



Integrated Deck Management System + Real time lift monitoring using AI = Improved Safety

DMS

DECK MANAGEMENT SYSTEM

Welcome To Deck Management System

Logged in as : admin

You are working with : Installation 1



ADMINISTRATION



DECK PLAN



MANIFEST



COSTING



CRANE OPERATOR
VIEW



REPORTS

MESSAGES

You have 0 Unread Messages

You have 2 Certificate Alert

Newly added "Container certificate
expiry alert option". Click for view
details

Help

Back

Upload your deck layout drawing and configure loading area

File Zoom Edit Draw Accessories Tools Help

File Draw Modify

Save Print Undo Redo

Pan Zoom In Zoom Out Zoom Window Refit

Area Configuration

Area Name: Area1

Maximum Pressure Capacity in ' kg/cm² ': 0.1667

Loading Sequence Priority: 1

Minimum Distance (walking area in Cm)

Corner: 5

Edge: 5

Between Containers: 5

Door Opening Clearance: 5

Restriction: Height 300 (in Cm)

OK Cancel

-> No container found in DB for the company:
-> Configure Logical Area: Select any hatched area to configure

3399.07, 5986.75

☐ Ortho ☒ Configuration Display is On ☒ Approve Deck [Back](#)

Container details with colour codes

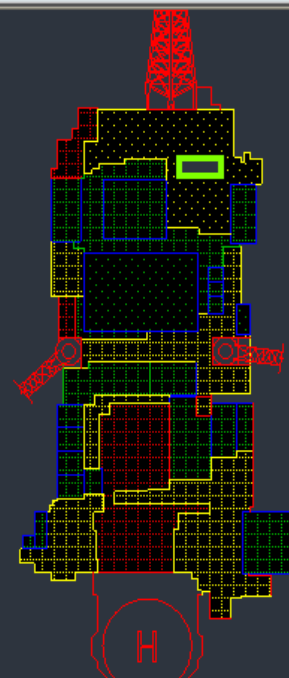
File
Zoom
Edit
Draw
Accessories
Tools
Help

File
Draw
Modify

Save
Print
Undo
Redo

Pan
Zoom In
Zoom Out
Zoom Window
Refit

Select Deck



DMS - Selected container's details (read only)

| C25 | |
|----------------|----------------------------------|
| Dimension | L x W = 605.8 x 243.8 Centimetre |
| Load | 1800 Kgs |
| Company | Hapag-Lloyd |
| Arrival Date | 2/27/2017 12:00:00 AM |
| Departure Date | 2/27/2017 12:00:00 AM |
| Description | No Description Available |
| Equipment | No Equipment Selected |

Configure Area
Erase Configuration

| Container | Tubulars |
|---------------------------|----------------|
| Company Name | Company Colour |
| Hapag-Lloyd | |
| NCL | |
| PIL | |
| Schlumberger | |
| TetscompanyTetscompany... | |

Size in Cm
Load in Kg

Container 605.8 x 243.8 1800
(19.88 x 8-ft) (6.06 x 2.44-Meter)

Foot Print Pressure
0.012

Orientation ☐ Place Container Drag Drop

Edit Container

Edit Move Mark Departure
View Detail Delete Audit Containers

No container found in DB for the company:
Configure Logical Area: Select any hatched area to configure
Refresh
Select container to view detail:

Container search option

File Zoom Edit Draw Accessories Tools Help

File Draw Modify

Save Print Undo Redo

Pan Zoom In Zoom Out Zoom Window Refit

Select Deck

Search results (Schlumberger) highlighted (by blinking)

Search

Type: Container

Name: Schlumberger

Search Close

Found 1 Containers.

| Company Name | Company Colour |
|---------------------------|----------------|
| Hapag-Lloyd | Blue |
| NCL | Yellow |
| PIL | Red |
| Schlumberger | Blue |
| TetscompanyTetscompany... | Brown |

Size in Cm Load in Kg

Container 605.8 x 243.8 1800

(19.88 x 8-ft) (6.06 x 2.44-Meter)

Foot Print Pressure

Container Name 0.012

Orientation ☐ Place Container Drag Drop

Edit Container

Edit Move Mark Departure

View Detail Delete Audit Containers

Units Metric kg/cm² Search

-> Click any part in canvas where you want to zoom-out the drawing
-> Click any part in canvas where you want to zoom-in the drawing
-> *Refresh*

Vessel Deck Plan

File Zoom Edit Draw Accessories Tools Help

File Draw Modify

Save Print Undo Redo

Pan Zoom In Zoom Out Zoom Window Refit

Select Deck

Container Detail

Arrival Date on Rig DD/MM/YYYY 31/03/2017
Departure Date From Rig DD/MM/YYYY 31/03/2017

Container ID Vessel Container2
Company Name Schlumberger

Container Type
Length: 605.8
Width: 243.8
Load: 1800

Area Name VesselArea1
Company colour code 0 0 255
Description

-> Container Placement: Select any configured area and place the container you selected
-> Container Placement: Select any configured area and place the container you selected

676.38, 6280.71
☐ Ortho
☒ Configuration Display is On
☐ Approve Deck
Back

Manifest Module

Create Equipment (Onshore)

This could be integrated with SAP, Maximo etc. or upload equipment list as xml or .csv file from any system.



Installation Installation 1



Equipment List

Add Equipment

| | | | |
|-------------------------|---|----------------|--|
| Sl. No. | <input type="text" value="14"/> | Req. Del. Date | <input type="text" value="29/03/2017"/> |
| Select Equipment | <input type="text" value="Air Compressor"/> | Quantity | <input type="text" value="1"/> |
| Priority | <input type="text" value="High"/> | Company | <input type="text" value="Installation 1"/> <input type="button" value="New"/> |
| Auto Email Notification | <input type="text"/> | Unit Weight | <input type="text" value="1000"/> <input type="text" value="kg"/> |


| Serial No. | Equipmen... | Priority | Req. Del. ... | Quantity | Company | Unit Weig... | Total Wei... | Group No... |
|------------|---------------|----------|---------------|----------|----------------|--------------|--------------|-------------|
| 14 | Air Compr... | High | 29/03/2017 | 1 | Installation 1 | 1000 | 1000 | |
| 3 | Deck store... | High | 29/03/2017 | 2 | Installation 1 | 2000 | 4000 | |

Create Containers (Onshore)

Option to upload container certificates



Installation Installation 1



Onshore Containers

Cargo Type ☒ Container ☐ Tubular

Departure Date 31/03/2017

Add Containers

Container No. ContainerA

Select Company NCL

Select Size 605.8 x 243.8
(19.88 x 8 - Feet) (6.06 x 2.44 - Meter)

