

## Due Diligence Investigation

SOCAR Terminal, Izmir, Turkey

## Cyanco USA







Project: CA1073.0 February 23,2024 Draft Version

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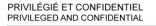


#### **DOCUMENT REVISION**

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#### INTRODUCTION

Cyanco Corporation is a global leader in mineral extraction chemicals for the gold and silver industries. The company, headquartered in Sugar Land, Texas, operates production facilities in Alvin, Texas and Winnemucca, Nevada while maintaining distribution centres in Cheyenne, Wyoming, Cadillac, Quebec, Canada and Hermosillo, Sonora, Mexico.

Cyanco is a signatory to the International Cyanide Management Code (ICMC) since 2013. In 2023, it maintained three (3) distinct and certified supply chains:

- Global Ocean Supply Chain;
- North American Rail & Truck Supply Chain, and;
- Western U.S. Supply Chain.

The North American Rail & Truck and the Western U.S. Supply Chains involve transport across the US including Alaska, Canada and Mexico by way of rail and trucks via ports and barges. The Global Ocean Supply Chain is supported by shipment from the port of Houston, Texas to international ports including Callao, Peru; Caucedo, Dominican Republic; Cortes, Honduras; Nouakchott, Mauritania and Tema, Ghana. The Global Ocean Supply Chain was first certified in March 2016 and was recertified in June 2022.

Cyanco is pursuing international business growth opportunities worldwide. Lately, Cyanco shipped solid sodium cyanide in Turkey which triggered the need to conduct a due diligence investigation for port facilities to comply with ICMC practice. To ensure compliance with ICMC requirements, Cyanco USA mandated Terrapex' auditor, Mr. Jean-Marc Leger, to conduct a due diligence investigation for the SOCAR Terminal (SOCAR) in Izmir, Turkey.

The due diligence investigation involved a site visit performed by Mr. Leger, accompanied by Cyanco Turkey sales representative, Mr. Oğuz Türe, on January 22<sup>nd</sup>, 2024. The site visit included interviews with SOCAR representative Mrs. Esra Gündüz, IMDG advisor and government relations manager as well as Mr. Celatin Velioğlu, Health, Safety Environment and Security manager and finally Mr. Hasan Appak, commercial manager. Prior to undertaking the due diligence investigation, Mr. Leger contacted ICMI's senior vice president, Mr. Eric Schwamberger, to discuss the due diligence investigation process in a Turkish ports context.

The due diligence investigation approach followed by the ICMI auditor respected the "*Guidance for use of the cyanide transportation verification protocol*" recommendations. Of particular interest is the following guidance:



"Supply chain components, in particular rail carriers, <u>ports</u>, and shipping lines, are not audited in the same manner as truck transporters and supply chain consigners. Full Code audits are not required for rail lines and rail terminals, shipping lines, <u>or</u> <u>ports</u> due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport operations.

Rather than conduct Code audits of these entities, a Due Diligence Investigation must be conducted and documented for each rail carrier, shipping company, and port facility included in the supply chain. The Due Diligence Investigations must be documented in a written report generated by the consigner or by an auditor meeting ICMI requirements for a transport technical expert auditor.

If the Due Diligence Investigation is conducted by the consignor, the Due Diligence Investigation report must be reviewed by an auditor meeting ICMI requirements for a transport technical expert auditor, and the auditor must conclude that the consigner's Due Diligence Investigation reasonably evaluated the facility. Due Diligence Investigations must be conducted on a three-year cycle and should include an inspection of each transport component of a supply chain, with the recognition that access to marine shipping, ports, and rail facilities may be limited.

However, the provisions of Transport Practices 1.2 through 1.6, 2.1 and 3.1 through 3.5 of this Transportation Guidance can be applied in full or in part to rail transport, sea transport, <u>and port</u> <u>activities</u> as a guide for Due Diligence Investigations.

A summary of the Due Diligence Investigation report for each supply chain component must be included in both the Detailed Audit Findings Report and the Summary Audit Report. Each Due Diligence Investigation report <u>must conclude that</u> the rail carrier, shipping line, <u>port</u>, or other supply chain component <u>can safely manage cyanide</u>, based on the Due Diligence Investigation <u>or that</u>, to the extent practical, the consigner has implemented any necessary management <u>measures to ensure the safe management of cyanide</u> by the supply chain component. "



#### **DESCRIPTION OF OPERATION**

The SOCAR Terminal in Izmir is considered the largest integrated port in the Aegean region. A recently constructed facility (2016), the terminal is designed to support the needs of the adjoining oil refinery and petrochemical complex as well as the Renewable Energy and other regional logistics, distribution and transmission business sectors. The terminal plays an important role in the entry and exit of critical products such as health supplies, medicines, and food.

By design, the terminal can accommodate an annual container handling capacity of 1.5 million TEU (Twenty-Foot Equivalent Unit), thanks to its logistics area of 42 hectares in the port sector for container storage and 6 hectares in a back service area. In 2023, container handling capacity was approximately 600,000 TEU. SOCAR can accommodate vessels with a capacity of 18,000 TEU, based on its 700-meter one-piece dock structure and 16-meter minimum water depth.

In addition, there is a general cargo dock with a length of 150 meters and a depth of 10 meters in the terminal area. This dock has a carrying capacity of 10 tons per square meter and can accommodate vessels weighing up to 15,000 DWT (Dead Weight Tonnage). In project cargo shipments that require larger storage, an additional 30 acres of storage space is available on the terminal property.

The SOCAR Terminal relies on three (3) Ship-To-Shore (STS) cranes and ten (10) RTG (Rubber Tire Gantry) cranes to support container handling activities. According to interview conducted with SOCAR IMDG advisor, dangerous goods currently represent between 1 to 2 % of the annual volume of transiting merchandise. The review of a 9 December 2023 waybill indicate sodium cyanide is shipped in solid form in Intermediate Bulk Containers (IBC). A total of twenty (20) IBC on pallets is placed in a sea container.

The SOCAR terminal was recertified under the ISPS (International Ship and Port Facility Security) Code in December 2023. The terminal is considered a high security facility by the Turkish authorities and as such has a permanent local police and customs presence. SOCAR subcontracts security services to *Securitas*, an international security company. *Securitas* provides 50 security guards to the terminal and entrance guards are armed with light machine-gun. An additional 500 trained security guards are on call and can provide relief at any time.

The perimeter of the terminal is fenced. The fence is composed of a concrete base, followed by a metal works structure topped with barbed wire. According to interview conducted, over two hundred (200) CCTV cameras are installed to ensure no area of the terminal is blacked out. The interview with the Security manager confirmed the availability of replacement cameras on site. Two (2) control room security officers are on duty seven (7) days a week and 24 hours a day to monitor CCTV screens. The control room security officers can monitor site intrusion by drones but also various site conditions such as wind speed, water level at berth as well as concentration

of flammable, toxic, explosive gases like methane, hydrogen, carbon monoxide, hydrogen sulfide, chlorohydric acid, potentially originating from adjoining refinery or petrochemical plant. Security control room officers can remotely adjust container storage area lighting to further facilitate CCTV observations at night.

The terminal is equipped with fire hydrants connected to an underground water supply network. The emergency response capability at the terminal is subcontracted to a private company, NRC, itself accredited by the Turkish authorities. NRC has the capacity to manage land and waterbased spills including hydrocarbon accidental release in port waters as required by SOLAS (Safety Of Life At Sea) convention of which Turkey is a signatory.

SOCAR employs over 300 staff to conduct daily activities including but not limited to container and bulk shipment handling, storage planning, mobile equipment maintenance, oversight, and general administration, etc.



