

NSRP Surface Preparation and Coatings (SPC) Panel Update

Conlan Hsu, Panel Chair

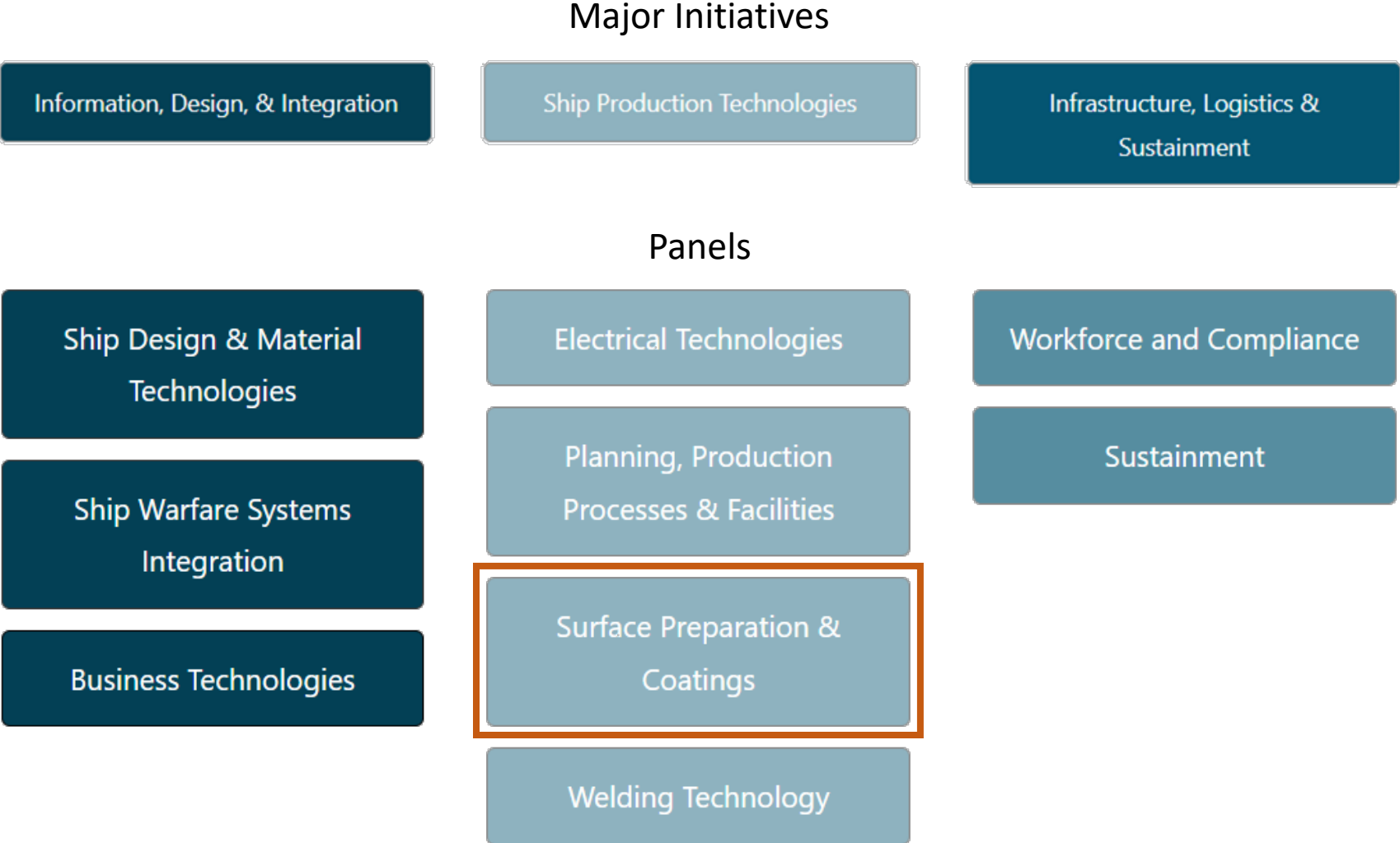
September 10, 2024 – Bozeman, MT



Mission



NSRP Structure



SPC Purpose

- Develop new technologies and processes that streamline coating and corrosion control operations in shipbuilding new construction and maintenance
- Engage suppliers, applicators, specifiers, and industry experts of preservation systems
- Coordinate panel meetings, facilities tours, and demonstrations to address issues and opportunities within the industry
- Leverage best practices from within the community

SPC Panel Steering Committee

Member Shipyards & NAVSEA

- Austal USA – Shawn Wilber
- BAE Shipyard – Patrick Kitchel
- Bath Iron Works – David Kinee
- Electric Boat – Chris Wowk
- Ingalls Shipbuilding – Haley McGee
- Marinette Marine – Jason Steinfeldt
- NASSCO – Angel Zepeda
- Newport News Shipbuilding – Conlan Hsu
- NAVSEA 05 – Mark Ingle & Howard Castle

