Hikvision Oil & Gas Industry Solution
Protecting Your Personnel, Production, and Property

Hikvision
Oil & Gas Industry Solution

Protecting Your Personnel, Production, and Property

HIKVISION

Headquarters
No.555 Qianmo Road, Binjiang District,
Hangzhou 310051, China
T +86-571-8807-5998
overseasbusiness@hikvision.com

Hikvision HikvisionHQ HikvisionHQ Hikvision_Global hikvisionhq Hikvision Corporate Channel

HIKVISION

Solution Overview

With all the hazards and volatility of oil and gas industry operations in view, safety and environmentally-friendly management is the primary concern. Additionally, as an asset-intensive industry, the productivity of oil and gas relies heavily on the reliability of every component.

Faced with these distinct challenges, you need intelligent solutions that overcome the most significant ones. And that's what we do.

Hikvision's AI-powered Solution for the Oil & Gas Industry provides advanced technologies and products, empowering your operations and employees with unparalleled capabilities to address every aspect of safeguarding and enhancing the value chain.

Hikvision helps you safeguard your personnel and critical infrastructure day and night, minimizing unexpected downtime and improving operational efficiency. Having a robust solution designed for the industry can also help cut costs and ensure best practices are always followed to control the environmental impact.

Continue reading to find out how our solution protects your personnel, production, and property with cutting-edge technologies and products, and uncovers business insights every day.



Reducing Security Threats and Risks with Ease

For large areas that require high-level security protection, Hikvision's Oil & Gas Solution enables users to keep track of critical infrastructure around the clock. Thanks to our visual and thermal technologies, security management can be easier than ever with clear and accurate remote imaging – even in low-light environments.

Intrusion & Violation Detection



Radar & Camera Linkages

Arm perimeters at oil fields, plants and tank farms

Hikvision's solution helps detect all kinds of vehicles and personnel approaching restricted areas and identifies vandalism and suspicious activity such as breaching a perimeter in real time. It can stop intruders in their tracks or alert personnel of their presence before the risks become disasters.



Anti-corrosion Thermal & Optical Bi-spectrum Network Stable PTZ Camera

Protect long-distance pipelines and critical zones

Users can enjoy wide-range protection with timely alarms triggered even in darkness by applying AI-powered thermal cameras. These advantages enable the prevention of damage to pipelines and critical zones, especially at remote sites. Security staff can visually verify the nature of every incident remotely and respond efficiently.

Fire Prevention

Hikvision's Thermography Cameras have been used widely in detecting temperature anomalies before a fire starts, finding hot spots in warehouses, production areas, machinery, and more. Actions can be taken early to prevent a fire before the worst happens.

These cameras feature:

- 24/7 monitoring despite in any weather
- Early warning enabled by temperature anomaly algorithm
- High accuracy rate as it leverages both thermal and optical smoke detection technologies
- Wide spatial coverage with thermal speed domes or positioning systems



Thermal Cameras

Vehicle Management

Entrance & Exit Control

Hikvision offers convenient and efficient entrance & exit control for oil and gas facilities, tank farms, petrol stations, and so on, with or without a security booth at the gate.

Registered Vehicles



Plate recognition
(ANPR Solution)

Auto-open barrier

Plate recognition

Open barrier

Visiting Vehicles



Security guards check in the control room

Registers in the toll manually

Auto-open barrier

Records the vehicle information

Plate recognition

Open barrier



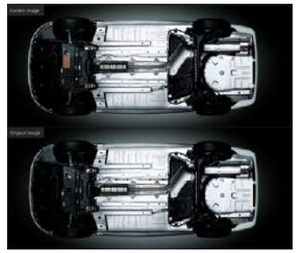
ANPR Camera



Barrier



Video Intercom



Under Vehicle Monitoring System

Hikvision offers clear underside imaging of vehicles entering an industrial plant, enabling under-vehicle security checks to reduce threats and risks.

