NISA/NRC Bilateral Technical Information Exchange

NRR's
Organizational Improvement Initiatives

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Purpose

- To contribute to the fulfillment of our mutual international bilateral commitments and obligations

- To inform NISA participants of the general concepts of the four major initiatives currently being implemented in NRR

Governing Requirements

- NRC's Mission
  - To regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.
- Strategic Plan
  - As required by the Government Performance and Results Act of 1993.
  - Strategic goals, performance goals, and strategies to achieve the mission are organized into four arenas:
    - Nuclear Reactor Safety
    - Nuclear Materials Safety
    - Nuclear Waste Safety
    - International Nuclear Safety Support

NRC/NRR Strategic Goal

- Performance Goals
  - Strategies
  - Measures

<u>Themes</u>

- Achieving Excellence
- Implementing Continuous Improvement
- Improving Efficiency and Effectiveness

Vehicle for Improvement

NRR has adopted the "Organizational Effectiveness Levels" model

Source: U.S. Nuclear Regulatory Commission in conjunction with Arthur Andersen, Inc.

ORGANIZATIONAL EFFECTIVENESS LEVELS

LEVEL	PROCESS EFFECTIVENESS	EQUIPMENT EFFECTIVENESS	LEADERSHIP EFFECTIVENESS	PEOPLE EFFECTIVENESS
IV	*Redesign of the Process* ♦ Design of experiments	*Total Productivity Time* ♦ Design out repetitive failures	*Situation Leadership* ♦ Executive focus on future needs ♦ Operationally self-directed	*Totally Productive & Purposeful* ♦ Active in optimizing system ♦ Owner / Manager
III	*Processes & Standards Upgraded Systematically* ♦ "Best Practices" defined & used for overall process ♦ Distinctions between process & performance variability with constructive methods for addressing each ♦ Staff using SPC to improve	*Shutdown Patterning* ♦ Predictive maintenance ♦ Understanding of equipment dynamics – monitoring of vibration; use of thermography	*Distributive Leadership* ♦ Focus on improving system ♦ Empowering staff to deliver results & holding them accountable ♦ Both supportive of peers & intolerant of non-performance	*Proactive Player Within System* ♦ Clearly connects work to goals & outcomes ♦ Challenges self & others to improve ♦ Active in recommending improvements to processes & standards
II	*Clearly Defined Standards for Process & Productivity* ♦ Methods for dealing with emergent work ♦ Planned work ♦ Tracking planned vs. actual performance results – analyzing variation of results	*Run Equipment to One Standard* ♦ Preventive maintenance, time-based or routine maintenance ♦ Integrated work planning	*Team Based Leadership* ♦ One set of shared goals & values ♦ Accountable to peers for results & delivering commitments ♦ Leading improvement together *Management* ♦ Directive to standards ♦ Coaches to reduce variability ♦ Sees / challenges connection of work to outcomes ♦ Understands & uses SPC	*Work as Part of a Team/System* ♦ Accepts that performance standards are necessary to optimize the system ♦ Works with peers to build skills to deliver to process & productivity standards ♦ Sees self as part of the "system"
I	*Everybody Does Their Own Thing* ♦ "Individualistic" ♦ "Reactive"	*Breakdown – "It Breaks, We Fix It!"* ♦ Measure – Mean-time to fix (repair) ♦ Reactive to equipment failure	*Individualistic & Experimental* ♦ Reinforces staff loyalty to individual managers ♦ "I'm the key driver – things don't get done right unless I'm involved" ♦ Individual goals and accountability ♦ Accountability to the Boss	*I Need to Watch Out for Myself* ♦ "My way is best" ♦ "If I want things done right, I have to do the work myself – my own way"

The Four Initiatives

- Centralized Work Planning
- Roles and Responsibilities
- Integrated Quality
- Human Capital

Centralized Work Planning Facts

- Began Operation in November, 2002
- Began as an independent initiative
- Recently moved under the new Organizational Effectiveness Branch

