DRAFT

Possible Schedule (Industry's draft)

January 20, 2004	NEI - Draft guidance for Pilot's comments	• 99-02	
Mid February 2004	NRC Go/No-go decision NEI - Develop remaining draft guidance	NRC start reviewing guidance • Send out MSPI Implementation Project Plan • 93-01 • "MSPI Primer" document • Basis Document	
March 2004	NEI	Finalize guidance documents	Get NRC final comments and write Rev 0
April 2004 (>2 weeks before Workshop)	NEI - Guidance documents to Workshop attendees		NEI repro and get to workshop attendees
May 5, 2004	Workshop A (National)	1 ½ day workshop w/NRC to cover MSPI derivation, success criteria, system boundaries, active components – breakout sessions by reactor type led by pilot plants. Homework for next workshop is to develop their scope, active components, FVs. Breakout sessions: PRA; By Type. Activities are: • Basic theory • Step-by-step • Lessons Learned (resources) • Homework • TI • Generic PRA insights	Audience: PRA Licensing Systems Engineering Maintenance Rule NRC DivDirectors, Branch Chiefs, SRAs
May - June	NRC Sr Resident Meeting (Regional)	NRC/NEI provide training on program and TI (who inspects what)	NRC Resident Inspectors
June – August	INPO	Issue rules for sorting historical data EPIX	
August 16, 2004	Workshop B (National)	Review homework and get concurrence on scope and components. Breakout by type	Need maximum resident participation attendance

		Presentation on CDE (how to put FVs into CDE etc.) – INPO to provide a "CDE Workshop version" for practice.	
September – October 2004	NRC Residents	NRC conduct TI each plant	
October 2004	INPO	Beta test CDE and get it up and running correctly before start of program. Plants start to enter historical data.	
November 2004	Workshop C (National)	Resolve any final issues with scope and components	Any plant (plant personnel and associated NRC personnel) which still has outstanding TI issues.
January 1, 2005	Program Start		
April 21, 2005	1Q05 data submittal	Historical Data and 1Q05 data submittal under new program	

Mitigating Systems Performance Index
Implementation Project Plan

The Mitigating System Performance Indicator is currently project d to begin implementation January 1, 2005. Implementation will require the completion of certain one-time tasks by each utility. This Project Plan is a summary of the tasks and an estimate of the level of effort required for the completion of each task.

The basic tasks involved in the initial implementation of the MSPI are:
0. Read the guidance and training material, attend workshops.
1. Definition of the specific scope of monitoring for each plant.
2. Calculation and assembly of the required risk information for each plant.
3. Calculation of 3 years of historical data.
4. Documentation and Independent Verification of items1-3.
5. Input and verification of the initial data into CDE.
6. Modification of the applicable administrative controls.
7. Interface with NRC to support inspection activities related to MSPI implementation.

Each of these tasks will be discussed in the section below, along with recommended skills and knowledge required for completion of the task and an estimate of the number of hours for completion of the task.

Project Activities

The tasks listed below define the general level of effort required for implementation of the MSPI at a single unit. For a site with multiple units, the estimates for certain tasks will be less if the units are similar. For example, the results from Task 1 for one unit at a site should be directly applicable to a second similar unit with little additional work. Training on the index will be performed in two workshops, the first one structured as a training session and the second structured as a working meeting used to resolve questions encountered during initial implementation. Each sit should plan on sending a minimum of two persons to each workshop. Depending on job responsibilities at specific sites, it could be necessary to send three people. Each session will take three days, one day of travel and two working days. This time is factored into the effort estimates listed below.

<u>Task 0: Read the guidance and training material, attend workshops..</u>
Task Description: Guidance material will be provided before the first of two workshops that will provide the necessary training.
Resources: This task will require the use of:
  ♦ NEI 99-02 guidance
Knowledge: This task will require personnel with:
  ♦ Detailed knowledge of the PRA (PRA engineer)
  ♦ Plant system knowledge
  ♦ Complete understanding of the guidance in NEI 99-02

Effort: Training: two industry workshops for 2-3 people per site.(6 days per person, including travel time)

Task 1: Definition of the specific scope of monitoring for each plant.