Cargo Name CargoA

Container Type None

Priority High

Payload 18200

Certificate Info

From Date 31/03/2017 To Date 31/03/2017 Upload Document

New Update Delete Special Containers

| Container No. | Container N... | Cargo Type | Payload | Departure D... | Company | Size | Priority |
|---------------|----------------|------------|---------|----------------|-------------|-------------|----------|
| ContainerA | CargoA | Container | 18200 | 31/03/2017 | NCL | 605.8x243.8 | High |
| ContainerB | CargoB | Container | 18200 | 31/03/2017 | Hapag-Lloyd | 605.8x243.8 | High |

Close

Help

Back

Drag & Drop (Equipment to Container)



Installation : Installation 1



Create Onshore Manifest

Drag & Drop

Departure Date 31/03/2017

Show All

Equipment

| Serial ... | Equip... | Priority | Req. ... | Quantity | Comp... | Weight | Total ... | Group... |
|------------|-----------|----------|------------|----------|-----------|--------|-----------|----------|
| 14 | Air Co... | High | 29/03/2... | 1 | Install.. | 1000 | 1000 | |
| 3 | Deck s... | High | 29/03/2... | 2 | Install.. | 2000 | 4000 | |

Containers

| Cargo No. | Cargo | Payload | Departure | Company | Size | Remaining |
|-----------|--------|---------|------------|------------|-------------|-----------|
| ⊕ Con... | CargoA | 18200 | 31/03/2017 | NCL | 605.8x243.8 | 18200 |
| ⊕ Con... | CargoB | 18200 | 31/03/2017 | Hapag-L... | 605.8x243.8 | 18200 |

Print


Save

Close

Help

Back

Cargo planned list (onshore to offshore)

-  Equipment
  Containers
  Drag & Drop
  Onshore Plan
  Offshore Plan
  Generate Plan
  View Plans
  Settings
  Route Plan

Installation **Installation 1**



Onshore Planned Manifest

Departure Date

Show All

☐ Select All

| Select | Departure Date | Company | Cargo Type ▾ | Cargo Name | Length | Width | Payload | Priority |
|-------------------------------------|----------------|-------------|--------------|------------|--------|-------|---------|----------|
| <input checked="" type="checkbox"/> | 31/03/2017 | NCL | Container | CargoA | 605.8 | 243.8 | 18200 | High |
| <input checked="" type="checkbox"/> | 31/03/2017 | Hapag-Lloyd | Container | CargoB | 605.8 | 243.8 | 18200 | High |

SAP Xml

Save

Close

Help

Back

Cargo planned list (offshore to onshore)

-  Equipment
-  Containers
-  Drag & Drop
-  Onshore Plan
-  Offshore Plan
-  Generate Plan
-  View Plans
-  Settings
-  Route Plan

Installation Installation 1



Offshore Containers

Approved By : Administrator
Approved Date : 31/03/2017 10:52AM
[Request Update](#)

Departure Date 31/03/2017

Show All

☐ Select All

| Select | Arrival Date | Departure Da... | Company | Container Na... | Length | Width | Payload |
|-------------------------------------|--------------|-----------------|-------------|-----------------|-----------|-------|---------|
| <input checked="" type="checkbox"/> | 27/02/2017 | 27/02/2017 | Hapag-Lloyd | C25 | 605.79999 | 243.8 | 18200 |

☒ Offshore Approval

SAP Xml

Save

Close

Help

Back

Generates plan for vessel and installation based on available space, deck load capacity, priority and laydown area preference.



Installation **Installation 1**

Generate Plan

Approved By : Administrator
Approved Date : 31/03/2017 10:54AM
[Request Update](#)

Container List

Select Plan Date **31/03/2017** Onshore to Offshore Containers Select Filter Date **31/03/2017** [Show All](#) Offshore to Onshore Containers

☐ Select All

☒ Select All

☐ Failed
☐ Unattempted
☐ Ok

| Select | Depart... | Compe... | Cargo ... | Priority | Size | Load ▾ | Deck to | Area to | Select | Arrival Date | Departure Date | Company | Cargo Name |
|-------------------------------------|------------|----------|-----------|----------|------------|--------|---------|---------|-------------------------------------|--------------|----------------|-------------|------------|
| <input checked="" type="checkbox"/> | 31/03/2... | NCL | CargoA | High | 605.8x2... | 1800 | | | <input checked="" type="checkbox"/> | 27/02/2017 | 27/02/2017 | Hapag-Lloyd | C25 |
| <input checked="" type="checkbox"/> | 31/03/2... | Hapag... | CargoB | High | 605.8x2... | 1800 | | | | | | | |



☒ Offshore Approved

[Auto Generate Deck Plan](#)

[Auto Generate Lift Plan](#)

[View Lift Sequence](#)

[View Plan](#)

[Close](#)


[Help](#)

[Back](#)

Lift Sequence - Provides an organised plan to load and unload the supply vessel and installation for reducing lifts.



Installation Installation 1



Lift Sequence

| Seq. No. | No. Of Lift | From | Deck Name | Area Name | Cargo Name | To | Deck Name | Area Name |
|----------|-------------|----------------|-------------|-------------|------------|----------------|-------------|-------------|
| 1 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoA | Installation 1 | Deck1 | Deck1 Area1 |
| 2 | 1 | Installation 1 | Deck1 | Deck1 Area1 | C25 | NORTH Mariner | Vessel Deck | VesselArea1 |
| 3 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoB | Installation 1 | Deck1 | Deck1 Area1 |

☒ Offshore Approved

Auto Generate Deck Plan

Auto Generate Lift Plan

View Lift Sequence

View Plan

Close

Print

Close

Help

Back

Offshore Deck Crew / Crane Operator

Current view of installation and supply vessel. Lifts required displayed in the bottom grid

File

Installation 1
 ✓ Deck 1
 Area1
 Area2
 Area3
 Deck 2
 NORTH Mariner
 ✓ Vessel Deck
 VesselArea1

File

Pan Zoom In Zoom Out Refit

Move Container Move Move Tubular

Container Details View

Complete

Complete Plan

| Seq. No. | No. Of Lift | From | Deck Name | Area Name | Cargo Name | To | Deck Name | Area Name | Select | Auto Place |
|----------|-------------|----------------|-------------|-------------|------------|----------------|-------------|-------------|--------------------------|------------|
| 1 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoA | Installation 1 | Deck1 | Deck1 Area1 | <input type="checkbox"/> | Select |
| 2 | 1 | Installation 1 | Deck1 | Deck1 Area1 | C25 | NORTH Mariner | Vessel Deck | VesselArea1 | <input type="checkbox"/> | Select |
| 3 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoB | Installation 1 | Deck1 | Deck1 Area1 | <input type="checkbox"/> | Select |

Highlights container movement (from and to location)