#### Location details

REFERENCE: RAND MCNALLY





REFERENCE: GOOGLE EARTH

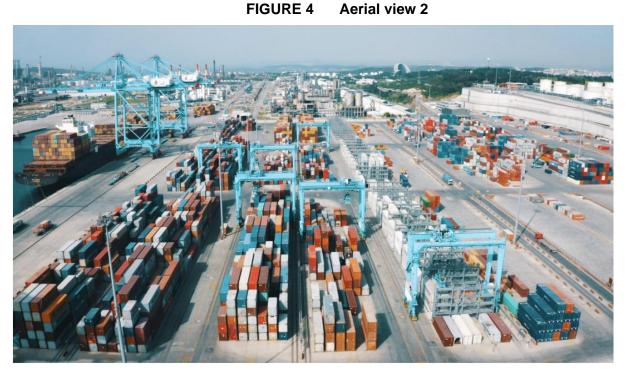


#### FIGURE 3 Aerial view 1

REFERENCE: SOCAR TERMINAL PRESENTATION 2024



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**REFERENCE: SOCAR TERMINAL PRESENTATION 2024** 

#### SOCAR Terminal personnel contacted

- Mrs. Esra Gündüz International Maritime Dangerous Goods Officer and Government Relations Manager
- Mr. Celatin Velioğlu– Health, Safety, Security, and Environment Supervisor and Port Facility Security Officer
- Mr. Hasan Appak Commercial Manager



#### AUDITORS' FINDING

The operation:	Can manage safely cyanide containers has implemented measures to safely manage cyanide.
Audit Company:	Auditex HSE Inc., a subsidiary of
	Terrapex Environmental Ltd.
	3615 A, Isabelle Street
	Brossard, Quebec, Canada
Auditor:	Jean-Marc Léger
	e-mail: jean-marc.leger@terrapex.ca
Date(s) of Audit:	23 February 2024

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute for Code Verification Auditors. I attest that this Due Diligence Investigation report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Transportation Verification Protocol as applicable, and using standard and accepted practices for health, safety and environmental audits.



#### 1.0 TRANSPORT PRACTICE

Transport cyanide in a manner that minimizes the potential for accidents and releases.

#### 1.2 ENSURE THAT PERSONNEL OPERATING CYANIDE HANDLING AND TRANSPORT EQUIPMENT CAN PERFORM THEIR JOBS WITH MINIMUM RISK TO COMMUNITIES AND THE ENVIRONMENT.

The operation:

Can manage safely cyanide containers has implemented measures to safely manage cyanide.

## **1.2.1** DOES THE TRANSPORT COMPANY USE ONLY TRAINED, QUALIFIED AND LICENSED OPERATORS TO OPERATE ITS TRANSPORT VEHICLES?

Interview with SOCAR management and mobile equipment maintenance superintendent indicate that mobile equipment operators must have an appropriate state issued license prior to being considered or hired for a position at the terminal involving the use of a mobile equipment designed for the handling of containers and bulk merchandise. After hiring, which includes a medical fitness verification, SOCAR will supplement the state attested training with additional in-house training prior to commencing work as well as throughout the term of employment with refresher training sessions. The SOCAR internal procedure ensuring mobile equipment operators are hired based on appropriate license was not available for review during the visit.

#### **1.2.2 HAVE ALL PERSONNEL OPERATING CYANIDE HANDLING AND TRANSPORT EQUIPMENT BEEN** TRAINED TO PERFORM THEIR JOBS IN A MANNER THAT MINIMIZES THE POTENTIAL FOR CYANIDE RELEASES AND EXPOSURES?

The interview with HSSE manager and limited training records review indicate SOCAR has implemented a training program to ensure crane and reach stacker operators as well as mobile equipment maintenance personnel have been instructed on how to handle containers and moving loads without rupturing or damaging containers. Mobile equipment operators are hired based on minimal competency in the form of mobile equipment / forklift license or crane operator license.

SOCAR provides additional training and refresher training on the following topics: safe use of mobile equipment in the terminal; lifting and handling of material; defensive driving technique; working with screen mobile equipment; basic occupational health and safety; health and safety signage in terminal; workplace accident prevention principles, causes and control techniques; International Maritime Dangerous Goods (IMDG); disciplinary

#### 1.2.3 IF THE TRANSPORTER CONTRACTS OTHER ENTITIES TO CONDUCT ANY OF THE ACTIVITIES REQUIRED IN TRANSPORT PRACTICE 1.2, DOES IT IMPLEMENT PROCEDURES TO MAKE THE CONTRACTOR AWARE OF THE APPLICABLE CODE REQUIREMENTS AND ENSURE THE CONTRACTOR COMPLIES WITH THOSE REQUIREMENTS?

SOCAR Terminal responsibilities regarding container handling operations start when STS crane unloads containerized merchandise from ship, transport them with a RTG crane and reach stacker to an interim storage location and ends when the container is positioned on the external trucking company's transport equipment. SOCAR is not responsible for securing or rigging the container once on the truck's trailer.

All container moving and storage related activities performed by SOCAR is conducted by its own and managed personnel. SOCAR does not subcontract any container handling tasks to other companies when containers are on the terminal.

The requirement is not applicable according to interview conducted with SOCAR management.

## 1.3 TRANSPORT PRACTICE : ENSURE THAT TRANSPORT EQUIPMENT IS SUITABLE FOR THE CYANIDE SHIPMENT.

The operation:

• Can manage safely cyanide containers has implemented measures to safely manage cyanide.

## **1.3.1** DOES THE TRANSPORT COMPANY ONLY USE EQUIPMENT DESIGNED AND MAINTAINED TO OPERATE WITHIN THE LOADS IT WILL BE HANDLING?

No mobile equipment list was available for verification of nominal load or handling capacities. Nonetheless, from visual observation of terminal mobile equipment and transport manifests shared by Cyanco Turkey sale representative, STS and RTG cranes as well as reach stackers and truck-trailers appear to be designed to safely handle cyanide containers averaging a cargo weight of approximatively 21,6 metric tons of sodium cyanide.

Similarly, according to interview of the maintenance superintendent, the preventive maintenance program for mobile equipment is based on manufacturer's recommendations and thus, designed to ensure mobile equipment is operated within their respective load limit.



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The above-mentioned mobile equipment's selection appears to be aligned with cyanide container's expected weight.

## **1.3.2** ARE THERE PROCEDURES TO VERIFY THE ADEQUACY OF THE EQUIPMENT FOR THE LOAD IT MUST BEAR?

SOCAR terminal has a daily pre-shift mobile equipment inspection process designed to identify abnormal condition or malfunction of mobile equipment by operators that could lead to an incident while handling cyanide containers. Moreover, SOCAR implements a preventive maintenance program which ensures equipment ability to function safely under the load represented by a cyanide container.

## **1.3.3** ARE THERE PROCEDURES IN PLACE TO PREVENT OVERLOADING OF THE TRANSPORT VEHICLE BEING USED FOR HANDLING CYANIDE (I.E., OVERLOADING A TRUCK, FERRY, BARGE, ETC.)?

As indicated in 1.3.1, ship-to-shore cranes, rubber tire gantry cranes, reach stackers and terminal truck-trailers are the only lifting and transfer equipment used for container handling by SOCAR. All container handling equipment are expected to have nominal lifting or load bearing capacity exceeding the average 22 metric tons cyanide container weight. SOCAR does not incur the responsibility of assessing load bearing adequacy for the mobile equipment used to transport cyanide containers outside the terminal and to the mining operators.

#### 1.3.4 IF THE TRANSPORTER CONTRACTS OTHER ENTITIES TO CONDUCT ANY OF THE ACTIVITIES REQUIRED IN TRANSPORT PRACTICE 1.3, DOES IT IMPLEMENT PROCEDURES TO MAKE THE CONTRACTOR AWARE OF THE APPLICABLE CODE REQUIREMENTS AND ENSURE THE CONTRACTOR COMPLIES WITH THOSE REQUIREMENTS?

SOCAR responsibilities regarding container handling operations start when STS crane unloads merchandise from ship and ends when the container is positioned on the external trucking company's trailer equipment. SOCAR is not responsible for securing or rigging the container once on the truck's trailer.

All container moving and storage related activities performed by SOCAR are conducted by its own personnel, using its own equipment, maintained by its own mechanics according to a predetermined maintenance schedule. According to HSSE manager, SOCAR does not lease any container handling equipment from a third party for use on the terminal.

