to increase visibility of supervisors available on site.

Table 3.3. 2 Table of Supervisor Vests of Emergency Response Team

Letter on Vest	Vest Color	Font Color
Senior Supervisor	White	Red
Operations Supervisor	Yellow	Orange
Fire Supervisor	Red	White
Hose Teams Supervisor	Blue	White
RAK Team Supervisor	Green	Gray

Despatcher	Orange	Gray
Traffic Organizer	Yellow	Gray

3.3.1 Emergency Management Center

When a fire outbreaks, Emergency Management Center (ADYM) is opened and operates in accordance with ADYM Standard, TPR.TGM.STD.0023 (ANNEX-8).
If required and depending on the size of fire and agreed responding strategy, the refinery's staff, who are not at the refinery at that time and who are assigned to units as stated in Firefighting Organizational Chart, are called to duty by authorized representatives of ADYM upon a request of Headquarters Supervisor.
Authorized representatives of Emergency Management Center (ADYM) contact with Headquarters Supervisor to receive information about responding to the incident.

3.3.2 Headquarters

The place, through which the teams that will respond to the fire will be directed, the support needed to respond to emergency is provided and Emergency Management Center is communicated.
Representatives of units and all staff in the headquarters act in accordance with their duties and responsibilities.

- Organization of Headquarters is given in Firefighting Organization Chart.
- Managers of Technical Units stated in the organizational chart provides consultancy to the Headquarters Supervisor regarding the areas under their responsibility.
- Headquarters is located on a safe place by taking the growth of fire, toxic gas spreading hazards and direction of wind into consideration.
- The Headquarters Supervisor determines the location of headquarters by consulting to senior supervisor.
- After its location is determined, "Headquarters Sign" is taken by despatcher from fire brigade vehicle and placed on the location of headquarters.

3.3.3 Headquarters Supervisor and his/her Duties

Headquarters Supervisor is the relevant site manager. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the Headquarters with Senior Supervisor, Despatcher, Traffic Organizer, First Aid Supervisor, Fire Site Security Supervisor and Supporting

Teams as well as the Managers of Technical Units that provide consultancy services to him/her.

- He/she ensures coordination with ADYM regarding intervening to incident site and requirements.

3.3.4 Senior Supervisor and his/her Duties

Senior Supervisor is the Superintendent/Coordinator of relevant site. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she determines the strategy to respond to the emergency together with Operations Supervisor, Fire Supervisor and RAK Team Supervisor that are reporting to him/her and he/she manages fire, rescue and unit operations.
- He/she ensures coordination with Headquarters Supervisor regarding intervening to incident site and requirements.
- He/she wears the white vest, on which it is written “Senior Supervisor”.
- He/she requests materials, staff, tools and equipment, which might be needed in accordance with the strategy to respond to emergency, from Headquarters Supervisor.

3.3.5 Operations Supervisor and his/her Duties

Operations Supervisor is the relevant Unit/Site Chief. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the unit’s operations together with the unit/site staff reporting to him/her.
- He/she ensures coordination with Senior Supervisor regarding operational responding requirements.
- He/she is responsible to operate, halt and protect the unit/site from fire in acordance with the directives of Senior Supervisor.
- He/she wears the yellow vest, on which it is written “Operations Supervisor”.

3.3.6 Fire Supervisor and his/her Duties

Fire Supervisor is Technical Safety Superintendent. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she manages the operations for responding the fire together with the staff reporting to him/her.

- He/she ensures coordination with Operations Supervisor regarding operational responding requirements.
- He/she manages the hose teams and firefighting staff in accordance with the directives of Senior Supervisor and determined firefighting strategy.
- He/she wears the red vest, on which it is written “Fire Supervisor”.

3.3.7 Duties of Workers’ Health and Safety (WHS) Superintendent

- He/she directs Workers’ Health and Safety staff to the site to be measured in order to conduct gas measurements at the incident site and informs Fire Supervisor about current condition.
- He/she identifies necessary safe zones and ensures that zones, which must not be entered, are barricaded.
- He/she provides the support of WHS staff for First Level Firefighting Team.

3.3.8 Supervisor of Hose Teams and his/her Duties

Supervisor of Hose Teams is either Maintenance Superintendent/Chief/Engineer, responsible for the relevant unit/site, who will be assigned by Maintenance Group Manager.

- He/she ensures that the staff of Maintenance Department and KSM, who will form the hose teams, are ready at the headquarters with their firefighting equipment.
- He/she manages replacement of firefighting team in accordance with directives of Fire Supervisor.
- He/she is responsible for cleaning and collecting the firefighting eqipment together with firefighting staff after the fire is extinguished.
- He/she wears the blue vest, on which it is written “Supervisor of Hose Teams”.