File

Installation 1
Deck 1
Area1
Area2
Area3
Deck 2
NORTH Mariner
Vessel De.
VesselArea1

File

Pan Zoom In Zoom Out Refit

Move Container Move Move Tubular

Container Details View

Complete

Complete Plan

| Seq. No. | No. Of Lift | From | Deck Name | Area Name | Cargo Name | To | Deck Name | Area Name | Select | Auto Place |
|----------|-------------|----------------|-------------|-------------|------------|----------------|-------------|-------------|--------------------------|------------|
| 1 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoA | Installation 1 | Deck1 | Deck1 Area1 | <input type="checkbox"/> | Select |
| 2 | 1 | Installation 1 | Deck1 | Deck1 Area1 | C25 | NORTH Mariner | Vessel Deck | VesselArea1 | <input type="checkbox"/> | Select |
| 3 | 1 | NORTH Mariner | Vessel Deck | VesselArea1 | CargoB | Installation 1 | Deck1 | Deck1 Area1 | <input type="checkbox"/> | Select |

Real time lift monitoring using AI

Realtime monitoring of lifting operations to minimise offshore incidents



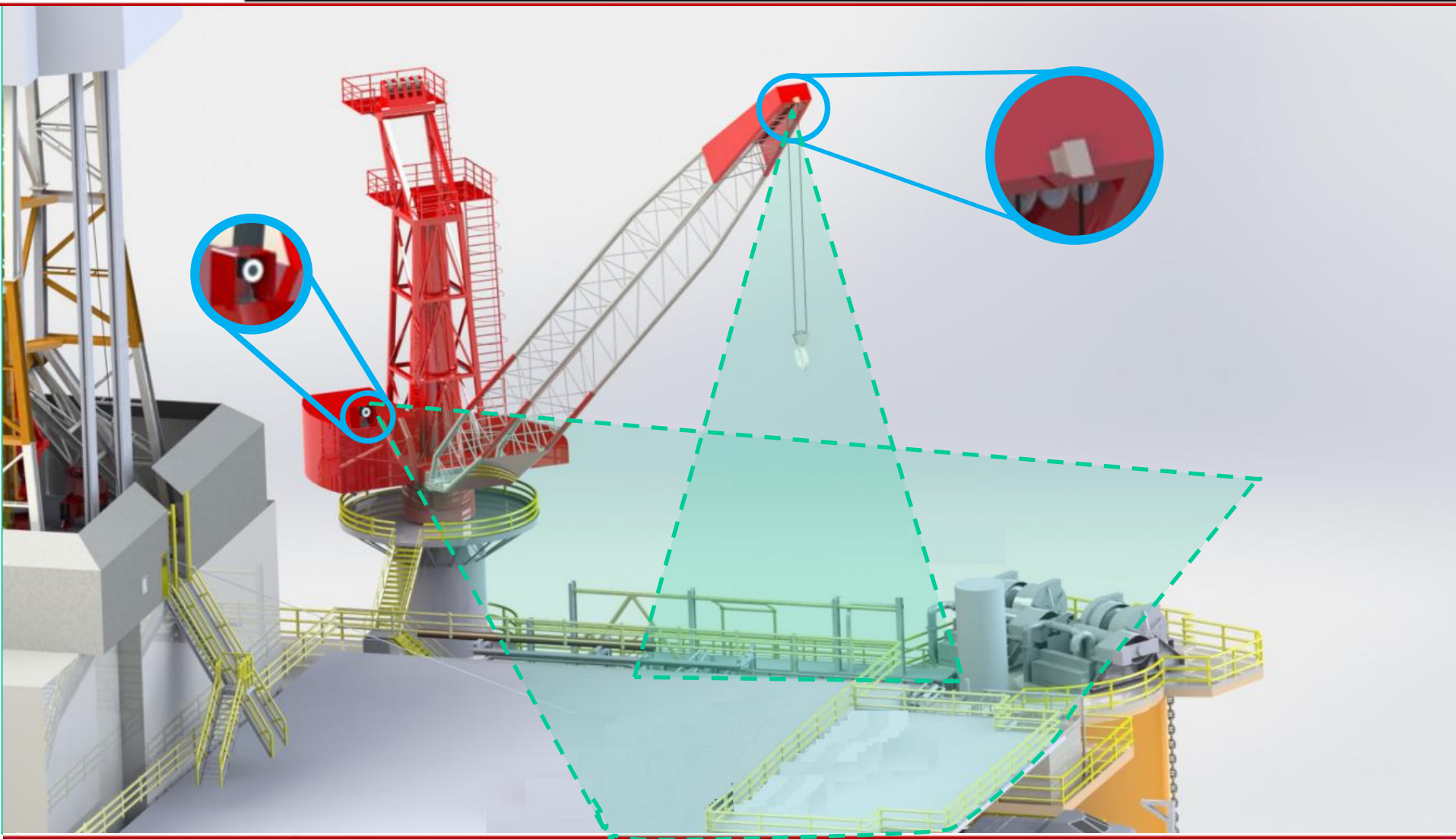
Fiivesense AI-Vision

Camera Specifications:

- Network camera in a stainless steel housing in accordance with Directive 2014/34/EU (ATEX), IECEx, and EAC-Ex (CR TU).
- PoE, IEEE 802.3af / 802.3at Type 1 Class 3: Max. 7.9 W (typical 3.6 W).
- Minimal illumination: 0.18 lx (Color), 0.04 lx (B/W).
- Horizontal angle of view: 109° - 40° (HD, 16/9).
- Resolution: 1920 x 1080 (Full HD).
- Protection level: IP 68 (IEC / EN 60529).
- Ambient temperature limit: $-10^{\circ}\text{C} < T_{\text{amb}} < +50^{\circ}\text{C}$.



