

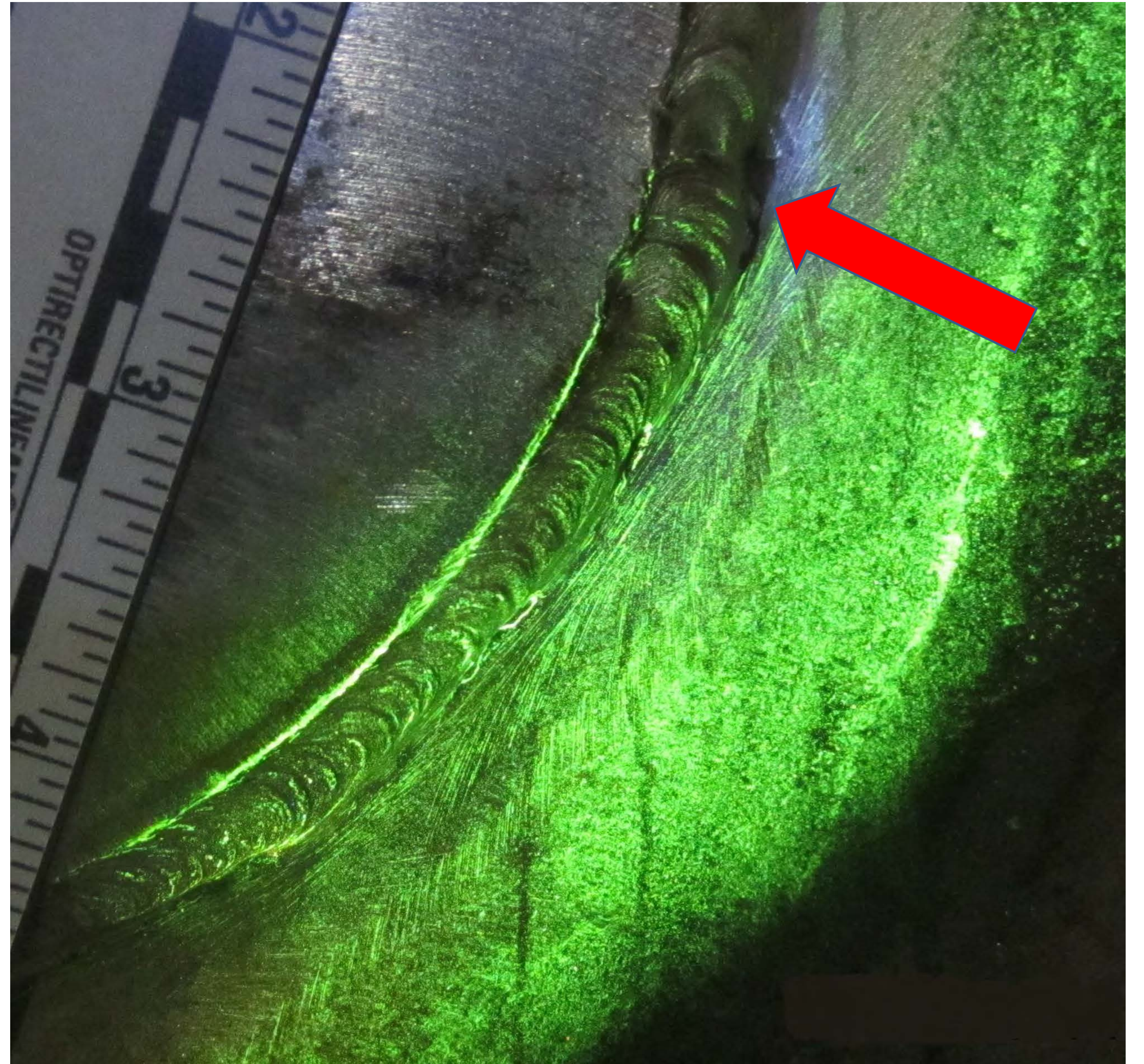
# Tank 5 HISTORY

Poster Station #2  
3 Posters  
March 14, 2018

## ***Tank 5 Fuel Release Was Caused By Human Error, Not Corrosion***

### **TANK 5 RELEASE**

- Tank 5 Passed The Biennial Leak Detection Test 29 June 2009, No Leaks
- Tank 5 Defueled For a Three-year Inspection and Repair Project, 1 Oct 2009
- Contractor Improperly Repaired Tank 5
- An API Inspector Certified Tank 5 Suitable for Service
- Navy Detected a Discrepancy, “Unscheduled Fuel Movement” 12 Jan 2014
- Release Was Reported To Regulators 13 Jan 2014



### **INCIDENT INVESTIGATION**

- Poor Workmanship – Defective Welding Was Ineffective
- Contractor Quality Control
- Insufficient Navy Quality Assurance
- Tank 5 Was Incorrectly Certified “Suitable for Service”
- Government Failed To Acknowledge Alarms While Filling Tank

### **IMPROVED PROCESS**

- Development of Tank Inspection and Tank Repair Specifications
  - Requires Improved Contractor Quality Control
  - Improved Standard of Care for Inspection and Repair
- Improved Navy Quality Assurance Process
- New Filling and Return to Service Instruction
- Tank 5 Was Completely Reinspected in 2017



***The Tank Inspection Repair and Maintenance Report and Decision Report Provide Detailed Information***

14 March 2018

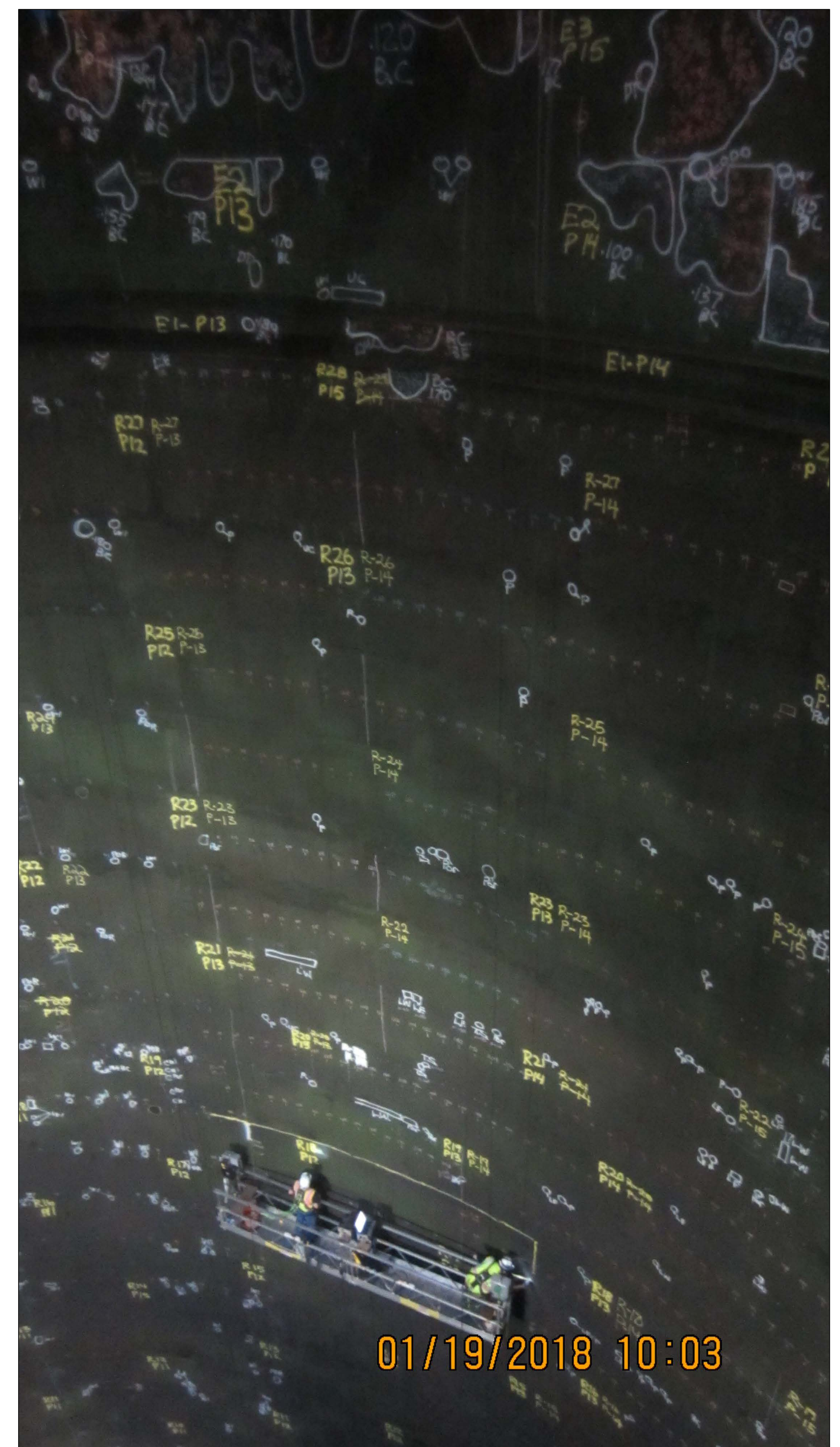


# TANK INSPECTION

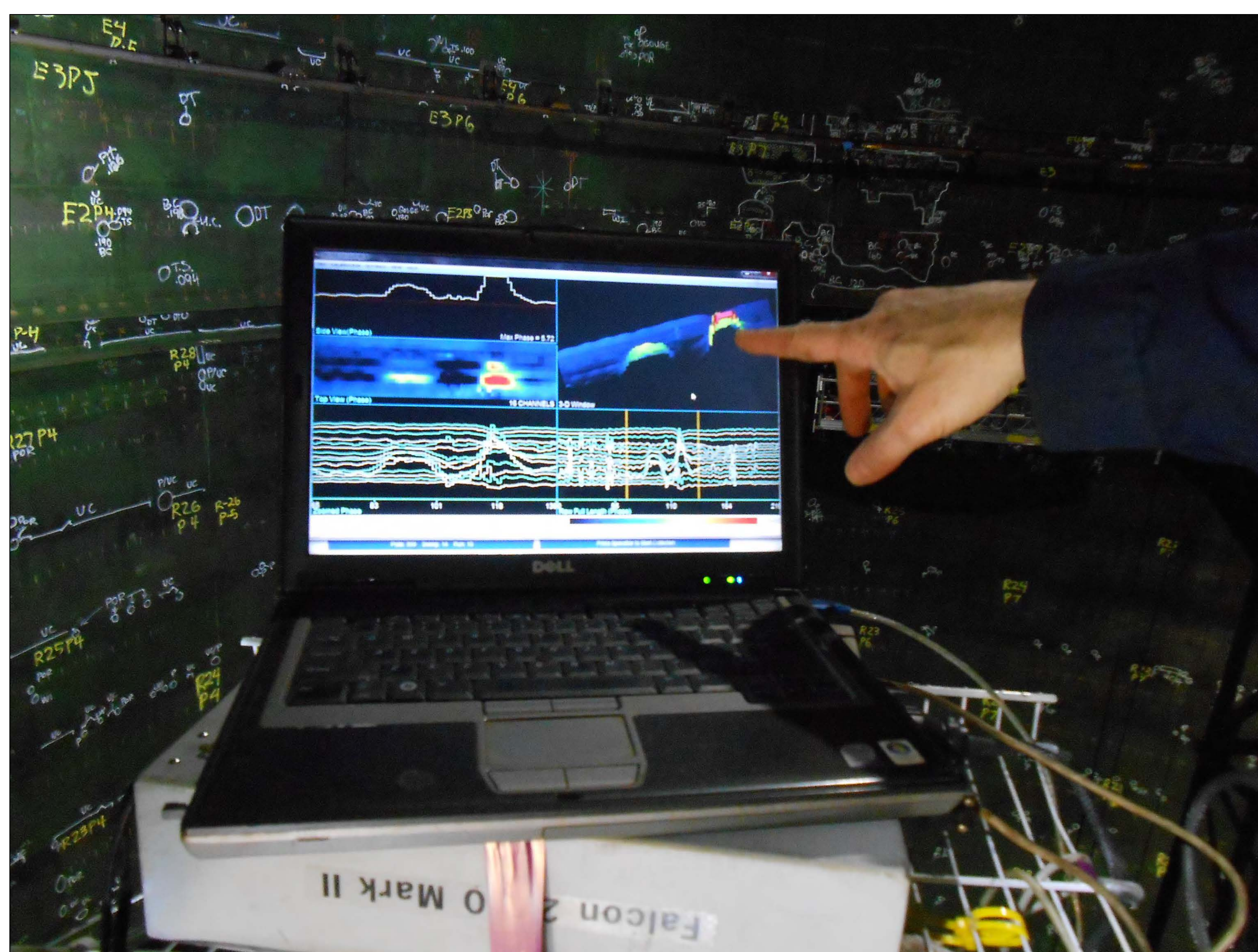
***The Administrative Order of Consent and Statement of Work has produced a Regulator approved Tank Inspection and Repair and Maintenance (TIRM) plan.***



*Tank 14 mapping grid employed for a current API653 inspection. (above/right)*



**Detailed marking of a tank allows for a more precise/thorough inspection. This results in higher quality control and quality assurance.**



*Work station and data output from testing equipment.*

**This state-of-the-art technology identifies the difference between:**

- Aesthetics – dents, etc. (non-actionable)
- Defects – welds, pits, etc. (actionable)
- Corrosion – depending on plate thickness (actionable/non-actionable)
- Redundancy – redundant measures in place

***This process exceeds industry best practices and is being further refined/validated through destructive testing, Section 5 of the AOC***



# Red Hill Tank Inspection & Repair Schedule

*There are many steps, challenges, and limitations to inspect and repair a Red Hill Tank.*