3.3.9 First Level Firefighting Team

First Level Firefighting Team performs the operations to respond the fire in accordance with the instructions of Fire Supervisor in compliance with predetermined firefighting strategy.
First Level Firefighting Team is composed of the staff written below.

During regular workdays in business hours:

- TÇM staff
- Laboratory staff
- Maintenance Department staff
- Refinery staff on duty at the unit/site

During nonbusiness hours and holidays:

- TÇM shift staff
- Laboratory shift staff
- Maintenance Department shift staff
- Shift staff on duty at the unit/site

3.3.10 Refinery Search & Rescue (RAK) Team Supervisor

RAK Team Supervisor is the staff, selected by Refinery Security Department. He/she manages RAK Team in accordance with the instructions to be given by Senior Supervisor and the determined rescue strategy. It manages the actions of RAK team in accordance with TPR.TGM.STD.0135 Search & Rescue Standard.

3.3.11 Dispatcher and his/her Duties

Dispatchers are Production Department's Process Chiefs and Engineers.
One staff is assigned for each of Headquarters Supervisor, Senior Supervisor, Operations Supervisor, Fire Supervisor and RAK Team Supervisor.

- They are responsible for delivering the information and instructions to be given by Senior Supervisor, Operations Supervisor, Fire Supervisor and RAK Team Supervisor accurately to relevant addressees.
- Dispatchers wear the vests available in fire brigade vehicle, on which it is written "DESPATCHER" and they take the sign of Headquarters from the fire vehicle and place it on the site to be selected by Headquarters Supervisor.
- Vests of supervisors are taken by dispatchers from fire brigade vehicle and delivered to the applicable supervisor.
- In case the radio communication has any problem, they take megaphones of supervisors from the fire brigade vehicle and carry them for supervisors as long as the fire is being responded.

3.3.12 Traffic Organizer and his/her Duties

PYM Manager assigns enough number of staff as traffic organizer in accordance with the directives of Headquarters Supervisor in order to take entrances to fire site and firefighting site under control.
Traffic Organizers are Chiefs / Engineers / Technicians of PYM department.

- Locations, at which a traffic organizer shall be assigned, are determined in accordance with the results of gas measurements to be conducted by Workers' Health and Safety (WHS) Superintendent / Chief / Engineer and the routes to responding site and Headquarters Supervisor is asked to assign traffic organizers.

- Traffic organizers wear yellow colored vests, available in their vehicles or fire brigade vehicle, on which it is written “TRAFFIC ORGANIZER” and they stay at their posts.
- Traffic organizers are responsible to manage the traffic at the fire site, to show parking area for arriving vehicles and to keep the roads at the fire site always open.

3.3.13 First Aid Team Supervisor

First Aid Team Supervisor is the Workplace Physician on duty. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she is positioned at a safe zone on the incident site with the ambulance and manages first aid and healthcare operations.

3.3.14 Fire Site Security Supervisor and his/her Duties

Fire Site Security Supervisor is the Refinery’s Security Supervisor. If he/she is not available the tasks of supervisor are performed in accordance with the list, given in the organizational chart.

- He/she ensures security at the site and in the refinery by reporting to Headquarters Supervisor.

3.3.15 Support Team

Izmir Refinery’s support team, Operational Safety Expert, Warehouse Staff, Garage Transport Staff and staff of Information Technologies Department stays at the Headquarters as the support team.

- They join and support the firefighting team based on their duties and area of responsibility.

3.4 Fire Investigation Report

A Fire Investigation Report (TPR.TEM.FRM.0011) (ANNEX-9) is prepared for all fires occurred within Tüpraş’s facilities.
The fire investigation report is prepared and signed by the staff of Technical Safety Department after investigating the incident site together with relevant site officer.
After the report is signed, it is submitted to relevant unit supervisors of the refinery and Technical Safety Department in Head Office via e-mail. Fire Investigation Report is archived in TÇM.
Fire Investigation Report is uploaded to Incident Investigation System by relevant superintendent/coordinator of the site.

4.0 GENERAL FIREFIGHTING RULES

- It is FORBIDDEN to park vehicles and stack materials in front of of in a manner to obstruct utilization of fire hydrants and emergency responding equipment within Tüpraş Izmir Refinery. Emergency responding vehicle must always be accessible and ready to use.
- When fire alarm is sounded all staff must move to their assignment locations as stated in the contingency plan. Contractors, visitors and interns stop to work in a safely manner and move to Assembly Points.
- If sirens of firefighting and emergency response vehicles (Fire Brigade Vehicles, Ambulance, RAK Team's Vehicle, etc.) are sounding, these vehicles have the priority to pass.
- All staff must know the location of and how to use firefighting equipment at their site/building and if they see any empty or malfunctioning fire extinguishing equipment, they must inform Technical Safety and Environment Department (TÇM) to ensure that they are refilled/repaired.
- All staff must know the locations of underground channels and storm drains as well as their entrances and ventilation locations of storm drains. Gaskets of vents, storm drain covers and field drain systems must be checked, choked vents must be cleaned and damaged drain covers and gaskets must be repaired.
- All staff must know the locations of fire hydrants and circuit breaker valves at their sites.
- Any staff, who is not assigned for firefighting, must act in a manner so as not to obstruct vehicle traffic, stay away from the fire site and must not use their radios and phones unless necessary during the fire.