Camera locations on crane

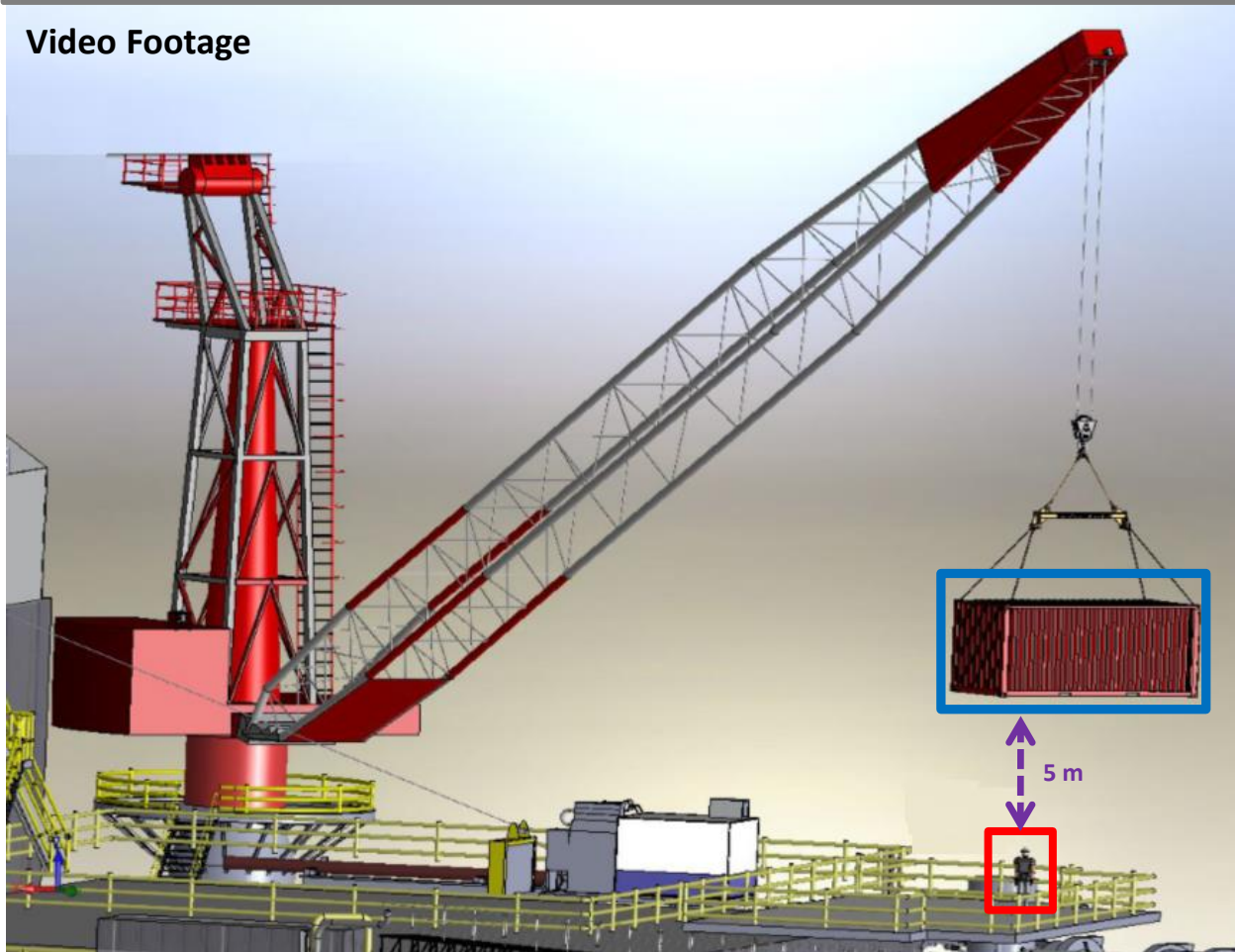


Container carrying over personnel

Fiivesense AI-Vision

File View Settings Help

Video Footage



Realtime Monitoring & Analytics :

Operator Name : Scott

Lift No. : Lift-001

| Equipment name | Hazard Type | Date & Time | Severity |
|----------------|-------------------------|------------------------|----------|
| Container | Lift over Personnel - 1 | 12/03/2109 14:05:02 | ● |

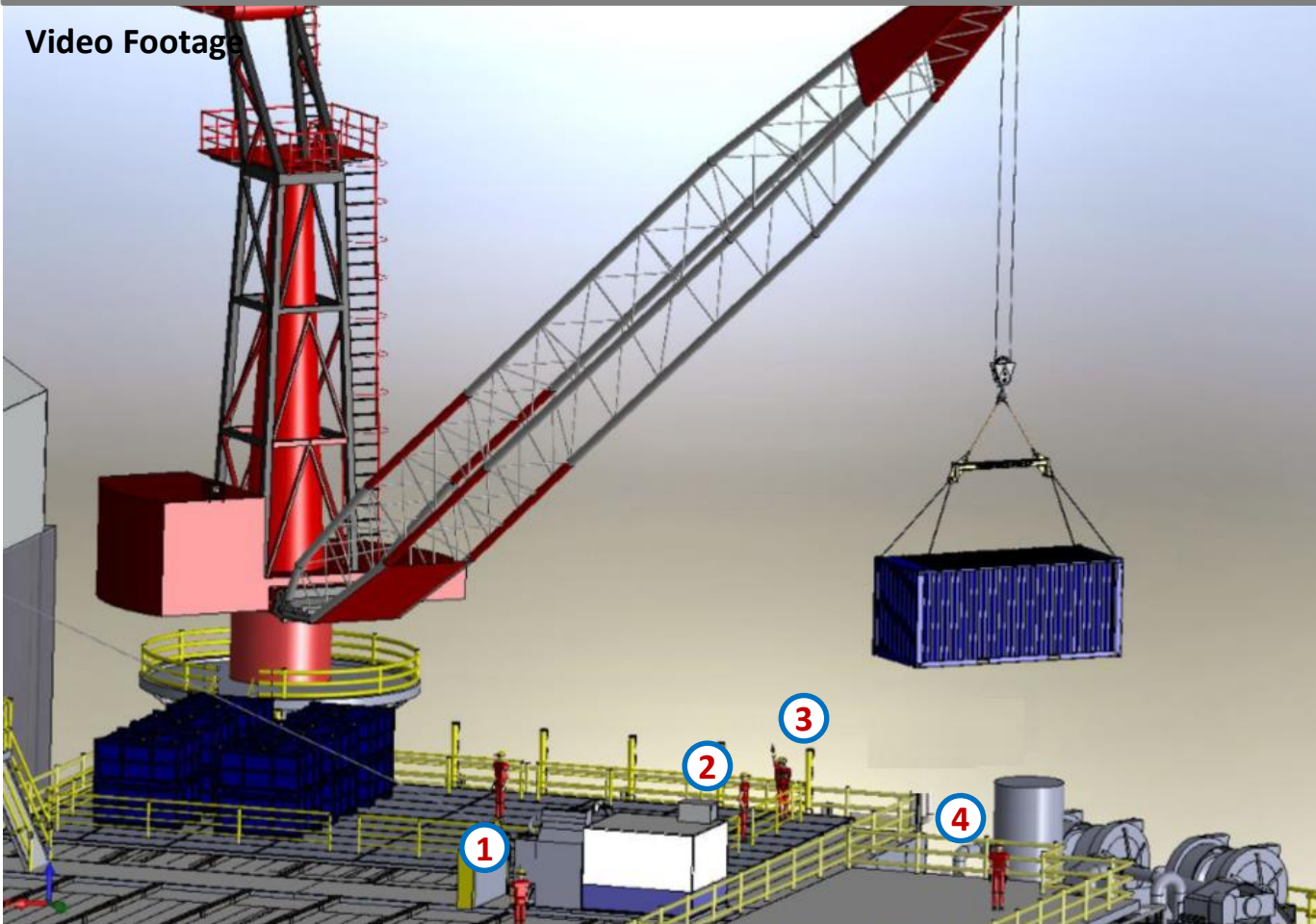
Number of Personnel : 1

Container carried over number of personnels

Fiivesense AI-Vision

File View Settings Help

Video Footage



Realtime Monitoring & Analytics :