Centralized Work Planning Scope

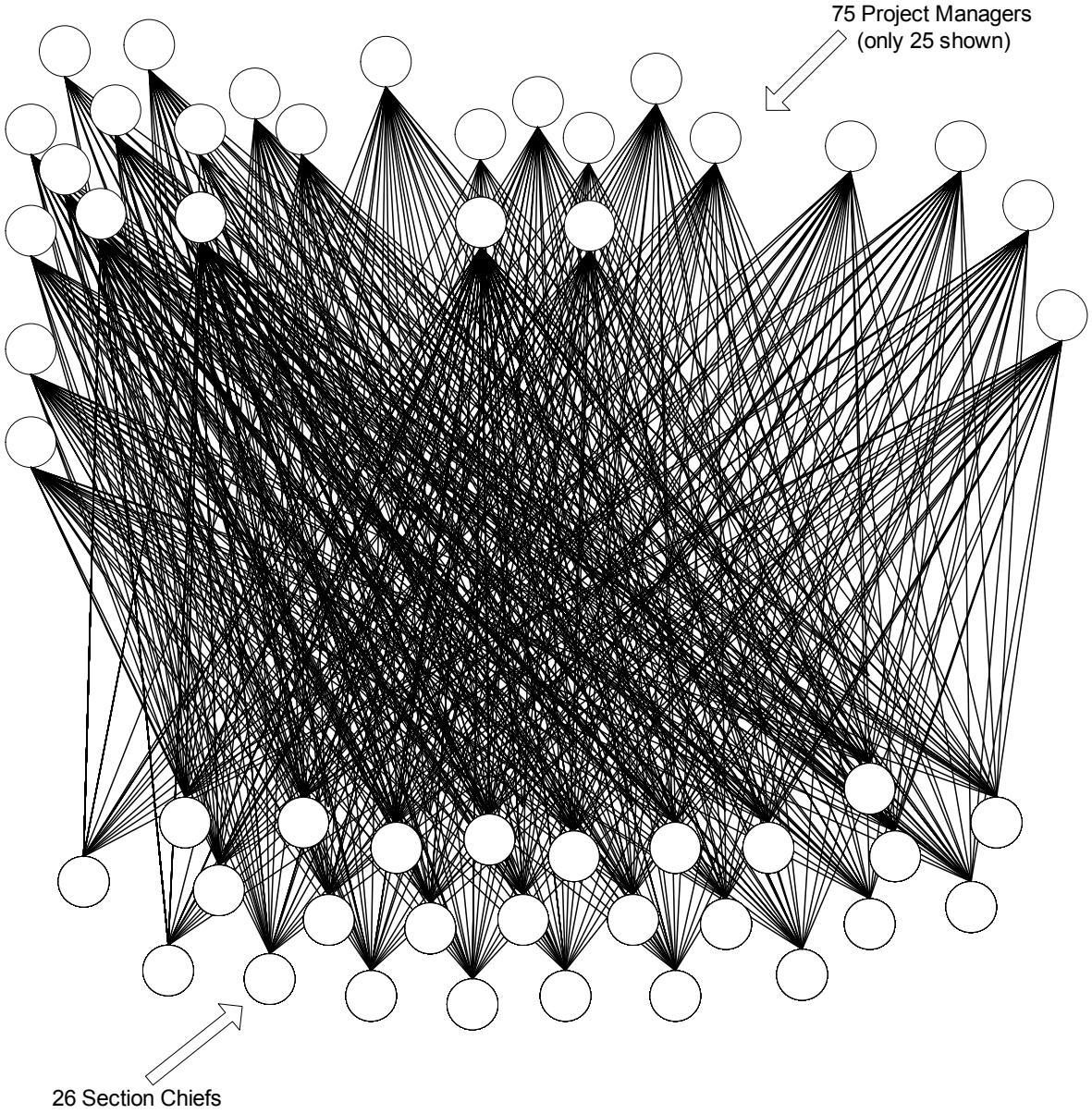
- Processes all License Amendment applications, all applications for Exemption Requests, and all License Renewal applications

- We will continue to add more product lines until virtually all NRR products are in the program