As a port terminal operator, SOCAR is closely supervised by Turkish security, transportation and infrastructure and environment government agencies. Similarly, SOCAR activities are aligned with International Maritime Organization (IMO) requirements and best management practices which meet the intent of ICMC. This is represented by



SOCAR Dangerous Cargoes Handling Manual (ref document: 1000.MAN.001; 15 June 2023; 91 pages) which cites IMDG Code regularly (ex. section 1.2).

#### 1.4 DEVELOP AND IMPLEMENT A SAFETY PROGRAM FOR TRANSPORT OF CYANIDE.

The operation

• Can manage safely cyanide container has implemented measures to safely manage cyanide.

## **1.4.1** ARE THERE PROCEDURES TO ENSURE THAT THE CYANIDE IS TRANSPORTED IN A MANNER THAT MAINTAINS THE INTEGRITY OF THE PRODUCER'S PACKAGING?

According to reviewed transport manifest, twenty (20) Intermediate Bulk Containers (IBC) of sodium cyanide briquettes are placed in each container when shipped through SOCAR terminal. Transport manifests attest a weight of 21 600 kg of cyanide per sea container. The interview of IMDG advisor confirms that upon arrival at dock, STS crane operator will lift containers and visually observe from the operator cabin if container is damaged. In case of damage, the container is immediately placed in a secondary containment metal structure already positioned at the dock to prevent release of content in the water of dock. The damaged container will be further assessed and managed according to the received Safety Data Sheet (SDS) and the agency representing the owner of the merchandise will be notified. A secondary containment metal structure was observed near a docked vessel during the site visit.

During the site visit, strong wind conditions were prevailing during the day (above 30 km/h). While at the security control room, one security officer was inspecting, via the CCTV system, the position and stability of stacked containers. These measures are representative of SOCAR's oversight regarding the integrity of the producers' packaging.

## **1.4.2** ARE PLACARDS OR OTHER SIGNAGE USED TO IDENTIFY THE SHIPMENT AS CYANIDE, AS REQUIRED BY LOCAL REGULATIONS OR INTERNATIONAL STANDARDS?

At the time of the site visit, no sodium cyanide containers were present on the terminal interim storage area. The reviewed "register of dangerous goods" present on the terminal also indicated absence of cyanide containers. However, other dangerous goods were stored in designated areas of the terminal. These include UN 1146 (Cyclopentane); UN 1866 (Styrene and methyl methacrylate resin compound); UN 1993 (Isopropanol); UN 3055 or 2-(2-Aminoethoxy) ethanol; UN 3082 (bifenthrin or Maxxthor SC insecticide).

Placards were observed on the dangerous goods containers and ISO tank containers (Isotainers). Dangerous goods storage practices at SOCAR terminal follow IMDG



Segregation rules. As such, dangerous goods are normally stored in corners of a container interim storage area.

Interview with IMDG advisor, suggest no specific additional signage is placed to confirm presence of sodium cyanide. IMDG 26 February 2007 "Revised recommendations on the safe transport of dangerous cargoes and related activities in port areas" and segregation rules are considered offering acceptable alternate solution to ICMI requirements.

## **1.4.3** DOES THE TRANSPORTER IMPLEMENT A SAFETY PROGRAM FOR CYANIDE TRANSPORT THAT INCLUDES (WHERE APPROPRIATE OR APPLICABLE):

- a. Vehicle inspections prior to each departure/shipment?
- b. A preventive maintenance program?
- c. Limitations on operator or drivers' hours?
- d. Procedures to prevent loads from shifting?
- e. Procedures by which transportation can be modified or suspended if conditions such as severe weather or civil unrest are encountered?
- f. A drug abuse prevention program?
- g. Retention of records documenting that the above activities have been conducted?

According to its promotional brochure, SOCAR is ISO standard certified for Quality Management System (9001), Environmental Management System (ISO 14001), Customer Satisfaction Management System (ISO 10002) as well as ISO 45001, Health and Safety Management System. The valid ISO certification attestations are available from the SOCAR Internet site. The SOCAR Terminal is also currently implementing an Energy Management System under ISO 50001.

In addition, SOCAR company operates under 16 HSE Principles referencing operational excellence themes that include the following: regulatory compliance; management leadership and accountability; risk assessment and management; operational accountability; contractor and supplier management; competence, training and behaviours; management of change; facilities design and construction; environmental assessment and management; safeguarding of health; information and documentation; societal commitment; customers and products; performance monitoring and improvement; incident analysis and prevention; emergency preparedness and crisis management. Change Management is a key feature of SOCAR's ISO 45001 management system for health and safety, and the auditor reviewed form # 7000.FRM.034 (rev. 7) to assess completeness of the management process.

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SOCAR implements a mobile equipment pre-start inspection process. While visiting the mobile equipment workshop, pre-start inspection checklists were reviewed. Form # 074050 for equipment TT-20 (truck-trailer), dated 19 January 2024, included eight (8) general equipment items and seven (7) operator cabin items. The list was signed by the operator.

As mentioned previously and illustrated in the photo log, SOCAR has implemented a preventive maintenance program for its fleet of mobile equipment and other terminal equipment. The preventive maintenance program is driven by IFS software which delivers notifications for maintenance to supervisors and records the maintenance history of all equipment.

SOCAR Terminal is a 24-hours a day and 7-days a week operation. The terminal is characterized by three (3) work shifts with different crews of operators per shift. Hence, operators are limited in their ability to work extended hours. The design of terminal truck-trailers used for moving containers over short distances do not necessitate load rigging devices.

Interview with HSSE manager and observation of security control room instrumentation suggest high wind conditions is a critical parameter followed for STS crane activities. The wind velocity threshold limit beyond which STS crane activities are suspended could not be confirmed during site visit. However, such a limit is determined and stop work decision is implemented according to interview.

The SOCAR human resources manager was not available for interview at the time of the site visit. However, a disciplinary measures guidance document was shared and translated. The document confirms a zero tolerance for drugs and alcohol while at work. The implementation of a drugs and alcohol testing program was not confirmed by SOCAR at the time of the site visit.

#### 1.4.4 IF THE TRANSPORTER CONTRACTS OTHER ENTITIES TO CONDUCT ANY OF THE ACTIVITIES REQUIRED IN TRANSPORT PRACTICE 1.4, DOES IT IMPLEMENT PROCEDURES TO MAKE THE CONTRACTOR AWARE OF THE APPLICABLE CODE REQUIREMENTS AND ENSURE THE CONTRACTOR COMPLIES WITH THOSE REQUIREMENTS?

SOCAR does not contract other entities to conduct any activities related to the handing and transport of cyanide. The only subcontracted activities at the SOCAR terminal are the security of the site and the emergency response.



## 1.5 FOLLOW INTERNATIONAL STANDARDS FOR TRANSPORTATION OF CYANIDE BY SEA.

The operation:

Can manage safely cyanide container has implemented measures to safely manage cyanide.

## 1.5.1 ARE SHIPMENTS OF CYANIDE BY SEA TRANSPORTED IN COMPLIANCE WITH THE DANGEROUS GOODS CODE OF THE INTERNATIONAL MARITIME ORGANIZATION?

a. Is the cyanide shipment packaged as required by Part 4 of the IMO DG Code and according to the packaging instructions and packaging provisions indicated on the DG List?

As indicated in 1.4.2 no sodium cyanide containers were present on the terminal interim storage area at the time of the visit. However, other dangerous goods were stored in designated areas of the terminal. The dangerous goods were observed in sea containers as well as Isotainers. Placards were observed on the dangerous goods containers and Isotainers. Interview with terminal IMDG advisor confirms SOCAR is not involved in packaging solid sodium cyanide in shipping containers.

b. Are cyanide packages marked as required by Section 5.2.1 of the IMO DG Code and according to the labeling requirements indicated on the DG List?

Not applicable to terminal authority

c. Are cyanide packages labeled as required by Section 5.2.2 of the IMO DG Code and according to the labeling requirements indicated on the DG List?