Operator Name : Scott

Lift No. : Lift-
0007

| Equipment name | Hazard Type | Date & Time | Severity |
|----------------|-------------------------|------------------------|----------|
| Container | Lift over Personnel - 1 | 12/03/2109 14:05:02 | Yellow |
| Container | Lift over Personnel - 2 | 12/03/2109 14:05:02 | Green |
| Container | Lift over Personnel - 3 | 12/03/2109 14:05:02 | Red |
| Container | Lift over Personnel - 4 | 12/03/2109 14:05:02 | Green |

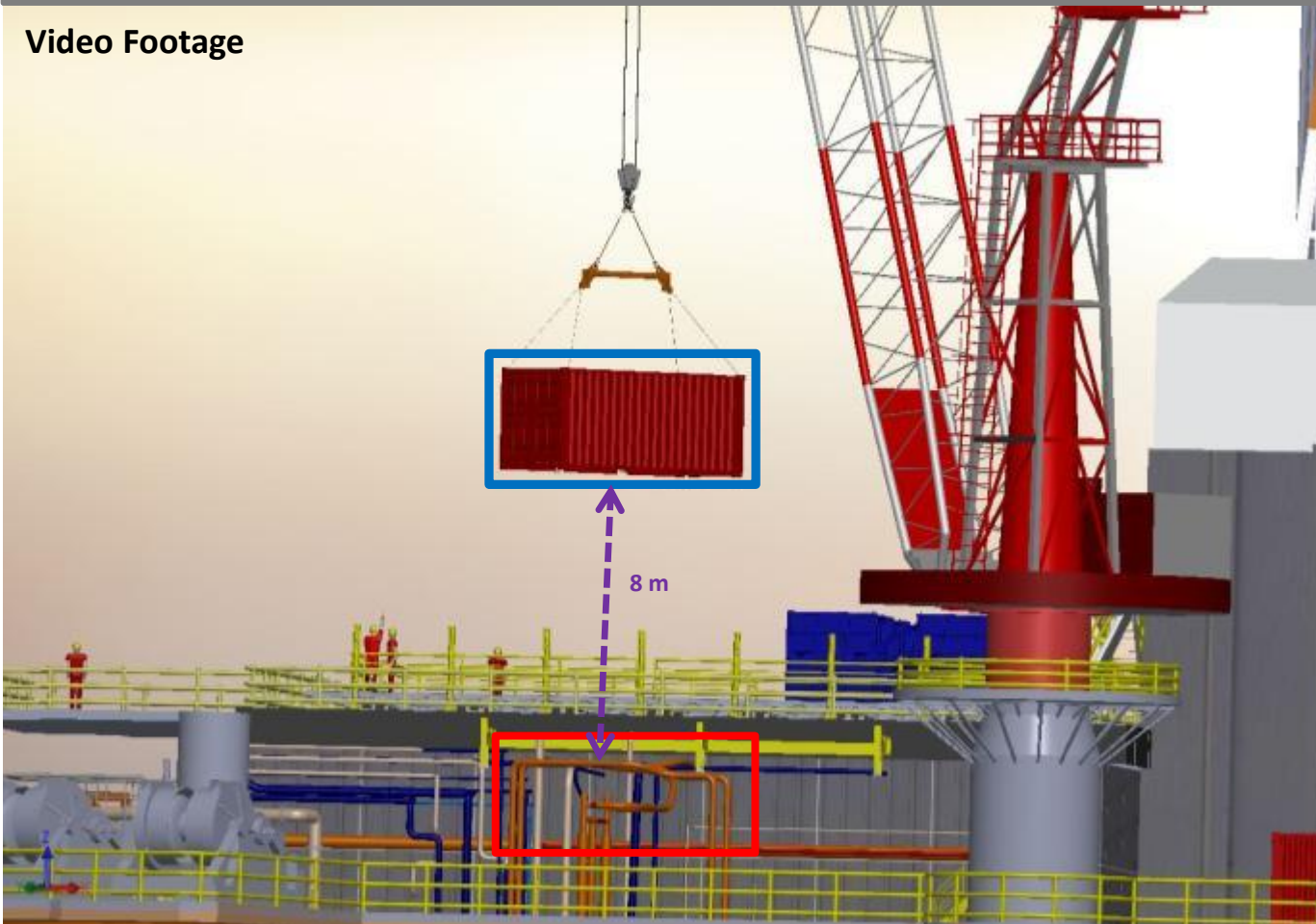
Number of Personnel : 4

Container carrying over dangerous pipe lines

Fiivesense AI-Vision

File View Settings Help

Video Footage



Realtime Monitoring & Analytics :

Operator Name : Anderson

Lift No. : Lift-
0009

| Equipment name | Hazard Type | Date & Time | Severity |
|----------------|---------------------------|---------------------|----------|
| Container | Lift over Dangerous Lines | 12/03/2109 14:05:02 | ● |