4.1 Measures

4.1.1 Precautions on Electricity Installation

- Devices, that cannot be served by the electricity installation due to its design capacity, must not be used.
- Electricity cables that lost their integrity (extended, damaged isolation, etc.) and have not been controlled shall not be used.
- Maintenance, repairing and controls of electrical and electronic devices shall be made by trained and qualified staff and unauthorized persons shall not intervene.
- Plugs of electrical devices, which were not designed to be left on the socket, shall not be left on the socket after they were used.

4.1.2 Precautions to be Taken in Offices

- Flammable and combustible materials, such as gasoline, spirit, gasoil and fuel oil shall not be used in offices.
- Employees shall close, if open, the windows, check the fire office for fire and safety, and switch off the lights before they leave the office at the end of business hours.

4.1.3 Preventive and Restricting Measures that have been Taken

- Matches, lighters, etc. shall never be kept and used for any reason when supplying fuel and checking the lubricants of motorized vehicles.
- There shall not be any good or combustible and flammable material on the roof other than those required for protection from fire. It is not allowed to climb to, smoke at and use fire causing equipment at the roofs.
- The instructions to use fire extinguishing equipment within buildings are hung on same places.
- Plans that show emergency exit doors and fire extinguishing equipment shall be hung on appropriate locations of the halls of administrative building of Izmir Refinery.
- Combustible, flammable and explosive materials shall not be kept at places, such as boiler room, tea house, etc.
- Equipments are controlled and their sufficiency is checked regularly in Izmir Refinery. Modernization projects and state-of-the-art firefighting systems are still in progress at the units and sites in order to use advanced technologies and improve fire response capabilities.
- 36” fire water line is built and the systems to provide sea water throughout the refinery by sea water pumps have been installed and commissioned.
- High capacity firefighting monitors, such as 1 piece of Ambassador monitor (22700 lt/m. capacity) and 2 pieces of Battler monitors (each 37854 lt/m. Capacity), have been purchased and activated in order to respond to large fires that may outbreak within the unit and all surface tank fires.
- Operational sites are supported with remotely controlled, high capacity monitors for situations, in which it will be difficult to respond and to approach fire.
- Fire detection and automatic fire extinguishing systems are installed throughout the refinery based on risk analyses and it is possible to activate them automatically or manually in case of emergency, based on the results of such risk analyses.
- Heat changes that might occur at the seal zone can be monitored with linear heat detectors, placed on the tanks, and it is possible to response seal fires with fixed (connected to foam tank and foam generator) and semi-fixed (the system that transfers foam solution from foam rooms to rim seal area through fire brigade vehicle) fire extinguishing systems available on the tanks.

- There are more than 2000 fire extinguishers within the unit sites of Izmir Refinery and all of them are controlled every month. Furthermore, a contracted outsourcer conducts annual periodical checks and reports the results.
- It is ensured by daily checks that fire brigade vehicles are always kept functional.
- Except the maintenance works to be performed in case of any failure, fire brigade vehicles are periodically checked by the company staff in every year, necessary tests are conducted and results are reported to us.
- The quantity of foam to be used for firefighting is monitored monthly and, in case of necessity, it is obtained immediately.
- Fixed gas detection systems are checked in every 3 months and periodical check and conformity reports are prepared by the contracted outsourcer.

4.2 General Information on Fire

Burning is a chemical reaction resulting from combination of combustible materials with oxygen in certain ratios under heat.
Following elements must combine together in order to start fire:

1. Fuel	:Combustible and flammable materials
2. Oxygen	:The natural element that forms 21% of atmosphere
3. Ignition Source	:The source that starts burning
4. Chemical Chain Reaction	:The reaction that causes the fire to continue.

It is explained with the state of burning, triangle of burning. A fire does not occur if any of above does not exist. The combustible material and ignition source or oxygen must be kept away from each other in order to prevent fire. It is also needed to

eliminate one or two of these elements in order to prevent or distinguish fire. The safety against fire is based on this principle.

4.3 Reasons of Fire

General reasons of fire:

- Failure to comply with bylaws, regulations and circulars on protection from fire;
- Lack of knowledge and training in protection from and extinguishing fire;
- Negligence, lack of measures, carelessness and intentional actions of staff;
- Sabotage;
- Accidents and fires with external origin;
- Natural disasters;
- Nonconformity of electricity and heating installations of refinery facilities with standards, insufficiency of fire protection water systems, failure to know and comply with utilization instructions of firefighting equipment.

