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Final Report

**National Shipbuilding Research Documentation
Center (NSRDC) Report of Technology Projects by
NSTC Survey Topic**

Contract Number: N00167-89-C-0065

**Submitted to :
Edmund C. Mortimer
Chairman of the NSRP Executive Control Board
Avondale Industries**

June 10, 1996

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**The University of Michigan
Transportation Research Institute
Marine Systems Division**

Technical Report Documentation Page

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Report of Technology Projects by NSTC Survey Topic

June 1996

ABSTRACT:

This report of Technology Projects by NSTC Survey Topic has been developed by the Marine Systems Division of the University of Michigan Transportation Research Institute (UMTRI-MSD) at the request of Mr. Edmund C. Mortimer, Chairman of the NSRP Executive Control Board, and of Mr. Bob Schaffran, MARITECH Program Office. Its aim is to provide as complete a picture as possible of shipbuilding-related research recently completed or in-progress in the United States in a format similar to that of the National Shipbuilding Technology Council's (NSTC) Report and Statistical Analysis of CEO Survey dated April 1996. Many projects listed are part of the National Shipbuilding Research Program (NSRP) and final project reports are public domain information available directly upon request from the UMTRI-MSD maintained National Shipbuilding Research Documentation Center (NSRDC). Other projects listed are part of the MARITECH Program administered through DARPA by Mr. Bob Schaffran. MARITECH project results are the property of the sponsoring companies and the U.S. Government and will generally not be released into the public domain. Shipbuilding related research conducted by various Center of Excellence or Regional Centers supported by U.S. Government funds is currently not contained in the NSRDC database and cannot be included at this time.

In each topic area, the project titles are presented in groupings by NSRP Panel and are listed from most recent project to oldest project. This presentation intends to reflect current topics of interest. However, many valuable projects that were completed in the 1970s and 1980s remain "corner stones" of modern shipbuilding technology in international shipyards.

Additionally, NSRP has partially addressed NSTC Topic 1.3 Human Resources/ Training by conducting a series of five short courses, each at up to six locations around the U.S., including Todd Seattle and Alabamba/ Bender in Mobile (see 5.2 short courses for additional information).

The table below provides the number of projects directly related to each NSTC survey category and specifically to the CEO Priorities of the subject report. "Entries" are items in the NSRDC database as final reports or are active MARITECH projects. "Also see" is a reference to an item relevant to more than one topic. "In progress" refers to current NSRP projects that have not produced final reports.

- 1.0 Business Process Technologies
 - 1.1 Shipyard Financing (0 entries/ 0 also see/ 0 in progress)
 - 1.2 Marketing/Marketing Data (1 entry/ 0 also see/ 0 in progress)
 - 1.3 Human Resources/Training (61 entries/ 1 also see/ 12 in progress)
 - 1.4 Pricing & Estimating (6 entries/ 3 also see/ 0 in progress)
 - 1.5 Benchmarking International Competition (2 entries/ 0 also see/ 0 in progress)

- 2.0 Systems Technologies
 - 2.1 Design/Production Integration (72 entries/ 9 also see/ 6 in progress)
 - 2.2 Standards and Standardization (45 entries/ 4 also see/ 5 in progress)
 - 2.3 Information Management Systems (14 entries/ 1 also see/ 0 in progress)
 - 2.4 CAD/CAM/CIM (14 entries/ 9 also see/ 3 in progress)
 - 2.5 Yard Layout/Environmental (67 entries/ 1 also see/ 20 in progress)
- 3.0 Shipyard Production Process Technologies
 - 3.1 Steel Fabrication (38 entries/ 22 also see/ 0 in progress)
 - 3.2 Outfitting (26 entries/ 9 also see/ 0 in progress)
 - 3.3 Blasting and Coating (86 entries/ 0 also see/ 12 in progress)
 - 3.4 Block Assembly and Erection (0 entries/ 1 also see/ 0 in progress)
 - 3.5 Welding (70 entries/ 3 also see/ 12 in progress)
- 4.0 New Materials and Product Technologies
 - 4.1 Automation (8 entries/ 4 also see/ 0 in progress)
 - 4.2 New Design Concepts (33 entries/ 0 also see/ 33 in progress)
 - 4.3 New Materials (6 entries/ 0 also see/ 4 in progress)
 - 4.4 New Shipboard Products (5 entries/ 0 also see/ 5 in progress)
- 5.0 Other
 - 5.1 Industrial Engineering (67 entries/ 50 also see / 3 in progress)
 - 5.2 Short Courses (2 entries/ 0 also see/ 0 in progress)

Table of Contents

1.0	Business Process Technologies	1
1.1	Shipyard Financing	1
1.2	Marketing/Marketing Data	1
1.3	Human Resources/Training	1
1.4	Pricing & Estimating	7
1.5	Benchmarking International Competition	8
2.0	Systems Technologies	9
2.1	Design/Production Integration	9
2.2	Standards and Standardization	17
2.3	Information Management Systems	22
2.4	CAD/CAM/CIM	23
2.5	Yard Layout/Environmental	25
3.0	Shipyard Production Process Technologies	34
3.1	Steel Fabrication	34
3.2	Outfitting	38
3.3	Blasting and Coating	41
3.4	Block Assembly and Erection	50
3.5	Welding	50
4.0	New Materials and Product Technologies	58
4.1	Automation	58
4.2	New Design Concepts	58
4.3	New Materials	63
4.4	New Shipboard Products	64
5.0	Other	65
5.1	Industrial Engineering	65
5.2	Short Courses	72

Catalogue Listing

1.0 Business Process Technologies:

1.1 Shipyard Financing

1.2 Marketing/Marketing Data

Panel: SP-4
Call#: NSRP 0443
Title: U.S. Shipbuilding International Market Study
Author: A&P Appledore
Date: June 1995

1.3 Human Resources/Training

Panel: SP-2
Call#: NSRP 0260
Title: Flexible Production Indices
Author: L.D. Chirillo Associates for Todd Pacific Shipyards Corporation
Date: 1987

Panel: SP-2
Call#: NSRP 0240
Title: Product Oriented Safety and Health Management
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1986

Panel: SP-2
Call#: NSRP 0249
Title: Analytical Quality Circles
Author: L.D. Chirillo Associates, for Todd Pacific Shipyards Corporation
Date: 1986

Panel: SP-2
Call#: NSRP 0213
Title: Shipyard Organization and Management Development
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1985

Panel: SP-3
Call#: NSRP 0275 -- also see section 3.3
Title: Work Planning for Shipyard Surface Preparation and Coating (SP and C) - A Training Manual
Author: DDL OMNI Engineering Ltd.
Date: 1987

Panel: SP-5
Call#: N5-96-01
Title: Human Resource Post Workshop Action Plan Follow-up
Date: 1996 (in progress)

Panel: SP-5
Call#: N5-96-03
Title: NSRP (SP-5) Workers Compensation Workshop
Date: 1996 (in progress)

Panel: SP-5
Call#: NSRP 0448
Title: Basic Elements of Occupational Safety and Health Programs for Shipyard Employment
Author: Frank Long, Win/Win Strategies
Date: 1995

Panel: SP-5
Call#: NSRP 0459
Title: Workers Compensation Cost Containment
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-5
Call#: N5-95-01
Title: Human Resource Innovation Panel Plan To Support The Administration's Plan to Strengthen the U.S. Shipbuilding Industry Through an Enhanced Participation of the NSRP Program
Date: 1995 (in progress)

Panel: SP-5
Call#: N5-94-00
Title: A Generic Safety and Health Program for Shipyard Employment
Date: 1994 (in progress)

Panel: SP-5
Call#: N5-94-03
Title: Survey of Government Regulations related to Commercial Shipbuilding
Date: 1994 (in progress)

Panel: SP-5
Call#: NSRP 0370
Title: Employee Involvement - White-Collar Work Force - Phase II
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-5
Call#: NSRP 0393
Title: Benefit Analysis of SPC Panel SP-5 Projects and Evaluation of SPC Panel SP-5 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-5
Call#: N5-93-01
Title: Fourth National Workshop on Human Resource Innovation
Date: 1993 (in progress)

Panel: SP-5
Call#: N5-93-02
Title: Shipyard Economic Conversion Action Plan
Date: 1993 (in progress)

Panel: SP-5
Call#: NSRP 0380
Title: Design and Implementation of Self-Directed Work Teams in a Pre-Erection Outfitting Department
Author: National Steel and Shipbuilding Company
Date: 1992

Panel: SP-5
Call#: N5-92-03
Title:
Date: 1992 (in progress)

Panel: SP-5
Call#: NSRP 0351
Title: Survey of Programs Designed to Improve Employee Morale In Seven Major American Shipyards
Author: National Steel and Shipbuilding Company
Date: 1992

Panel: SP-5
Call#: NSRP 0318
Title: A Survey - The Principal Elements of Safety Program of Nine Major American Shipyards
Author: Frank J. Long, Win/Win Strategies
Date: 1991

Panel: SP-5
Call#: NSRP 0331
Title: National Workshop on Human Resource Innovations in Shipbuilding/Ship Repairs
Author: Frank J. Long, Win/Win Strategies
Date: 1991

Panel: SP-5
Call#: NSRP 0337
Title: Employee Involvement - White Collar Work Force
Author: Rodney A. Robinson
Date: 1991

Panel: SP-5
Call#: NSRP 0301
Title: Employee Involvement/Safety
Author: Bethlehem Steel Corporation
Date: 1990

Panel: SP-5
Call#: NSRP 0296
Title: Product Oriented Workforce
Author: Bethlehem Steel Corporation
Date: 1989

Panel: SP-5
Call#: NSRP 0282
Title: Employee Involvement and Work Redesign in U.S.
Shipbuilding - Analytical Review
Author: Cornell University for Bethlehem Steel Corporation
Date: 1988

Panel: SP-5
Call#: NSRP 0283
Title: Problem Solving Teams in Shipbuilding (General Dynamics, Electric Boat Division)
Author: Win/Win Strategies and General Dynamics, Electric Boat Division for Bethlehem Steel Corporation
Date: 1988

Panel: SP-5
Call#: NSRP 0254
Title: Decentralizing Statistical Accuracy Control Responsibility to the Ship Production Workforce
Author: National Steel and Shipbuilding Company, for Bethlehem Steel Corporation
Date: 1987

Panel: SP-5
Call#: NSRP 0263
Title: Gainsharing - Employee Involvement in a Shipyard/Assembly Yard
Author: Kaiser Steel Corporation
Date: June 1987

Panel: SP-5
Call#: NSRP 0264
Title: Multi-Skilled Self-Managing Work Teams in a Zone Construction Environment
Author: National Steel and Shipbuilding Company
Date: 1987

Panel: SP-5
Call#: NSRP 0265
Title: Organizational Innovations in Shipyard Safety
Author: Peterson Builders, Inc., with Bethlehem Steel Corporation
Date: 1987

Panel: SP-5
Call#: NSRP 0252
Title: Problem Solving Teams in Shipbuilding (Bethlehem Steel Corporation, Beaumont Yard)
Author: Bethlehem Steel Corporation
Date: 1986

Panel: SP-5
Call#: NSRP 0056
Title: Study for the Improvement of Motivation in the Shipbuilding Industry
Author: Dr. George A. Muench, for Newport News Shipbuilding
Date: 1976

Panel: SP-8
Call#: N8-95-02
Title: Implementation of Past NSRP Research Through Education and Training
Date: 1995 (in progress)

Panel: SP-8
Call#: NSRP 0348
Title: Improved Techniques for Labor Expenditure Collection
Author: Stan Fors, Glen Berger, Christi Burz, David Wright, and Mike Korgie
Date: 1992

Panel: SP-8
Call#: NSRP 0247
Title: Problem Solving and Training Guide for Shipyard Industrial Engineers
Author: Corporate Tech Planning, Inc.
Date: 1986

Panel: SP-8
Call#: NSRP 0356
Title: Feasibility Study of Small Computer Application of Multi-Trade Scheduling
Author: National Steel and Shipbuilding Company
Date: 1986

Panel: SP-8
Call#: NSRP 0221
Title: Labor Standards Application Program - Phase IV, Electrical Trade Area
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1985

Panel: SP-8
Call#: NSRP 0233
Title: Methods/Labor Standards Application Program - Phase IV, Final Report
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1985

Panel: SP-8
Call#: NSRP 0234
Title: Methods/Labor Standards Application Program - Final Report
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1985

Panel: SP-8
Call#: NSRP 0245
Title: Methods Engineering Workshop for the Shipbuilding Industry
Author: Institute of Industrial Engineers
Date: 1985

Panel: SP-8
Call#: NSRP 0222
Title: Application of Labor Standards for Scheduling, Production Control, and Manpower Leveling
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1984

Panel: SP-8
Call#: NSRP 0235
Title: Labor Standards Application Program - Blast and Paint Shops - Final Report
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1984

Panel: SP-9
Call#: N9-94-01
Title: Short Courses for the Training of Shipyard Management and Workers
Date: 1994 (in progress)

Panel: SP-9
Call#: NSRP 0396
Title: Short Course on Quality Function Deployment for the U.S. Shipbuilding Industry
Author: Howard M. Bunch and Mark H. Spicknall, University of Michigan
Date: November, 1993

Panel: SP-9
Call#: NSRP 0402
Title: Benefit Analysis of SPC Panel SP-9 Projects and Evaluation of SPC Panel SP-9 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: November 1993

Panel: SP-9
Call#: NSRP 0416
Title: A Demonstration of Interactive Instruction for Training Shipyard Trade Skills
Author: Ship Analytics, Inc.
Date: September 1993

Panel: SP-9
Call#: N9-93-05a
Title: Videotapes on Advanced Ship Production for Presentation to Shipyard Skilled Trades
Date: 1993 (in progress)
Panel: SP-9
Call#: N9-92-04
Title: Implementation of Zone Technology in the Repair and Overhaul Environment
Date: 1992 (in progress)

Panel: SP-9
Call#: NSRP 0334
Title: Recommendations on the Use of Interactive Instruction for Training Shipyard Trade Skills
Author: Richard B. Cooper, for Ship Analytics, Inc.
Date: 1991

Panel: SP-9
Call#: NSRP 0269
Title: Basic Naval Architecture - Instructor Guide and Problem Set
Author: Giannotti and Associates for the University of Michigan
Date: 1989

Panel: SP-9
Call#: NSRP 0290
Title: Writing Shipyard Reports
Author: J. C. Mathes and Dwight W. Stevenson
Date: 1989

Panel: SP-9
Call#: NSRP 0289
Title: Ship Production
Author: Richard Storch, C. P. Hammon, and Howard M. Bunch
Date: 1988

Panel: SP-9
Call#: NSRP 0219
Title: Engineering for Ship Production
Author: Thomas Lamb, for The University of Michigan
Date: 1986

Panel: SP-9
Call#: NSRP 0198
Title: Evaluation of Two Multi-Shipyard Cooperative Apprenticeship Training Programs
Author: Data Design Laboratories/Omni Engineering, for The University of Michigan
Date: 1985

