

150' #2 FUEL OIL TANK | POWER PLANT

FUEL OIL | POWER



OVERVIEW

A power plant client required an on-stream API 653 inspection of a 150-foot diameter red-dyed #2 fuel oil tank. Initial concerns included potential sediment build-up that could interfere with robotic inspection, and a lack of crane access around the tank perimeter.

SOLUTION

Square Robot conducted a tank assessment in advance of mobilization to confirm sediment levels were compatible with robotic operation. The Incline Lift System was deployed to transport the robot from ground level to the roof manway, eliminating the need for external crane equipment. The inspection proceeded over 7 days, collecting high-density phased array data across the tank floor.

OUTCOME

The inspection covered 85% of the tank bottom, discovering significant corrosion in multiple zones. This data enabled the operator to develop a targeted repair plan and establish a realistic inspection interval — critical information that a conventional out-of-service inspection might have delayed by months.

KEY IMPACT METRICS

- ✓ Eliminated > 1,200 confined space entry hours
- ✓ Estimated > \$850,000 in documented cost savings
- ✓ 25,135 lbs of CO₂ emissions contained
- ✓ 85% floor coverage | significant corrosion identified
- ✓ Repair plan enabled by real-time inspection data
- ✓ 1.18-year API 653 inspection interval