On-Site Driving Regulations and Management

Vehicle regulation and management is especially critical because vehicles often carry hazardous materials that require special training licenses, specific protocols, and extreme caution.

Our products with AI-powered functionality can accurately detect drivers' behaviors in time when driving over the speed limit or illegal parking in prohibited areas, reducing potential risks while improving operation efficiency. With Hikvision's specially-design traffic management products, managing drivers and vehicles within the plant immediately becomes safer, easier, and more efficient.



Check Point Camera



Check Point Radar

Improving Operational Efficiency

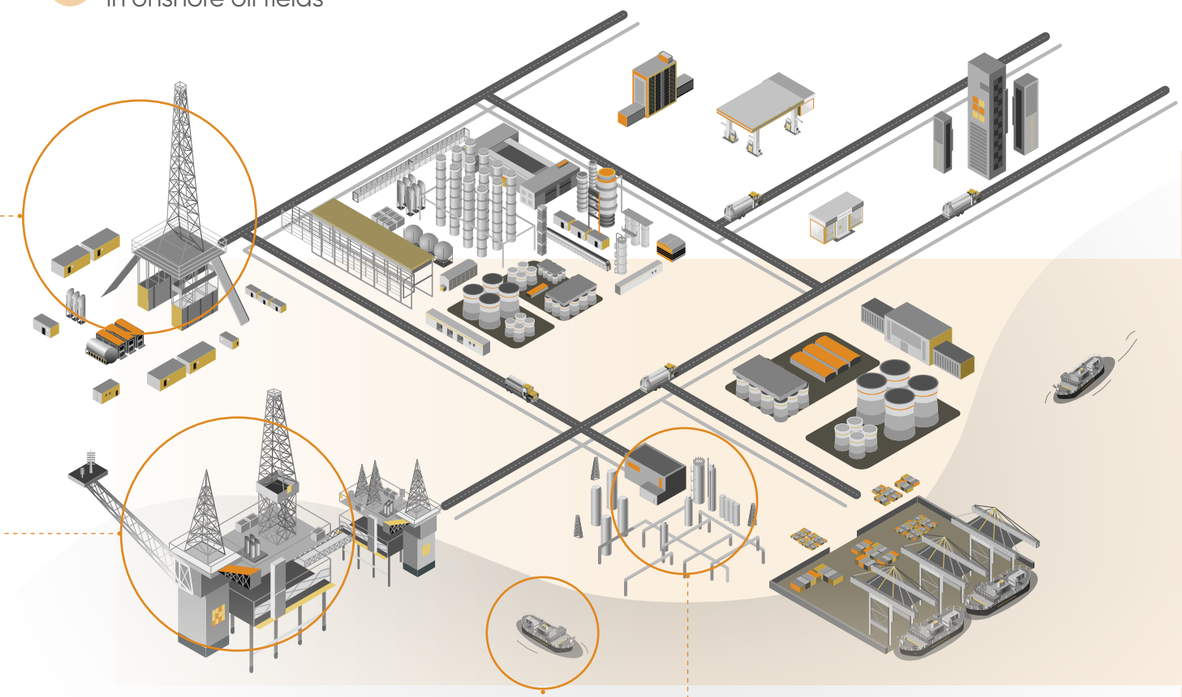
Our solution helps keep critical operations up and running with cutting-edge AI and thermographicproducts and technologies. It also facilitates managers' work when the operational supervision becomes smarter and more effective. And our explosion-proof cameras can be used for safe process monitoring.

Real-time Visual Verification Across the Value Chain

High-value explosion-proof and anti-corrosion cameras are widely applied in the Oil and Gas industry for operational monitoring, as well as covering the upstream, midstream and downstream processes throughout the value chain.