Panel: SP-9
Call#: NSRP 0216
Title: Human Resource Innovation in Shipbuilding and Ship Repair - Workshop Proceedings
Author: The University of Michigan
Date: 1985

Panel: SP-9
Call#: NSRP 0223
Title: Statistical Analysis of Data and Quality Assurance for the Shipbuilding Industry - Tutorial and Workbook
Author: University of Massachusetts, for The University of Michigan
Date: 1985

Panel: SP-9
Call#: NSRP 0224
Title: European Craft Training - A Trip Report
Author: The University of Michigan
Date: 1985

Panel: SP-9
Call#: NSRP 0192
Title: Curricular Needs of Shipyard Professionals
Author: The University of Michigan
Date: 1984

Panel: SP-9
Call#: NSRP 0170
Title: Social Technologies in Shipbuilding Workshop Proceedings
Author: University of Michigan
Date: 1983

Panel: SP-9
Call#: NSRP 0180
Title: The Status of Skilled Trades Training in U.S. Shipyards
Author: Institute of Applied Technology, for The University of Michigan
Date: 1983

Panel: SP-9
Call#: NSRP 0181
Title: A Directory of Skilled Trades Training Courses and Training Aids in U.S. Shipyards
Author: Institute of Applied Technology, for The University of Michigan
Date: 1983

1.4 Pricing & Estimating

Panel: SP-2
Call#: NSRP 0260 -- also see section 2.1
Title: Flexible Production Indices
Author: L.D. Chirillo Associates for Todd Pacific Shipyards Corporation
Date: 1987

Panel: SP-3
Call#: NSRP 0403 -- also see section 3.3
Title: Surface Preparation and Coating Bid Estimating Transfer Study
Author: Insight Industries, Inc.
Date: 1993

Panel: SP-3
Call#: NSRP 0302
Title: The Economics of Shipyard Painting - Phase II, Bid Stage Estimating
Author: NASSCO
Date: 1988

Panel: SP-4
Call#: NSRP 0352 --see also NSRP 0398 section 2.1
Title: Development of Producibiliyt Evaluation Criteria
Author: Wilkins Enterprise Inc.
Date: 1993

Panel: SP-8
Call#: NSRP 0279
Title: Analysis of Current Manpower Estimating and Control Procedures
Author: Robin-Page-McConough and Associates Inc.
Date: 1989

Panel: SP-8
Call#: NSRP 0141
Title: FY-82 Labor Standards Program - Pipe Fabrication and Blast and Paint Shop
Author: HB Maynard and Co., for Bath Iron Works
Date: 1982

1.5 Benchmarking International Competition

Panel: SP-1
Call#: NSRP 0142 -- also see section 2.5
Title: Long Range Plan for Peterson Builders, Inc.
Author: Shipbuilding Consultants, for Peterson Builders, Inc.
Date: February 1982

Panel: SP-4
Call#: NSRP 0434
Title: Requirements and Assessments for Global Shipbuilding Competitiveness
Author: Richard Lee Storch, Thomas Lamb, A&P Appledore
Date: March 1995

2.0 Systems Technologies:

2.1 Design/Production Integration

Panel: SP-2
Call#: NSRP 0260
Title: Flexible Production Indices
Author: L.D. Chirillo Associates for Todd Pacific Shipyards Corporation
Date: 1987

Panel: SP-2
Call#: NSRP 0238
Title: Flexible Production Scheduling System
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1986

Panel: SP-2
Call#: NSRP 0210
Title: Product Oriented Material Management
Author: IHI Marine Technology, for Todd Pacific Shipyards Corporation
Date: 1985

Panel: SP-2
Call#: NSRP 0214 -- also see section 3.1
Title: Process Analysis via Accuracy Control - Revised
Author: IHI Marine Technology, for Todd Pacific Shipyards Corporation
Date: 1985

Panel: SP-2
Call#: NSRP 0193
Title: Design Modeling
Author: Hitachi Zosen Corporation, for Todd Pacific Shipyards Corporation
Date: 1984

Panel: SP-2
Call#: NSRP 0196
Title: Pre-Contract Negotiation of Technical Matters
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1984

Panel: SP-2
Call#: NSRP 0169
Title: Integrated Hull Construction, Outfitting, and Painting
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1983

Panel: SP-2
Call#: NSRP 0179
Title: Design for Zone Outfitting
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1983

Panel: SP-2
Call#: NSRP 0143 -- also see section 3.1
Title: Process Analysis via Accuracy Control
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1982

Panel: SP-2
Call#: NSRP 0147 -- also see section 3.2
Title: Pipe-Piece Family Manufacturing
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1982

Panel: SP-2
Call#: NSRP 0164
Title: Product Work Breakdown Structure - Revised
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1982

Panel: SP-2
Call#: NSRP 0117
Title: Product Work Breakdown Structure
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1980

Panel: SP-2
Call#: NSRP 0096
Title: Outfit Planning
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1979

Panel: SP-2
Call#: NSRP 0038
Title: Use of Scale Models as a Management Tool
Author: Bath Iron Works Corporation, for Todd Pacific Shipyards Corporation
Date: 1974

Panel: SP-2
Call#: NSRP 0031
Title: Frame Spacing, Alternate Shapes for Longitudinal, and Wider Plates for Productivity
Author: McDonnell Douglas Astronautics, for Todd Pacific Shipyards
Date: 1973

Panel: SP-3
Call#: NSRP 0177
Title: Zone Painting Method
Author: IHI, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-4
Call#: NSRP 0406
Title: Build Strategy Development
Author: Thomas Lamb
Date: 1994

Panel: SP-4
Call#: NSRP 0420
Title: Application of Scheduling Program to Data and Configuration Management Deliverables
Author: James R. Wilkins, Jr., Wilkins Enterprise, Inc.
Date: 1994

Panel: SP-4
Call#: NSRP 0421
Title: Shell Plate Definition Guide for Ship Designers
Author: Thomas Lamb, Textron Marine Systems
Date: 1994

Panel: SP-4
Call#: N4-94-03
Title: Develop Methods to Implement Results of Past NSRP Projects
Date: (in progress)

Panel: SP-4
Call#: NSRP 0371
Title: North American Shipbuilding Accuracy - Phase II
Author: Howard M. Bunch and Albert W. Horsmon, Jr.
Date: 1993

Panel: SP-4
Call#: NSRP 0373
Title: Assessment of Computer Aids in Shipyards
Author: Coastal Group Technology
Date: 1993

Panel: SP-4
Call#: NSRP 0384
Title: Producibility Assessment of the General Specifications for Shipbuilding
Author: CDI Marine Company
Date: 1993

Panel: SP-4
Call#: NSRP 0385
Title: Integration and Implementation of an Advanced Measurement System into the Assembly Process in Support of "Neat" Hull Block Construction and Erection
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-4
Call#: NSRP 0388
Title: Identification of Producibility Inhibitors in Standard NAVSEA Ship Design Practices
Author: Wilkins Enterprise, Inc.
Date: 1993

Panel: SP-4
Call#: NSRP 0392
Title: Benefit Analysis of SPC Panel SP-4 Projects and Evaluation of SPC Panel SP-4 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-4
Call#: NSRP 0397
Title: Weld Shrinkage Study
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-4
Call#: NSRP 0398
Title: Producibility Evaluation Criteria - Cost Estimating Computer Programs - Manual
Author: Wilkins Enterprise, Inc.
Date: 1993

Panel: SP-4
Call#: N4-93-06
Title: Develop a Common Sense "Design Manual for Producibility of Hull Foundations"
Date: 1993 (in progress)

Panel: SP-4
Call#: NSRP 0319 -- also see section 2.3
Title: Investigation of the Application of Computer-Aided Process Planning to Ship Modernization, Overhaul and Repair
Author: H. L. Young and M. R. Gluse
Date: 1991

Panel: SP-4
Call#: NSRP 0323 -- also see section 2.3
Title: Information Required from Planning Yards to Support Zone Logic
Author: Richard Storch and L. D. Chirillo
Date: 1991

Panel: SP-4
Call#: NSRP 0333
Title: The Definition of a Shipyard's Engineering Requirements to be Met by a Design Agent
Author: James Wilkins
Date: 1991

Panel: SP-4
Call#: NSRP 0300
Title: Advanced Measurement Techniques for U.S. Shipbuilding
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-4
Call#: NSRP 0258
Title: Specification-Driven Pipe Detail Design
Author: Ingalls Shipbuilding, Inc. for Newport News Shipbuilding
Date: 1989

Panel: SP-4
Call#: NSRP 0285
Title: Interface Impacts System to Zone Transition
Author: Todd Pacific Shipyard Corporation for Newport News Shipbuilding
Date: 1989

Panel: SP-4
Call #: NSRP 0293 -- also see section 2.3
Title: The Information Flow Requirements for Integrating Schedules for Drawing Development and Equipment Procurement in Shipbuilding Programs
Author: Newport News Shipbuilding
Date: 1989

Panel: SP-4
Call#: NSRP 0286
Title: Zone-Oriented Drawings for Life Cycle Management
Author: Wilkins Enterprise, Inc. for Newport News Shipbuilding
Date: 1988

Panel: SP-4
Call#: NSRP 0259
Title: Implementation of Advanced Technology in the Shipbuilding Industry - Pilot Workshop Report
Author: The University of Michigan for Newport News Shipbuilding
Date: 1987

Panel: SP-4
Call#: NSRP 0274
Title: Shipyard Engineering and Planning Organizations
Author: Bath Iron Works Corporation
Date: 1987

Panel: SP-4
Call#: NSRP 0255
Title: Product Work Classification and Coding
Author: Todd Shipyard Corporation, Seattle, for Newport News Shipbuilding
Date: 1986

Panel: SP-4
Call#: NSRP 0266
Title: Computer-Aided Process Planning for Shipyards
Author: Bath Iron Works Corporation, for Newport News Shipbuilding
Date: 1986

Panel: SP-4
Call#: NSRP 0236
Title: Design for Production Manual (3 Vols.)
Author: Bethlehem Steel Corporation, Sparrows Point, A & P Appledore Ltd., and J.J. Henry Co., Inc. for Newport News Shipbuilding
Date: 1985

Panel: SP-4
Call#: NSRP 0148
Title: Design/Production Integration
Author: Newport News Shipbuilding
Date: 1982

Panel: SP-4
Call#: NSRP 0122
Title: Shipbuilding Design/Production Integration Workshop (Vols. I and II)
Author: Ship Production Committee Panel 4 (SP-4)
Date: 1981

Panel: SP-7
Call#: N7-96-04 -- also see section 3.5
Title: Structural Detail Evaluation
Date: 1996 (in progress)

Panel: SP-7
Call#: NSRP 0339 -- also see section 3.5
Title: Design and Planning Manual for Cost Effective Welding
Author: Frank Gatto, Brian Lawlor, and Joyce McMillin
Date: 1991

Panel: SP-8
Call#: NSRP 0435
Title: Concurrent Engineering - Primer and User's Guide for Shipbuilding
Author: Thomas Lamb and Bath Iron Works Corporation
Date: 1995

Panel: SP-8
Call#: NSRP 0436
Title: Concurrent Engineering - Application
Author: Thomas Lamb and Bath Iron Works Corporation
Date: 1995

Panel: SP-8
Call#: NSRP 0440
Title: Improved Techniques for Scheduling Shipyard Work, & Improved Material Availability
Author: Peterson Builders, Inc.
Date: 1995

Panel: SP-8
Call#: NSRP 0450
Title: Investigate Methods of Improving Production Throughput in a Shipyard
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-8
Call#: NSRP 0454 -- see also N4-94-01
Title: Concurrent Engineering Implementation in a Shipyard
Author: Bath Iron Works
Date: 1995

Panel: SP-8
Call#: N8-95-01
Title: Producibility Cost Reductions Through Alternative Materials and Processes
Date: 1995 (in progress)

Panel: SP-8
Call#: NSRP 0346
Title: Application of PC-Based Project Management in an Integrated Planning Process
Author: Richard J. Neumann and David J. McQuaide
Date: 1992

Panel: SP-8
Call#: NSRP 0347
Title: Implementation Guide for Approaching Shop Floor Control
Author: Gary Higgins, John G. Jessup, and K. Diedrick
Date: 1992

Panel: SP-8
Call#: N8-92-03
Title: Define the Impact of Foreign 'Metric' Ships on Material/Inventory Control in the Shipyard
Date: 1992 (in progress)

Panel: SP-8
Call#: NSRP 0304
Title: Optimal Use of Industrial Engineering Techniques in Shipyards
Author: National Steel and Shipbuilding Company
Date: 1989

Panel: SP-8
Call#: NSRP 0356
Title: Feasibility Study of Small Computer Application of Multi-Trade Scheduling
Author: National Steel and Shipbuilding Company
Date: 1986

Panel: SP-8
Call#: NSRP 0277
Title: Improved Planning and Shop Loading in Shipyard Production Shops
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1987

Panel: SP-8
Call#: NSRP 0278
Title: Developing Scheduling Standards Using Regression Analysis - An Application Guide
Author: Robert J. Graves, University of Massachusetts, and Leon F. McGinnis, Georgia Institute of Technology
Date: 1987

Panel: SP-8
Call#: NSRP 0284
Title: Feasibility Study of the Application of Operations Research Methods to Solve Complex Shop Scheduling Problems
Author: Peterson Builders, Inc.
Date: 1987

Panel: SP-8
Call#: NSRP 0199
Title: A Primer on an Approach to Planning and Production Control for the Smaller Shipyard
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0157
Title: Scheduling Standards Pilot Project Summary Report
Author: Corporate-Tech Planning, Inc., for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0325
Title: Scheduling Standards Pilot Project - Companion Activity Final Report
Author: Robert Graves and Leon McGinnis
Date: 1982

Panel: SP-8
Call#: NSRP 0136
Title: Methods Engineering Workshop for the Shipbuilding Industry
Author: American Institute of Industrial Engineers, for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0066
Title: Improved Design Process - Executive Summary and Final Report
Author: General Dynamics/Quincy, for Bath Iron Works
Date: 1977

Panel: SP-8
Call#: NSRP 0067
Title: Improved Design Process - Final Report
Author: General Dynamics/Quincy, for Bath Iron Works
Date: 1977

Panel: SP-8
Call#: NSRP 0068
Title: Executive Summary - Improved Planning and Production Control
Author: Management Associates, for Bath Iron Works Corporation
Date: 1977

Panel: SP-8
Call#: NSRP 0070
Title: Improved Planning and Production Control
Author: Bath Iron Works Corporation
Date: 1977

Panel: SP-8
Call#: NSRP 0053
Title: Ship Producibility as it Relates to Series Production (Vol. I)
Author: Ingalls Shipbuilding, for Bath Iron Works
Date: 1976

Panel: SP-8
Call#: NSRP 0200
Title: Ship Producibility as it Relates to Series Production - Volume II, Ship Design Process
Author: Ingalls Shipbuilding, for Bath Iron Works Corporation
Date: 1975