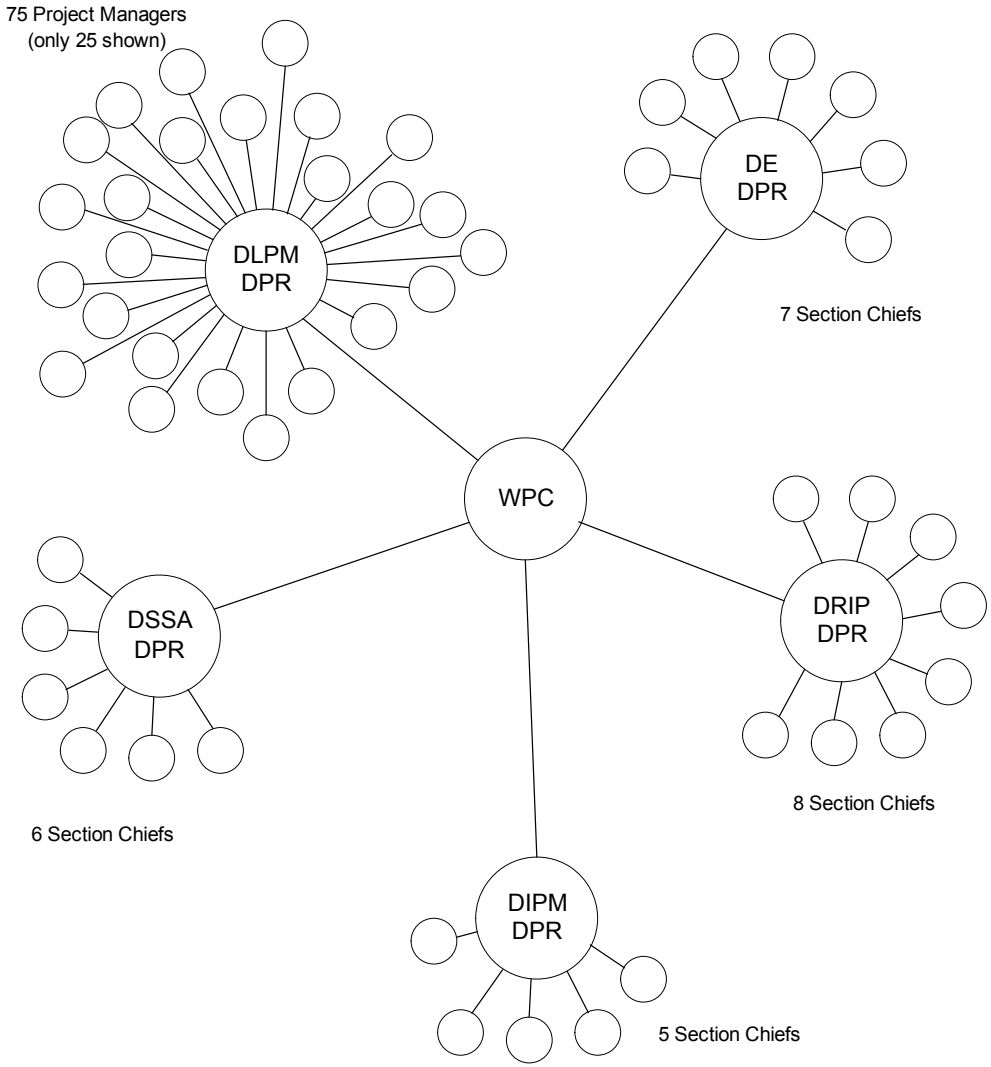
Centralized Work Planning Philosophy

- It is important to each staff member only if it is important to each staff member's supervisor
- Need to give information to each participant in time for them to be successful at their role
- Data should be used only as an opportunity to improve the program

Information Network
Before
Centralized Work Planning Pilot Program



Information Network
After
Centralized Work Planning Pilot Program



Significant Changes to Accomplish Centralized Work Planning

- Infrastructure – virtually no change to the staff
  - Create the position of, and train, the Division Planning Representatives
  - Originate forms, procedures, and instructional documents
  - Design, test, and implement a new database
  - Create office space for the Work Planning Center
  - Staff the Work Planning Center with personnel with the appropriate skills
  - Specify, order and install the appropriate office equipment
- Information flow – highly significant change for the staff
  - Disseminate work from the Work Planning Center
  - Collect forms, data, and review status
  - Report data in customized format for each level of the organization
  - Analyze data for participation, maintenance, and performance