A Safeguarding operations in onshore oil fields





B Protect operations on offshore platforms



C Ensuring smooth transportation of marine vessels



D Monitoring leaks and other disruptions in processing plants

Learn about Hikvision's explosion-proof cameras

- **Designed for the most hazardous areas**

With a reinforced stainless-steel outer casing and a cylindrical flame-proof joint design inside, Hikvision explosion-proof cameras prevent fire and other hazards in extreme cases.

- **Built-in AI analytics**

Our cameras recognize potentially dangerous jobsite practices or behaviors – such as improper use of hard hats – and trigger alarms immediately when people or assets are at risk.

- **Certified to ATEX, IECEx, and UL 60079 standards**

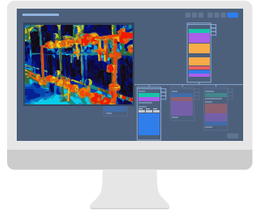
We have achieved a long list of accreditations and certifications, both for explosions caused by gases, flammable dust, and other elements. In particular, our products are certified to ATEX, IECEx, and UL 60079 industry standards.



Control Center



A
B
C
D



A Hikvision CCTV system can seamlessly integrate with existing industrial control systems, such as SCADA systems, adding an extra layer of visibility that makes it possible to gain awareness of assets and production processes remotely while minimizing downtime and costly on-site checks.

Remote Anomaly Detection with Thermography

Hikvision's Thermography Products are perfect for temperature monitoring of critical equipment and facilities. These cameras detect accurately with alarms for temperature anomalies, enabling timely responses to risks.



Handheld Thermography Cameras



Thermographic Cube Cameras



Explosion-proof Cameras

Learn about Hikvision thermography cameras

• Clear imaging

With advanced features such as automatic gain control, digital detail enhancement, and 3D digital noise reduction, Hikvision thermography cameras offer crisp and clear thermal imaging unparalleled in the industry.

• Accurate Temperature Measurement

Through strict calibration and standardized testing procedures, Hikvision has established a temperature measurement model that offers high accuracy up to ±2° C or ±2%.

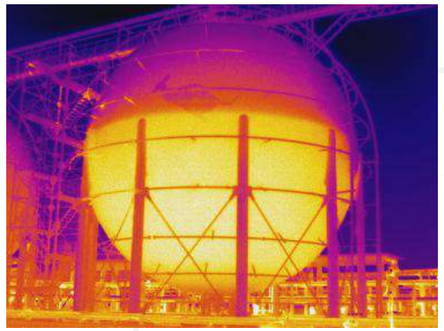
• Advanced Intelligence

Based on deep learning algorithms, Hikvision's thermal products deliver powerful and accurate behavior analyses for your specific scenarios.



Temperature Monitoring

Hikvision equipment monitors temperatures of refining equipment 24/7. Our solution helps detect the corrosion of pipelines, tanks, and other storage equipment before oil or gas leaks occur. Users can make timely repairs before overheating to prevent damage and downtime. Liquid level detection measures the levels of oil & gas from afar in tank farms and oil tankers to guard against overflows or leakage.

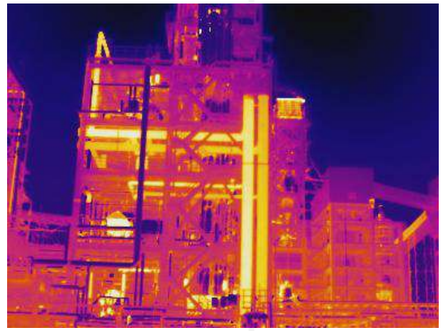


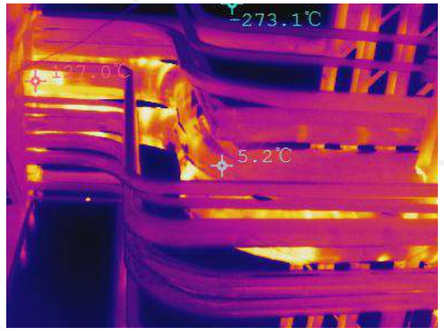


Liquid level monitoring of oil storage tanks to avoid overflow or leakage

External temperature measurement for refining equipment to prevent potential shell damage









Temperature anomalies detection on pipelines to detect potential corrosion

Flare Monitoring

The hazardous gases generated from hydro-carbon processing needs to be disposed of through flaring. Thermal imaging is perfectly suited for monitoring this process. Through continuous temperature reading, alarms will be raised if the flame is burning hotter or cooler than expected, or even silenced, thus mitigating the risk of explosions and negative environmental impact.