Panel: SP-8
Call#: NSRP 0201
Title: Ship Producibility as it Relates to Series Production - Volume III, Ship Production Process
Author: Ingalls Shipbuilding, for Bath Iron Works Corporation
Date: 1975

Panel: Maritech
Call #: M41 -- also see section 4.2
Title: Integration of Modern Manufacturing Methods and Modern Information Systems
Author: Todd Pacific Shipyards Corporation
Date: (in progress)

Panel: Maritech
Call#: M43 -- also see section 4.2
Title: SBD as an Environment for Concept & Contract Design Using IPPD
Author: Avondale Industries
Date: (in progress)

Panel: Maritech
Call#: M47 -- also see section 4.2
Title: Near Term Technology Application - 10,000 to 12,000 dwt Product Tanker
Author: Alabama Shipyard
Date: (in progress)

Panel: Maritech
Call #: M49 -- also see section 4.2
Title: Development of a Product Oriented Organization
Date: (in progress)

Panel: Maritech
Call#: M52
Title: Development of an Integrated Product & Process Data Environment to Revolutionize Shipbuilding Processes
Author: Hughes Aircraft
Date: (in progress)

Panel: Maritech
Call#: M53 -- also see section 4.2
Title: Next Generation WindowsTM - Based System for Integrated Product & Process Development Environment
Author: Intergraph
Date: (in progress)

2.2 Standards and Standardization

Panel: Levingston
Call#: NSRP 0020
Title: Standards - Volume I, II, and Appendices
Author: Levingston Shipbuilding
Date: 1981

Panel: SP-3
Call#: NSRP 0412 -- also see section 2.2
Title: Surface Preparation and Coating Handbook
Author: Steel Structures Painting Council
Date: 1994

Panel: SP-3
Call#: NSRP 0171 -- also see section 3.3
Title: The Effects of Edge Preparation Standard - Phase I
Author: Dr. Leslie W. Sandor, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-3
Call#: NSRP 0176 -- also see section 3.3
Title: Surface Preparation - A Comparative Analysis of Existing Standards and a Proposed Marine Standard
Author: Institute of Applied Technology, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-6
Call#: NSRP 0456
Title: Standards Database Maintenance
Author: Richard C. Moore, Albert W. Horsmon, Jr., and Scott B. Clapham
Date: 1996

Panel: SP-6
Call#: NSRP 0437
Title: Metrication in U.S. Shipbuilding - Training
Volume I Instructor's Manual
Volume II Transparencies, Tests & Worksheets
Author: Peterson Builders, Inc.
Date: 1995

Panel: SP-6
Call#: NSRP 0438
Title: Evaluation of U.S. and International Marine Engineering Standards for Acceptability in U.S. Flag
Vessel Applications - Final Report Summary
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-6
Call#: N6-95-01
Title: Standard Commercial Ship Test and Inspection Plan, Procedures, and Database
Date: 1995 (in progress)

Panel: SP-6
Call#: N6-95-03
Title: Industry Standards for Hull Structural Penetration Design Criteria and Details
Date: 1995 (in progress)

Panel: SP-6
Call#: N6-94-01
Title: World Class U.S. Shipbuilding Standards
Date: 1994 (in progress)

Panel: SP-6
Call#: NSRP 0399
Title: Metrication of U.S. Shipbuilding - The Challenges and the Opportunities
Author: Peterson Builders, Inc.
Date: 1993

Panel: SP-6
Call#: NSRP 0401
Title: Benefit Analysis of SPC Panel SP-6 Projects and Evaluation of SPC Panel SP-6 Management and
Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-6
Call#: N6-93-02
Title: Shipbuilding Standards Master Plan Update
Date: 1993 (in progress)

Panel: SP-6
Call#: NSRP 0344
Title: Marine Industry Standards Planning Workshop
Author: Thomas Soik and Douglas Rusch
Date: 1992

Panel: SP-6
Call#: NSRP 0349
Title: Balloting of Hull and Mechanical Standards
Author: William O'Sullivan Associates
Date: 1992

Panel: SP-6
Call#: NSRP 0354
Title: Standard Practice for the Selection and Application of Marine Deck Coverings
Author: Joseph F. O'Donnell
Date: 1992

Panel: SP-6
Call#: NSRP 0359
Title: Shipyard Standards Program Development Guide
Author: Joseph D. Hamilton and Kenneth W. Shafer
Date: 1992

Panel: SP-6
Call#: NSRP 0361
Title: Computerized Compendium of Standards
Author: Howard M. Bunch, Albert W. Horsmon, Jr., and Kurt W. Hagemester
Date: 1992

Panel: SP-6
Call#: NSRP 0362
Title: Providing Administrative Support to the U.S. Technical Advisory Group in its Participation on the International Standards Organization Committee on Ships and Marine Technology
Author: Howard M. Bunch and Albert W. Horsmon, Jr.
Date: 1992

Panel: SP-6
Call#: N6-92-01
Title: Standards Database Maintenance
Date: 1992 (in progress)

Panel: SP-6
Call#: NSRP 0358
Title: Navy Document Conversion Program Project - Pipe Flanges
Author: George G. Sharp, Inc.
Date: 1990

Panel: SP-6
Call#: NSRP 0360
Title: United States Shipbuilding Standards Master Plan
Author: Howard M. Bunch and Albert W. Horsmon, Jr.
Date: 1990

Panel: SP-6
Call#: NSRP 0212 -- also see section 2.3
Title: Computerized Application of Standards
Author: Newport News Shipbuilding
Date: 1985

Panel: SP-6
Call#: NSRP 0174
Title: Feasibility Study for the Commercialization of U.S. Navy GENSPECS - 1982 Edition
Author: John J. McMullen Associates, Inc., for Bath Iron Works
Date: 1983

Panel: SP-6
Call#: NSRP 0144
Title: Recommended U.S. Shipbuilding Standards Program Long Range Plan - Final Report
Author: IHI Marine Technology, for Bath Iron Works
Date: 1982

Panel: SP-6
Call#: NSRP 0160
Title: Consensus QA/QC Acceptance Standards
Author: Newport News Shipbuilding, for Bath Iron Works
Date: 1982

Panel: SP-6
Call#: NSRP 0133
Title: National Shipbuilding Standards Program Status Report No. 3
Author: Bath Iron Works Corporation
Date: 1981

Panel: SP-6
Call#: NSRP 0108
Title: National Shipbuilding Standards Program Status Report No. 1
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-6
Call#: NSRP 0116
Title: National Shipbuilding Standards Program Status Report No. 2
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-6
Call#: NSRP 0082
Title: Interim Report on Subtask I - Regulatory Body and Classification Body Shipbuilding Standards
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1979

Panel: SP-6
Call#: NSRP 0087
Title: Interim Report on Subtask III - Foreign Shipbuilding Standards
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1979

Panel: SP-6
Call#: NSRP 0088
Title: A Compendium of Shipbuilding Standards - Index to Shipbuilding Regulations and Standards
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1979

Panel: SP-6
Call#: NSRP 0089
Title: Interim Report on Subtask II - Industrial Standards in Shipbuilding Use
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1979

Panel: SP-6
Call#: NSRP 0093
Title: A Compendium of Shipbuilding Standards - Final Report
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1979

Panel: SP-6
Call#: NSRP 0078
Title: A Compendium of Shipbuilding Standards - Consolidated Pilot Phase Report
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1978

Panel: SP-6
Call#: NSRP 0057
Title: Standard Structural Arrangements
Author: General Dynamics/Quincy, for Bath Iron Works
Date: 1976

Panel: SP-6
Call#: NSRP 0059
Title: Executive Summary - Feasibility of Shipbuilding Standards
Author: Bath Iron Works Corporation
Date: 1976

Panel: SP-6
Call#: NSRP 0061
Title: Castine Report S-15 Project - Shipbuilding Standards
Author: Bath Iron Works Corporation
Date: 1976

Panel: SP-6
Call#: NSRP 0046
Title: Propulsion Plant Feasibility Study Report - Subtask II, Technical Analysis and Determination of Standards Candidates
Author: M. Rosenblatt and Son, Inc., for Bath Iron Works
Date: 1975

Panel: SP-6
Call#: NSRP 0047
Title: Propulsion Plant Feasibility Study Report - Subtask III, Economic Analysis of Selected Standards Candidates
Author: M. Rosenblatt and Son, Inc., for Bath Iron Works
Date: 1975

Panel: SP-6
Call#: NSRP 0049
Title: Executive Summary - Propulsion Plant Standards Feasibility Study
Author: M. Rosenblatt and Son, Inc., for Bath Iron Works
Date: 1975

Panel: SP-6
Call#: NSRP 0050
Title: Ship Producibility Task S-1 - Propulsion Plant Standards Feasibility Study
Author: Ingalls Shipbuilding, for Bath Iron Works
Date: 1975

Panel: SP-6
Call#: NSRP 0052
Title: Final Report - Propulsion Plant Standards Feasibility Study
Author: Ingalls Shipbuilding Division, for Bath Iron Works Corporation
Date: 1975

Panel: SP-6
Call#: NSRP 0042
Title: Propulsion Plant Feasibility Study Report - Subtask I, Forecast for Propulsion Plant Standards
Author: M. Rosenblatt and Son, Inc., for Bath Iron Works
Date: 1974

2.3 Information Management Systems

Panel: SP-4
Call#: N4-96-07
Title: Convert NIDDESC Standards to ISO Standards, Phase II
Date: 1996 (in progress)

Panel: SP-4
Call#: N4-94-01
Title: Evaluate the HICADEC Shipbuilding CAD/CAM Systems
Date: 1994 (in progress)

Panel: SP-4
Call#: NSRP 0424
Title: NIDDESC STEP Application Protocol - Piping
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0425
Title: NIDDESC STEP Application Protocol - Electrical Cableway
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0426
Title: NIDDESC STEP Application Protocol - HVAC
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0427
Title: NIDDESC STEP Application Protocol - Configuration Management Model
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0428
Title: NIDDESC STEP Application Protocol - Outfit and Furnishings
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0429
Title: NIDDESC STEP Application Protocol - Ship Structure
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0319
Title: Investigation of the Application of Computer-Aided Process Planning to Ship Modernization, Overhaul and Repair
Author: H. L. Young and M. R. Gluse
Date: 1991

Panel: SP-4
Call#: NSRP 0323
Title: Information Required from Planning Yards to Support Zone Logic
Author: Richard Storch and L. D. Chirillo
Date: 1991

Panel: SP-4
Call#: NSRP 0293
Title: The Information Flow Requirements for Integrating Schedules for Drawing Development and Equipment Procurement in Shipbuilding Programs
Author: Newport News Shipbuilding
Date: 1989

Panel: SP-6
Call#: NSRP 0212 -- also see section 2.3
Title: Computerized Application of Standards
Author: Newport News Shipbuilding
Date: 1985

Panel: SP-8
Call#: NSRP 0146
Title: Shipyard Data Application Program Panel Line Schedule and Manloading Incentive Program
Author: Bath Iron Works Corporation
Date: 1982

Panel: Maritech
Call #: M41 -- also see section 4.2
Title: Integration of Modern Manufacturing Methods and Modern Information Systems
Author: Todd Pacific Shipyards Corporation
Date: (in progress)

2.4 CAD/CAM/CIM

Panel: SP-1
Call#: NSRP 0237
Title: A Study of the Effects of Applying CAD/CAM Techniques to a Shipyard Sheet Metal Shop
Author: Harry Hooper, consultant to Avondale Shipyards, Inc.
Date: 1986

Panel: SP-4
Call#: N4-96-07 -- also see section 2.3
Title: Convert NIDDESC Standards to ISO Standards, Phase II
Date: 1996 (in progress)

Panel: SP-4
Call#: NSRP 0409
Title: Report on Limitations of Computerized Lofting for Shell Plate Development
Author: Thomas Lamb, Textron Marine Systems
Date: 1994

Panel: SP-4
Call#: NSRP 0373
Title: Assessment of Computer Aids in Shipyards
Author: Coastal Group Technology
Date: 1993

Panel: SP-4 -- also see section 2.3
Call#: NSRP 0424
Title: NIDDESC STEP Application Protocol - Piping
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0425 -- also see section 2.3
Title: NIDDESC STEP Application Protocol - Electrical Cableway
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0426 -- ralso see section 2.3
Title: NIDDESC STEP Application Protocol - HVAC
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0427 -- also see section 2.3
Title: NIDDESC STEP Application Protocol - Configuration Management Model
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0428 -- also see section 2.3
Title: NIDDESC STEP Application Protocol - Outfit and Furnishings
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: NSRP 0429 -- also see section 2.3
Title: NIDDESC STEP Application Protocol - Ship Structure
Author: The NIDDESC Working Group
Date: 1993

Panel: SP-4
Call#: N4-94-01 -- also see section 2.3
Title: Evaluate the HICADEC Shipbuilding CAD/CAM Systems
Date: 1994 (in progress)

Panel: SP-4
Call#: NSRP 0319
Title: Investigation of the Application of Computer-Aided Process Planning to Ship Modernization, Overhaul and Repair
Author: H. L. Young and M. R. Gluse
Date: 1991

Panel: SP-4
Call#: NSRP 0197
Title: Software Tools for Shipbuilding
Author: Grumman Data Systems Corp for Newport News Shipbuilding
Date: 1984

Panel: Maritech
Call #: M11 -- also see section 4.2
Title: STEP-ship Product Model
Author: Intergraph Corporation
Date: (in progress)

Panel: Maritech
Call#: M43 -- also see section 4.2
Title: SBD as an Environment for Concept & Contract Design Using IPPD
Author: Avondale Industries
Date: (in progress)

Panel: Maritech
Call#: M47 -- also see section 4.2
Title: Near Term Technology Application - 10,000 to 12,000 dwt Product Tanker
Author: Alabama Shipyard
Date: (in progress)

Panel: Maritech
Call#: M51 -- also see section 4.2
Title: Development of National Shipbuilding Information Protocols in Support of Ship Construction
Author: Electric Boat Corporation
Date: (in progress)

Panel: Maritech
Call#: M52 -- also see section 4.2
Title: Development of an Integrated Product & Process Data Environment to Revolutionize Shipbuilding Processes
Author: Hughes Aircraft
Date: (in progress)

Panel: Maritech
Call#: M53 -- also see section 4.2
Title: Next Generation WindowsTM - Based System for Integrated Product & Process Development Environment
Author: Intergraph
Date: (in progress)

2.5 Yard Layout/Environmental

Panel: SP-1
Call#: N1-96-02
Title: Follow the Development and Analyze the Impact of the Federal Guidelines for Bay Sediment Management
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-03
Title: Follow the Development and Analyze the Impact of the Federal Guidelines for Metal Products and Machinery
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-04
Title: Environmental Studies and Testing (Phase IV)
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-05
Title: Trailer Mounted Water Recovery and Reuse System
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-06
Title: Automated Process Application in Steel Fabrication and Sub-Assembly Facilities
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-07
Title: Stormwater Collection, Treatment, Recycling and Reuse in a Shipyard
Date: 1996 (in progress)