General reasons of fire in refineries:

- Collection of combustible gases at a point;
- Accumulation of hydrocarbon (fluid, gas) in underground channels;
- Using faulty and non-ex-proof electricity installations;
- Debris of oily rags, oakums, papers, grasses, woods or hydrocarbon products;
- Hot surfaces or exhaust pipes;
- Leaving iron sulphur or equipment and devices containing iron sulphur in direct contact with air;
- Streak of lightning;
- Smoking at places other than designated areas;
- Static electricity;
- Sparks arising out of sand blasting or operation of internal combustion engines of mechanical devices;
- Working without taking necessary precautions and obtaining permissions for works, which require Hot Works Permission;
- Performing hot works without taking necessary precautions near to raw sulphur, stored in bulk;
- Performing hot works near to accumulators when they are being charged;
- Dragging of excessive amounts of fluid to flare lines;
- Contact of oxidising and combustible materials, stored together in warehouses and laboratories, with each other due to earthquake and similar reasons and leaving stacks of self-igniting coal, sulphur, etc. without taking any precaution.

In administrative buildings, social facilities and assignment houses:

- Turning on kitchen ovens late after opening the gas or turning off of the oven due to overflown meal, milk, etc. that was cooked on the oven and turning on the oven again without ventilation;
- Keeping electrical devices, which were not designed to be left on socket, on sockets;
- Failure to put off the cigarette at appropriate places;
- Allowing children to play with combustible and flammable materials;
- Short circuits on electricity installation;
- Leaving ovens and chimneys too much oily and dirty or causing overheated oil to ignite;
- Storage of gasoline and other similar products in residences and offices within incompatible containers for any reason or using them for cleaning purposes;

ANNEX-8 Emergency Assembly Locations

The plot is not provided as it is a strategic industrial facility.

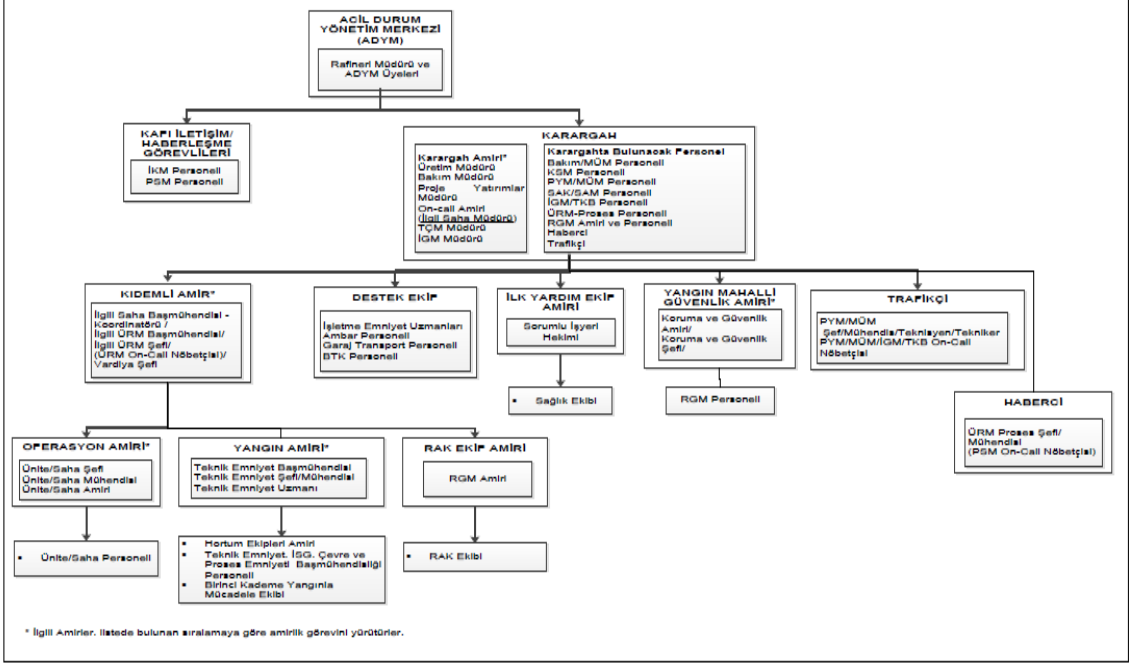
In Izmir Refinery

1 Internal Gate
2 Petkim Gate
3 Parking Lot of Refinery Directorate Building
4 Parking Lot of Social Facilities Building
5 Right Across of Asphalt Presses - Tanker Waiting Area
6 Front of Contractor Worksites at Pier Side
7 Front of Petroleum Movements Unit Board
8 Foam Supply Area
9 Parking Lot of Old Pier Entrance
10 Parking Lot of Marine Affairs Building

There are emergency assembly points.

