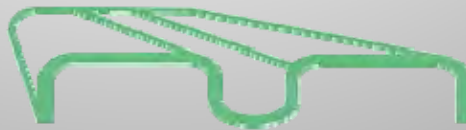




Rope Access Maintenance

Services designed on a platform of OH&S, innovation & efficiencies.

SAFESPAN
Platform Systems, Inc.



Team Safety



RAM
EFFICIENCY THROUGH INNOVATION



**ISNetworld
Member**

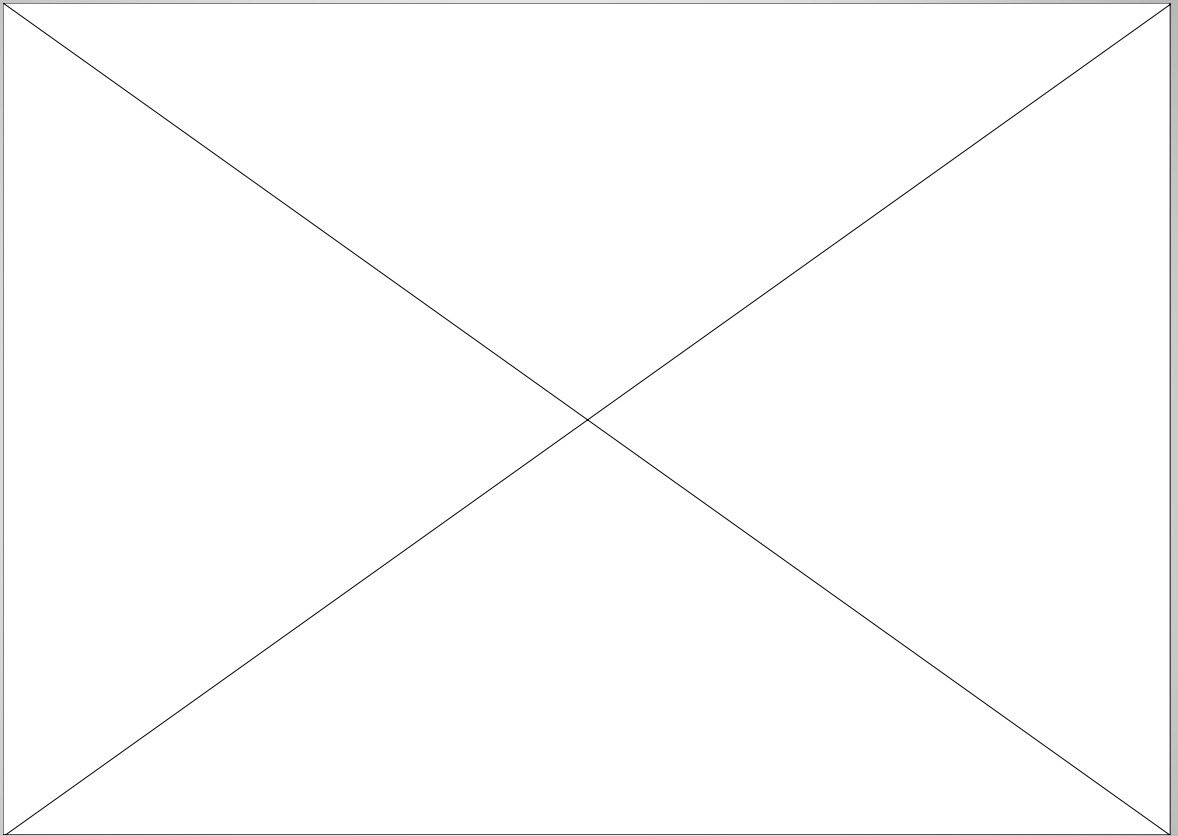


**NFPA
MEMBER**



Society of Professional Rope Access Technicians





Click Box to view the history of rope access

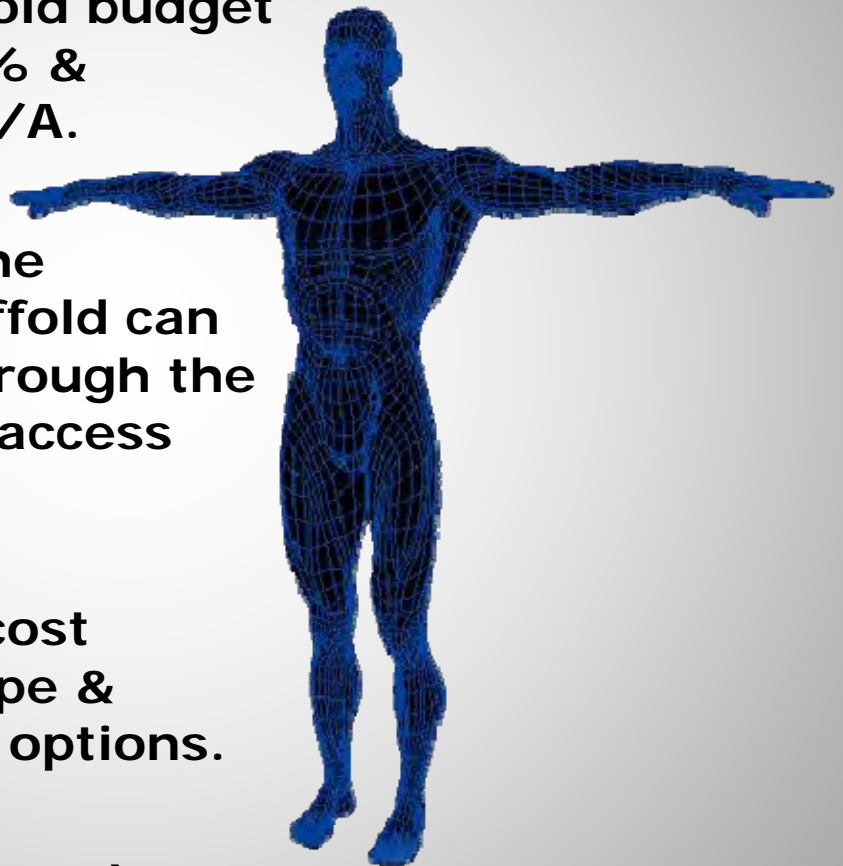




- A vertically integrated company offering innovative Alternate Access solutions built on a platform of OH&S.
- RAM services increase productivity through innovation & efficiencies.
- Safety is #1
- Costs are the drivers



- **Fact 1]The scaffold budget accounts for 35% & greater during T/A.**
- **Fact 2]25% of the activities on scaffold can be eliminated through the use of alternate access options.**
- **Fact 3]50-80% cost savings using rope & alternate access options.**
- **Fact 4]Time to complete work is 30-50% more efficient.**



Rope Access v's Traditional access methods IN UK refinery

CLIENT	DESCRIPTION	TIMESPAN	PERSONNEL	TRADITIONAL ACCESS METHOD	COST	ROPE ACCESS COST	SAVING
MB storage tanks	Replace tank hatch	2 days	3	Crane and cherry picker	£2800 + Labour	£1,182.60	£1617.40 + Labour
Hertel	Check and repair/replace lagging	4 days	4	Scaffold	£8500 + Labour	£3,088.00	£5412.00 + Labour
MB storage tanks	adjust roof legs, test fire protection system and fit socks over leg tops	2 days	4	Crane and cherry picker	£2800 + Labour	£1,031.00	£1769.00 + Labour
MB storage tanks	60 gusset plates to be fitted around tank top circumference	13 days	2	Bund breach for cherry picker access	£41,000 + labour	£15,000.00	£26000.00 + Labour
INEOS	Lighting tower pylon repairs + insp.	2	3	Crane and cherry picker	£3100 + Labour	£1,500.00	£1600.00 + Labour