Panel Officers (10/1/23-9/30/25)

- Panel Chair – Conlan Hsu
- Panel Vice-Chair – Angel Zepeda
- TWH – Mark Ingle
- DTWH – Howard Castle

NSRP / ATI

- Ryan Schneider – Project Manager
- Lydia Szydlo – Panel Coordinator

Opportunities

- Research Announcement (RA) Projects
 - Up to 2 year period of performance
 - Up to \$3M budget/year, \$7M total, 50% cost share
 - Proposals due July 19
- Panel Projects
 - 1 year period of performance
 - Up to **\$200K** budget, no cost share
 - Submitted to a specific panel, top 3 (+1 joint) move forward to ECB
 - Quad charts pitched at MegaRust SPC Panel Meeting & Summer Meeting
 - Proposals due August 26
- Panel Meetings
 - Present new technologies & interesting topics to the panel
 - **If interested in presenting, email conlan.hsu@hii-nns.com**

What's New

- Increased budget
- Only needs US SY support
- Tied to TIP item

SPC Panel Projects

- Surface Prep

Current Projects

- ❖ *Enhanced Primers for Welding Operations*
- ❖ *Testing and Analysis of Anti-Biofouling Coatings*
- ❖ *The Effects of Blast Media on Production and Coating Performance*

2024

- ❖ *Cleanable Nonskid Deck Covering*

- ❖ *Ultra Heat Resistant Primer*

- ❖ *Zinc-Rich Coatings Over High Strength Steel*

2023

Completed Projects

- ✓ *Transition of Power Tool Optimization - RAP*
- ✓ *Implementation of SP-18 in Construction - RAP*
- ✓ *Optimize Power Tools Surface Preparation*
- ✓ *Survey of Surface Prep & Coatings Automation*
- ✓ *Standardization and Digitization of Visual Inspection for Shipbuilding & Repair*

2023

2020

2019

Completed Projects (continued)

- ✓ *Primers with Extended AF Overcoat Window Surface Preparation*
- ✓ *Certification Program – Shipbuilding Industry Surface Prep & Coatings Training*
- ✓ *Virtual Spray Paint Training System*
- ✓ *Thermal Insulating Aerogel Filled Coatings*
- ✓ *Evaluation of Plasma Coating Removal & Surface Preparation*
- ✓ *Partial Blast of UHS Coated Tanks II*
- ✓ *Retention of Type VI Epoxy under Ultra High Solids*
- ✓ *Boomlift Carried Environmental Enclosure*
- ✓ *Implementation of Paperless Paint*
- ✓ *Universal Primer & Surface Prep Process*
- ✓ *Partial Blast of UHS Coated Tanks*
- ✓ *Technical Guide for Inaccessible Void Coatings & Treatments*

2019

2018

2017

2016

2015

FY25 Panel Project Solicitation

- 46 total submissions (up from 35 in FY24)
- SPC received 10 projects (up from 6)
 - 6 participating Member Shipyards
 - 2 proposed by Member Yards as lead

FY25 Panel Project Solicitation

Ultra High Heat Resistant Primer

- **FMM**

Carbon Steel Piping Preservation During Initial Assembly Through Testing

- **GD-NASSCO**

Reducing the Cost/Schedule Impact of Certifying Blasters and Applicators

- **AMPP**
 - **BAE, FMM, GD-NASSCO, HII-NNS**

FY25 Panel Project Solicitation

Pulsed-Laser Comparison Tool

- **PSU ARL**
 - GD-BIW, HII-Ingalls, HII-NNS

Detecting Corrosion Under Paint at a Distance

- **SWRI**
 - HII-Ingalls, HII-NNS

High Heat Coatings for Ship Application

- **Elzly Technology Corp**
 - HII-NNS

FY25 Panel Project Solicitation

Extended Recoat Windows for Non-Critical Zones

- **Elzly Technology Corp**
 - HII-NNS

Reduction of Welding Using Adhesives

- **Elzly Technology Corp**
 - HII-NNS

Reducing Rework in Heat Affected Zones

- **Elzly Technology Corp**
 - FMM, HII-NNS

FY25 Panel Project Solicitation

Evaluation of Digital Twin Technologies for In-Situ Ballast Tank Inspection

- **SWRI**
 - BAE, HII-Ingalls, HII-NNS

Upcoming Events

Event	Date	Location
SNAME Maritime Convention	October 14-16 2024	Norfolk, VA
NSRP All Panel Meeting	February 25-27 2025	Charleston, SC
AMPP Conference & Expo	April 6-10 2025	Nashville, TN
MegaRust	June 10-12 2025	Hampton, VA
NSRP SPC Panel Fall Meeting	September 2025	TBD

Questions?

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