ANNEX-9 Emergency Management Diagram

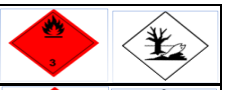
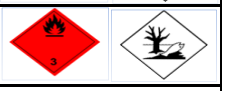
EK-1 Yangınla Mücadele Organizasyon Şeması



REVİZE EDEN	ONAYLAYAN	
PROSES EMNIYETI BASMÜHENDISI	TEKNIK EMNIYET MÜDÜRÜ	GENEL MÜDÜR YARDIMCISI
MUSTAFA HAKAN VURAL	OGUZ YILDIZ	MUSTAFA MESUT ILTER

ANNEX-10 Hazardous Substances Manual

Classes of hazardous substances being handled in our shore facilities and packages, labels, marks, packaging groups and classification tables of these hazardous substances are given below.

DİZEL	1202	3	30	3	30 1202	
K.BENZİN	1203	3	33	2	33 1203	
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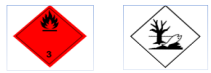
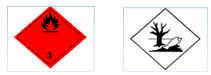
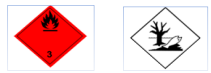
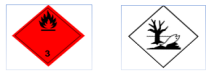
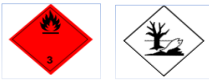
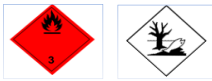
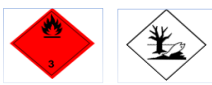
JET A1	1863	3	30	3	30 1863	
GAZ YAĞI	1223	3	30	3	30 1223	
AS.JET F-34	1223	3	30	3	30 1223	
B.BAĞLAYICI	3256	3	30	3	30 3256	
BİTÜM	3257	9	99	3	99 3257	
Y.K. FUEL OİL	3082	9	90	3	90 3082	
NAFTA	1268	3	33	1	33 1268	
İZOMERAT	1268	3	33	2	33 1268	
PLATFORMAT	1268	3	33	1	33 1268	
HVGO	3082	9	90	3	90 3082	
HC DİP	3082	9	90	3	90 3082	
HAM PETROL	1267	3	33	3	33 1267	

CLASS	1.1	1.3	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
Poisonous and	2	2	1	X	X	X	1	X	1	X	X	1	X	2	1	X	X
Poisonous 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 (incl. self 4.1 reacting substances and	4	3	2	1	X	X	X	X	1	X	1	2	X	3	2	1	X
Substances prone to 4.2 immediate bursting	4	3	2	2	1	2	2	1	X	1	2	2	1	3	2	1	X
Substances revealing 4.3 flammable gases in	4	4	2	X	X	X	1	X	1	X	2	2	X	2	2	1	X
Oxidising substances	4	4	2	2	X	X	2	1	2	2	X	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
Poisonous substances	2	2	X	X	X	X	X	X	1	X	1	1	X	1	X	X	X
Contagious substances	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
Abrasive substances 8	4	2	2	1	X	X	X	1	1	1	2	2	X	3	2	X	X
Various hazardous substances 9 and items	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Numbers and symbols used in the table have the following meanings:

1– “Must be kept away”;