INEOS	Insulation repairs	1	2,3	Scaffold tower	£2500 + Labour	£1,031.00	£1469.00 + Labour
INEOS	Insulation repairs	4	5	scaffold and cherry picker	£11,500 + Labour	£6,860.00	£4640.00 + Labour
Hertel	Cooling tower repairs, bolt tightening	5	4	Scaffold	£24,000 + labour	£9,000.00	£15000.00 + Labour
INEOS	UT inspection of cardinal points	1	3	cherry picker	£2800 + Labour	£1,350.00	£1450.00 + Labour
INEOS	Detailed visual inspection of comms mast at east jetties	2	3	crane and cherry picker	£5400 + Labour	£2,540.00	£2860.00 + Labour
INEOS	removal of defective tank numbers	1	2	scaffold	£2500 + Labour	£695.00	£1805.00 + Labour
INEOS	visual inspection in cooling towers	5	3	scaffold	£11,004 + Labour	£5,600.00	£5404.00 + Labour
INEOS	visual and MPI inspection within vessel	3	3	scaffold	£12500 + Labour	£3,600.00	£8900.00 + Labour
INEOS	visual and UT inspection of fuel booms	11	3	scaffold	£50000 + Labour	£10,500.00	£39000.00 + labour
Hertel	Painting secondary wind girder on tank	6	3	bund breach and cheery picker	£23000 + Labour	£6,280.00	£16720.00 + labour
INEOS	UT inspection of tank roof	1	2	scaffold	£3100 + labour	£710.00	£2390.00 + Labour
INEOS	visual inspection of tank walkways	3	2	scaffold	£4500 + Labour	£1,700.00	£2800.00 + labour
INEOS	visual inspection of tank walkways	3	2	scaffold	£4500 + Labour	£1,700.00	£2800.00 + Labour
INEOS	UT inspection of tank roof and shell	2	3	scaffold	£3500 + Labour	£1,815.00	£1685.00 + labour
INEOS	UT inspection of cardinal points. Access holes required through insulation to get readings	2	2	scaffold	£3800 + labour	£1,420.00	£2380.00 + Labour
INEOS	UT inspection of wind girder and shell	2	3	bund breach and scaffolding	£23500 + labour	£1,450.00	£22050.00 + Labour
INEOS	clean down secondary wind girder	2	3	scaffold	£6500 + Labour	£2,036.50	£4463.50 + labour