Panel: SP-1
Call#: N1-96-08
Title: Open Area Painting - Overspray Containment
Date: 1996 (in progress)

Panel: SP-1
Call#: NSRP 0441
Title: Evaluation of Toxic Air Emissions
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-1
Call#: NSRP 0444
Title: Title V Permit Certification Requirement
Author: Collier, Shannon, Rill & Scott
Date: 1995

Panel: SP-1
Call#: NSRP 0445
Title: Historical Overview of Efforts to Reduce VOC Emissions Through Coating Reformulations and Analysis of VOC vs HAP Content in Marine Coatings
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-1
Call#: NSRP 0449
Title: Abatement of Marine Coatings Containing Heavy Metals
Author: Continental Maritime of San Diego, Inc.
Date: 1995

Panel: SP-1
Call#: NSRP 0452
Title: Filtration of Runoff From Pressure Washing Vessel Hull in Drydock
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-1
Call#: NSRP 0453
Title: Environmental Restoration Guide
Author: Collier Shannon, Rill & Scott
Date: 1995

Panel: SP-1
Call#: : N1-95-01
Title: Impact on Shipyards from the Reauthorizaition of the Federal Clean Water Act
Date: 1995 (in progress)

Panel: SP-1
Call#: N1-95-02
Title: A Shipyard Program for NPDES Compliance
Date: 1995 (in progress)

Panel: SP-1
Call#: N1-95-03
Title: How to Choose Legitimate Recycling Products and Processes
Date: 1995 (in progress)

Panel: SP-1
Call#: N1-95-04
Title: Cost Effective Clean-Up of Spent Grit
Date: 1995 (in progress)

Panel: SP-1
Call#: N1-94-01
Title: Clean Air Act Permitting
Date: 1994 (in progress)

Panel: SP-1
Call#: N1-94-02
Title: Environmental Training Modules
Date: 1994 (in progress)

Panel: SP-1
Call#: N1-94-04
Title: Development of Shipbuilding and Repair Air Quality Best Management Practices
Date: 1994 (in progress)

Panel: SP-1
Call#: N1-94-05
Title: Solid Waste Segregation & Recycling Project
Date: 1994 (in progress)

Panel: SP-1
Call#: NSRP 0372
Title: Acceptability of the Toxic Substances Control Act to Shipyard Owners and Operators
Author: Collier, Shannon, Rill & Scott
Date: 1993

Panel: SP-1
Call#: NSRP 0381
Title: Flexible Pipe Shop Fabrication System
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-1
Call#: NSRP 0382
Title: Introduction to Production Processes and Facilities in the Steel Shipbuilding and Repair Industry
Author: Zachary F. Jacobs, National Steel and Shipbuilding Company
Date: 1993

Panel: SP-1
Call#: NSRP 0386
Title: Increasing Air Compressor Productivity While Reducing Maintenance and Repair Costs - Final Report
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-1
Call#: NSRP 0390
Title: Benefit Analysis of SPC Panel SP-1 Projects and Evaluation of SPC Panel SP-1 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-1
Call#: N1-93-01
Title: Feasibility and Economics Study of the Treatment, Recycling and Disposal of Spent Abrasives
Date: 1993 (in progress)

Panel: SP-1
Project #: N1-93-03
Title: Waste Water Treatment Technology Survey (High Volume/Oily Waste)
Date: 1993 (in progress)

Panel: SP-1
Call#: NSRP 0327
Title: Hazardous Materials Tracking System
Author: Insight Industries, Inc.
Date: 1992

Panel: SP-1
Call#: NSRP 0342
Title: Hazardous Materials Tracking Systems - Scanning Module
Author: Insight Industries, Inc.
Date: 1992

Panel: SP-1
Call#: NSRP 0345
Title: Environmental Compliance Inspection Checklist for Shipbuilding Facilities
Author: John Martin and John L. Wittenborn
Date: 1992

Panel: SP-1
Call#: NSRP 0350
Title: Staging Systems for Ships During New Construction and Repair
Author: J. Frank Santoyo
Date: 1992

Panel: SP-1
Call#: NSRP 0353
Title: Guidelines for the Development of Best Management Practices for the Shipbuilding and Repair Industry
Author: Zachary F. Jacobs and T. Michael Chee, National Steel and Shipbuilding Company
Date: 1992

Panel: SP-1
Call#: NSRP 0355
Title: Automatic Pipe Flushing Rig for Shipboard Piping Systems
Author: National Steel and Shipbuilding Company
Date: 1992

Panel: SP-1
Call#: NSRP 0365
Title: Determination of Particulate and Dust Concentration During Shipyard Dry-dock Sandblasting Operations
Author: Everett Poore, IEA
Date: 1992

Panel: SP-1
Call#: NSRP 0366
Title: Master Plan For Environmental Education
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1992

Panel: SP-1
Call#: NSRP 0377
Title: Environmental Symposium
Author: Collier, Shannon & Scott
Date: 1992

Panel: SP-1
Call#: N1-92-01
Title: Evaluation of Toxic Air Emissions
Date: 1992 (in progress)

Panel: SP-1
Call#: N1-92-02
Title: Environmental Studies and Testing (Phase III)
Date: 1992 (in progress)

Panel: SP-1
Call#: N1-92-03
Title: Environmental Seminar for Shipyard Manager
Date: 1992 (in progress)

Panel: SP-1
Call#: NSRP 0322
Title: Movement and Storage of Pipe and Shapes
Author: Albert W. Horsmon Jr. and Howard M. Bunch
Date: 1991

Panel: SP-1
Call#: NSRP 0315
Title: Group Technology/Flow Applications in Production Shops
Author: William S. Oakes, H. Bruce Bongiorno, W. O. Appleton, and Vincent F. Bobrowicz
Date: 1988

Panel: SP-1
Call#: NSRP 0230
Title: Pipe Storage and Movement Study
Author: Denson Engineers, Inc., for Avondale Shipyards, Inc.
Date: 1986

Panel: SP-1
Call#: NSRP 0250
Title: Study of the Mechanized Manufacture and Welding of Reinforced Shell Units From Rolled Shell Plate and Tee Bar Segments
Author: Roggendorff and Partners Co., Ltd., for Avondale Shipyards, Inc.
Date: 1986

Panel: SP-1
Call#: NSRP 0251
Title: Tower Cranes in Shipyards
Author: Emscor and MAN-Wolffkran, for Avondale Shipyards, Inc.
Date: 1986

Panel: SP-1
Call#: NSRP 0202
Title: Metal Forming Systems Research
Author: Roggendorff and Partners Co., Ltd., for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-1
Call#: NSRP 0203
Title: The Nesting and Marking of Ship Parts Cut From Steel Plate
Author: Harry Hooper, Consultant, for Avondale Shipyards, Inc.
Date: February 1985

Panel: SP-1
Call#: NSRP 0206
Title: Slew Cranes in Shipyards
Author: MAN-Wolffkran, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-1
Call#: NSRP 0208
Title: Fitting and Welding Cylinders
Author: Roggendorff and Partners Co., Ltd., for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-1
Call#: NSRP 0231
Title: Report on Moving Personnel and Light Material Onto a Ship and About a Shipyard
Author: The Leewood Group, Richard Muther and Associates, for Avondale Shipyards, Inc.
Date: November 1985

Panel: SP-1
Call#: NSRP 0190
Title: Process Lanes Feasibility Study
Author: Avondale Shipyards, Inc.
Date: 1984

Panel: SP-1
Call#: NSRP 0317
Title: Semi-Automatic Web-Line Feasibility Study
Author: Richard A. Price and Harold Tabony
Date: 1984

Panel: SP-1
Call#: NSRP 0165
Title: Avondale Shipyards, Inc. - Long Range Facilities Plan
Author: Avondale Shipyards, Inc.
Date: 1983

Panel: SP-1
Call#: NSRP 0167
Title: Semi-Automatic Pipe Handling System and Fabrication Facility - Phase II, Implementation
Author: Avondale Shipyards, Inc.
Date: 1983

Panel: SP-1
Call#: NSRP 0142
Title: Long Range Plan for Peterson Builders, Inc.
Author: Shipbuilding Consultants, for Peterson Builders, Inc.
Date: February 1982

Panel: SP-1
Call#: NSRP 0153
Title: Long Range Facilities Planning - Executive Summary and Vols. I-V
Author: National Steel and Shipbuilding Company
Date: 1982

Panel: SP-1
Call#: NSRP 0128
Title: Long-Range Facilities Plan
Author: Todd Pacific Shipyard Corporation, Los Angeles Division
Date: 1981

Panel: SP-1
Call#: NSRP 0135
Title: Semi-Automatic Beam-Line Feasibility Study
Author: Avondale Shipyards, Inc.
Date: 1981

Panel: SP-1
Call#: NSRP 0106
Title: Requirements Report - Computer Software System for a Semi-Automatic Pipe Handling System and Fabrication Facility
Author: IBM, for Avondale Shipyards, Inc.
Date: 1980

Panel: SP-1
Call#: NSRP 0074
Title: Feasibility Study of Semi-Automatic Pipe Handling System and Fabrication Facility
Author: Avondale Shipyards, Inc.
Date: 1978

Panel: SP-1
Call#: NSRP 0077
Title: Feasibility Study on Development of an Economical System for Cleaning Dry Docks Prior to Flooding
Author: Avondale Shipyards, Inc.
Date: 1978

Panel: SP-1
Call#: NSRP 0035
Title: Material Handling Equipment Study (Vols. I and II)
Author: Ingalls Shipbuilding, Division of Litton Systems, Inc.
Date: 1973

Panel: SP-2
Call#: NSRP 0036
Title: Cost Effectiveness Study of Weather Protection for Shipbuilding Operations (2 Vols.)
Author: Battelle Pacific Northwest Laboratories, for Todd Pacific Shipyards
Date: 1974

Panel: SP-3
Call#: NSRP 0376
Title: An Analysis of Air Pollution Control Technologies for Shipyard Emitted Volatile Organic Compounds (VOCs)
Author: Thomas J. Snider
Date: 1993

Panel: SP-3
Call#: NSRP 0308 --also see section 3.3
Title: Evaluation of Smoke Extraction Systems Versus Ventilation in Shipbuilding and Repair
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0309
Title: Impact of VOC Regulation on Shipbuilding and Ship Repair
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-8
Call#: NSRP 0172
Title: Work Management Manual - Material Handling for Shipyard
Author: Bethlehem Steel Corporation, Sparrows Point, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0305
Title: Simulation Models for Development of Optimal Material Handling - Phase I, Storage and Distribution
Author: Richard Lee Storch
Date: 1989

Panel: Maritech
Call#: M44 -- also see section 4.2
Title: Transitioning to a 21st Century Advanced Manufacturing Facility
Author: Marinette Marine
Date: (in progress)

3.0 Shipyard Production Process Technologies:

3.1 Steel Fabrication

Panel: SP-1

Call#: NSRP 0382 -- also see section 2.5

Title: Introduction to Production Processes and Facilities in the Steel Shipbuilding and Repair Industry

Author: Zachary F. Jacobs, National Steel and Shipbuilding Company

Date: 1993

Panel: SP-1

Call#: NSRP 0250 -- also see section 2.5

Title: Study of the Mechanized Manufacture and Welding of Reinforced Shell Units From Rolled Shell Plate and Tee Bar Segments

Author: Roggendorff and Partners Co., Ltd., for Avondale Shipyards, Inc.

Date: 1986

Panel: SP-1

Call#: NSRP 0202 -- also see section 2.5

Title: Metal Forming Systems Research

Author: Roggendorff and Partners Co., Ltd., for Avondale Shipyards, Inc.

Date: 1985

Panel: SP-1

Call#: NSRP 0203 -- also see section 2.5

Title: The Nesting and Marking of Ship Parts Cut From Steel Plate

Author: Harry Hooper, Consultant, for Avondale Shipyards, Inc.

Date: 1985

Panel: SP-1

Call#: NSRP 0317 -- also see section 2.5

Title: Semi-Automatic Web-Line Feasibility Study

Author: Richard A. Price and Harold Tabony

Date: 1984

Panel: SP-2

Call#: NSRP 0239

Title: U.S. Shipbuilding Accuracy - Phase I

Author: ABS Worldwide Technical Services, Inc., (ABSTECH), for Todd Pacific Shipyards Corporation

Date: 1986

Panel: SP-2

Call#: NSRP 0214

Title: Process Analysis via Accuracy Control - Revised

Author: IHI Marine Technology, for Todd Pacific Shipyards Corporation

Date: 1985

Panel: SP-2

Call#: NSRP 0143

Title: Process Analysis via Accuracy Control

Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation

Date: 1982

Panel: SP-2

Call#: NSRP 0163

Title: Line Heating

Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation

Date: 1982

Panel: SP-2
Call#: NSRP 0098
Title: Improved Tank Testing Methods
Author: Southwest Research Institute, for Todd Pacific Shipyards Corporation
Date: 1980

Panel: SP-2
Call#: NSRP 0090
Title: Special Structural Shapes - Factors Affecting Usage in U.S. Shipbuilding
Author: Stanford Research Institute, for Todd Pacific Shipyards Corporation
Date: 1979

Panel: SP-2
Call#: NSRP 0058
Title: Photogrammetry in Shipbuilding
Author: John F. Kenefick Photogrammetric Consultants, Inc., for Todd Pacific Shipyards Corporation
Date: 1976

Panel: SP-2
Call#: NSRP 0037
Title: Shipbuilding Alignment with Lasers
Author: Boeing Airplane Company, for Todd Pacific Shipyards
Date: 1974

Panel: SP-2
Call#: NSRP 0043
Title: NDT - Low Cost Alternatives to Film Radiography
Author: McDonnell Douglas Astronautics Company, for Todd Pacific Shipyards Corp.
Date: 1974

Panel: SP-6
Call#: NSRP 0126
Title: Navy Weld Defect Tolerance Study
Author: Dr. Leslie W. Sandor (Sun Ship), for Bath Iron Works
Date: 1981

Panel: SP-6
Call#: NSRP 0107 -- also see section 2.5
Title: Weld Defect Tolerance Study
Author: Dr. Leslie W. Sandor (Sun Ship), for Bath Iron Works
Date: 1980

Panel: SP-7
Call#: NSRP 0446 -- also see section 3.5
Title: Tee-beam Manufacturing Analysis
Author: Paul Blomquist, Bath Iron Works Corporation
Date: 1995

Panel: SP-7
Call#: NSRP 0407 -- also see section
Title: Advanced Cutting Technology
Author: Ingalls Shipbuilding, Inc.
Date: , 1994

Panel: SP-7
Call#: NSRP 0363 -- also see section 3.1
Title: Laser Cutting of Structural Members with a High Powered Nd:YAG Laser System
Author: E. J. Whitney and Paul Denney
Date: 1993