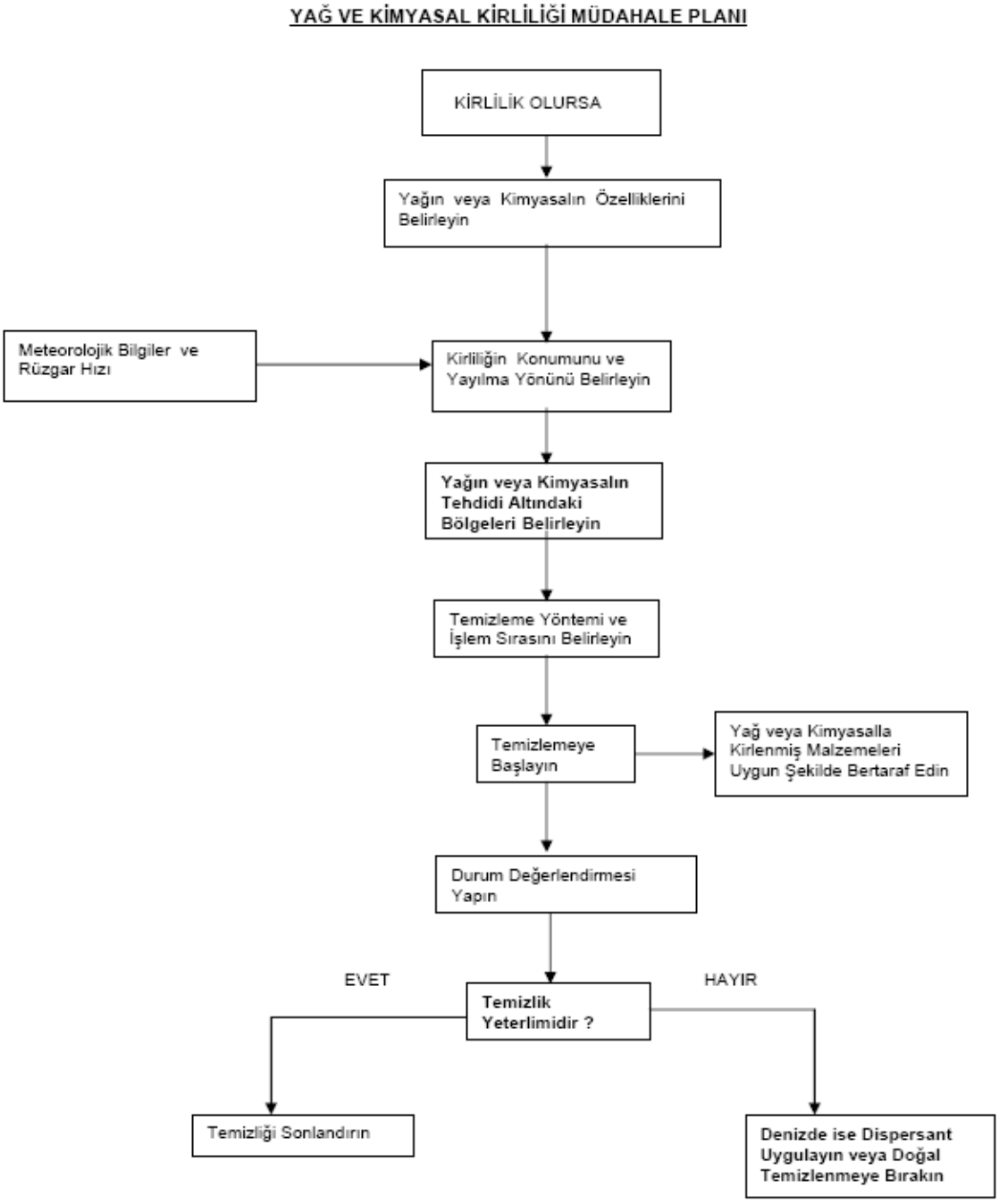
2– “Must be separated”;

3– “Must be kept separated through an entire compartment or section”;

4– “Must be separated longitudinally through an intervening compartment or section”

X- “There is not any interaction”

In case any chemical or oil spread throughout the sea due to the facility’s operations, the incident is responded for cleaning purposes in accordance with Oil and Chemical Pollution Response Plan. Equipment, materials and chemicals used for such response as well as contaminated environments (soil, water, underground water) due to spillage of pollutants (petroleum and petroleum products) and wastes caused by spilled petroleum and petroleum products occur as a result of such spillages.



Another emergency that might occur in our facility during the handling of hazardous loads is fire. The emergency response plan for fire is given below.

7- Product flow is stopped. Filling arm is separated from the tanker.

8- Cooling water is applied to the area of cargo tanks of the tanker in order for cooling purposes.

9- Fires at the ship manifolds are extinguished with high pressurized water mist or by using dry chemical powdered extinguishers.

10- If the ship's tanks are ruptured as a result of an explosion, foam is applied to the ruptured part, depending on the type of product.

11- Pier loading and unloading area are protected with water monitors.

12- If possible, the ship is removed from the pier zone to a safe area.

ANNEX-12 Inventory of Port Service Ships

Not provided as it is a strategic industrial facility.

ANNEX-13 Marine coordinates of Administrative Borders of Port Office, anchoring locations and harbour pilot embarking/disembarking locations

Aliağa Liman Başkanlığı

İdari Sınır Koordinatları

A) 38° 55' 00" K – 026° 51' 12" D (Kemikli Burnu)
B) 38° 54' 00" K – 026° 50' 21" D
C) 38° 45' 12" K – 026° 51' 24" D
D) 38° 46' 30" K – 026° 51' 24" D

Demirleme Sahaları

1 - Akaryakıt Taşıyan Gemiler ile Askeri Tankerler
2 - Tehlikeli Madde Taşımayan Gemiler
3 - Tehlikeli Madde Taşıyan Gemiler
4 - Tehlikeli Madde Taşımayan Gemiler
5 - Tehlikeli Madde Taşımayan Gemiler
6 - Tehlikeli Madde Taşıyan Gemiler
7 - Gemi Söküm Bölgesine Gelen Gemiler

Kılavuz Kaptan Koordinatları

Kılavuz_1 - 38° 49' 27" K – 026° 50' 00" D
Kılavuz_2 - 38° 50' 11" K – 026° 52' 58" D
Kılavuz_3 - 38° 53' 24" K – 026° 52' 39" D
Kılavuz_4 - 38° 51' 06" K – 026° 56' 54" D
Kılavuz_5 - 38° 46' 34" K – 026° 51' 38" D

