



REMOTE DIGITAL VIDEO INSPECTION (RDVI™)

- Remote Inspection Solutions
- Foreign Object Search and Retrieval – FOSAR
- InSpec™ Oil & Gas and LNG program

QuestIntegrity.com

CHALLENGE CONVENTION

REMOTE DIGITAL VIDEO INSPECTION (RDVI™)

RDVI (also known as remote visual inspection or RVI) is an indirect non-destructive testing (NDT) technique that employs the use of videoscopes, remote operated pan tilt zoom (PTZ) cameras, robotic crawlers and a wide array of specialized tooling to deliver clear, concise remote visual data of plant condition. This minimally invasive inspection technique is ideally suited for hostile environments unsafe for human intervention, in areas of inaccessibility, or where physical dismantling would otherwise be required.

Equipped with a large fleet of remote visual inspection equipment, deployment tools and operational expertise, Quest Integrity's remote visual inspection team safely deploys inspection cameras into restrictive areas to deliver clear, concise visual data pertaining to asset health and plant operability. All RDVI activities are supported with comprehensive detailed reports that include all pertinent data points and images to document asset health.

APPLICATIONS

- Boilers, furnaces and HRSGs
- Steam Turbines
- Gas Turbines
- Generators
- Heat exchangers and condensers
- Tanks and vessels
- Rotating equipment
- Piping Systems
- Welds
- Fluid Catalytic Cracker Unit (FCCU)
- FOSAR

Locate and identify

- Cracks
- Fatigue
- Erosion
- Deposition
- Corrosion
- Coating deterioration
- Hydrogen blistering
- Bacterial contamination
- Process indications
- Mechanical wear

BENEFITS

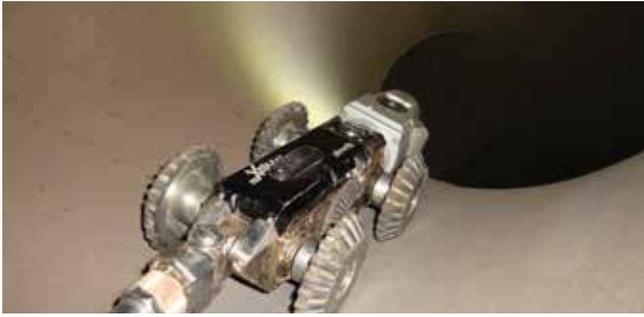
Minimize Risk

- Reduce confined space entry
- Reduce operational and safety risk
- Reduce lockout/tagout profile
- Reduce/eliminate equipment disassembly
- Reduce FME and FOD retrieval related incidents

Maximize Results

- Improve documentation
- Increase inspection coverage
- Enhance repeatability





PHYSICAL INSPECTION CAPABILITIES

- Pressure Vessels up to 7.5m in diameter with coverage up to 100%
- Piping systems from 6mm up to 3m in diameter and 300m from a given point
- Small, medium and large shell and tube heat exchangers with coverage up to 100%
- Small, medium and large fin fan heat exchangers with coverage up to 100%

Capacity

When required, our inspection teams can provide multiple shifts, complete with back-up equipment and spares.

FOREIGN OBJECT SEARCH AND RETRIEVAL (FOSAR)

RDVI also facilitates foreign object search and retrieval (FOSAR). Often the result of a failed foreign materials exclusion (FME) boundary, foreign object debris (FOD) endanger plant efficiency, operability and safety by disturbing water chemistry and posing a significant threat to rotating machinery. Quest Integrity's team of skilled FOSAR technicians is equipped with robotic cameras and extraction tools to perform remote FOD retrieval. This is essential to unit closeout and turbine cleanout activities or any FME programs/processes.



INSPEC™ PROGRAM FOR LNG, OIL AND GAS FACILITIES

The InSpec™ program helps plants maximize the use and application of RDVI, increasing the integrity of the inspection and providing more accurate and repeatable results, along with significant cost and time savings. This comprehensive program is designed to:

- Reduce risk profiles (human, environment and assets)
- Minimize confined space entry requirements
- Increase inspection integrity/reliability
- Increase available production time
- Minimize plant disassembly
- Minimize labor requirements
- Reduce associated shutdown costs

InSpec comprises six distinct stages:

1. RDVI Screening, pressure equipment selection and selection of access points
2. Develop RDVI specific inspection and test plans, and vessel access plans
3. QA/QC Inspections to support engineering procurement and construction requirements
4. RDVI integration with operations/HSE/planners
5. Baseline/completions close up inspections
6. In-service inspections



QUEST INTEGRITY

Quest Integrity, a Team Industrial Services company, is a global leader in the development and delivery of asset integrity and reliability management services. The company's integrated solutions consist of technology-enabled, advanced inspection and engineering assessment services and products that help organizations improve operational planning, increase profitability, and reduce operational and safety risks. Quest Integrity is built on a foundation of leading edge science and technology that has innovated and influenced industry best practices since 1971.

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