Panel: SP-7
Call#: NSRP 0299 -- also see section 3.2
Title: Flame Bending of Pipe for Alignment Control
Author: Ingalls Shipbuilding, Inc.
Date: 1990

Panel: SP-7
Call#: NSRP 0314
Title: Fabrication Accuracy Through Distortion Control In Shipbuilding
Author: Ronn Besselievre and Lee Norton
Date: 1990

Panel: SP-7
Call#: NSRP 0195
Title: Study of Fitting and Fairing Aids of U.S. Shipyards
Author: Todd Pacific Shipyard Corporation, Los Angeles Division, for Newport News Shipbuilding
Date: 1984

Panel: SP-7
Call#: NSRP 0085 -- also see section 3.5
Title: Applications of Plasma Arc to Bevel Cutting
Author: Hypertherm, Inc., for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0054 -- also see section 3.5
Title: Plasma Processes of Cutting and Welding
Author: Linde Division of Union Carbide Corporation, Tarrytown, New York, for Bethlehem Steel, Sparrows Point
Date: 1976

Panel: SP-8
Call#: NSRP 0175
Title: Work Management Manual - In-Shop Blast and Paint
Author: Peterson Builders, Inc., for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0186
Title: Temporary Staging for Shipyards
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0146
Title: Shipyard Data Application Program Panel Line Schedule and Manloading Incentive Program
Author: Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0150
Title: MOST Work Management Manual - Plate Shop
Author: National Steel and Shipbuilding Company, for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0151
Title: MOST Work Management Manual - Main Assembly (Vols. I and II)
Author: Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0154
Title: MOST Work Management Manual - Temporary Staging for Group Assembly and Aboard Ship
Author: Bethlehem Steel Corporation, Sparrows Point, for Bath Iron Works
Date: 1982

Panel: SP-8
Call#: NSRP 0125
Title: MOST Work Management Manual - Hull Erection
Author: Bay Shipbuilding Corporation, for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0101
Title: MOST Work Management Manual - Steel/Aluminum Small Assembly-I
Author: National Steel and Shipbuilding Company for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0102
Title: MOST Work Management Manual - General Operations
Author: National Steel and Shipbuilding Company for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0103
Title: MOST Work Management Manual - Panel Line
Author: National Steel and Shipbuilding Company for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0104
Title: MOST Work Management Manual - Steel/Aluminum Small Assembly-II
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-8
Call#: NSRP 0111
Title: MOST Work Management Manual - General Operations
Author: Bay Shipbuilding Corporation, for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0115
Title: MOST Work Management Manual - Panel Assembly in Platen Area
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0120
Title: Work Management Manual - Steel Shell Assembly
Author: Bath Iron Works Corporation
Date: 1980

3.2 Outfitting

Panel: SP-1
Call#: NSRP 0381 -- also see section 2.5
Title: Flexible Pipe Shop Fabrication System
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-1
Call#: NSRP 0355 -- also see section 2.5
Title: Automatic Pipe Flushing Rig for Shipboard Piping Systems
Author: National Steel and Shipbuilding Company
Date: 1992

Panel: SP-1
Call#: NSRP 0167 -- also see section 2.5
Title: Semi-Automatic Pipe Handling System and Fabrication Facility - Phase II, Implementation
Author: Avondale Shipyards, Inc.
Date: 1983

Panel: SP-1
Call#: NSRP 0135 -- also see section 2.5
Title: Semi-Automatic Beam-Line Feasibility Study
Author: Avondale Shipyards, Inc.
Date: 1981

Panel: SP-1 -- also see section 2.5
Call#: NSRP 0106 -- also see section 2.5
Title: Requirements Report - Computer Software System for a Semi-Automatic Pipe Handling System and Fabrication Facility
Author: IBM, for Avondale Shipyards, Inc.
Date: 1980

Panel: SP-1 -- also see section 2.5
Call#: NSRP 0074
Title: Feasibility Study of Semi-Automatic Pipe Handling System and Fabrication Facility
Author: Avondale Shipyards, Inc.
Date: 1978

Panel: SP-2
Call#: NSRP 0400
Title: Benefit Analysis of SPC Panel SP-2 Projects and Evaluation of SPC Panel SP-2 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-2
Call#: NSRP 0147
Title: Pipe-Piece Family Manufacturing
Author: IHI Marine Technology, Inc., for Todd Pacific Shipyards Corporation
Date: 1982

Panel: SP-2
Call#: NSRP 0124
Title: Photogrammetric Dimensioning of Ships' Engine-Room Models
Author: John F. Kenefick Photogrammetric Consultants, Inc., for Todd Pacific Shipyards Corporation
Seattle Division
Date: 1981

Panel: SP-2
Call#: NSRP 0084
Title: Photogrammetry in Shipbuilding - Measuring a Complex Casting
Author: John F. Kenefick Photogrammetric Consultants, Inc., for Todd Pacific Shipyards Corporation
Date: 1979

Panel: SP-2
Call#: NSRP 0075
Title: Phase I: Photogrammetric Dimensioning of Distributive Systems Models
Author: J. F. Kenefick Photogrammetric Consultants, Inc., for Todd Pacific Shipyards Corporation
Date: 1978

Panel: SP-2
Call#: NSRP 0079
Title: Stern Frame and Hawsepipe Construction Technology
Author: M. Rosenblatt and Son, for Todd Pacific Shipyards Corporation
Date: 1978

Panel: SP-2
Call#: NSRP 0069
Title: Rectangular Vent Duct Standards
Author: John J. McMullen Associates, for Todd Pacific Shipyards Corporation
Date: 1977

Panel: SP-2
Call#: NSRP 0060
Title: Fiberglass Reinforced Piping for Shipboard Systems
Author: DeBell and Richardson, for Todd Pacific Shipyards Corporation
Date: 1976

Panel: SP-7
Call#: NSRP 0433 -- also see section 3.5
Title: Portable Pipe Laser Beam Cutting/Welding System
Author: Mare Island Naval Shipyard
Date: 1995

Panel: SP-7
Call#: NSRP 0407 -- also see section 3.5
Title: Advanced Cutting Technology
Author: Ingalls Shipbuilding, Inc.
Date: 1994

Panel: SP-7
Call#: NSRP 0336
Title: Practical Guide for Flame Bending of Pipe
Author: Frank B. Gatto
Date: 1991

Panel: SP-8
Call#: NSRP 0243
Title: Outside Machinery Standards - Final Report and Work Management Manual
Author: Ingalls Shipbuilding for Bath Iron Works Corporation
Date: 1985

Panel: SP-8
Call#: NSRP 0242
Title: Engineered Labor Standards in the Manufacture of Sheetmetal Case Good Items
Author: Bath Iron Works Corporation
Date: 1984

Panel: SP-8
Call#: NSRP 0186 -- also see section 3.1 and 3.2
Title: Temporary Staging for Shipyards
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0232
Title: Work Management Manual - Sheetmetal Shop Ventilation Components - Phase III (2 Vols.)
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0152
Title: MOST Work Management Manual - Electrical Work for Shipboard Installation (Vols. I and II)
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0123
Title: MOST Work Management Manual - Pipe Fabrication Shop
Author: Peterson Builders, Inc., for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0065
Title: Advanced Pipe Technology - Executive Summary
Author: Newport News Shipbuilding, for Bath Iron Works
Date: 1977

Panel: SP-8
Call#: NSRP 0055
Title: Advanced Pipe Technology - Interim Report
Author: Newport News Shipbuilding, for Bath Iron Works
Date: 1976

Panel: SP-9
Call#: NSRP 0225
Title: Manufacturing Technology for Shipbuilding - Project Condensation
Author: Webb Institute of Naval Architecture, for the University of Michigan
Date: 1986

3.3 Blasting and Coating

Panel: SP-1
Call#: NSRP 0418
Title: Hazardous Waste Minimization Guide for Shipyards
Author: National Steel and Shipbuilding Company
Date: 1994

Panel: SP-2
Call#: NSRP 0178
Title: Tank Sealing with Coating Materials
Author: Southwest Research Institute, for Todd Pacific Shipyards Corporation
Date: 1983

Panel: SP-3
PCall#: N3-96-01
Title: Develop Visual Standards for Hydroblasting of Steel
Date: 1996 (in progress)

Panel: SP-3
Call#: N3-96-02
Title: New Surface Preparation and Coating Repair Techniques in Ballast Tanks, Phase IV
Date: 1996 (in progress)

Panel: SP-3
Call#: N3-96-04
Title: Productivity Study of Hydroblast Removal of Coatings
Date: 1996 (in progress)

Panel: SP-3
Call#: N3-96-05
Date: 1996 (in progress)

Panel: SP-3
Call#: NSRP 0447
Title: The Effectiveness of Power Tool Cleaning as an Alternative to Abrasive Blasting
Author: John W. Peart
Date: 1995

Panel: SP-3
Call#: NSRP 0451
Title: Evaluation of Coatings Applied on Less Than Ideal Surfaces
Author: Benjamin Fultz, Associated Coatings Consultants, and John W. Peart and Associates
Date: 1995

Panel: SP-3
Call#: N3-95-03
Title: Evaluation of Water Thinned preconstruction Primers Containing No Metal Pigments
Date: 1995 (in progress)

Panel: SP-3
Call#: 3-95-05
Title: Cost Effective Total Enclosure System for Surface Preparation and Coating in Dry Docks
Date: 1995 (in progress)

Panel: SP-3
Call#: N3-95-07
Title: User's Guide To Selection of Blasting Abrasives
Date: 1995 (in progress)

Panel: SP-3
Call#: NSRP 0412
Title: Surface Preparation and Coating Handbook
Author: Steel Structures Painting Council
Date: June 1994

Panel: SP-3
Call#: NSRP 0419
Title: The Effectiveness of Power Tool Cleaning as an Alternative to Abrasive Blasting
Author: John W. Peart
Date: 1994

Panel: SP-3
Call#: NSRP 0422
Title: Transfer Efficiency Requirements
Author: Amega Engineering
Date: 1994

Panel: SP-3
Call#: N3-94-01
Title: Development of Methods to Control Exposures to Hazardous Airborne Dust During Coating Removal Operations
Date: 1994 (in progress)

Panel: SP-3
Call#: N3-94-02
Title: Abrasive Recycling/Containment System for Shipyard Applications
Date: 1994 (in progress)

Panel: SP-3
Call#: NSRP 0369
Title: Evaluation of New Surface Preparation and Coating Repair Techniques in Ballast Tanks - Final Report
Author: Associated Coating Consultants
Date: 1993

Panel: SP-3
Call#: NSRP 0376
Title: An Analysis of Air Pollution Control Technologies for Shipyard Emitted Volatile Organic Compounds (VOCs)
Author: Thomas J. Snider
Date: 1993

Panel: SP-3
Call#: NSRP 0378
Title: Solvent Recycling for Shipyards
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-3
Call#: NSRP 0379
Title: A Purchasing Agent's Guide to Buying Paints and Coatings
Author: Michael Sfirri
Date: 1993

Panel: SP-3
Call#: NSRP 0387
Title: Feasibility Study: Tank Blasting Using Recoverable Steel Grit
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-3
Call#: NSRP 0391
Title: Benefit Analysis of SPC Panel SP-3 Projects and Evaluation of SPC Panel SP-3 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-3
Call#: NSRP 0403
Title: Surface Preparation and Coating Bid Estimating Transfer Study
Author: Insight Industries, Inc.
Date: 1993

Panel: SP-3
Call#: NSRP 0414
Title: Define and Standardize Procedures for Certification of Weld-Thru Primers
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-3
Call#: N3-93-01
Title: New Surface Preparation and Coating Repair Techniques In Ballast Tanks - Phase III
Date: 1993 (in progress)

Panel: SP-3
Call#: 3-93-06
Title: Reduced Volume of Spent Abrasive in Open Air Blasting
Date: 1993 (in progress)

Panel: SP-3
Call#: NSRP 0341
Title: Procedure Handbook for Shipboard Thermal Sprayed Coating Applications
Author: Roger Snyder, Larry Shul and Les Hansen
Date: 1992

Panel: SP-3
Call#: NSRP 0329
Title: The Effect of Substrate Contaminants on the Life of Epoxy Coating Submerged in Sea Water
Author: Dr. Gerald C. Soltz
Date: 1991

Panel: SP-3
Call#: NSRP 0332
Title: Evaluation of New Surface Preparation and Coating Repair Techniques in Ballast Tanks - Interim Report (Three Year Results)
Author: Associated Coating Consultants Inc.
Date: 1991

Panel: SP-3
Call#: NSRP 0307
Title: Abrasive Contaminants and Their Effect on Coating Performance
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0308
Title: Evaluation of Smoke Extraction Systems Versus Ventilation in Shipbuilding and Repair
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0309
Title: Impact of VOC Regulation on Shipbuilding and Ship Repair
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0311
Title: Performance Testing of Marine Coatings - New Test and Evaluation Procedures
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0312
Title: Evaluation of New Surface Preparation and Coating Repair Techniques in Ballast Tanks
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0313
Title: The Cost Effectiveness of Flame Sprayed Coatings for Shipboard Corrosion Control
Author: National Steel and Shipbuilding Company
Date: 1990

Panel: SP-3
Call#: NSRP 0316
Title: The Economics of Shipyard Painting - Phase III
Author: Gary Higgins and Steven Garlick
Date: 1990

Panel: SP-3
Call#: NSRP 0294
Title: Automated Painting of Small Parts
Author: National Steel and Shipbuilding Company
Date: 1989

Panel: SP-3
Call#: NSRP 0303
Title: Benefit Analysis of SPC Panel SP-3 Projects and Evaluation of SPC Panel SP-3 Management and Administration
Author: National Steel and Shipbuilding Company
Date: 1989

Panel: SP-3
Call#: NSRP 0306
Title: Corrosion Protection by Calcite-Type Coatings
Author: National Steel and Shipbuilding Company
Date: 1989

Panel: SP-3
Call#: NSRP 0288
Title: Marine Coatings Performance - Ten Year Report
Author: Associated Coating Consultants
Date: 1988

Panel: SP-3
Call#: NSRP 0295
Title: Development of Standard Procedures for Shipboard Paint Inspection
Author: Thomas Radakovich
Date: 1988

Panel: SP-3
Call#: NSRP 0270
Title: Adaption of Japanese Prefabrication Priming Procedure to U.S. Shipbuilding Methodology
Author: KTA-TATOR, Inc. for Avondale Shipyards, Inc.
Date: 1987

Panel: SP-3
Call#: NSRP 0272
Title: Prototype Mineral Abrasive Reclaimer - Shipyard Operation
Author: John W. Peart, Consultant for National Steel and Shipbuilding Company.
Date: 1987

Panel: SP-3
Call#: NSRP 0275
Title: Work Planning for Shipyard Surface Preparation and Coating (SP and C) - A Training Manual
Author: DDL OMNI Engineering Ltd.
Date: 1987

Panel: SP-3
Call#: NSRP 0280
Title: Cathodic Protection/Partial Coatings Versus Complete Coating in Ballast Tanks - Five Year Report
Author: Associated Coating Consultants
Date: 1987