Oil and Gas Transportation Management

The transportation of oil and gas by tanker trucks is an essential step in the distribution process, which needs to be closely monitored. Hikvision's solution helps transportation companies resolve these challenges while gaining valuable insights, such as:

· Real-time truck GPS tracking and monitoring with post-event video evidence
· Comprehensive driver protection & assistance with the intelligent ADAS system
· Improved decision-making with diverse performance & operation analysis reports

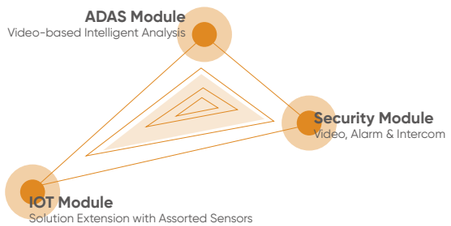


Streamlined and standard workflow management

Hikvision's solution brings more standardization to the entire transportation process. Companies can create schedules and assignments for drivers in advance with defined routes and delivery times, as well as keep track of the whole operation in real time.

Dedicated modular system enables more flexibility

We provide three discrete yet interconnected modules to meet a variety of transportation needs including managing drivers, shipment, and tanker trucks. Powered by intelligent analysis, accurate alarms and more, the whole system is easy for users to design, install and maintain, thus providing comprehensive insights to transportation management.



A unified platform centralizes management with intelligent visibility

A variety of report models are presented to transportation companies with high levels of visibility, providing critical information such as mileage, online hours, events & alarms, on-time arrivals and more, helping them handle emergencies and make smarter decisions.





Ensuring Health, Safety and Environmental Compliance

Hikvision's Solution for the Oil & Gas Industry focuses on health and safety for personnel, and meets the evolving needs of companies to identify, manage, and mitigate current and hidden safety risks. Integrating a Hikvision solution into your operations means you will also minimize the environmental impact with regulatory compliance.

Protect personnel with AI-enabled health & safety management

PPE Detection

Requirements for Personal Protective Equipment (PPE) – the protective-wear that ensures worker safety – is a must in these industries. But enforcement can be a challenge across the worksite. Remote PPE checks intelligently use video imaging to help managers ensure employees are wearing helmets and other PPE, which could mean the difference between life and death in hazardous environments.



Safe Distance Management

Safe distance warning alerts notify supervisors when their employees get too close to dangerous or restricted areas, or when someone breaches the HSE rules.



Abnormal Activity Monitoring

Abnormal activity monitoring detects and responds fast to emergencies and hazardous events that may threaten worker safety, such as falling down, running, unauthorized gathering, and more.