Red Zone/Hazardous area monitoring using AI

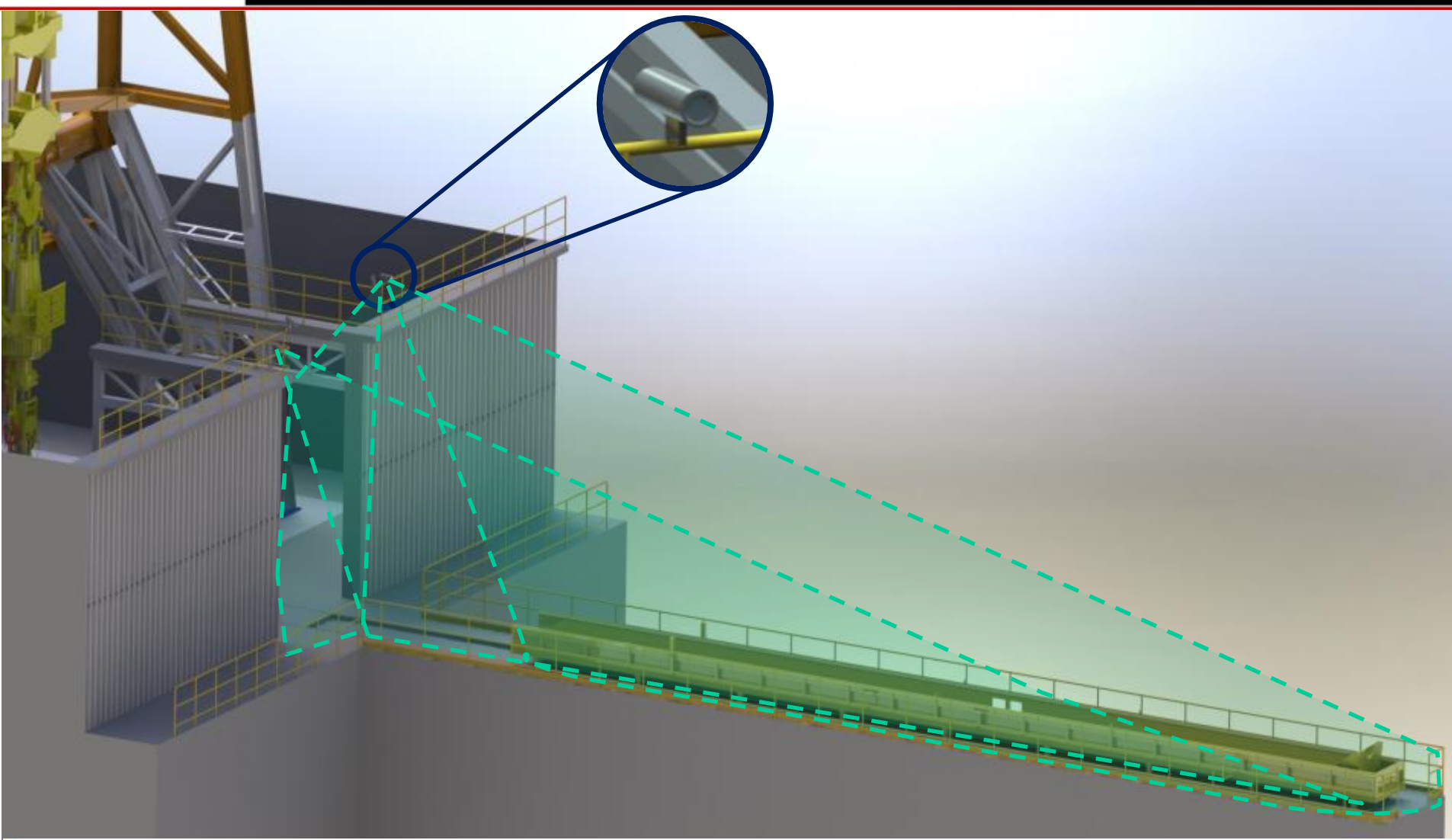
Step-2: Creating RED Zone

Fiivesense AI-Vision

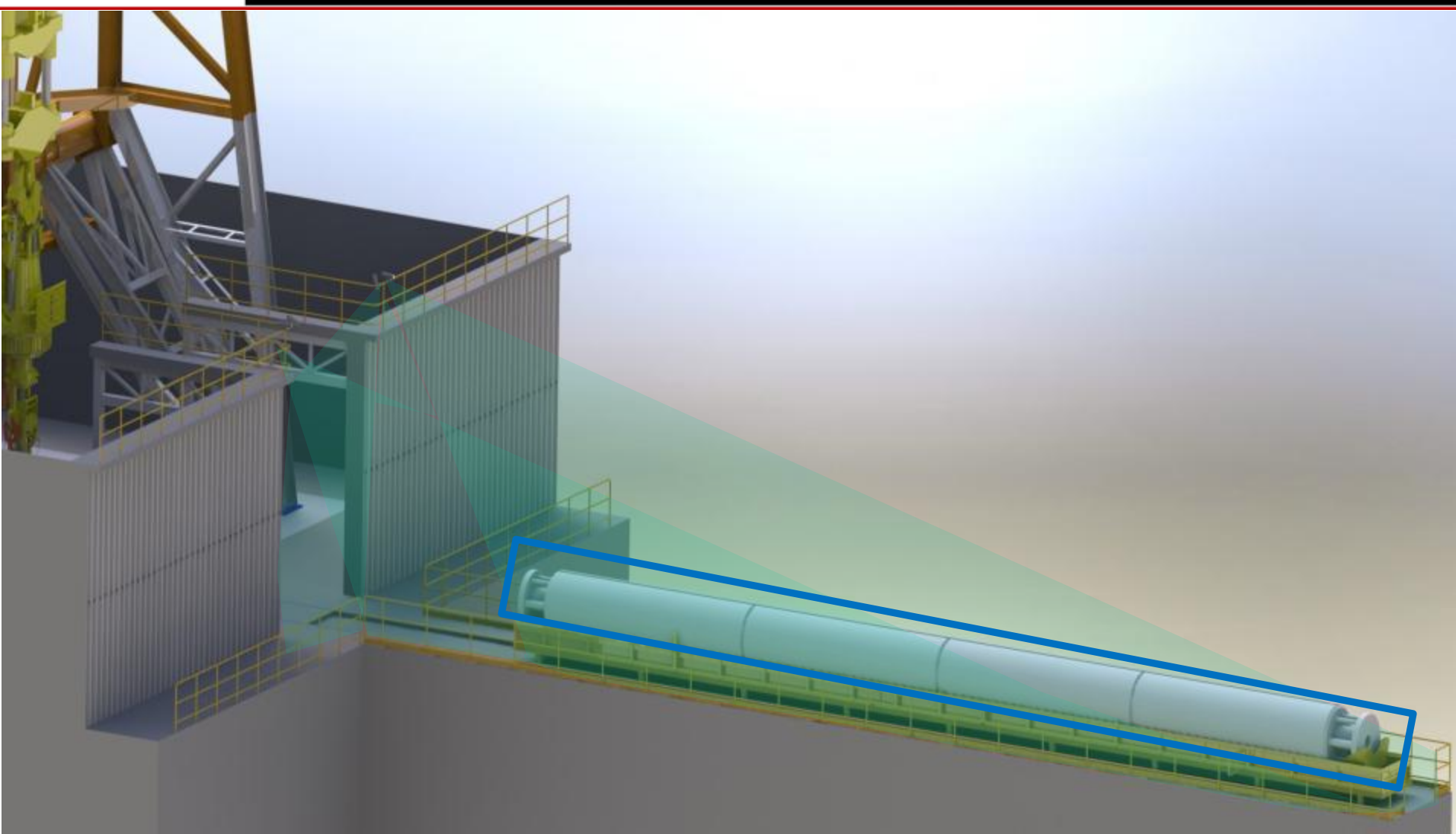
File Draw View Settings Help



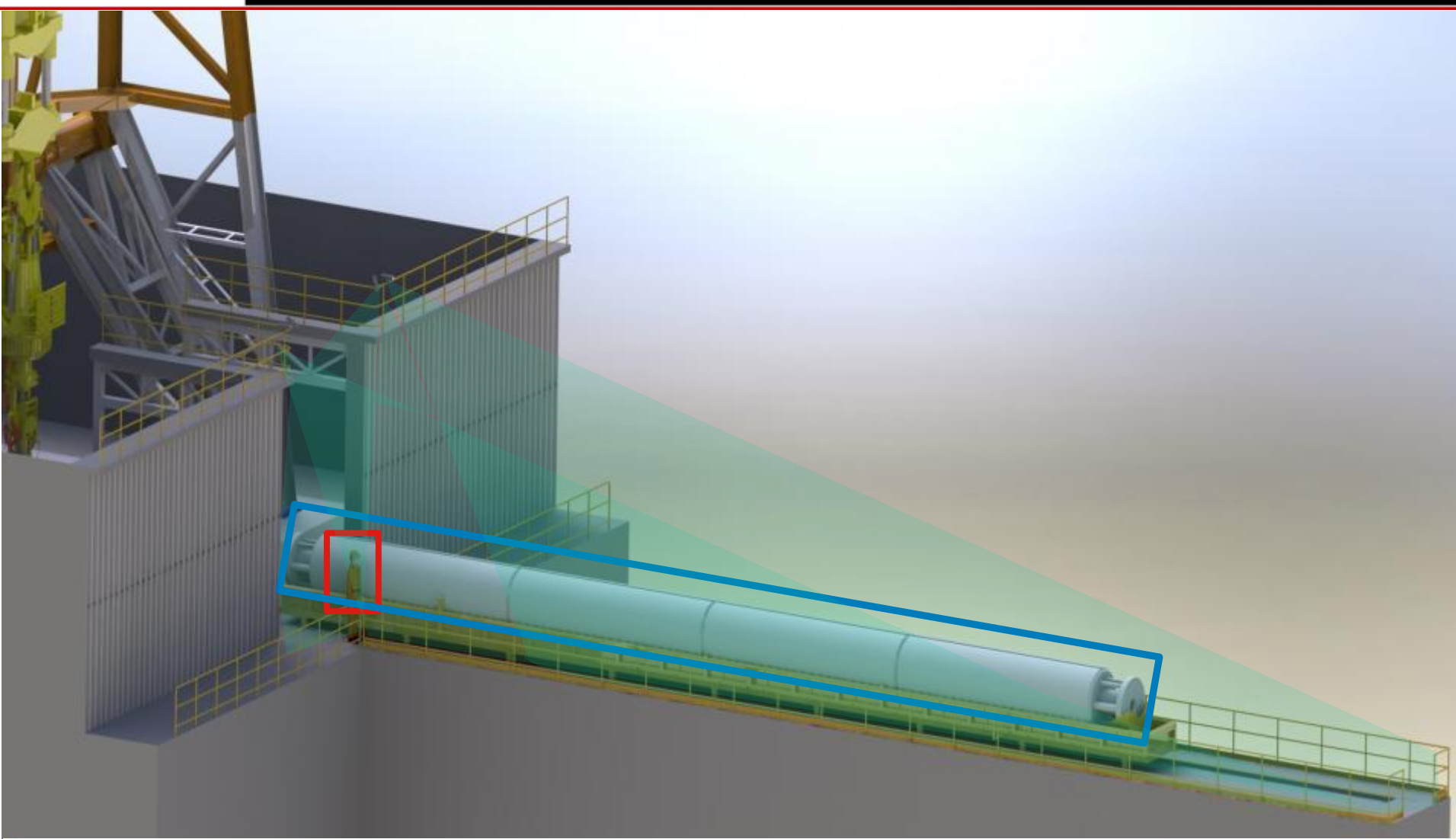
Placing Cameras



Riser Identified by Cameras



Riser & personnel Identified by Cameras





Dashboard

Analytics

Realtime Data

Settings

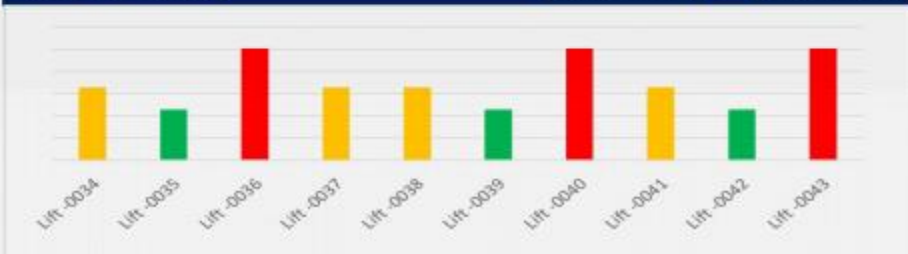
Dashboard

Video Footage



HSE Incidents

13/03/2019 - 13/03/2019



Lift Alarm Register

| Lift No. | Operator Name | Equipment Name | Hazard Type | Date & Time | Severity |
|-----------|---------------|----------------|---------------------------|---------------------|----------|
| Lift-0018 | Scott | Container | Lift over Dangerous lines | 07/03/2019,10:20:01 | Red |
| Lift-0019 | Scott | Container | Not applicable | 07/03/2019,11:45:08 | Green |
| Lift-0020 | Scott | Container | Not applicable | 07/03/2019,12:00:45 | Green |
| Lift-0021 | Anderson | Container | Lift over Dangerous lines | 07/03/2019,13:10:01 | Red |
| Lift-0022 | Scott | Container | Lift over Personnel | 08/03/2019,10:00:03 | Yellow |
| Lift-0023 | Scott | Container | Lift over Dangerous lines | 08/03/2019,11:50:06 | Red |