Panel: SP-3
Call#: NSRP 0227
Title: The Economics of Shipyard Painting - Phase I (Of Three Phases)
Author: Peterson Builders, Inc., for Avondale Shipyards, Inc.
Date: 1986

Panel: SP-3
Call#: NSRP 0229
Title: Painting On-Block - The Zone Painting Method Advantage
Author: Avondale Shipyards, Inc.
Date: 1986

Panel: SP-3
Call#: NSRP 0248
Title: Overcoating of Inorganic Zinc Primers for Underwater Service - Final Report
Author: Ocean City Research Corporation, for Avondale Shipyards, Inc. and National Steel and Shipbuilding Company
Date: 1986

Panel: SP-3
Call#: NSRP 0204
Title: The Effect of Edge Preparation on Coating Life - Phase Two
Author: Franklin Research Center, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0205
Title: Cathodic Protection/Partial Coatings Versus Complete Coating in Ballast Tanks - A Project Update
Author: Associated Coating Consultants, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0207
Title: Dynamic Corrosion Testing "Copperlok" Coating System
Author: Ocean City Research Corporation, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0217
Title: Abrasive Testing Cabinets - A State of the Art Study
Author: W.H. Radut Associates, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0218
Title: Evaluation of the Effectiveness of Wet Blast Cleaning Methods of Surface Preparation
Author: Steel Structures Painting Council for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0228
Title: Marine Coating Performance - A Six Year Report
Author: Associated Coating Consultants, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0246
Title: A Survey of Japanese Shipyard Applied Marine Coatings Performance
Author: Avondale Shipyards, Inc.
Date: 1985

Panel: SP-3
Call#: NSRP 0097
Title: Training Courses for Blasters and Painters and Student Handbook (2 Vols.)
Author: Institute of Applied Technology, for Avondale Shipyards, Inc.
Date: Revised 1984

Panel: SP-3
Call#: NSRP 0187
Title: An Investigation of Possible Ways to Enhance Title Deposition of Calcite-Type Coatings
Author: Ocean City Research Corporation, for Avondale Shipyards, Inc.
Date: 1984

Panel: SP-3
Call#: NSRP 0188
Title: Mineral Slag Abrasive Survey and Specification
Author: Ocean City Research Corporation, for Avondale Shipyards, Inc.
Date: 1984

Panel: SP-3
Call#: NSRP 0191
Title: Evaluation of Rust Compatible Primers for Marine Applications
Author: Rensselaer Polytechnic Institute, for Avondale Shipyards, Inc.
Date: 1984

Panel: SP-3
Call#: NSRP 0194
Title: Shipyard Design and Planning for a Zone Orientated Painting System
Author: IHI Marine Technology, for Avondale Shipyards, Inc.
Date: 1984

Panel: SP-3
Call#: NSRP 0171
Title: The Effects of Edge Preparation Standard - Phase I
Author: Dr. Leslie W. Sandor, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-3
Call#: NSRP 0176
Title: Surface Preparation - A Comparative Analysis of Existing Standards and a Proposed Marine Standard
Author: Institute of Applied Technology, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-3
Call#: NSRP 0177
Title: Zone Painting Method
Author: IHI, for Avondale Shipyards, Inc.
Date: 1983

Panel: SP-3
Call#: NSRP 0155
Title: Survey of Existing and Promising New Methods of Surface Preparation
Author: Steel Structures Painting Council, for Avondale Shipyards, Inc.
Date: 1982

Panel: SP-3
Call#: NSRP 0156
Title: Surface Texture (Profile) Measurement
Author: Offshore Power Systems/Westinghouse, for Avondale Shipyards, Inc.
Date: 1982

Panel: SP-3
Call#: NSRP 0158
Title: Cathodic Protection/Partial Coatings Versus Complete Coatings in Tanks
Author: Offshore Power Systems, for Avondale Shipyards, Inc.
Date: 1982

Panel: SP-3
Call#: NSRP 0162
Title: A Descriptive Overview of Japanese Shipbuilding Surface Preparation and Coating Methods
Author: Avondale Shipyards, Inc.
Date: 1982

Panel: SP-3
Call#: NSRP 0127
Title: Determination of Volume Solids of Paints and Coatings by Accurate Dry Film Thickness Measurements
Author: Georgia Institute of Technology, for Avondale Shipyards, Inc.
Date: 1981

Panel: SP-3
Call#: NSRP 0129
Title: The Feasibility of Calcite Deposition in Ballast Tanks as a Method of Corrosion Control
Author: Ocean City Research Corporation, for Avondale Shipyards, Inc.
Date: 1981

Panel: SP-3
Call#: NSRP 0130
Title: Procedural Handbook - Surface Preparation and Coating for Tanks and Closed Areas
Author: Complete Abrasive Blasting Systems, Inc., for Avondale Shipyards, Inc.
Date: 1981

Panel: SP-3
Call#: NSRP 0132
Title: Evaluation of Near Solventless Coatings for Marine Use
Author: Springborn Laboratories, Inc., for Avondale Shipyards, Inc.
Date: 1981

Panel: SP-3
Call#: NSRP 0134
Title: Evaluation of Water Borne Coatings for Marine Use
Author: Georgia Institute of Technology, for Avondale Shipyards, Inc.
Date: 1981

Panel: SP-3
Call#: NSRP 0105
Title: Cleaning of Steel Assemblies and Shipboard Touch-Up Using Citric Acid
Author: Offshore Power Systems, for Avondale Shipyards, Inc.
Date: 1980

Panel: SP-3
Call#: NSRP 0114
Title: Shipyard Marking Methods
Author: Bethlehem Steel Corp., Sparrows Point, for Avondale Shipyards, Inc.
Date: 1980

Panel: SP-3
Call#: NSRP 0119
Title: Copper-Nickel Hull Sheathing Study
Author: Dr. Leslie W. Sandor, for Sun Ship, Inc.
Date: 1980

Panel: SP-3
Call#: NSRP 0092
Title: Marine Coating Performance for Different Ship Areas (Vols. I and II)
Author: Offshore Power Systems, for Avondale Shipyards, Inc.
Date: 1979

Panel: SP-3
Call#: NSRP 0091
Title: Practical Shipbuilding Standards for Surface Preparation and Coatings
Author: Offshore Power Systems, for Avondale Shipyards, Inc.
Date: 1979

Panel: SP-3
Call#: NSRP 0064
Title: Catalog of Existing Small Tools for Surface Preparation and Support Equipment for Blasters and Painters
Author: Avondale Shipyards, Inc.
Date: 1977

Panel: SP-3
Call#: NSRP 0045
Title: Development of Non-Polluting Solvent-Free Liquid Resin Coating Systems for Ships
Author: Battelle-Columbus Laboratories, for General Dynamics/Quincy
Date: 1975

Panel: SP-3
Call#: NSRP 0033
Title: Prefailure Evaluation Techniques for Coating Systems
Author: Battelle-Columbus Laboratories, for General Dynamics/Quincy
Date: 1974

Panel: SP-3
Call#: NSRP 0034
Title: Automatic Painting of Structural Steel Shapes
Author: General Dynamics/Quincy
Date: 1974

Panel: SP-3
Call#: NSRP 0032
Title: Improved Fabrication Primer for Protection of Steel
Author: General Dynamics/Quincy
Date: 1973

Panel: SP-7
Call#: N7-94-01 -- also see section 3.5
Title: Welding Through Paint Primer
Date: 1994 (in progress)

Panel: SP-8
Call#: NSRP 0175
Title: Work Management Manual - In-Shop Blast and Paint
Author: Peterson Builders, Inc., for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0149
Title: MOST Work Management Manual - Blast and Coat on Platen and Drydock
Author: Newport News Shipbuilding, for Bath Iron Works
Date: 1982

3.4 Block Assembly and Erection (also see section 3.1 and 2.1)

3.5 Welding

Panel: SP-3
Call#: N3-95-03 -- also see section 3.3
Title: Evaluation of Water Thinned preconstruction Primers Containing No Metal Pigments
Date: 1995 (in progress)

Panel: SP-3
Call#: NSRP 0414 -- also see section 3.3
Title: Define and Standardize Procedures for Certification of Weld-Thru Primers
Author: National Steel and Shipbuilding Company
Date: 1993

Panel: SP-3
Call#: NSRP 0341 -- also see section 3.3
Title: Procedure Handbook for Shipboard Thermal Sprayed Coating Applications
Author: Roger Snyder, Larry Shul and Les Hansen
Date: 1992

Panel: SP-7
Call#: N7-96-01
Title: Development of Electromagnetic Acoustic Transducers (EMATS) for Surface/Volumetric Inspection of Welds
Date: 1996 (in progress)

Panel: SP-7
Call#: N7-96-03
Title: Carbon Equivalent (Pcm) Limits for Thick Carbon and Low Alloy Steels.
Date: 1996 (in progress)

Panel: SP-7
Call#: N7-96-04
Title: Structural Detail Evaluation
Date: 1996 (in progress)

Panel: SP-7
Call#: N7-96-06
Title: Develop Accessories For Semi-Automatic Welding Processes (GMAW/FCAW/GTAW)
Date: 1996 (in progress)

Panel: SP-7
Call#: N7-96-09
Title: Develop Compliance Methods to Meet New Welding Fumes Regulations
Dates: 1996(in progress)

Panel: SP-7
Call#: NSRP 0433
Title: Portable Pipe Laser Beam Cutting/Welding System
Author: Mare Island Naval Shipyard
Date: 1995

Panel: SP-7
Call#: NSRP 0446
Title: Tee-beam Manufacturing Analysis
Author: Paul Blomquist, Bath Iron Works Corporation
Date: 1995

Panel: SP-7
Call#: N7-95-03
Title: Single Pass, One Sided Submerged Arc Welding Process
Date: 1995 (in progress)

Panel: SP-7
Call#: N7-95-04
Title: Development and Evaluation of Improved Flux-Cored Welding Consumable
Date: 1995 (in progress)

Panel: SP-7
Call#: NSRP 0407
Title: Advanced Cutting Technology
Author: Ingalls Shipbuilding, Inc.
Date: , 1994

Panel: SP-7
Call#: NSRP 0430
Title: Development of a Shielded Metal Electrode for Welding HSLA-100 Steel
Author: D.A. Fleming, S. Liu, D.L. Olson, Colorado School of Mines
Date: 1994

Panel: SP-7
Call#: NSRP 0431
Title: Autogenous Pipe Welding
Author: Mare Island Naval Shipyard
Date: 1994

Panel: SP-7
Call#: NSRP 0432
Title: Phase II: EMATS Inspection of Welds; Phase Analysis; Eddy Current Inspection of Welds
Author: W. M. Latham, P.J. Latimer, Babcock & Wilcox
Date: 1994

Panel: SP-7
Call#: N7-94-01
Title: Welding Through Paint Primer
Date: 1994 (in progress)

Panel: SP-7
Call#: N7-94-05
Title: Ultra Portable GMAW / SMAW Power Supply / Wirefeeder
Date: 1994 (in progress)

Panel: SP-7
Call#: NSRP 0363
Title: Laser Cutting of Structural Members with a High Powered Nd:YAG Laser System
Author: E. J. Whitney and Paul Denney
Date: 1993

Panel: SP-7
Call#: NSRP 0413
Title: Benefit Analysis of SPC Panel SP-7 Projects and Evaluation of SPC Panel SP-7 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-7
Call#: NSRP 0343
Title: Evaluation of Hitachi Zosen Portable Welding Robotics
Author: G. J. Blasko, D. J. Moniak, and B. C. Howser
Date: 1992

Panel: SP-7
Call#: NSRP 0364
Title: Welding Research for Shipbuilding - The SP-7 Panel Program From 1972-1992
Author: O. J. Davis
Date: 1992

Panel: SP-7
Call#: NSRP 0368
Title: Pulse Purge for Consumable Insert Welds
Author: James Langhelm and Brian Lawlor
Date: 1992

Panel: SP-7
Call#: N7-92-05
Title: Square Butt Pipe Welding
Date: 1992 (in progress)

Panel: SP-7
Call#: NSRP 0326
Title: High Yield Strength Cast Steel with Improved Weldability
Author: Robin K. Churchill and Jack H. Devletian
Date: 1991

Panel: SP-7
Call#: NSRP 0338
Title: Visual Reference Standards for Weld Surface Conditions and User's Guide for Weld Replicas - Phase III
Author: William Hanzalek, Dr. D.Y. Ku, and R.F. Waite
Date: 1991

Panel: SP-7
Call#: NSRP 0339
Title: Design and Planning Manual for Cost Effective Welding
Author: Frank Gatto, Brian Lawlor, and Joyce McMillin
Date: 1991

Panel: SP-7
Call#: NSRP 0297
Title: Evaluation of the Fillet Weld Shear Strength of Flux Cored Arc Welding Electrodes
Author: Ingalls Shipbuilding, Inc.
Date: 1990

Panel: SP-7
Call#: NSRP 0299
Title: Flame Bending of Pipe for Alignment Control
Author: Ingalls Shipbuilding, Inc.
Date: 1990

Panel: SP-7
Call#: NSRP 0291
Title: Tracking System for Automatic Welding - Phase II, Improvement of Contact-Tip Life for Through-the-Arc Welding System
Author: Ingalls Shipbuilding, Inc.
Date: 1989

Panel: SP-7
Call#: NSRP 0292
Title: Evaluation of the Benefits of HSLA Steels
Author: Ingalls Shipbuilding, Inc.
Date: 1989

Panel: SP-7
Call#: NSRP 0261
Title: Evaluation of the Usability and Benefits of Twist Wire GMAW and FCAW Narrow Gap Welding
Author: Puget Sound Naval Shipyard
Date: 1988

Panel: SP-7
Call#: NSRP 0262
Title: Evaluation of High Strength Steels Produced by Advanced Metallurgical Processes
Author: American Bureau of Shipping
Date: 1987

Panel: SP-7
Call#: NSRP 0253
Title: Automatic Submerged Arc Welding With Metal Powder Additions to Increase Productivity and Maintain Quality
Author: Newport News Shipbuilding
Date: 1986

Panel: SP-7
Call#: NSRP 0257
Title: Consumable Guide Electroslag Welding of 4 to 24 Inch Thick Carbon Steel Castings
Author: Newport News Shipbuilding
Date: 1986

Panel: SP-7
Call#: NSRP 0209
Title: Higher Strength Steels Specially Processed for High Heat Input Welding
Author: American Bureau of Shipping, for Newport News Shipbuilding
Date: 1985

Panel: SP-7
Call#: NSRP 0211
Title: Evaluation of an Automatic Seam Tracking/Adaptive Control Welding System for Shipyard Applications - Phase 1 Report
Author: General Dynamics, Electric Boat Division, for Newport News Shipbuilding
Date: 1985

Panel: SP-7
Call#: NSRP 0215
Title: Acceptance Standards for Nondestructive Test Not Required by Classification - Phase II
Author: American Bureau of Shipping, for Newport News Shipbuilding
Date: 1985