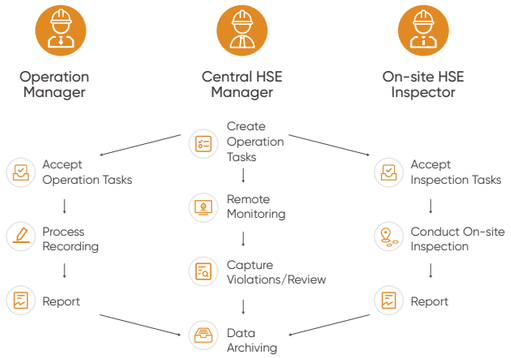


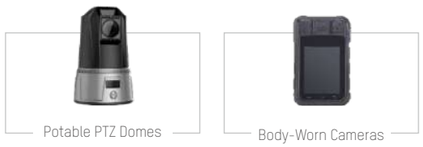


Streamline Operation Supervision Remotely

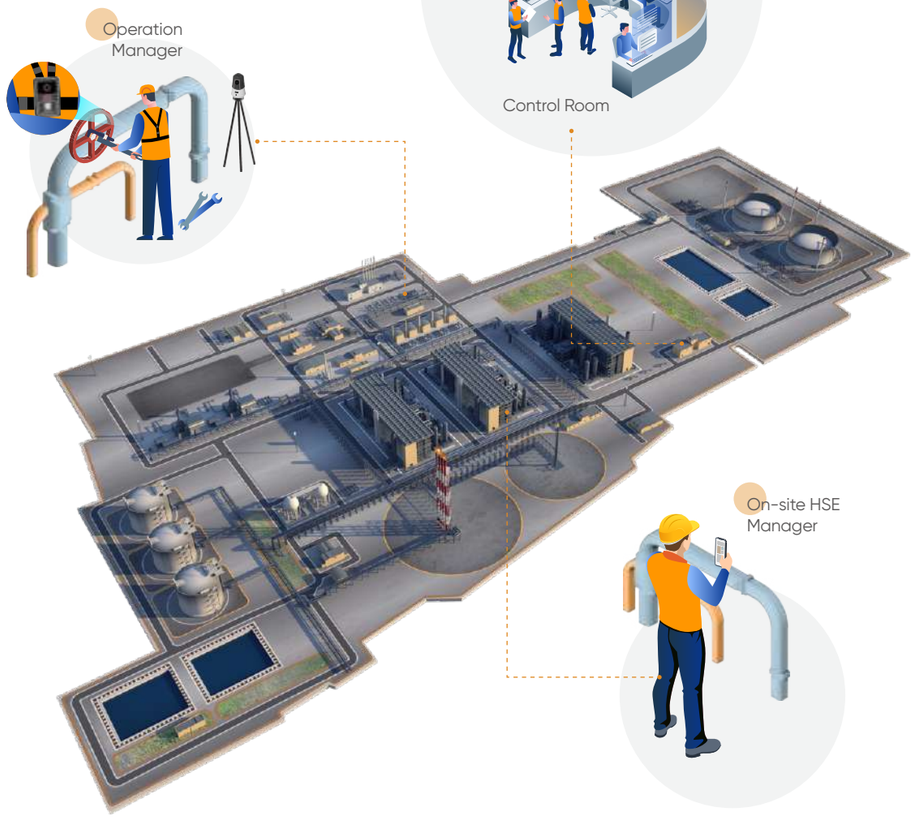
Field Operation Supervision plays a critical role in high risk operations such as maintenance, repairs, and all the various labor-intensive processes.
Our solution helps digitize the forms and checklistsrequired in field operation supervision, so the workflows can be configured to tailor the application to your unique process. This streamlines the whole process. But it also ensures operational safety and compliance by replacing manual supervision with 24/7 real-time monitoring and AI-powered analytics through existing CCTV systems.

Moreover, imaging evidence and data can be leveraged to provide insights when assessing the qualifications of contractors.




Potable PTZ Domes

Body-Worn Cameras



HIKVISION

Visualizing Data for Better Insights

Hikvision's Solution for Oil & Gas Industry also features an all-inclusive dashboard to present perceived data in an intuitive, visualized way.



The dashboard equips operations teams with a bird's eye view and multidimensional analytics, displaying on-going site operations and real-time inspection status with detailed information and data indexing, which aids decision-making.

AR Live Interaction integrates video with data, which gives users a more immersive experience, improving situational awareness and timely emergency dispatch.





Success Stories

Helping Steehold to Deliver Total Security for West Africa's Leading Oil & Gas Company

Total Ghana, a leading oil & gas company in Ghana, turned to Steehold for round-the-clock security that would cover its premises and many service stations.