Not applicable to terminal authority

d. If cyanide is shipped in cargo transport units, are the units placarded and marked as required by Chapter 5.3 of the IMO DG Code?

See a.

e. Has a dangerous goods transport document been prepared with the information required under Chapter 5.4 of the DG Code?

Interview with IMDG advisor at port confirms port authorities receives transport manifests associated with cyanide containers and other dangerous goods containers approximately three (3) days prior to vessel arrival at port. The transport documentation is compliant with IMDG Code prescriptions. The transport manifests



f. If the cyanide is packed or loaded into a container, has a "container/vehicle packing certificate" been prepared meeting the requirements of Section 5.4.2 of the DG Code?

Not applicable to terminal authority

g. Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

Not applicable to terminal authority

h. Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Not applicable to terminal authority

i. Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Not applicable to terminal authority

#### 1.6 TRACK CYANIDE SHIPMENTS TO PREVENT LOSSES DURING TRANSPORT.

The operation:

• Can manage safely cyanide container has implemented measures to safely manage cyanide.

#### **1.6.1** DO TRANSPORT VEHICLES HAVE MEANS TO COMMUNICATE WITH THE TRANSPORT COMPANY, THE MINING OPERATION, THE CYANIDE PRODUCER OR DISTRIBUTOR AND/OR EMERGENCY RESPONDERS, AS APPROPRIATE?

This requirement has limited applicability while the cyanide containers are in interim storage in dedicated area of the terminal. Nonetheless, as indicated in 1.2.3 and according to interview with security manager, SOCAR terminal mobile equipment operators (i.e. crane, reach stacker and terminal truck-trailer) are equipped with 2-way radio communication system. In the event of an incident or a hazardous situation, operators can communicate with terminal authority security and HSSE manager on duty.

## **1.6.2** IS THE COMMUNICATION EQUIPMENT (E.G. GPS, MOBILE PHONES, RADIOS, PAGERS.) PERIODICALLY TESTED TO ENSURE IT FUNCTIONS PROPERLY?

In the event of a communication (2-way) radio system malfunction, mobile equipment operators can request another radio unit.

#### **1.6.3 HAVE COMMUNICATION BLACKOUT AREAS ALONG TRANSPORT ROUTES BEEN IDENTIFIED? ARE SPECIAL PROCEDURES IMPLEMENTED FOR THE BLACKOUT AREAS?**

The terminal's limited footprint does not incur the prospect of a communication blackout.

#### **1.6.4** ARE THERE SYSTEMS OR PROCEDURES TO TRACK THE PROGRESS OF CYANIDE SHIPMENTS?

Upon arrival at the terminal, ship captain will transfer container transport manifests to SOCAR Terminal. Terminal authority will acknowledge receipt of transport manifests and record container stored on its premises in its database which is also available to clients from an Internet portal (see: <u>https://online.socarterminal.com/tr-TR/portal/public/container</u>).

As is the case for other terminal related activities regarding dangerous goods management, the prescriptions of the International Maritime Organization's "Revised Recommendations on the Safe Transport of Dangerous Cargoes and related Activities in Port Areas" are followed by SOCAR Terminal (reference section 7.4.1. of the "*Revised Recommendations*" document).

## **1.6.5** DOES THE TRANSPORTER IMPLEMENT INVENTORY CONTROLS AND/OR CHAIN OF CUSTODY DOCUMENTATION TO PREVENT LOSS OF CYANIDE DURING SHIPMENT?

As pertaining to the terminal authority only, the Navis N4 software is used for storage management, tracking and inventory controls of cyanide, dangerous goods, or any other merchandise. The auditor was given a short presentation of the software and shown key features including chemical incompatibility between different categories of dangerous goods, including cyanide containers. The photo log present a screen shot of the NAVIS N4 software interface.

## **1.6.6** ARE SHIPPING RECORDS INDICATING THE AMOUNT OF CYANIDE IN TRANSIT AND SAFETY DATA SHEETS AVAILABLE DURING TRANSPORT?

As indicated in 1.5.1.e., interview with IMDG advisor at terminal confirms SOCAR receives transport manifests associated with cyanide containers or any other containers approximately three (3) days prior to vessel arrival at port. The transport documentation is compliant with IMDG Code prescriptions according to interview. The transport manifests are accompanied by a Safety Data Sheet (SDS) of the dangerous good. The information is communicated through the "Electronic Data Exchange System" platform.



The Cyanco Turkey sales representative provided a waybill sample of shipment of ten (10) containers of sodium cyanide. The transport document, dated 9 December 2023, confirms shipper's name, consignee's name, notify party, vessel name, port of loading, port of discharge, voyage number. Similarly, the container number, the seal number and cyanide manufacturing lot number appear on the waybill document.

Lastly, the following confirmation / information is provided in the waybill:

"HAZARDOUS CARGO ACCORDING TO THE IMDG CODE EMERGENCY CONTACT: CHEMTREC TERRAPURE 703-527-3887 / 800-567-7455 HAZARDOUS DECLARATION: I HEREBY DECLARE THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY THE PROPER SHIPPING NAME(S) AND ARE CLASSIFIED, PACKAGED, MARKED AND LABELLED AND PLACARDED, AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR TRANSPORT ACCORDING TO APPLICABLE INTERNATIONAL AND NATIONAL GOVERNMENTAL REGULATIONS".

**1.6.7** IF THE TRANSPORTER CONTRACTS OTHER ENTITIES TO CONDUCT ANY OF THE ACTIVITIES REQUIRED IN TRANSPORT PRACTICE **1.6**, DOES IT IMPLEMENT PROCEDURES TO MAKE THE CONTRACTOR AWARE OF THE APPLICABLE CODE REQUIREMENTS AND ENSURE THE CONTRACTOR COMPLIES WITH THOSE REQUIREMENTS?

SOCAR does not contracts other entities to conduct any activities related to the transport of cyanide. The only subcontracted activities at the SOCAR terminal are the security of the site and the emergency response.



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#### 2.0 INTERIM STORAGE

## 2.1 DESIGN, CONSTRUCT AND OPERATE CYANIDE INTERIM STORAGE SITES TO PREVENT RELEASES AND EXPOSURES

The operation :

Can manage safely cyanide container has implemented measures to safely manage cyanide.

# 2.1.1 ARE WARNING SIGNS POSTED ALERTING WORKERS 1) THAT CYANIDE IS PRESENT; 2) THAT SMOKING, OPEN FLAMES, EATING AND DRINKING ARE NOT ALLOWED AND 3) WHAT PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN?

The SOCAR Terminal stores cyanide containers and other dangerous goods on an interim basis. The interviews confirmed storage practices implemented follows the prescriptions of the International Maritime Organization's "Revised Recommendations on the Safe Transport of Dangerous Cargoes and related Activities in Port Areas", dated 26 February 2007. The document is a 111 page-long list of best management practices covering safe handling, training, and emergency response among other topics. Of particular interest is section 6.3 of the IMO document on "Role of berth operators and cargo interests". The section states that: "The berth operator and cargo interests have the prime responsibility for carrying out the transport and handling of dangerous cargoes in a manner which safeguards the health and safety of their employees and others who may be affected by the operations, including the general public."

Field observations and interview suggests SOCAR does not go to the extent of placing warning signs indicating presence of cyanide containers. This gap with ICMC is not considered significant as operators are trained on dangerous goods hazard recognition and that an external emergency response team will be involved in any dangerous goods related incident. Smoking signs is addressed by the above-cited IMO document in section 7.3.7.2.

## 2.1.2 ARE THERE SECURITY MEASURES IN PLACE TO PREVENT UNAUTHORIZED ACCESS TO CYANIDE, SUCH AS LOCKOUTS ON VALVES AND FENCED AND LOCKED STORAGE OF SOLIDS?

According to interview, only solid form of sodium cyanide transits through the SOCAR Terminal. The field observations confirm several security measures are implemented to prevent access by the public. The perimeter of the terminal is fenced. The fence is composed of a concrete base, followed by a metal works structure topped with barbed wire. According to HSSE manager interviewed, over two hundred (200) CCTV cameras are installed to ensure no area of the terminal is blacked out. Two (2) control room security

officers are on duty seven (7) days a week and 24 hours a day to monitor CCTV screens. The control room security officers can monitor site intrusion by drones. Security control room officers can remotely adjust container storage area lighting to further facilitate CCTV observations at night.