Panel: SP-7
Call#: NSRP 0220
Title: Visual Reference Standards for Weld Surface Conditions - Phase II
Author: American Bureau of Shipping, for Newport News Shipbuilding
Date: 1985

Panel: SP-7
Call#: NSRP 0241
Title: Investigation of Tubular Electrodes Designed for Submerged Arc Welding Applications - Final Report
Author: Newport News Shipbuilding
Date: 1985

Panel: SP-7
Call#: NSRP 0183
Title: Cincinnati Milacron T 3 Robot for Shipbuilding Welding
Author: Todd Pacific Shipyard Corporation, Los Angeles Division, for Newport News Shipbuilding
Date: 1984

Panel: SP-7
Call#: NSRP 0184
Title: Out-Of-Position Welding of 5000 Series Aluminum Alloys Using Pulse GMAW Power Sources
Author: Todd Pacific Shipyard Corporation, Seattle Division, for Newport News Shipbuilding
Date: 1984

Panel: SP-7
Call#: NSRP 0195 -- also see section 3.1
Title: Study of Fitting and Fairing Aids of U.S. Shipyards
Author: Todd Pacific Shipyard Corporation, Los Angeles Division, for Newport News Shipbuilding
Date: 1984

Panel: SP-7
Call#: NSRP 0166
Title: Acceptance Standards for Nondestructive Test Not Required by Classification - Phase I
Author: American Bureau of Shipping, for Newport News Shipbuilding
Date: 1983

Panel: SP-7
Call#: NSRP 0168
Title: Visual Reference Standards for Weld Surface Conditions - Phase I
Author: American Bureau of Shipping, for Newport News Shipbuilding
Date: 1983

Panel: SP-7
Call#: NSRP 0173
Title: Study Mission to Japan - Trip Report
Author: Bruno L. Alia, Benjamin C. Howser, C. L. Null, and R. K. Richie
Date: 1983

Panel: SP-7
Call#: NSRP 0182
Title: Unimation "Apprentice" Welding Robot for Shipyard Application
Author: Todd Pacific Shipyards Corporation, Los Angeles Division, for Newport News Shipbuilding
Date: 1983

Panel: SP-7
Call#: NSRP 0145
Title: SMAW Ceramic Weld Backing Evaluation - Final Report
Author: Offshore Power Systems, for Newport News Shipbuilding
Date: 1982

Panel: SP-7
Call#: NSRP 0121
Title: Proceedings of First Conference on Fitness-For-Service in Shipbuilding
Author: Leslie W. Sandor
Date: 1981

Panel: SP-7
Call#: NSRP 0099
Title: Property and Productivity Improvements in Electroslag and Electrogas Welding
Author: Material Sciences Northwest, Inc., for Bethlehem Steel, Sparrows Point
Date: 1980

Panel: SP-7
Call#: NSRP 0110
Title: Ceramic Weld Backing Evaluation
Author: Offshore Power Systems, for Bethlehem Steel, Sparrows Point
Date: 1980

Panel: SP-7
Call#: NSRP 0112
Title: The Development of a Composite Consumable Insert for Submerged Arc Welding
Author: IIT Research Institute, for Bethlehem Steel, Sparrows Point
Date: 1980

Panel: SP-7
Call#: NSRP 0113
Title: Extension of E7024 Electrode Application in Shipbuilding
Author: American Bureau of Shipping, for Bethlehem Steel, Sparrows Point
Date: 1980

Panel: SP-7
Call#: NSRP 0118
Title: Self-Shielded Flux-Cored Wire Evaluation
Author: Offshore Power Systems, for Bethlehem Steel, Sparrows Point
Date: 1980

Panel: SP-7
Call#: NSRP 0080
Title: Dynamic Tear Test Correlation with Explosion Bulge Test at the Same Temperature
Author: American Bureau of Shipping, for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0083
Title: Investigation of Welding Processes for Low Temperature Applications
Author: American Bureau of Shipping, for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0085
Title: Applications of Plasma Arc to Bevel Cutting
Author: Hypertherm, Inc., for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0086
Title: Mechanized Gas Metal Arc Welding of Light Plate
Author: M. T. Gilliland Company, for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0095
Title: Applicability of Laser Welding to Ship Production (Vol. II)
Author: United Aircraft Research Laboratories, for Bethlehem Steel, Sparrows Point
Date: 1979

Panel: SP-7
Call#: NSRP 0072
Title: High Metal Deposition Welding (Vols. I and II)
Author: TAPCO International, for Bethlehem Steel, Sparrows Point
Date: 1978

Panel: SP-7
Call#: NSRP 0063
Title: High Metal Deposition Per Ampere
Author: Linde Division of Union Carbide Corporation, for Bethlehem Steel, Sparrows Point
Date: 1977

Panel: SP-7
Call#: NSRP 0054
Title: Plasma Processes of Cutting and Welding
Author: Linde Division of Union Carbide Corporation, Tarrytown, New York, for Bethlehem Steel, Sparrows Point
Date: 1976

Panel: SP-7
Call#: NSRP 0062
Title: Development of an All Position Automatic Welding Machine
Author: M. T. Gilliland Company, for Bethlehem Steel, Sparrows Point
Date: 1976

Panel: SP-7
Call#: NSRP 0048
Title: Toughness Evaluation of Electroslag and Electroslag Weldments
Author: American Bureau of Shipping, for Bethlehem Steel, Sparrows Point
Date: 1975

Panel: SP-7
Call#: NSRP 0051
Title: Applicability of Firecracker Welding to Ship Production
Author: Battelle-Columbus Laboratories, for Bethlehem Steel, Sparrows Point
Date: 1975

Panel: SP-7
Call#: NSRP 0039
Title: One Side Welding - Flux Development and Study of Multiple Arc Behavior
Author: Linde Division of Union Carbide Corporation, Tarrytown, New York, for Bethlehem Steel, Sparrows Point
Date: 1974

Panel: SP-7
Call#: NSRP 0040
Title: Development of Extended Length Continuous Wire Feed System
Author: Hobart Brothers, Troy, for Bethlehem Steel, Sparrows Point
Date: 1974

Panel: SP-7
Call#: NSRP 0041
Title: Development of a Portable AC/DC Welding Power Supply Module
Author: Celesco Industries, Inc., for Bethlehem Steel, Sparrows Point
Date: 1974

Panel: SP-7
Call#: NSRP 0044
Title: Applicability of Laser Welding to Ship Production (Vol. I)
Author: United Aircraft Research Laboratories, for Bethlehem Steel, Sparrows Point
Date: 1974

Panel: Maritech
Call #: M6 -- also see section 4.2
Date: (in progress)
Title: Automated Welding of Structural Beam Erection Joints
Author: CYBO Robots, Inc.

4.0 New Materials and Product Technologies:

4.1 Automation

Panel: SP1

Call#: NSRP 0167 -- also see section 2.5

Title: Semi-Automatic Pipe Handling System and Fabrication Facility - Phase II, Implementation

Author: Avondale Shipyards, Inc

Date: 1983

Panel: SP-1

Call#: NSRP 0135 -- also see section 2.5

Title: Semi-Automatic Beam-Line Feasibility Study

Author: Avondale Shipyards, Inc.

Date: 1981

Panel: SP-1

Call#: NSRP 0106 -- also see section 2.5

Title: Requirements Report - Computer Software System for a Semi-Automatic Pipe Handling System and Fabrication Facility

Author: IBM, for Avondale Shipyards, Inc.

Date: 1980

Panel: SP-1

Call#: NSRP 0074 -- also see section 2.5

Title: Feasibility Study of Semi-Automatic Pipe Handling System and Fabrication Facility

Author: Avondale Shipyards, Inc.

Date: 1978

Panel: SP-ten

Call#: NSRP 0415

Title: Benefit Analysis of SPC Panel SP-10 Projects

Author: Robinson-Page-McDonough and Associates, Inc.

Date: 1993

Panel: SP-ten

Call#: NSRP 0267

Title: Implementation Plan for Flexible Automation in U.S. Shipyards

Author: The Charles Stark Draper Laboratory, for Todd Pacific Shipyards, Los Angeles

Date: 1987

Panel: SP-ten

Call#: NSRP 0131

Title: Robotics in Shipbuilding Workshop Proceedings with Executive Summary

Author: Todd Pacific Shipyards, Los Angeles Division

Date: 1981

Panel: SP-ten

Call#: NSRP 0081

Title: Technology Survey of Major U.S. Shipyards

Author: Marine Equipment Leasing, Inc.

Date: 1978

4.2 New Design Concepts

Panel: Maritech

Call #: M2

Title: Panel Line Welding

Author: McDermott, Inc./Babcock & Wilcox

Date: (in progress)

Panel: Maritech
Call #: M3
Title: SWATH High Speed Ferry
Author: SWATH International
Date: (in progress)

Panel: Maritech
Call #: M5
Title: Design of the Stern Factory
Author: McDermott Shipbuilding, Inc.
Date: (in progress)

Panel: Maritech
Call #: M6
Title: Automated Welding of Structural Beam Erection Joints
Author: CYBO Robots, Inc.
Date: (in progress)

Panel: Maritech
Call #: M11
Title: STEP-ship Product Model
Author: Intergraph Corporation
Date: (in progress)

Panel: Maritech
Call #: M14
Title: Focused Technology Development Project for a New LNG Containment System
Author: Marinex International
Date: (in progress)

Panel: Maritech
Call #: M16
Title: Reefer 21
Author: Bender Shipbuilding and Repair,
Date: (in progress)

Panel: Maritech
Call #: M17
Title: Fast Ferry Market Penetration
Author: Nichols Brothers Boat Builders, Inc.
Date: (in progress)

Panel: Maritech
Call #: M18
Title: Midfoil SWAS Ship Design
Author: Pacific Marine
Date: (in progress)

Panel: Maritech
Call #: M19
Title: Handy Sized 27,000 DWT Bulk Vessels
Author: Alabama Shipyard, Inc.
Date: (in progress)

Panel: Maritech
Call #: M20
Title: LNG Carrier
Author: Newport News Shipbuilding
Date: (in progress)

Panel: Maritech
Call #: M21
Title: Large Fast Ferry Technical Development
Author: Halter Marine, Inc.
Date: (in progress)

Panel: Maritech
Call #: M22
Title: Shallow Draft - Self Loading/Unloading Cargo Ship Design
Author: Vibtech, Inc.
Date: (in progress)

Panel: Maritech
Call #: M23
Title: High-Speed Monohull Contract Design Project
Author: Bath Iron Works Corporation
Date: (in progress)

Panel: Maritech
Call #: M24
Title: High Speed Monohull Focused Technology Development Project
Author: Bath Iron Works Corporation
Date: (in progress)

Panel: Maritech
Call #: M25
Title: Medium Sized Multipurpose Ship
Author: Halter Marine, Inc
Date: (in progress)

Panel: Maritech
Call #: M26
Title: 23,000 Ton Container/Bulk Carrier
Author: Halter Marine, Inc.
Date: (in progress)

Panel: Maritech
Call #: M27
Title: Multi-Purpose Dry Cargo Ship Design/Process Development
Author: McDermott Inc
Date: (in progress)

Panel: Maritech
Call #: M29
Title: U.S.-Built Cruise Ships: Market- and Producibility-Driven Design for the World Market
Author: National Steel and Shipbuilding Company
Date: (in progress)

Panel: Maritech
Call #: M30
Title: Focused Technology Development 40,000 dwt Double Hull Product Carriers, 85,000 dwt Double Hull Oil, Bulk, or Ore (OBO) Carriers
Author: Alabama Shipyard
Date: (in progress)

Panel: Maritech
Call #: M31
Title: Focused Technology Development
Author: Avondale Industries
Date: (in progress)

Panel: Maritech
Call #: M32
Title: Petroleum Product Tanker Technology Development
Author: Gibbs & Cox, Inc.
Date: (in progress)

Panel: Maritech
Call #: M33
Title: Focused Technology Development for a Family of Double Tankers
Author: Marinex International
Date: (in progress)

Panel: Maritech
Call #: M34
Title: Internationally Competitive High Technology Tanker Vessels
Author: Modular Tanker Consortium
Date: (in progress)

Panel: Maritech
Call #: M35
Title: Conversion to World Class Commercial Shipbuilder
Author: Newport News Shipbuilding
Date: (in progress)

Panel: Maritech
Call #: M36
Title: Conversion to World Class Commercial Shipbuilder
Author: U.S. Shipbuilding Consortium
Date: (in progress)

Panel: Maritech
Call #: M37
Title: Penetrating the International Market for Small Ships
Author: American Waterways Shipyard Conference (AWSC)
Date: (in progress)

Panel: Maritech
Call #: M38
Title: Sea Horse. Self-Elevating Offshore Support Platform for the International Markets
Author: Bollinger Machine Shop and Shipyard, Inc.
Date: (in progress)

Panel: Maritech
Call #: M39
Title: Commercialization of E-CAT Technology
Author: Halter Marine, Inc.
Date: (in progress)

Panel: Maritech
Call #: M40
Title: Development of SLICE Fast Passenger Ferry Design and Comprehensive Marketing Plan
Author: Pacific Marine & Supply Company, LTD.
Date: (in progress)

Panel: Maritech
Call #: M41
Title: Integration of Modern Manufacturing Methods and Modern Information Systems
Author: Todd Pacific Shipyards Corporation
Date: (in progress)

Panel: Maritech
Call #: M42
Title: From Sealift Ships to Vehicle Carriers: Internationally Competitive Ships for the 1990s
Author: National Steel and Shipbuilding Company
Date: (in progress)

Panel: Maritech
Call#: M43
Title: SBD as an Environment for Concept & Contract Design Using IPPD
Author: Avondale Industries
Date: (in progress)

Panel: Maritech
Call#: M44
Title: Transitioning to a 21st Century Advanced Manufacturing Facility
Author: Marinette Marine
Date: (in progress)

Panel: Maritech
Call#: M45
Title: International Fast Ferry Market
Author: Gladding-Hearn Somerst
Date: (in progress)

Panel: Maritech
Call#: M46
Title: Competitive High Speed Vessels for World Markets
Author: Swiftships Inc.
Date: (in progress)

Panel: Maritech
Call#: M47
Title: Near Term Technology Application - 10,000 to 12,000 dwt Product Tanker
Author: Alabama Shipyard
Date: (in progress)

Panel: Maritech
Call#: M48
Title: Multi-Mission Cargo Ships: Systematic Construction of Design Variants
Author: Bender Shipbuilding and Repair Co.
Date: (in progress)

Panel: Maritech
Call #: M49
Title: Development of a Product Oriented Organization
Date: (in progress)

Panel: Maritech
Call#: M51
Title: Development of National Shipbuilding Information Protocols in Support of Ship Construction
Author: Electric Boat Corporation
Date: (in progress)

Panel: Maritech
Call#: M52
Title: Development of an Integrated Product & Process Data Environment to Revolutionize Shipbuilding Processes
Author: Hughes Aircraft
Date: (in progress)