CLIENT	DESCRIPTION	TIMESPAN	PERSONNEL	TRADITIONAL ACCESS METHOD	COST	ROPE ACCESS COST	SAVING
INEOS	Visual inspection of primary and secondary wind girders	1	2	breach bund and scaffold	£23500 + Labour	£750.00	£22750.00 + Labour
INEOS	UT inspection of cardinal points & roof	1	2	breach bund and scaffold	£23500 + labour	£750.00	£22750.00 + labour
INEOS	UT inspection of cardinal points	1	2	breach bund and scaffold	£23500 + labour	£750.00	£22750.00 + labour
INEOS	UT inspection of wind girder and shell	1	2	breach bund and scaffold	£23500 + Labour	£750.00	£22750.00 + Labour
INEOS	UT inspection of nozzles through tank	1	2	scaffold	£2500 + Labour	£750.00	£1750.00 + labour
INEOS	UT inspection of wind girders and stiffners	1	2	breach bund and scaffold	£23500 + Labour	£750.00	£22750.00 + Labour
INEOS	visual inspection of floatation pontoons inside tank	1	2	not possible with scaffold	n/a	£1,050.00	

Total cost of rope access operations including man power and equipment is £79,814.00

Total cost using traditional access methods within INEOS refinery is £380,804.00 exclud

Print : This comparison shows the advantages of Rope access practises over conventional methods.



NB Power Cases for RA

**Nuclear Reactor Building Containment
Leak Inspection**

**Budget Leak Rate Inspection 30-40
days.**

Scaffolding cost exceeded 1M

ACTUAL: 1 week 250K

Savings: 1M + + +



“Managers tend to pick a strategy that is least likely to fail rather than pick a strategy that is most efficient”.



Partnerships

- Welding
- NDT inspections
- Instrumentation
- Painting
- Sandblasting
- Insulating
- Concrete work
- Light changing
- Inspections
- Any labour related task



BRETON  TESTING

Liquid Penetrant Testing

Ultrasonic Examination

Magnetic Particle Testing

Underwater Examination

Radiography

Eddy Current Testing

Vibration Analysis

UT & Coating thickness Testing



International
Organization for
Standardization



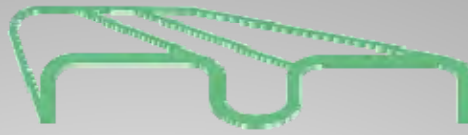
Inspection Services



**Bridges, Buildings, Flare stacks, Dam's, Towers,
Environmental monitoring**

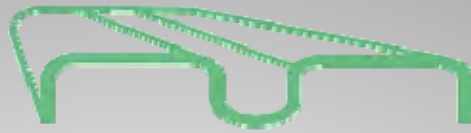
**Thermal Infrared Video Camera,
HD Video Camera,
Digital Still Camera with HD Video Capability**

SAFESPAN
Platform Systems, Inc.