The terminal was recertified under the ISPS (International Ship and Port Facility Security) Code in December 2023. The terminal is considered a high security facility by the Turkish authorities and as such has a permanent local police and customs presence. SOCAR Terminal subcontracts security services to Securitas, an international security company. Securitas provides 50 security guards to the terminal and entrance guards are armed with light machine-gun. An additional 500 trained security guards are on call and can provide relief at any time.

Additional information on CCTV system is available in Turkish language from the following Internet link: <u>https://socarterminal.com/assets/uploads/CCTV\_Bina\_Giri%C5%9F\_Ayd%</u> C4%B1nlatma\_Beyan%C4%B1\_SOCAR\_Terminal\_04032020.pdf

#### 2.1.3 IS CYANIDE SEPARATED FROM INCOMPATIBLE MATERIALS SUCH AS ACIDS, STRONG OXIDIZERS AND EXPLOSIVES WITH BERMS, BUNDS, WALLS OR OTHER APPROPRIATE BARRIERS TO PREVENT MIXING?

The interviews confirmed storage practices implemented at SOCAR Terminal follows the prescriptions of the International Maritime Organization's "Revised Recommendations on the Safe Transport of Dangerous Cargoes and related Activities in Port Areas", dated 26 February 2007. The document is a 111 page-long list of best management practices including storage practices. Table 1 (page 44) refers to a "Segregation Table for Dangerous Goods Cargoes in Port Areas" which provides guidance considered aligned with ICMC requirements.

# 2.1.4 IS CYANIDE STORED IN A MANNER DESIGNED TO MINIMIZE THE POTENTIAL FOR CONTACT OF SOLID CYANIDE WITH WATER (E.G., UNDER A ROOF, OFF THE GROUND, OR IN SPECIALLY DESIGNED CONTAINERS)?

The cyanide is stored in sea containers and as such, enclosed interim storage is not required at terminal facilities.

## 2.1.5 IS CYANIDE STORED WITH ADEQUATE VENTILATION TO PREVENT BUILD-UP OF HYDROGEN CYANIDE GAS AND CYANIDE DUST?

As indicated in 2.1.4, the cyanide sea containers are not stored in terminal buildings. Rather, the reagent is kept in its sealed sea containers during the interim storage. The requirement is not considered to be applicable.

## **2.1.6** ARE THERE SYSTEMS IN PLACE TO CONTAIN ANY SPILLED CYANIDE MATERIALS AND MINIMIZE THE EXTENT OF A RELEASE?

As indicated in 1.4.1, upon arrival at dock, STS crane operator will lift containers and visually observe from cabin if container is damaged. In case of damage, the container is immediately placed in a secondary containment metal structure already positioned at the dock to prevent release of content. The field observation confirmed presence of such secondary containment near STS crane at the dock. The photo log illustrates the equipment used to minimize the extent of an accidental release on water of dock surface.



#### 3.0 EMERGENCY RESPONSE

Protect communities and the environment through the development of emergency response strategies and capabilities

## 3.1 PREPARE DETAILED EMERGENCY RESPONSE PLANS FOR POTENTIAL CYANIDE RELEASES.

The operation

• Can manage safely cyanide container has implemented measures to safely manage cyanide.

#### 3.1.1 DOES THE TRANSPORTER HAVE AN EMERGENCY RESPONSE PLAN?

The emergency response capability at the SOCAR terminal is subcontracted to a private company, NRC (National Response Corporation). According to interview, NRC maintains a presence and has emergency response equipment in the terminal area but also for the neighboring oil refinery and petrochemical plant.

NRC is a USA-based and global provider of commercial environmental and industrial services. NRC provides custom high hazard response units, for use in ports, rail yards, industrial facilities, and airports.

According to interview of SOCAR IMDG advisor, NRC is accredited by the Turkish government to act as a professional emergency response organization. NRC has the capacity to manage land and water-based spills including hydrocarbon accidental release in port waters as required by SOLAS (Safety Of Life At Sea) convention of which Turkey is a signatory.

Maritime Shipping - National Response Corporation (nrcc.com)

The NRC and SOCAR emergency response plan were requested during the site visit.

As mentioned previously in 1.4.3, SOCAR Terminal is certified ISO 14001 and ISO 45001 among other standards. As such, it has implemented an emergency response management process aligned with its operational risks. Similarly, the SOCAR Terminal prepared a Dangerous Goods Handling Manual (ref. 1000.MAN.001) which is reviewed annually. Section 8 of the manual contains basic emergency response information. The manual was accessed from the following link: tehlikeli-yuk-ellecleme-rehberi.pdf (socarterminal.com)

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#### 3.1.2 IS THE EMERGENCY RESPONSE PLAN APPROPRIATE FOR:

#### a. The transportation route?

As indicated in 3.1.(1), NRC's emergency response capability is designed to cover not only the SOCAR terminal but also the adjacent oil refinery and petrochemical plant. The geographic footprint of the industrial area is limited to less than 5 km according to satellite image.

#### b. The physical and chemical form of the cyanide?

According to interview, NRC has containers of emergency response equipment in the terminal and emergency response planning considers land and water-based spill as emergency scenarios. Emergency response planning accounts for various dangerous goods found in interim storage on the terminal and not only cyanide. At the time of the due diligence investigation, only solid sodium cyanide shipment had been received at the terminal. The cyanide containers are normally loaded onto local transport companies' truck-trailers for delivery at mine sites within days after unloading from ship.

#### c. The method of transport?

Cyanide containers are handled by STS and RTG cranes, reach stackers and terminal truck-trailers. The distance covered between ship unloading area and interim storage is less than 500 meters according to satellite image.

#### d. The transport infrastructure (e.g., condition of the road, railway, port)?

According to interview with HSSE manager, SOCAR implements a traffic management plan to maintain a high level of safety related to mobile equipment presence in the terminal. The terminal access road infrastructure is considered in satisfactory condition according to field observation. This reflects the age of the terminal which became operational in 2016.

#### e. The design of the transport vehicle or interim storage facility?

See a. and c.

## **3.1.3** DOES THE PLAN INCLUDE DESCRIPTIONS OF RESPONSE ACTIONS, AS APPROPRIATE FOR THE ANTICIPATED EMERGENCY SITUATION?

As indicated in 3.1.1, NRC's ERP was requested during the site visit. Interview with SOCAR IMDG advisor suggests the emergency response capability of NRC subcontractor is comprehensive and refers to response scenarios for various dangerous goods found in



interim storage including toxic material such as sodium cyanide in solid form. The IMDG advisor also confirmed that NRC is accredited by the Turkish authority, and that SOCAR has a valid certificate from the Turkish Ministry of Transportation and Infrastructure to operate a terminal and that the ERP is also subjected to local agency review. The Turkish Ministry of Transportation and Infrastructure certificate was shared with the auditor.

# **3.1.4** DOES THE PLAN IDENTIFY THE ROLES OF EXTERNAL RESPONDERS, MEDICAL SERVICES OR COMMUNITIES IN EMERGENCY RESPONSE PROCEDURES AND HAVE THEY BEEN ADVISED OF THEIR ROLES?

As indicated in 3.1.1 and above, the emergency response planning is subcontracted to a private company, NRC, itself accredited by a national agency. The role of the external emergency response organization is to take over the responsibilities associated with an emergency and restore normal operating conditions at the terminal.

As mentioned previously in 1.4.3, SOCAR Terminal is certified ISO 14001 and ISO 45001 among other international standards and as such, has implemented an emergency response management process aligned with its operational risks. The NRC and SOCAR Terminal emergency response documentation was not available for review. However, the responsibility of external responders is documented in section 8 of the Dangerous Goods Handling Manual (ref. 1000.MAN.001).