Hikvision products, including 120 IP cameras, NVRs and video encoders, were employed to enable high-quality 24/7 monitoring and security from every angle. Total Ghana is already reaping benefits from this solution, protecting facilities against trespassers and theft and keeping employees compliant with PPE rules.

"The deployment of Hikvision's innovative technology into our video security solution for Total has proven essential for our security operators to detect intrusion, theft, and damage across Total's operations. With crystal clear images day and night as well as advanced features that alert security operators of any suspicious behavior, we are confident we can help Total respond quickly to any breaches."



Samuel Tawiah, Executive Director of Steehold





HIKVISION

Headquarters
No.555 Qianmo Road, Binjiang District,
Hangzhou 310051, China
T +86-571-8807-5998
Business: overseasbusiness@hikvision.com
Technical Support: support@hikvision.com

Hikvision Australia
T +61-2-8599-4233
salesau@hikvision.com

Hikvision Azerbaijan
T +994 50 369 81 57
Azerbaijan.CATC@hikvision.com

Hikvision Brazil
T +55-11-3318-0050
Latam.support@hikvision.com

Hikvision Canada
T +1-866-200-6690
sales.canada@hikvision.com

Hikvision Colombia
sales.colombia@hikvision.com

Hikvision Czech
T +420 29 6182640
info.cz@hikvision.com

Hikvision Egypt
T +20223066117
sales.eg@hikvision.com

Hikvision Europe
T +31 23 5542770
sales.eu@hikvision.com

Hikvision France
T +33(0)1 85 330 450
info.fr@hikvision.com

Hikvision Germany
sales.dach@hikvision.com

Hikvision Hong Kong , China
sales.hk@hikvision.com

Hikvision Hungary KFT
info.hu@hikvision.com

Hikvision India
T +91-22-6855 9944
sales@pramahikvision.com

Hikvision Indonesia
T +6221 2933 9366
Sales.Indonesia@hikvision.com

Hikvision Israel
T +972 79 5555590
sales.israel@hikvision.com

Hikvision Italy
T +39 0438 6902
info.it@hikvision.com

Hikvision Kazakhstan
T +7 (727) 291-75-88
support@hikvision.kz

Hikvision Kenya
wangchengbin@hikvision.com

Hikvision Korea
T +82-1661-8138
sales.korea@hikvision.com

Hikvision Malaysia
T +60327224000
sales.my@hikvision.com

Hikvision Mexico
T +52 55 2624 0110
sales.mexico@hikvision.com

Hikvision New Zealand
T 09 217 3127
salesnz@hikvision.com

Hikvision New Panama
Sales.centralamerica
@hikvision.com

Hikvision Pakistan
T +92-2135147526
support.pk@hikvision.com

Hikvision Philippines
support.ph@hikvision.com

Hikvision Poland
T +48 22 460 01 50
info.pl@hikvision.com

Hikvision Russia
T +7-495-669-67-99
saleru@hikvision.com

Hikvision Romania
marketing.ro@hikvision.com

Hikvision Singapore
T +65 6684 4718
sg@hikvision.com

Hikvision South Africa
T +27 877018113
sale.africa@hikvision.com

Hikvision Spain
T +34 91 737 16 55
info.es@hikvision.com

Hikvision Tashkent
T +99-87-1238-9438
uzb@hikvision.ru

Hikvision Thailand
sales.thailand@hikvision.com

Hikvision Turkey
T +90 216 521 70 70
support.tr@hikvision.com

Hikvision UAE
T +971-4-4432090
salesme@hikvision.com

Hikvision UK & Ireland
T +44(0)1628 902 140
info.uk@hikvision.com

Hikvision Uzbekistan
T +998-71-233-55-50
uzbekistan@hikvision.com

Hikvision USA
T +1-909-895-0400
sales.usa@hikvision.com

Hikvision Vietnam
T +84 24 7300 7586
sale.vn@hikvision.com