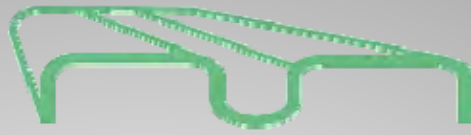
Brooklyn Bridge

SAFESPAN Platform Systems, Inc.



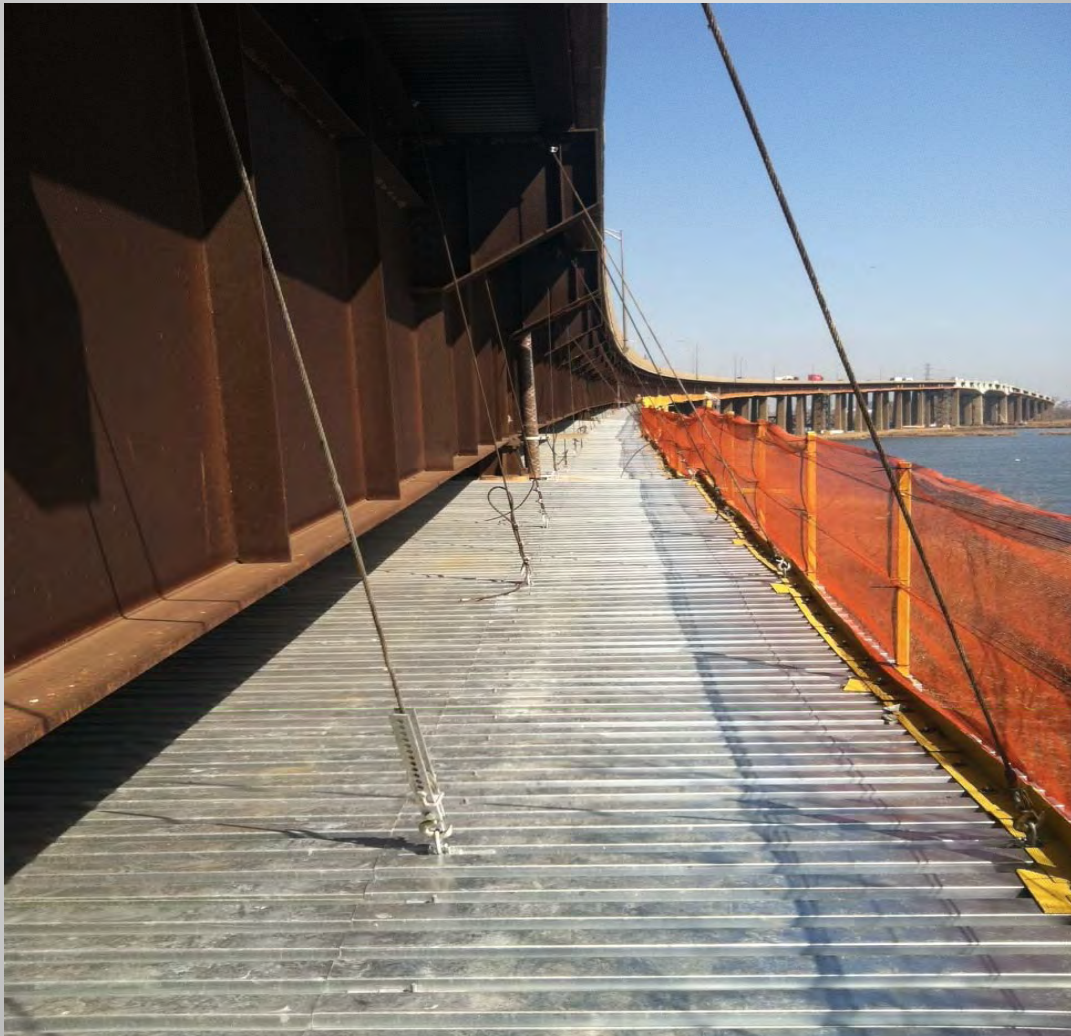
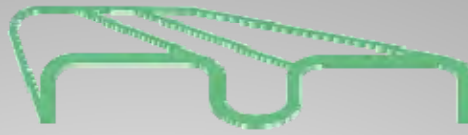
Lincoln Tunnel Helix

SAFESPAN
Platform Systems, Inc.