| Lift-0024 | Anderson | Container | Lift over Personnel | 08/03/2019,14:02:01 | Yellow |
| Lift-0025 | Anderson | Container | Lift over Dangerous line | 08/03/2019,16:40:08 | Red |
| Lift-0026 | Anderson | Container | Lift over Dangerous lines | 08/03/2019,17:10:01 | Red |
| Lift-0027 | Scott | Container | Lift over Personnel | 11/03/2019,10:30:11 | Yellow |
| Lift-0028 | Scott | Container | Not applicable | 11/03/2019,11:20:07 | Green |
| Lift-0029 | Anderson | Container | Lift over Personnel | 11/03/2019,12:01:21 | Yellow |
| Lift-0030 | Scott | Container | Lift over Dangerous lines | 11/03/2019,13:00:43 | Red |
| Lift-0031 | Anderson | Container | Lift over Personnel | 12/03/2019,10:00:25 | Yellow |
| Lift-0032 | Anderson | Container | Not applicable | 12/03/2019,11:10:32 | Green |
| Lift-0033 | Scott | Container | Lift over Dangerous lines | 12/03/2019,12:00:05 | Red |
| Lift-0034 | Scott | Container | Lift over Personnel | 13/03/2019,10:00:00 | Yellow |
| Lift-0035 | Anderson | Container | Not applicable | 13/03/2019,11:00:20 | Green |
| Lift-0036 | Scott | Container | Lift over Dangerous lines | 13/03/2019,12:45:01 | Red |
| Lift-0037 | Scott | Container | Lift over Personnel | 13/03/2019,13:00:40 | Yellow |