## 3.2 DESIGNATE APPROPRIATE RESPONSE PERSONNEL AND COMMIT NECESSARY RESOURCE, FOR EMERGENCY RESPONSE.

The operation:

• Can manage safely cyanide container has implemented measures to safely manage cyanide.

## **3.2.1** DOES THE TRANSPORTER PROVIDE INITIAL AND REFRESHER EMERGENCY RESPONSE TRAINING OF APPROPRIATE PERSONNEL?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor was not interviewed during the site visit. Interview with SOCAR Terminal IMDG advisor suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a review of emergency response personnel qualification, training, and refresher training. Similarly, ISO 14001 and 45001 standard certification requires the implementation of management processes to address emergency scenarios and necessary response capabilities including emergency response training for SOCAR management although not involved in field activities.

## **3.2.2** ARE THERE DESCRIPTIONS OF THE SPECIFIC EMERGENCY RESPONSE DUTIES AND RESPONSIBILITIES OF PERSONNEL?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a review of emergency response duties and responsibilities of personnel. As indicated above, SOCAR's ISO 14001 and 45001 standard certification requires the implementation of management processes to address emergency scenarios and necessary response capabilities including definition of roles and responsibilities for SOCAR management although not involved in field activities.

## **3.2.3** IS THERE A LIST OF ALL EMERGENCY RESPONSE EQUIPMENT THAT SHOULD BE AVAILABLE DURING TRANSPORT OR ALONG THE TRANSPORTATION ROUTE?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a review of adequacy of emergency response equipment available at the terminal and readily accessible from the adjoining petrochemical plant or oil refinery where NRC is present for similar emergency response services (i.e. fire, spills, etc.).

## 3.2.4 DOES THE TRANSPORTER HAVE AVAILABLE THE NECESSARY EMERGENCY RESPONSE AND HEALTH AND SAFETY EQUIPMENT, INCLUDING PERSONAL PROTECTIVE EQUIPMENT DURING TRANSPORT?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a review of adequacy and fit for purpose of emergency response health and safety equipment, including personal protective equipment at the terminal or readily accessible from the adjoining petrochemical plant or oil refinery where NRC is present for similar emergency response services.

## **3.2.5** ARE THERE PROCEDURES TO INSPECT EMERGENCY RESPONSE EQUIPMENT AND ASSURE ITS AVAILABILITY WHEN REQUIRED?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by



Turkish government agency. It is expected that the government agency accreditation involves a review of emergency response equipment inspection and verification process to ensure availability when required. Although SOCAR is delegating the task of emergency response in the field, it is nonetheless ultimately accountable for the delivery of emergency response. As such, it is expected that certified ISO 14001 and 45001 management systems have addressed the need to control NRC's emergency response planning which includes response equipment inspection process.

# **3.2.6** IF THE TRANSPORTER CONTRACTS OTHER ENTITIES TO CONDUCT ANY OF THE ACTIVITIES REQUIRED IN TRANSPORT PRACTICE 3.2 OR HAS DESIGNATED OTHER ENTITIES TO CONDUCT EMERGENCY RESPONSE ACTIVITIES, DOES IT CLEARLY DELINEATE ITS ROLES AND RESPONSIBILITIES AND THOSE OF THE CONTRACTOR OR OTHER ENTITY DURING AN EMERGENCY RESPONSE?

As indicated in 3.1.1 the emergency response capability at the SOCAR terminal is subcontracted to a private company, NRC (National Response Corporation). According to interview, NRC maintains a presence and has emergency response equipment in the terminal area but also includes the neighbouring oil refinery and petrochemical plant.

According to interview conducted, NRC is accredited by the Turkish authorities to act as a professional emergency response organization. NRC has the capacity to manage land and water-based spills including hydrocarbon accidental release in port waters as required by SOLAS (Safety Of Life At Sea) convention of which Turkey is a signatory. See https://nrcc.com/industries/maritime-shipping/

As mentioned previously in 1.4.3, SOCAR Terminal is certified ISO 14001 and ISO 45001 among other standards. As such, it has implemented an emergency response management process aligned with its operational risks.

## 3.3 DEVELOP PROCEDURES FOR INTERNAL AND EXTERNAL EMERGENCY NOTIFICATION AND REPORTING.

The operation

• <u>Can manage safely cyanide container has implemented measures to safely manage cyanide.</u>



#### **3.3.1** ARE THERE PROCEDURES AND CURRENT CONTACT INFORMATION FOR NOTIFYING APPROPRIATE ENTITIES SUCH AS THE CYANIDE PRODUCER, THE CUSTOMER, REGULATORY AGENCIES, EXTERNAL RESPONSE PROVIDERS, MEDICAL FACILITIES AND POTENTIALLY AFFECTED COMMUNITIES OF AN EMERGENCY?

As indicated in 3.1.1 and 3.1.4, SOCAR prepared a manual on the handling of dangerous cargoes (Document ref.: 1000.MAN.001). Section 8 of the 91-pages manual briefly discusses emergency response planning and intervention. The topic of incident declaration and notification is presented in sub-section 8.4 and 8.5. Page 63 of the manual confirms that a cyanide related incident would trigger the notification of the "regional port authority" and government agencies. The SOCAR emergency response plan is expected to have detailed and updated contact information of the government agencies concerned by a cyanide related incident, namely Transport and Infrastructure and Environment Ministries. In addition, interview with IMDG advisor at SOCAR confirmed that any incident at the terminal is automatically communicated to the "harbour master". Any damaged container will involve a notification of the agency managing its transportation. ICMI would receive a notification from Cyanco, the shipper of the reagent material following the transportation agency's communication to the shipper and owner.

## **3.3.2** ARE SYSTEMS IN PLACE TO ENSURE THAT INTERNAL AND EXTERNAL EMERGENCY NOTIFICATION AND REPORTING PROCEDURES ARE KEPT CURRENT?

As per ISO management systems implementation for health and safety, environment as well as customer satisfaction, it is expected that SOCAR regularly updates external emergency notification and reporting procedures. The SOCAR notification procedure was not available at the time of the audit or after the site visit.

#### 3.3.3 DOES THE OPERATION HAVE A PROCEDURE FOR NOTIFYING ICMI OF ANY SIGNIFICANT CYANIDE INCIDENTS, AS DEFINED IN ICMI'S DEFINITIONS AND ACRONYMS DOCUMENT? HAVE ALL SUCH SIGNIFICANT CYANIDE INCIDENTS THAT HAVE OCCURRED BEEN REPORTED TO ICMI?

SOCAR is not expected to directly contact ICMI in the event of a cyanide related incident. As indicated in 3.3.1, the responsibility of SOCAR is limited to notifying the agency responsible for the management of cyanide product transportation, the consignee (ex. mining companies in Turkey) and the shipper (ex. agent of Cyanco). Cyanco will inform ICMI of a significant cyanide incident according to definitions and Acronyms document found on ICMI's Internet site, Cyanide Code Training / Document Library menu.

https://cyanidecode.org/wp-content/uploads/2021/06/04-Definitions-Acronyms-JUNE-2021.pdf



## 3.4 DEVELOP PROCEDURES FOR REMEDIATION OF RELEASES THAT RECOGNIZE THE ADDITIONAL HAZARDS OF CYANIDE TREATMENT CHEMICALS.

The operation:

• Can manage safely cyanide container has implemented measures to safely manage cyanide.

# **3.4.1** ARE THERE PROCEDURES FOR REMEDIATION, SUCH AS RECOVERY OR NEUTRALIZATION OF SOLUTIONS OR SOLIDS, DECONTAMINATION OF SOILS OR OTHER CONTAMINATED MEDIA AND MANAGEMENT AND/OR DISPOSAL OF SPILL CLEAN-UP DEBRIS?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a review of the procedures for remediation including recovery or neutralization of solids, decontamination contaminated media if any, and management and/or disposal of spill clean-up debris.

#### **3.4.2** DOES THE PROCEDURE PROHIBIT THE USE OF CHEMICALS SUCH AS SODIUM HYPOCHLORITE, FERROUS SULPHATE, AND HYDROGEN PEROXIDE TO TREAT CYANIDE THAT HAS BEEN RELEASED INTO SURFACE WATER?