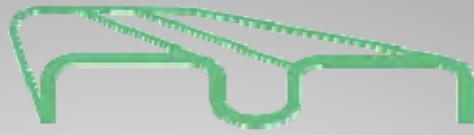
Manhattan Bridge

SAFESPAN Platform Systems, Inc.



Hackensack River Bridge

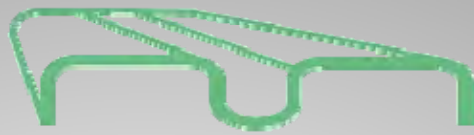
SAFESPAN
Platform Systems, Inc.



Hackensack River Bridge

SAFESPAN

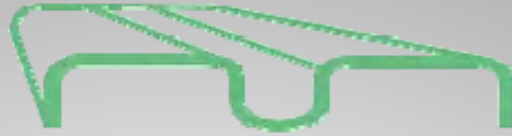
Platform Systems, Inc.



End Connections

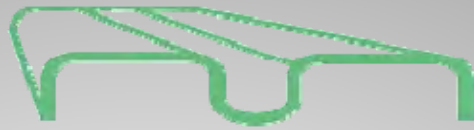
SAFESPAN

Platform Systems, Inc.



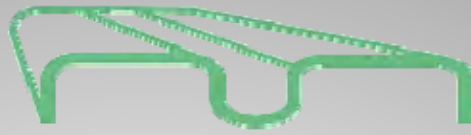
SAFESPAN

Platform Systems, Inc.



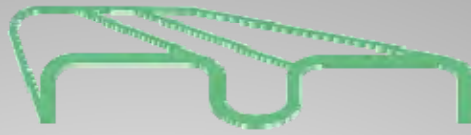
Safespan Post Bracket End Connection

SAFESPAN Platform Systems, Inc.



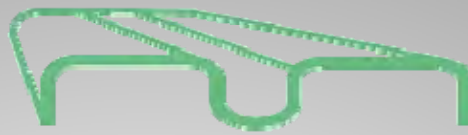
Cable Rigging

SAFESPAN Platform Systems, Inc.



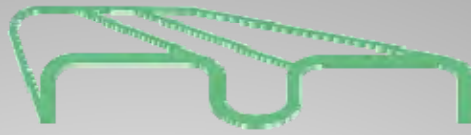
Laying Safespan Specialty Flooring Sections

SAFESPAN Platform Systems, Inc.



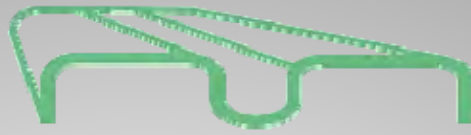
Flooring Installation

SAFESPAN Platform Systems, Inc.



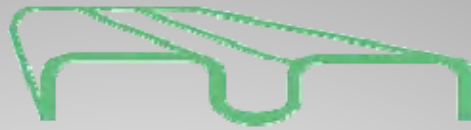
Vertical Tie Ups

SAFESPAN Platform Systems, Inc.



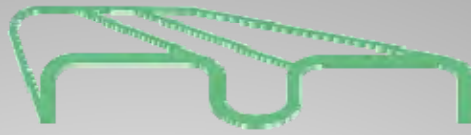
Vertical Tie Ups

SAFESPAN Platform Systems, Inc.



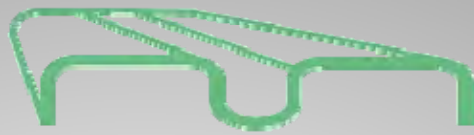
**Completed Flooring Installation with
Railing and Toe Board System**

SAFESPAN Platform Systems, Inc.



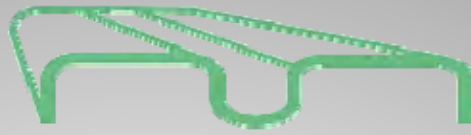
Railing & Toe Board System

SAFESPAN
Platform Systems, Inc.



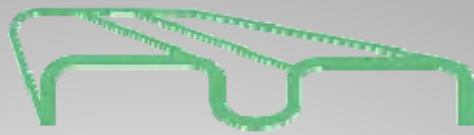
Walt Whitman Bridge

SAFESPAN Platform Systems, Inc.