Successes of Centralized Work Planning

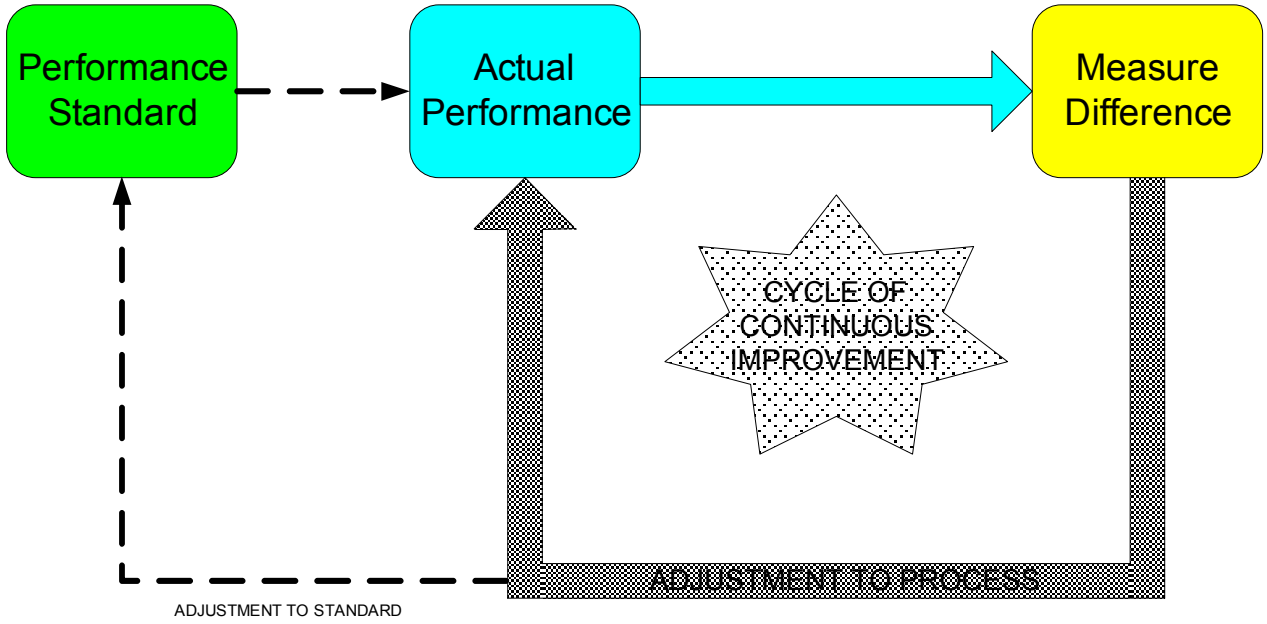
- Successfully changed flow of info through WPC
- Successfully handling large volumes of data
- Shifted the responsibility of Tech Review involvement from PM to Tech Branch/DPR
- Establishing clearer lines of Responsibility among Tech Branches
- Reviewers are looking at work sooner and performing a more thorough up front review/characterization
- Leveraging and disseminating technical expertise
- Training DPRs in the use of tablet PCs
- Increased available review time
- Decreased Labor rate

Lessons Learned

- Set up program to be able to measure the level of participation at each critical stage.
- Have the resources available to capture participation data, create reports, and meet with management to discuss participation.
- Have the resources available to respond to the questions, comments, and criticisms from the staff.

John Harrison 8/2/03

NRR Centralized Work Planning Pilot Program



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Roles and Responsibilities Initiative

- Is currently being designed and developed
- Will identify specific responsibilities of each role in each NRR program
- Which, in turn, will identify informational needs to successfully accomplish each role
- Which, in turn, will identify the performance measures and success of the person in each role
- Needs to take the lead for all other initiatives

Integrated Quality Initiative

- In initial stages of implementation
- Utilizes feedback forms for continuous improvement
  - Solves cultural issue of reluctance to provide critical feedback
  - Ensures that increases in demands and accountability do not compromise quality
  - Should result in improved efficiency
- Needs to be synchronized with CWP Initiative

Human Capital Initiative

- In initial stages of development
- Will identify existing skills
- Will identify needed skills with respect to existing work
- Will need to consider attrition
- Will need to consider trends and the nature of near and long term work
- Will need to develop strategies to train/hire/subcontract those with needed skills in a timely manner

Initiative Interdependency

- Roles & Responsibilities initiative needs to dictate R&R to all participants of all three of the other initiatives
- Centralized Work Planning needs to be synchronized with Integrated Quality
- Centralized Work Planning will eventually be able to identify Human Capital resource needs, and Human Capital resource availability will ultimately determine schedules

Closing Remarks

We have an obligation to ourselves and to all of our stakeholders to become better and to apply the best ideas to do so.

But, as we implement our new ideas through programs and initiatives, we must always maintain an appropriately high level of sensitivity to our staff, whose lives we are affecting the most.

Or, as William Pollard said, "Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable.