



Review of Acceptable Flash Rusting for Ship Coatings

Status Report – March 18, 2008

Steve Cogswell, Pete Ault

Background

- FY07 NSRP project
 - Closed-loop UHPWJ vs. hand lance UHPWJ
 - Testimonial & IDR confirming “Moderate” condition
 - Four (4) Navy hulls, 4-6 years old
 - Work done at one shipyard with one mfr. product
 - Data suggest no performance difference
 - Supports the position that there is no need for secondary surface preparation with hand lances
- NSRP FY08 follow-on study
 - Based on feedback from Fleet Forces Command
 - Confirm that results are not unique to the shipyard/primer which was observed

Scope of Work

- Identify ships to be inspected
 - CY 08 docking
 - Originally waterjetted
 - Some historical data or testimonial on surface preparation, coating, etc.
- Collecting anecdotal stories and reports on Navy UHP projects
 - Contributions welcome
- Considering panel testing based on NAVSEA 05P23 Input



Scope of Work

- Perform Inspections
 - Identify history and supporting documentation (QA Records, interviews, photos, process knowledge, etc).
 - Document existing condition (thickness, color, etc).
 - Selectively removed the topcoat (AF or Alkyd)
 - Evaluate anticorrosive (pull-off adhesion, coating resistance measurements, film thickness, etc.)
 - Visually examine the steel substrate under the anticorrosive, if possible
 - Repair test areas in conjunction with the requirements for touch-up in 009-32

Further Inspections

- Completed
 - USS STENNIS (CVN-74)
 - Excellent adhesion observed
 - Relied on testimony regarding initial condition
 - Limited testing performed based on SY constraints
- Identified candidates
 - USS ENTERPRISE (CVN65)
 - Spot hand lance work in 2002
 - April Availability
 - USS HALYBURTON (FFG-40)
 - Working on history
 - USS ESSEX
 - Work performed 8-9 years ago



Anecdotal Stories

- **USS LAMOURE COUNTY (LST-1194)**
 - MFR accepted after pull tests performed
 - Ship sunk as part of an exercise in 2001
- **USS ASHLAND (LSD-48)**
 - 12 year old coating applied over UHP in excellent condition when re-worked 2 years ago
- **USS BELLEAU WOOD (LHA-3)**
 - One of the first UHP cleaned ships, entirely with hand lance
 - Ship sunk as part of an exercise in 2006



Input Welcome

- We are actively looking for ships to inspect
 - West Coast?
- We welcome other historical inspection on Navy ship UHP for inclusion in our report





NSRP

Thank You!

Questions?