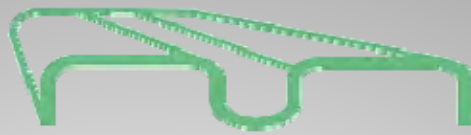
Foresthill Bridge

SAFESPAN
Platform Systems, Inc.



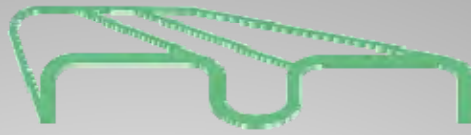
George Washington Bridge

SAFESPAN
Platform Systems, Inc.



Alexander Hamilton Bridge

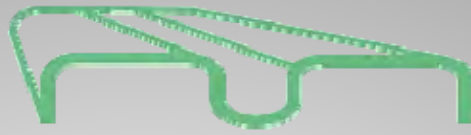
SAFESPAN Platform Systems, Inc.



Alexander Hamilton Bridge

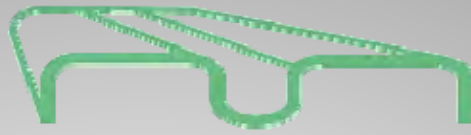
SAFESPAN

Platform Systems, Inc.



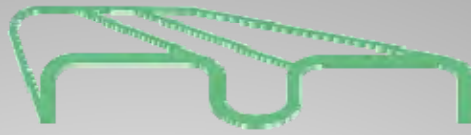
7,000 lbs Dropped onto Safespan

SAFESPAN Platform Systems, Inc.



Piece that Dropped

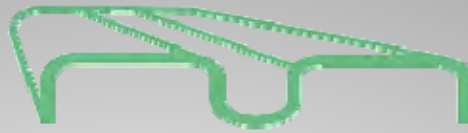
SAFESPAN Platform Systems, Inc.



Throgsneck Bridge Fire Damage

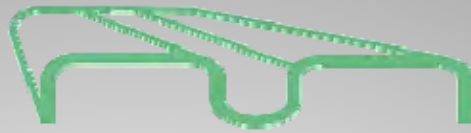
SAFESPAN

Platform Systems, Inc.



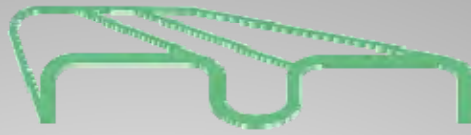
Fire Damage

SAFESPAN
Platform Systems, Inc.



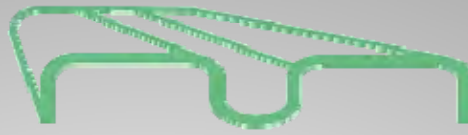
Throgsneck Bridge Fire Damage

SAFESPAN
Platform Systems, Inc.



Throgsneck Bridge Fire Damage

SAFESPAN
Platform Systems, Inc.



Brooklyn Bridge



Rope Access Technicians are competent in:

- NFPA Standby rescue for confined space & high angle.
- Safespan
- Sprat Rope Access
- Behavior based safety audits.
- 80Hr EMR
- Respiratory Protection
- Gas detection
- Hole watch
- Fit testing



Team Safety



Single Sourcing

The RAM QA/QC trailer provides the Customer with a tool to manage time, waste and reduced cost.

- Clients can utilize the unit as a one stop shop for the following services;
- Fit testing
- Cleaning, sanitizing of respirators.





- Cascaded breathing air trailers with 12 & 16 300ft³ breathing air cylinders @ n/c.
- *Breathing Air refills.*





- Scott SCBA
- Scott SABA
- 1/2 mask & full face respirators
- Breathing air hose
- Breathing air manifolds and regulators
- Tripods c/w retrieval systems





- H2s personal monitors
- IS & BW
- 4 way gas monitors





**ISNetwork
Member**



Rope Access Maintenance Inc...
Your Oasis in the desert.



Management Experience

- **OHS Contractor Management System Development for plant outages and shutdowns**
- Configure EHS Management System & Services framework based on refineries contractor expectations.
- ISNetworld
- PICS
- Clean Safety Record



**Imperial Oil Refinery,
Sarnia Site Cogen Construction.**

Duration: 18 months.

Duties and responsibilities:

Reporting to Exxon/Mobil World

**Reviewed the client {Exxon/Mobile} and
contractors policy guidance and standards for the
project focusing on the overall management
system.**



JDI Group



- **Confined Space & High Angle Rescue**
- **Gas Monitoring**
- **1st Aid Training**
- **Respiratory Protection Services**
- **Fit Testing**
- **Man Watch**



Canaport[™]
LNG_{LP}



Team Safety



-
- 500M Project
 - Paramedics
 - Ambulances
 - Safety
 - Rescue
 - Education & Training

Canaport[™]
LNG_®



Team Safety



Irving Oil Refinery

Saint John NB

Providing Services since 2005

- **Rope Access Technicians**
- **Safety Technicians**
- **Rescue Technicians**
- **Paramedics**



**Imperial Oil Limited, Sarnia
Ultra Low Sulphur Diesel Project**

Duration : 2.5 years

Duties and Responsibilities:

- **Coordinate the safety program for the project**
- **Write and implement the safety policies and procedures for the project**
- **Monitor and evaluate the safety performance of contractors**
- **Train and coach contractors required**
- **Provide a resource in safety for the project**
- **Recognize safety trends and areas of concern in for the project**
- **Work with the project leadership group to continuously improve the safety program**
- **Investigate all incidents and enter data.**



Daimler Chrysler - Toledo, Ohio

**Contracted by Rudolph Libbe - Construction of car body
manufacturing plant**

Duration: One year

Duties and responsibilities:

Provide Site Safety Supervisor reporting to DaimlerChrysler

- **Safety Orientations**
- **Overseeing safety requirements of Generals and Subcontractors**
- **Audits**
- **Erosion control testing and documentation**
- **drug testing**
- **Behavior Based Safety Observations**
- **Coordination of Site Safety Policies and Procedures**
- **Emergency Preparedness**
- **Incident Investigation**
- **Leadership and coaching**



Replacement of all 380 fuel channels, calandria tubes and feeder tubes, as well as other station maintenance work. The C\$1.4 billion (\$1.3 billion) refurbishment of the 680 MWe Candu 6 pressurized heavy water plant.



C/S & H/A Rescue Tech's

- Rope Access Tech's
- Paramedics
- Gas Detection & Monitoring
- Respiratory Protection





Suncor & IOL Refinery OHS {contract}

- **15 years of site leadership in OHS for refineries.**
- **Responsible for client's staff and contractors.**
- **General scope included identification and management of operation and construction**
- **OH&S risk through ISO14001, PSM, ILCI and other EHS Management models.**
- **OHS Audit of Refineries, Fuel Terminals, Power generation, automotive.**
- **Provided Independent OHS auditors, rescue teams and PPE requirements in support of client's shutdowns, construction projects and plant outages. Peak periods would see upwards of 50 staff to manage.**



**Imperial Oil Limited, Dartmouth Refinery
Contracted by MBB Power Systems**

Duties and responsibilities:

**Safety Advisor to oversee furnace refit and re
tubing**

- **Safety Orientations**
- **Fall Protection training**
- **Behavior Based Safety Observations**
- **Audits**
- **Permit Issuing supervision and integrity**
- **Coordination of Safety Meetings**
- **Incident investigation and reporting**



**North Atlantic Refineries Limited,
Come By Chance, Newfoundland
Contacted by MBB Power Systems**

Duties and Responsibilities:

**Safety Advisors to oversee safety for Convection Section
Replacement tube Replacement on the Coker Charge
Heater**

- **Liaison between contractor and government authorities**
- **Safety Orientations**
- **Critical Lift Checks**
- **Auditing**
- **Confined space coordination**
- **Rescue preplanning**
- **Project planning and JSA implementation**
- **Safety Meetings**
- **Incident Investigation**



**AES (Indianapolis Power and Light),
Indianapolis
Plant Shutdown**

Duties and Responsibilities:

Supervision of general safety requirements and rescue coordination

- **Safety supervision, force of 1200**
- **Auditing**
- **Air Testing**
- **Safety orientations**
- **Confined space permit issuing**
- **Confined space and high angle rescue**
- **Training**
- **Coordination of site safety meetings**
- **Review of contractors' safety plans and audits**



- **TIW Fort MacMurray,
Syncrude site
9 months duration**
- **Suncor Terminals, Ontario**
- **Shell Terminals, Ontario**
- **OPG Darlington Nuclear, Ontario**