NRC company is providing emergency response services to SOCAR Terminal. The subcontractor's emergency response plan was not available for review during or after the site visit. Interview suggests NRC (National Response Corporation) is accredited by Turkish government agency. It is expected that the government agency accreditation involves a verification of the chemicals used for the neutralization of cyanide on surface water. The likelihood of a cyanide spill over surface water at the SOCAR terminal is limited to contact with stormwater runoff to the drainage system.

## 3.5 PERIODICALLY EVALUATE RESPONSE PROCEDURES AND CAPABILITIES AND REVISE THEM AS NEEDED.

The operation

• Can manage safely cyanide container has implemented measures to safely manage cyanide.



## **3.5.1** ARE THERE PROVISIONS FOR PERIODICALLY REVIEWING AND EVALUATING THE PLAN'S ADEQUACY AND ARE THEY BEING IMPLEMENTED?

According to an internet search, NRC's international operations are certified under ISO 9001; 14001 and OHSAS 18001 (see https://nrcc.com/culture-of-safety/certificates-accreditations/). As such, it is expected that NRC has implemented a process to periodically review the SOCAR Terminal emergency response plan for its adequacy. Similarly, as per its oversight by the Turkish government agency and based on its government license to operate, it is expected that the SOCAR ERP is appropriate and aligned with terminal identified risks.

## **3.5.2** ARE THERE PROVISIONS FOR PERIODICALLY CONDUCTING MOCK EMERGENCY DRILLS AND ARE THEY BEING IMPLEMENTED?

Interview with SOCAR IMDG advisor suggests that mock drills are conducted twice a year at the terminal. The mock drills scenarios are varied and emphasize water-based spills and firefighting. Mock drill records were not made available during the interview or after the site visit.

Between NRC and SOCAR ISO certifications, it is expected that mock drills are planned and conducted at the site on a regular basis and are reviewed to determine their effectiveness and how emergency response can be improved although terminal activities are not known to change significantly over time. Similarly, government agency's oversight of terminal activities is likely interested in assessing emergency response planning adequacy and ensuring mock drills are conducted and post-mortem recorded for future reference.

## **3.5.3** IS THERE A PROCEDURE TO EVALUATE THE PLAN'S PERFORMANCE AFTER ITS IMPLEMENTATION AND REVISE IT AS NEEDED, AND HAVE THEY BEEN IMPLEMENTED?

See above response.



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#### CONCLUSION

A due diligence investigation involving a site visit performed by Mr. Leger, accompanied by Cyanco Turkey sales representative, Mr. Oğuz Türe, was performed on January 22<sup>nd</sup>, 2024. The site visit included interviews with SOCAR representative Mrs. Esra Gündüz, IMDG advisor and government relations manager as well as Mr. Celatin Velioğlu, Health, Safety Environment and Security manager and finally Mr. Hasan Appak, commercial manager.

Based on site observations, interviews with key personnel and limited document review, it is the opinion of the auditor that the SOCAR Terminal has implemented safe cyanide handling, interim storage and emergency response procedures as well as necessary training and mobile equipment maintenance management processes.



# Appendix A List of Documents Consulted



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#### List of documents consulted

Source	Title / description
SOCAR	Chemical compatibility table. 1000-TbI-002 (LİMAN SAHALARINDA TEHLİKELİ YÜKLER
	İÇİN AYRIŞTIRMA CETVELİ) 1 page
	Emergency Response chart. (7000-Flo-001_ACIL DURUM GENEL AKIŞ ŞEMASI) 1 page.
	Emergency Response Plan (7000-PLN-002 Acil Durum Plani) 70 pages.
	Training Matrix – MS XLX file (Egitim Matrisi – 9000.TBL.002_4) in Turkish.
	Excerpt from Dangerous Cargo Manifest: 2024-02-08 (UTC) - Maersk
	Ministry certificate for dangerous goods handling in Turkish.(Kiyi Tesisi Tehlikeli Yuk Uygunluk Belgesi) 1 page.
	Ministry certificate for dangerous goods handling in Turkish.(Kiyi Tesisi Islemet Izin Belgesi) 1 page.
	Change management request form (7000-FRM-034)
	STAR RAFINERI ALIAGA TERMINAL DANGEROUS CARGO HANDLING GUIDELINE 67 pages
	APM Terminal. Dokunto Ekipmenlari Plani (Photo file of terminal container storage areas)
	SOCAR Aliaga Port Management Inc. Dangerous goods management guidelines.
	PETKİM Limanı Tehlikeli Yükler El Kitabı. PETKIM Port Dangerous Goods Handbook. 45
	pages
SOCAR Internet site	https://socarterminal.com/
IMO - ILO	REVISED RECOMMENDATIONS ON THE SAFE TRANSPORT OF DANGEROUS
	CARGOES AND RELATED ACTIVITIES IN PORT AREAS. Ref. T3/1.02
	Code of practice on security in ports



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# Appendix B Photo Log



PRIVILÉGIÉ ET CONFIDENTIEL PRIVILEGED AND CONFIDENTIAL



Photo 1: View of SOCAR Terminal truck entry area with security control gates.



Photo 2: View of SOCAR Terminal fence design and security warning signage.





**Photo 3:** View of compliance certificate of SOCAR Terminal (container) to SOLAS and ISPS (International Ships and Port Security) Code and Convention.

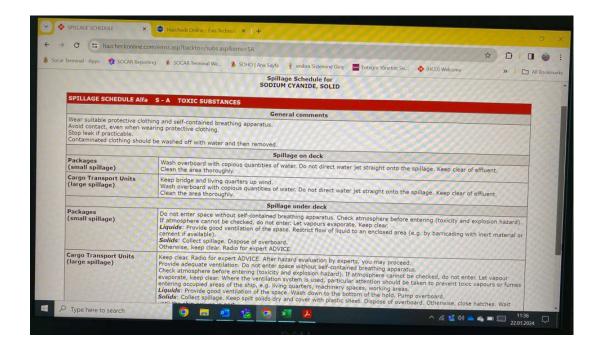


Photo 4: View of HazCheck Online Sodium Cyanide (solid) spill management guidance.



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Photo 5: View of HazCheck Online Sodium Cyanide (solid) Safety Data Sheet.

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	19.01.2024	CXTU1086758	11.0	1	SOC	MAJA352S	GEN_TRUCK	TRAGT	F	false	2.2	3159	23,910	28.100
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	12.01.2024	MSKU5094029	GP	1	SOC	NAKU402N	GEN_TRUCK	TRAGT	F	false	3	1993	21,570	25,760
	12.01.2024	CODU2520832	TN	1	SOC	NAKU402N	GEN_TRUCK	TRAGT	F	faise	3	1866	19,440	21,610
	12.01.2024	MAEU3458165	PL	1	SOC	NAKU402N	GEN TRUCK	TRAGT	F	faise	9	1303	24,240	28,430
	18.01.2024	CODU2619173	TN	1	SOC	NAKU402N	GEN TRUCK	TRAGT	F	faise	3	3166	13,718	19:418
		SEGU8093797	TN	J.	SOC	NAKU402N	GEN_TRUCK	TRAGT	F	false	3	1303	24,310	28.500
	17.01.2024	CXTU1123363	TN	1	SOC	TOCO401X	GEN_TRUCK	TRAGT	L	false	3	1146	16,510	20,700
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	16.01.2024	MRSU0087250	GP	E	SOC	35AKH293	COIN401N	BEANR	F	faise	9		14.165	16.350
	18.01.2024	TCLU2264335	GP	E	SOC	35AYE519	COIN401N	BEANR	F	false	9	3077	22.200	24,400
	16.01.2024	CAIU6262890	GP	E	SOC	35BHB752	COIN401N	BEANR	F	false	9	3077	22,060	24,260
	16.01.2024	TEMU2801935	GP	E	SOC	35BRB265	COIN401N	BEANR	F	false	9	3077	24,870	27.020
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Photo 6: View of Dangerous Goods (IMDG) inventory in Terminal yard.