ANNEX-14 Equipment for Fighting Against Marine Pollution

- 2000 METER SORBENT BARRIER
- 800 PIECES OF (50*50) OIL ABSORBING PAD
- 500 METERS (2*250) INFLATABLE BARRIER
- 300 METERS (30*10) SOLID TYPE BARRIER
- SEWAGE TRUCK WITH A SPECIAL VACUUM APPARATUS FOR SHORE CLEANING
- CATAMARAN BOAT
- HAWSERS (WITHIN DİTAŞ)
- 14,000 KG. DISPERSANT

ANNEX-15 Map of Use of Personal Protectors

YAPILACAK İŞ	KULLANILMASI GEREKEN KİŞİSEL KORUYUCULAR
Rafineri Sahasında Çalışılması	Baret, İş Elbisesi, İş Eldiveni, Emniyet ayakkabısı/botu ve koruyucu gözlük.
Fırında Alev Kontrolu, Börner Kontrolu	Yüz Siperliği.
Katalist Yükleme ve Boşaltma İşlemi	Katalist Giysisi, P3 Tipli Filitreli Tam yüz Maskesi/FFP2S Tipli toz maskesi, toz gözlüğü ve kimyasal eldiven.
Kimyasallarla Çalışılması	Kimyasal Giysi, Kimyasal eldiven, Air-Line Maske veya Hava Tüplü Tam Yüz Maskesi
Asit, Kostikle Çalışılması	Vizörlü Kimyasal Giysi, kimyasal eldiven ve Hava Tüplü Tam Yüz Maskesi/Airline Maske
Yerden 2 (iki) metre Yüksekte Çalışılması	Emniyet Kemeri kullanılması ve kancanın bir yere sabitlenmesi.
Kurşun Tetra Etille Çalışılması	Özel Koruyucu giysi, kimyasal eldiven ve Hava Tüplü Tam Yüz Maskesi
H2S Gazı ile Çalışılması	Hava Tüplü Tam Yüz Maskesi
CO ile Çalışılması	Hava Tüplü Tam Yüz Maskesi/Air-Line
Taşlama Tezgahında Çalışılması	Eldiven ve Gözlük/Siperlik
El Taşı ile çalışılması	Eldiven ve Gözlük/Siperlik
Kaynak İşleri	Baret, Kaynakçı Maskesi, Kaynakçı Eldiveni.
Sıcak Sıvı ya da Buharla Yapılan Çalışmalar	Sıvı Sıcaklara ya da buhara karşı dayanıklı eldiven ve Yüz Siperliği
Kuru Sıcak Hatlarda Yapılan Çalışma	Sıcak İş Eldiveni

ANNEX-16 Hazardous Substance Incident Notification Form

KİRLİLİK İHBAR ALMA FORMATI

TANIMLAMA KODU	SAĞLANAN BİLGİ	AÇIKLAMALAR
A	RAPORUN TÜRÜ -ŞÜPHELİ -TAHMİNİ -ONAYLI	
B	GÜN VE ZAMAN TANIMLAMA	
C	KİRLİLİĞİN POZİSYONU VE YAYILIMI	
D	RÜZGAR VE MEVCUT DURUM	
E	HAVA KOŞULLARI VE DENİZİN DURUMU	
F	KİRLİLİĞİ KAREKTERİSTİĞİ	
G	KİRLİLİĞİN KAYNAĞI VE SEBEBİ	
H	OLAY ÇEVRESİNDEKİ DİĞER GEMİLER	
I	FOTOGRAF VE ÖRNEKLER	
J	ÖNLEME VEYA MÜDAHALE İŞLEMLERİ	
K	TAHMİNİ KİRLİLİK	
L	DİĞER BİLGİLENDİRİLENLER	
M	DİĞER BİLGİLER	
N	RAPORLAYAN OTORİTE	

İlgili Otoritenin iletişim bilgileri (örn: isim, telefon, faks, e-mail, adres, vb.)

ANNEX-17 Notification Form for Control Results of Hazardous Load Transportation Units

Tüpraş
Türkiye Petrol Rafinerileri A.Ş.

GEMİ -SAHİL EMNİYET TOPLANTISI KONTROL FORMU

Dok. No: İZR.ÜRM.FRM.0122
Yayın Tarihi: 24.08.2011
Rev. No: 2
Rev. Tarihi: 17.07.2014
Sayfa No: 1 / 1

GEMİ-SAHİL EMNİYET TOPLANTISI KONTROL LİSTESİ

SHIP – SHORE SAFETY MEETING CHECKLIST

Bu kontrol listesi herhangi bir kargo operasyonu öncesi gemi ve sahil tarafından karşılıklı imzalanır.Operasyonun emniyeti açısından maddelerin herhangi birinden şüphe veya tereddüt ediliyorsa, bütün gerekli bilgiler karşılıklı alınıp verilmelidir.