< < 1 2 3 > >

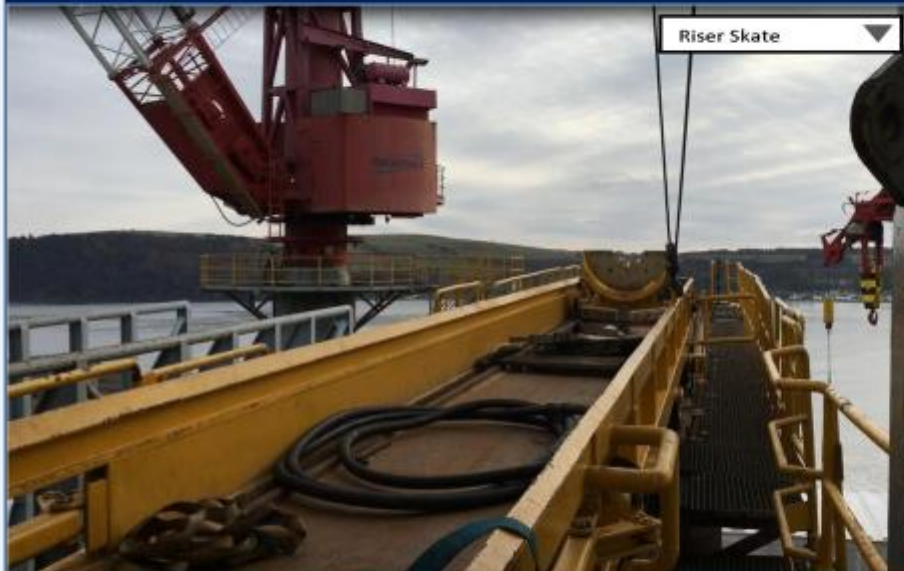
Lift Incidents

| Incident No. | Incident Type | Equipment Type | Hazard Type | Date & Time | Action Taken |
|--------------|--------------------------------|----------------|---------------------------|---------------------|--------------|
| ICD-00018 | Near Miss | Container | Lift over Dangerous lines | 07/03/2019,10:20:01 | |
| ICD-00022 | Possible person with collision | Container | Lift over Personnel | 08/03/2019,10:00:03 | |
| ICD-00036 | Near Miss | Container | Lift over Dangerous lines | 13/03/2019,12:45:01 | |

< < 1 2 3 > >

Dashboard

Video Footage



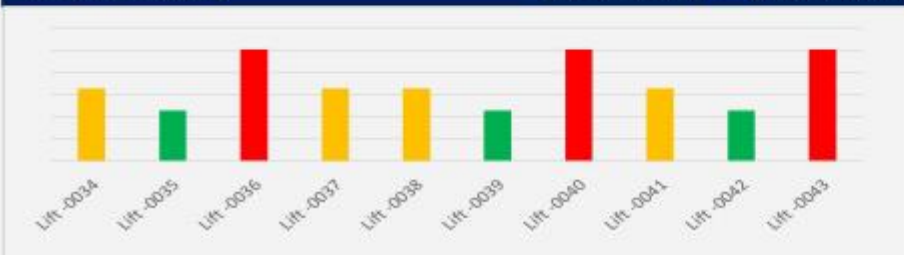
Lift Alarm Register

| Lift No. | Operator Name | Equipment Name | Hazard Type | Date & Time | Severity |
|-----------|---------------|----------------|---------------------------|---------------------|----------|
| Lift-0018 | Scott | Container | Lift over Dangerous lines | 07/03/2019,10:20:01 | Red |
| Lift-0019 | Scott | Container | Not applicable | 07/03/2019,11:45:08 | Green |
| Lift-0020 | Scott | Container | Not applicable | 07/03/2019,12:00:45 | Green |
| Lift-0021 | Anderson | Container | Lift over Dangerous lines | 07/03/2019,13:10:01 | Red |
| Lift-0022 | Scott | Container | Lift over Personnel | 08/03/2019,10:00:03 | Yellow |
| Lift-0023 | Scott | Container | Lift over Dangerous lines | 08/03/2019,11:50:06 | Red |
| Lift-0024 | Anderson | Container | Lift over Personnel | 08/03/2019,14:02:01 | Yellow |
| Lift-0025 | Anderson | Container | Lift over Dangerous line | 08/03/2019,16:40:08 | Red |
| Lift-0026 | Anderson | Container | Lift over Dangerous lines | 08/03/2019,17:10:01 | Red |
| Lift-0027 | Scott | Container | Lift over Personnel | 11/03/2019,10:30:11 | Yellow |
| Lift-0028 | Scott | Container | Not applicable | 11/03/2019,11:20:07 | Green |
| Lift-0029 | Anderson | Container | Lift over Personnel | 11/03/2019,12:01:21 | Yellow |
| Lift-0030 | Scott | Container | Lift over Dangerous lines | 11/03/2019,13:00:43 | Red |
| Lift-0031 | Anderson | Container | Lift over Personnel | 12/03/2019,10:00:25 | Yellow |
| Lift-0032 | Anderson | Container | Not applicable | 12/03/2019,11:10:32 | Green |
| Lift-0033 | Scott | Container | Lift over Dangerous lines | 12/03/2019,12:00:05 | Red |
| Lift-0034 | Scott | Container | Lift over Personnel | 13/03/2019,10:00:00 | Yellow |
| Lift-0035 | Anderson | Container | Not applicable | 13/03/2019,11:00:20 | Green |
| Lift-0036 | Scott | Container | Lift over Dangerous lines | 13/03/2019,12:45:01 | Red |
| Lift-0037 | Scott | Container | Lift over Personnel | 13/03/2019,13:00:40 | Yellow |

|< < 1 2 3 > >|

HSE Incidents

13/03/2019 - 14/03/2019



Lift Incidents

| Incident No. | Incident Type | Equipment Type | Hazard Type | Date & Time | Action Taken |
|--------------|--------------------------------|----------------|---------------------------|---------------------|--------------|
| ICD-00018 | Near Miss | Container | Lift over Dangerous lines | 07/03/2019,10:20:01 | |
| ICD-00022 | Possible person with collision | Container | Lift over Personnel | 08/03/2019,10:00:03 | |
| ICD-00036 | Near Miss | Container | Lift over Dangerous lines | 13/03/2019,12:45:01 | |

|< < 1 2 3 > >|



www.tech27.com

info@tech27.com