## Steps

### A. Plan Project (~6 months)

- Award contract
- Develop requirements and documents

### B. Inspection (~18 months)

- Design an inspection
- Clean and prepare tank for inspection
- Inspect (structural, hydraulic, coating)
- Manage data, determine required repairs

### C. Repair (~10 months)

- Modify contract
- Repair tank fit for service

### D. Return Tank to Service (~2 months)

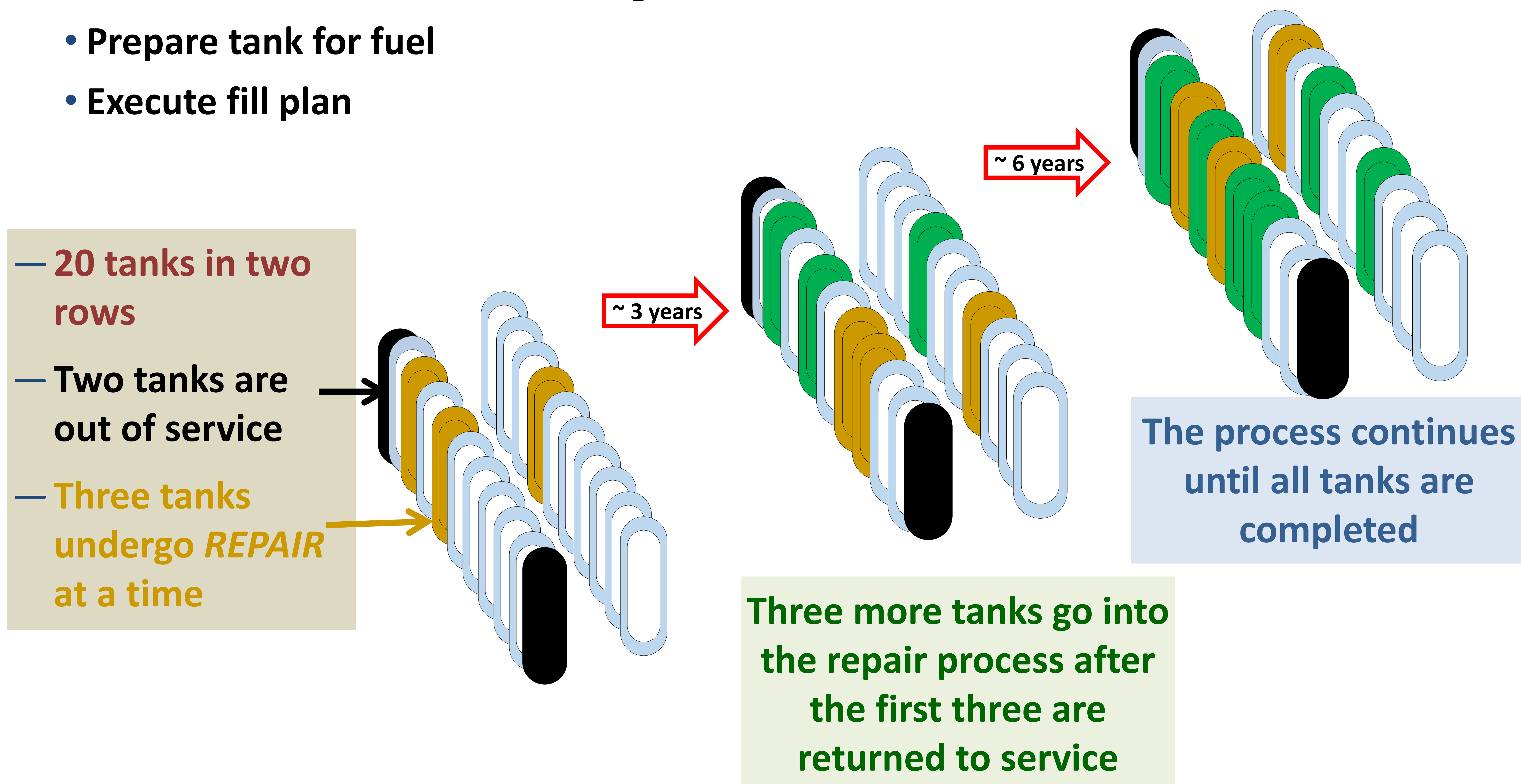
- Ensure documentation is thorough
- Prepare tank for fuel
- Execute fill plan

## Challenges

- Active military operations
- Safety
- Size, geometry, access
- Security
- Complexity

## Limitations

- Active military operation needs
- Demands for three fuel types
- Facility readiness
- Infrastructure criteria
- Acquisition regulations



*The Tank Inspection Repair & Maintenance Report provides important detailed information.*

14 March 2018