This checklist is to be counter signed / initialed by Ship and Shore Representatives before commencing of any cargo operations. Any doubt or unclear item must be discussed and all necessary information must be exchanged for safety of operations.

MADDE / ITEM	GEMİ / SHIP	SAHİL / SHORE
Sahil-gemi emniyet kontrol listesi uygun şekilde doldurulup kararlaştırıldı ve imzalandı. Ship Shore Safety Checklist has been properly filled, signed and agreed	✓	✓
Birincil ve ikincil haberleşme yöntemi test edilip görüşüldü ve kararlaştırıldı. Main and back up communication methods have been discussed, agreed and tested	✓	✓
Acil durum prosedürleri karşılıklı görüşüldü. Emergency Procedures have been exchanged	✓	✓
Sigara içme alanları tanımlandı. Sigara içme, çıplak ateş ve cep telefonuyla ilgili kurallar görüşülüp ortak karara varıldı. Smoking Rooms designated. Regulations regarding Smoking, Naked Lights, Mobile Phones have been discussed and agreed.	✓	✓
Gemi ve/veya sahilin yapısal sınırlamaları karşılıklı görüşülüp, not edildi. Su altı derinliği, Su üstü yüksekliği, trim, geri döndürmez valfler, sahil devre ve kolların limit değerleri vb. Structural Restrictions of Jetty and/ or vessel have been exchanged and noted (Draft,Freeboard,Trim,Non return valves,arms/hoses limits etc.)	✓	✓
Hava tahmin raporları ve operasyondaki rüzgar, dalga, akıntıların sınır değerlerinde karar kılındı. Weather forecast information have been exchanged, operational limits of wind, swell, current are agreed.	✓	✓
Yük Emniyet bilgi formu karşılıklı değiştirildi ve emniyet prosedürleri (H2S, benzen vb.) görüşüldü. MSDS have been exchanged and cargo properties, safety concerns (H2S, Benzene etc.) have been discussed.	✓	✓
Yükleme / Tahliye planındaki adımlara karar verilip protokol imzalandı. Loading / Discharging Plan/Sequence have been agreed, protocol signed	✓	✓
Ham Petrol yıkaması veya tank temizliği yapılacaksa ilgili emniyet prosedürlerine karar verildi. If any Crude Oil Washing or Tank Cleaning to be carried out procedures have been agreed	N/A	N/A
Kargonun statik elektriği üzerinde biriktiren tür olması durumunda, yükü elleçleme, numune alma, ullage gibi yöntemlerin nasıl yapılacağı görüşülüp karara bağlanmalıdır. If the static accumulator cargoes handling, ullaging, sampling methods discussed and agreed.	✓	✓
Kargo operasyonu dışında, yakıt alma, ballast alıp-basma, çöp teslimatı vb operasyonlar görüşülüp karara bağlandı. Any other operations other than cargo (bunkering, ballasting, deballasting garbage delivery etc.) have been discussed and agreed.	✓	✓
Yağ taşıntısına karşı koruyucu önlemler görüşülüp karara bağlandı. Precautions regarding oil spill prevention have been discussed and agreed.	✓	✓
Diğer emniyet tedbirleri (Kişisel koruyucu elbise ve ekipmanlar vb.) görüşüldü. Any other personal safety matters (Clothing etc.) have been discussed	✓	✓
Gemi personeli OCIMF in uygun gördüğü alkol politasına uyacaktır. Crew will comply with the Guidelines For the Control Of Drugs And Alcohol Onboard Ship of OCIMF.	✓	✓

Yukarıdaki maddelerin, biz temsil eden personelimiz tarafından anlaşıldığını ve bu konudaki gerekliliklerin üzerimize düşen kısmıyla ilgili gerekli prosedürleri personelimiz tarafından gerçekleştirileceğini beyan ederiz.

We confirm that we have agreed and understood the above items and that our representative staff will be made aware of the information exchanged and procedures to be followed.

GEMİ ADI /VESSEL NAME	SONIA	TARİH & SAAT /DATE & TIME	28.12.2015
GEMİ TEMSİLCİSİ Ship Representative	SAHİL TEMSİLCİSİ Terminal Representative	YÜK ENSPEKTÖRÜ Cargo Surveyor	YÜKLEME SORUMLUSU Loading Master
ADI SOYADI / Name & Surname: CH / OFF SONIA	ADI SOYADI / Name & Surname	ADI SOYADI / Name & Surname	ADI SOYADI / Name & Surname: Capt. Ahmet GÖDEKMERDAN LOADING MASTER On behalf of Tüpraş İzmir Rafinerisi Müdürlüğü
İMZA / Signature	İMZA / Signature	İMZA / Signature	İMZA / Signature

Koç