Photo 7: View of emergency secondary containment for potentially damaged containers.



**Photo 8:** View of SOCAR Terminal tractor trailer used for container handling between wharf and interim storage area.





**Photo 9:** View of SOCAR Terminal STS Crane, reach stacker and tractor-trailer and interim storage area.



Photo 10: View of SOCAR Terminal mobile equipment workshop.



SOCAR osūman No. 1000 FRM.024 sym Tarihi 17.08.2023 tvizyon No. 1 FORKLIFT KONTROL LISTES SOCAR TERMINAL CERICISI KONTROL LISTESI 13-01-2024 WEDITE 3-S FL-CO Vayin Tailiti 23-12-2021 Revition Mo 1 пица 13-1-\*24 vasha 3-5 TT-20 мотокзыт: 14931 Form № 074050 Form Net 028778 Aldreis hontrol etbigini kataya garetieyla Achiene lik olup olmadığını kontrol edir r 1 Kolfut oturulou Lisim TAPUD one or kove ezelligi Amut Can Brigen Galismiker 10 IMER HALL Audin Demir

Photo 11: View of mobile equipment pre-start checklist completed by operators.

	SOCAR TERMINAL	SPREADER VE HEADBLOCK KONTROLÛ	Yeyin Tarihi	
			Revizyon No	1
	EKIPMAN VE BAĞLI C EKIPMAN TARİH	: KONTROL	Sayla	1 of I
	twistlock sensörleri, b.	KONTROL I	BİTİŞ SAATI	
	oturdu pimlerinin ve s	ayrakları ve bağlantılarının görsel ve forksiy ersörlerinin görsel ve fonksiyonel kontrolü takları ve kalı ersörlerinin görsel ve fonksiyonel kontrolü	onel kontrolü	
	twistlock, twistlock var	taking und interve totiksiyonel kontrolü		
	twistlock silindirlerinin	görsel ve fanksiyonel kontro ü	antısal kontrolü.	
	teleskopik encoderin g	örsel ve fonksiyonel kontrolü 20-40 duruş r a zincirinin gergi, dofasmat	20 lige kapat)	
	20/40 lik açma/kapama	a zincirinin gergi, deformasyon ve fonksivor	noktalari dogru r	nu)
				-
	e de la peuler inin ba	gianti sikilik görcel leentrelli ( 1 11 m	min 17 mm!	
	twin sistemi fonksiyone	el kontrolü (spreader 40 likta ken twinler) i	ndir-kaldır)	
	camdaki tozlarin temizi	sistemi ve sensorlerinin görsel ve fonksiyor	nel kontrolü. (Op	otik
	sensörlerin temizlik/ava	rünün görsel ve fonksiyonel kontrolü (elle l arlanması ve fonksiyon kontrolü	bastırılmamalı)	
	spreader headblock had	ğlantıları ve pimlerinin görsel kontrolü		
	headblock proximity sw	ritchlerinin görsel ve fonksivonel kontrolü		
	spreader kablo ve soket	lerin görse ve bağlantı kontrolü/gevşekse	ashalar a s	
	kabio tasima kanallarini	n görsel kontrolü		_
	spreader pano takozlari	nın ve/veva tespit civatalarının haŭlantı ko	ntrol()	_
	elektrik pano/panolarini	in temizlenmesi, kablo-röle bağlantılarının	kontrolü	
	flapların görsel ve fonksi	iyonel kontrolü (çatlak-deformasyon)	Kontrold,	
	Hidrolik yağı seviye kont	rolü		
	Hidrolik yağ tankı nasar e	durumu ve bağlantılarının sıkılık kontrolü.		
	Hidrolik filtre durum gös			
		çak, hasar ve bağlartıları sıkılık kontrolü		
		örsel ve fonksiyonelel kontrolü		
	elektrik motor/motorlari	nın görsel ve işitsel kontrolü (pompa mot	oru vb)	
	redüktör gruplarının çatla	ak, kırık, bağlantı sıkılık ve redüktör yağ se	eviyesi kontrolü	1
	yataklar ve yuvarlanma e	lemanları (kablo kanalı, zincirleri, makara	laririn) kontrol	0
	alt kızakların görsel kontr	olů (hasar ve deformasyon)		
	şase ve bileşenlerinin gör:	sei kontrolü (çatlak, deforme vb)		
		oları soketleri sıkılık kontrolleri		
0	kontrolü	yangozu gergi/sıkılık, sürtme,deformasyo	on/hasar, ve svi	ç
	Headblock üzeri paro kap	aklarının kontrolü		
ŝ	çıklama:	ON THE REAL PROPERTY.		

Photo 12: View of mobile equipment checklist template used by maintenance mechanics.





Photo 13: View of mobile equipment (ECH) under planned maintenance and oil terminal in background.



Photo 14: View of dangerous goods *Isotainers* at end of section in interim storage area.





**Photo 15:** View of Isotainer and Dangerous Goods containers with placards in interim storage area.

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671298	24					14/06/2023		6/2023		Yes			Frished	2327	
671393	1					23/06/2023		7/2023		Yes			Finahed	2328	
671820	2					10/07/2023		7/2023		Yes			Finished	2330	
671927	3					20/07/2023		8/2023		Yes				2332	
672230	4					04/08/2023 18/08/2023		8/2023		Yes			Finished	3334	
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Photo 16: View of preventive maintenance record for RTG Crane Z01 unit.



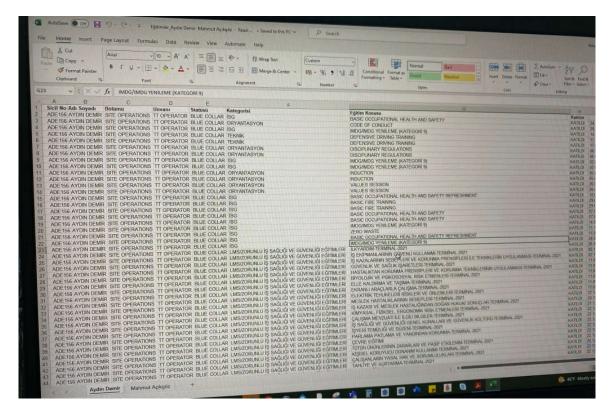


Photo 17: View of training records for SOCAR Terminal mobile equipment operator.

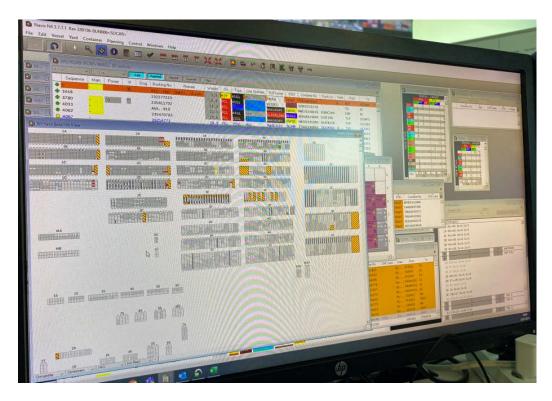


Photo 18: View of NAVIS N4 software to manage container interim storage in Terminal yard.



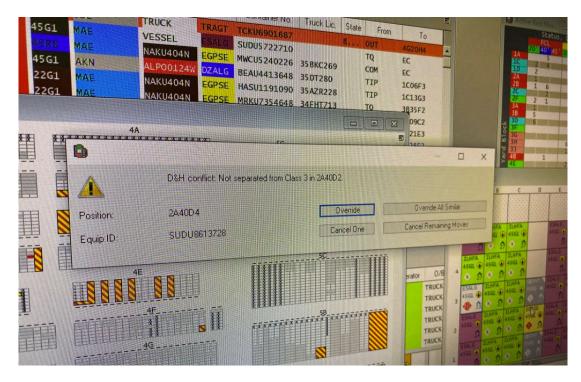


Photo 19: View of NAVIS N4 software and operator storage request denial functionality.



Photo 20: View of SOCAR Principles for Health Safety and Environment.