Panel: Maritech
Call#: M53
Title: Next Generation Windows™ - Based System for Integrated Product & Process Development Environment
Author: Intergraph
Date: (in progress)

4.3 New Materials

Panel: SP-1
Call#: NSRP 0231
Title: Report on Moving Personnel and Light Material Onto a Ship and About a Shipyard
Author: The Leawood Group, Richard Muther and Associates, for Avondale Shipyards, Inc.
Date: 1985

Panel: SP-2
Call#: NSRP 0071
Title: Plastics in Shipbuilding
Author: Springborn Laboratories, Inc., for Todd Pacific Shipyards Corporation
Date: 1977

Panel: SP-8
Call#: N8-95-01
Title: Producibility Cost Reductions Through Alternative Materials and Processes
Date: 1995 (in progress)

Panel: Maritech
Call #: M8
Title: Test Plan American Underpressure System
Author: MH Systems, Inc.
Date: (in progress)

Panel: Maritech
Call #: M10
Title: Composite Ship Superstructures
Author: Structural Composites, Inc.
Date: (in progress)

Panel: Maritech
Call #: M15
Title: Process Tools for Shipyard Construction, Conversion, and Repair
Author: CTA, Inc.
Date: (in progress)

4.4 New Shipboard Products

Panel: Maritech
Call #: M1
Title: Application of Adaptive Control to SWATH and SLICE Ships
Author: Lockheed Missiles and Space Company, Inc.
Date: (in progress)

Panel: Maritech
Call #: M7
Title: High Power Waterjet Propulsor
Author: Bird-Johnson, Inc.
Date: (in progress)

Panel: Maritech
Call #: M9
Title: ISIT Platform
Author: Marine Management Systems, Inc.
Date: (in progress)

Panel: Maritech
Call #: M12
Title: Vessel Optimization and Safety System (VOSS)
Author: Sperry Marine Inc.
Date: (in progress)

Panel: Maritech
Call #: M13
Title: SMARTBRIDGE
Author: Martin Marietta
Date: (in progress)

Panel: Maritech
Call#: M50
Title: Pilot/Demonstration Ship Life Cycle Support Infrastructure (SLCSI) Project
Author: Marine Management Systems
Date: (in progress)

5.0 Other

5.1 Industrial Engineering

Panel: SP-8
Call#: NSRP 0435 -- also see section 2.1
Title: Concurrent Engineering - Primer and User's Guide for Shipbuilding
Author: Thomas Lamb and Bath Iron Works Corporation
Date: 1995

Panel: SP-8
Call#: NSRP 0436 -- also see section 2.1
Title: Concurrent Engineering - Application
Author: Thomas Lamb and Bath Iron Works Corporation
Date: 1995

Panel: SP-8
Call#: NSRP 0440 -- also see section 2.1
Title: Improved Techniques for Scheduling Shipyard Work, & Improved Material Availability
Author: Peterson Builders, Inc.
Date: 1995

Panel: SP-8
Call#: NSRP 0450 -- also see section 2.1
Title: Investigate Methods of Improving Production Throughput in a Shipyard
Author: National Steel and Shipbuilding Company
Date: 1995

Panel: SP-8
Call#: N8-95-01 -- also see sections 2.1 and 4.3
Title: Producibility Cost Reductions Through Alternative Materials and Processes
Date: 1995 (in progress)

Panel: SP-8
Call#: N8-95-02 -- also see section 1.3
Title: Implementation of Past NSRP Research Through Education and Training
Date: 1995 (in progress)

Panel: SP-8
Call#: NSRP 0374
Title: Workshops on Improved Planning and Shop Loading in Shipyard Production Shops
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-8
Call#: NSRP 0375
Title: Identification of Non-Value-Added Tasks in Shipbuilding
Author: Barry M. Schram & Associates
Date: 1993

Panel: SP-8
Call#: NSRP 0389
Title: Performance Measurement in Production and Support Areas of a Shipyard
Author: Peterson Builders, Inc.
Date: 1993

Panel: SP-8
Call#: NSRP 0394
Title: Benefit Analysis of SPC Panel SP-8 Projects and Evaluation of SPC Panel SP-8 Management and Administration
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1993

Panel: SP-8
Call#: N8-93-01
Title: Industrial Engineering Methods (Processes) Workshops in Specific Applications Employed at Shipyards
Date: 1993 (in progress)

Panel: SP-8
Call#: NSRP 0346 -- also see section 2.1
Title: Application of PC-Based Project Management in an Integrated Planning Process
Author: Richard J. Neumann and David J. McQuaide
Date: 1992

Panel: SP-8
Call#: NSRP 0347 -- also see section 2.1
Title: Implementation Guide for Approaching Shop Floor Control
Author: Gary Higgins, John G. Jessup, and K. Diedrick
Date: 1992

Panel: SP-8
Call#: NSRP 0348 -- also see section 1.3
Title: Improved Techniques for Labor Expenditure Collection
Author: Stan Fors, Glen Berger, Christi Burz, David Wright, and Mike Korgie
Date: 1992

Panel: SP-8
Call#: NSRP 0367
Title: Reference Material for Use During a Workshop on Improved Planning and Shop Loading in Shipyard Production Shops
Author: Various
Date: 1992

Panel: SP-8
Call#: N8-92-03 -- also see section 2.1
Title: Define the Impact of Foreign 'Metric' Ships on Material/Inventory Control in the Shipyard
Date: 1992 (in progress)

Panel: SP-8
Call#: NSRP 0328
Title: Methods Improvement Workshop for the Shipbuilding Industry
Author: National Steel and Shipbuilding Company
Date: 1991

Panel: SP-8
Call#: NSRP 0304 -- also see section 2.1
Title: Optimal Use of Industrial Engineering Techniques in Shipyards
Author: National Steel and Shipbuilding Company
Date: 1989

Panel: SP-8
Call#: NSRP 0305 -- also see section 2.5
Title: Simulation Models for Development of Optimal Material Handling - Phase I, Storage and Distribution
Author: Richard Lee Storch
Date: 1989

Panel: SP-8
Call#: NSRP 0321
Title: The Industrial Perspective - Conference Proceedings Meeting Minutes
Author: Ship Production Committee Panel 8 (SP-8)
Date: 1989

Panel: SP-8
Call#: NSRP 0271
Title: Quality Defects Measurement and Control System
Author: Bath Iron Works Corporation/Marinette Marine Corporation
Date: 1987

Panel: SP-8
Call#: NSRP 0276
Title: Basic Principles of Industrial Engineering
Author: Standards International, Inc.
Date: 1987

Panel: SP-8
Call#: NSRP 0277 -- also see section 2.1
Title: Improved Planning and Shop Loading in Shipyard Production Shops
Author: Robinson-Page-McDonough and Associates, Inc.
Date: 1987

Panel: SP-8
Call#: NSRP 0278 -- also see section 2.1
Title: Developing Scheduling Standards Using Regression Analysis - An Application Guide
Author: Robert J. Graves, University of Massachusetts, and Leon F. McGinnis, Georgia Institute of Technology
Date: 1987

Panel: SP-8
Call#: NSRP 0284 -- also see section 2.1
Title: Feasibility Study of the Application of Operations Research Methods to Solve Complex Shop Scheduling Problems
Author: Peterson Builders, Inc.
Date: 1987

Panel: SP-8
Call#: NSRP 0247 -- also see section 1.3
Title: Problem Solving and Training Guide for Shipyard Industrial Engineers
Author: Corporate Tech Planning, Inc.
Date: 1986

Panel: SP-8
Call#: NSRP 0256
Title: Computer-Assisted Methodology for the Determination of the Optimal Number and Location of Tool Sheds
Author: University of Washington, for Bath Iron Works Corporation
Date: 1986

Panel: SP-8
Call#: NSRP 0356 -- also see section 2.1 and 1.3
Title: Feasibility Study of Small Computer Application of Multi-Trade Scheduling
Author: National Steel and Shipbuilding Company
Date: 1986

Panel: SP-8
Call#: NSRP 0221 -- also see section 1.3
Title: Labor Standards Application Program - Phase IV, Electrical Trade Area
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1985

Panel: SP-8
Call#: NSRP 0233 -- also see section 1.3
Title: Methods/Labor Standards Application Program - Phase IV, Final Report
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1985

Panel: SP-8
Call#: NSRP 0234 -- also see section 1.3
Title: Methods/Labor Standards Application Program - Final Report
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1985

Panel: SP-8
Call#: NSRP 0243 -- also see section 3.2
Title: Outside Machinery Standards - Final Report and Work Management Manual
Author: Ingalls Shipbuilding for Bath Iron Works Corporation
Date: 1985

Panel: SP-8
Call#: NSRP 0244
Title: Tool List Program Feasibility Study
Author: Ingalls Shipbuilding, for Bath Iron Works Corporation
Date: 1985

Panel: SP-8
Call#: NSRP 0245 -- also see section 1.3
Title: Methods Engineering Workshop for the Shipbuilding Industry
Author: Institute of Industrial Engineers
Date: 1985

Panel: SP-8
Call#: NSRP 0222 -- also see section 1.3
Title: Application of Labor Standards for Scheduling, Production Control, and Manpower Leveling
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1984

Panel: SP-8
Call#: NSRP 0235 -- also see section 1.3
Title: Labor Standards Application Program - Blast and Paint Shops - Final Report
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1984

Panel: SP-8
Call#: NSRP 0242 -- also see section 3.2
Title: Engineered Labor Standards in the Manufacture of Sheetmetal Case Good Items
Author: Bath Iron Works Corporation
Date: 1984

Panel: SP-8
Call#: NSRP 0172 -- also see section 2.5
Title: Work Management Manual - Material Handling for Shipyard
Author: Bethlehem Steel Corporation, Sparrows Point, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0175 -- also see section 3.3
Title: Work Management Manual - In-Shop Blast and Paint
Author: Peterson Builders, Inc., for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0186 -- also see section 3.1 and 3.2
Title: Temporary Staging for Shipyards
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0189
Title: Final Report - Back-Up Data for Temporary Staging for Shipyards
Author: Bethlehem Steel Corporation, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0199 -- also see section 2.1
Title: A Primer on an Approach to Planning and Production Control for the Smaller Shipyard
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0232 -- also see section 3.2
Title: Work Management Manual - Sheetmetal Shop Ventilation Components - Phase III (2 Vols.)
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1983

Panel: SP-8
Call#: NSRP 0146 -- also see section 3.1 and 2.3
Title: Shipyard Data Application Program Panel Line Schedule and Manloading Incentive Program
Author: Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0149 -- also see section 3.3
Title: MOST Work Management Manual - Blast and Coat on Platen and Drydock
Author: Newport News Shipbuilding, for Bath Iron Works
Date: 1982

Panel: SP-8
Call#: NSRP 0150 -- also see section 3.1
Title: MOST Work Management Manual - Plate Shop
Author: National Steel and Shipbuilding Company, for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0151 -- also see section 3.1
Title: MOST Work Management Manual - Main Assembly (Vols. I and II)
Author: Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0152 -- also see section 3.2
Title: MOST Work Management Manual - Electrical Work for Shipboard Installation (Vols. I and II)
Author: Peterson Builders, Inc., for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0154 -- also see section 3.1
Title: MOST Work Management Manual - Temporary Staging for Group Assembly and Aboard Ship
Author: Bethlehem Steel Corporation, Sparrows Point, for Bath Iron Works
Date: 1982

Panel: SP-8
Call#: NSRP 0157 -- also see section 2.1
Title: Scheduling Standards Pilot Project Summary Report
Author: Corporate-Tech Planning, Inc., for Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0159
Title: Industrial Engineering Applications in the U.S. Shipbuilding Industry - 1982 Symposium Proceedings
Author: Bath Iron Works Corporation
Date: 1982

Panel: SP-8
Call#: NSRP 0325 -- also see section 2.1
Title: Scheduling Standards Pilot Project - Companion Activity Final Report
Author: Robert Graves and Leon McGinnis
Date: 1982

Panel: SP-8
Call#: NSRP 0123 -- also see sections 3.2
Title: MOST Work Management Manual - Pipe Fabrication Shop
Author: Peterson Builders, Inc., for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0125 -- also see section 3.1
Title: MOST Work Management Manual - Hull Erection
Author: Bay Shipbuilding Corporation, for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0136 -- also see section 2.1
Title: Methods Engineering Workshop for the Shipbuilding Industry
Author: American Institute of Industrial Engineers, for Bath Iron Works
Date: 1981

Panel: SP-8
Call#: NSRP 0101 -- also see section 3.1
Title: MOST Work Management Manual - Steel/Aluminum Small Assembly-I
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-8
Call#: NSRP 0102 -- also see section 3.1
Title: MOST Work Management Manual - General Operations
Author: National Steel and Shipbuilding Company for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0103 -- also see section 3.1
Title: MOST Work Management Manual - Panel Line
Author: National Steel and Shipbuilding Company for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0104 -- also see section 3.1
Title: MOST Work Management Manual - Steel/Aluminum Small Assembly-II
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-8
Call#: NSRP 0111 -- also see section 3.1
Title: MOST Work Management Manual - General Operations
Author: Bay Shipbuilding Corporation, for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0115 -- also see section 3.1
Title: MOST Work Management Manual - Panel Assembly in Platen Area
Author: National Steel and Shipbuilding Company, for Bath Iron Works
Date: 1980

Panel: SP-8
Call#: NSRP 0120 -- also see section 3.1
Title: Work Management Manual - Steel Shell Assembly
Author: Bath Iron Works Corporation
Date: 1980

Panel: SP-8
Call#: NSRP 0073
Title: Shipbuilding Industrial/Production Engineering Workshop Proceedings
Author: American Institute of Industrial Engineers, for Bath Iron Works
Date: 1978

Panel: SP-8
Call#: NSRP 0076
Title: A Manual on Planning and Production Control for Shipyard Use
Author: Corporate-Tech Planning, Inc., for Bath Iron Works
Date: 1978

Panel: SP-8
Call#: NSRP 0200 -- also see section 2.1
Title: Ship Producibility as it Relates to Series Production - Volume II, Ship Design Process
Author: Ingalls Shipbuilding, for Bath Iron Works Corporation
Date: 1975

Panel: SP-8
Call#: NSRP 0201 -- also see section 2.1
Title: Ship Producibility as it Relates to Series Production - Volume III, Ship Production Process
Author: Ingalls Shipbuilding, for Bath Iron Works Corporation
Date: 1975

5.2 Short Courses

Panel: SP-9
Call#: NONE
Title: Short Courses for Shipyard Managers and Workers - Quality Function Deployment, Modern Commercial Shipbuilding Methods, Design/ Production Integration, and Implementing Advanced Technology
Author: T. Lamb, H. Bunch, and M. Spicknall
Date: 1995 and 1996

Panel: SP-9
Call#: NONE
Title: Preparation and Validation of Course material for Implementation of Zone Technology in Ship Repair and Overhaul
Date: 1996