- ❖ **Project Safety Management**
- ❖ **Safety Advisors**
- ❖ **Planning**
- ❖ **Audits**
- ❖ **Behavior Based Safety Observations**
- ❖ **Rope Access Technicians**
- ❖ **Fit-Testing**
- ❖ **Gas Detection**
- ❖ **Fall Protection**
- ❖ **Standby Rescue Technicians**
- ❖ **Breathing Air**
- ❖ **Respiratory Equipment**
- ❖ **Fire Training**
- ❖ **Open Water Rescue Technicians**
- ❖ **Equipment Rentals**
- ❖ **Quality Assurance**
- ❖ **Policies and Procedures**



Partnerships

BRETON  TESTING

Specialized Services

ISO 9000 Consulting

**Expertise Mr. J William
McMullin**



International
Organization for
Standardization





Partnerships

BRETON  TESTING

**35 YEARS OF EXPERIENCE
IN NON-DESTRUCTIVE
TESTING, QUALITY
ASSURANCE AND QUALITY
CONTROL SERVICES**



International
Organization for
Standardization

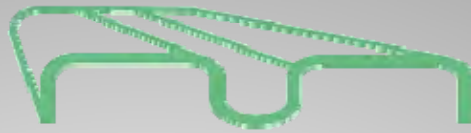


Inspection Services



For commercial and industrial users RAM can provide faster, cheaper, safer, and more accurate information for collecting imagery than conventional alternatives. Reliable and easy-to-use small UAV system work in a wide range of industries.

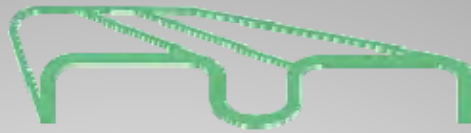
SAFESPAN
Platform Systems, Inc.



Safespan introduced its superior patented method of accessing and shielding bridge decks for rehabilitation projects in 1994. With 15 years strictly in the access business and 20 million square feet shipped to date Safespan's experience is second to none

SAFESPAN

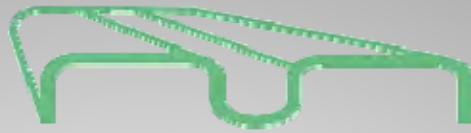
Platform Systems, Inc.



Safespan's highly engineered platform goes up fast, provides solid footing for workers, and allows multiple trades to work simultaneously. Weighing less than 2 lbs per square foot the system can still be designed to support loads up to 200 psf. Its low profile of only 2 1/2" makes it an ideal application for tight clearances

SAFESPAN

Platform Systems, Inc.



The highly-engineered Safespan Multi-Span Bridge Platform System was developed in 1994 by experienced bridge rehabilitation contractors to mitigate the risks and difficulties associated with their line of work.

Safety and inspection issues, environmental concerns, business interruption, emergency situations, rising labor costs, and the need for increased efficiencies.

Dissatisfied with available bridge access options and their associated costs, these entrepreneurs developed a safer, more efficient and economical option.



- Rental of 1/2 mask & full face respirator.
- Rental of fresh air respirators.
- Rental of H2s personal monitors.
- Rental of fall protection equipment.
- Calibration of gas detection.
- Customer only pays for what is used.



How do we measure efficiencies from the clients chair?

- **Rescue**
- **Safety Advisers**
- **Labourers**
- **Rope Access**
- **Multi disciplined staffing is 100% measurable.**



Current Cost overview

Based on average 60.00 rate / 8 hr day

5 Labourers x 60.00 x 8 = \$2,400.00

2 Standby Rescue x 60.00 x 8 = \$960.00

1 Safety Adviser x 60.00 x 8 = \$480.00

Total Daily = \$3840.00

Total Month = \$76,800.00

Total Year = \$768,000.00



Cost overview

Using a multi disciplined option

5 Labourers x 75.00 x 8 = \$3000.00

Savings \$1440.00 per day

Savings \$28,800.00 per month

Savings \$288,000.00 per year



Refining expenses

- **Maintenance expense on average of 60-70% cost of barrel.**
- **Estimated 2.50 - 3.50 per barrel operating cost = approx 1.80 maintenance cost.**
- **Scaffolding being the highest cost.**
- **Multi disciplined approach + rope access services = savings**