Task Description: The MSPI will monitor the performance of approximately 5 "systems" in each power plant by monitoring the unavailability of individual trains (or other defined subsections of the system) in the systems and the unreliability of specific components within the system. This task involves the identification of systems to be monitored, the definition of the boundary of the "system", the boundaries of the trains within the system to be monitored for unavailability, and the specific components to be monitored for unreliability and success criteria for each..

Resources: This task will require the use of:
- ◆ NEI 99-02 guidance
- ◆ Maintenance Rule Functional Risk Ranking for the system
- ◆ PRA and or design basis success criteria for the systems
- ◆ Simplified P&ID's for the systems

Knowledge: This task will require personnel with:
- ◆ Detailed knowledge of the PRA success criteria for the system (PRA engineer)
- ◆ Detailed knowledge of the operation of the system (PRA engineer, SRO, System Engineer)
- ◆ Understanding of the Maintenance Rule Risk Ranking for the system
- ◆ Complete understanding of the guidance in NEI 99-02

Effort: Task Completion: 40-80 person hours per unit

Product: Sections of the MSPI Basis Document

Task 2: Calculation and assembly of the required risk information for each plant.

Task Description: The MSPI will use information from the plant PRA in the calculation of the performance index. This information will be calculated from importance measures and failure probabilities obtained from the plant PRA. This task also includes completion of the PRA checklist to be used in conjunction with the TI to assess PRA quality.

Resources: This task will require the use of:
- ◆ NEI 99-02 guidance
- ◆ Information from task 1
- ◆ Importance measures and failure probabilities from the plant PRA for the monitored systems.
- ◆ The Plant PRA

Knowledge: This task will require personnel with:
- ◆ Detailed knowledge of the PRA (PRA engineer)
- ◆ Complete understanding of the guidance in NEI 99-02

Effort: Task Completion: 80 person hours per unit

Product: Sections of the MSPI Basis Document

<u>Task 3: Calculation of 3 years of historical data.</u>

Task Description: The MSPI will use a rolling data window of 12 quarters (three years). The unavailability data from the SSU will have to be modified based on the revised accounting rules for the MSPI for the four systems currently monitored. For the cooling water system it will have to be generated from other data sources such as maintenance rule data. Failure, demand and run-time data will be required for the components that are monitored for reliability. This data should currently exist in the EPIX database, but will have to be verified for the MSPI application

Resources: This task will require the use of:
- ◆ NEI 99-02 guidance
- ◆ Information from task 1
- ◆ Failure, demand, run-time and unavailabilty data sources for the monitored systems.

Knowledge: This task will require personnel with:
- ◆ Detailed knowledge of the plant data sources
- ◆ Complete understanding of the guidance in NEI 99-02

Effort: Task Completion: 40 person hours per system

Product: Sections of the MSPI Basis Document

<u>Task 4: Documentation and Independent Verification of items1-3.</u>

Task Description: The results of the first three tasks should be assembled into a reference document that establishes the basis for the MSPI at each plant that is then verified.

Resources: This task will require the use of:
- ◆ NEI 99-02 guidance
- ◆ Information from task 1, 2 and 3.

Knowledge: This task will require personnel with:
- ◆ Detailed knowledge of the PRA (PRA engineer)
- ◆ Knowledge of plant systems (system managers)
- ◆ Complete understanding of the guidance in NEI 99-02

Effort: Completion: 80-120 person hours

Product: The completed MSPI Basis Document

<u>Task 5: Input and verification of the initial data into CDE.</u>

Task Description: The results of tasks two and three should be input into the CDE and verified.

Resources: This task will require the use of:
- ◆ NEI 99-02 guidance
- ◆ Information from task 2
- ◆ Information from task 3.
- ◆ The Plant PRA

Knowledge: This task will require personnel with:
- ◆ Detailed knowledge CDE
- ◆ General understanding of the guidance in NEI 99-02

Effort: Task Completion: 40 person hours per unit.
Product: Populated data fields in CDE

Task 6: Modification of the applicable administrative controls..
Task Description: The ongoing process for the collection of data to support the MSPI, the input of this data to CDE, the validation of the calculated results and revision of plant specific parameters such as PRA data will need to be administratively controlled to the same degree that the current process for SSU reporting is controlled. This will require the revision of the existing procedures that govern the process at each plant.
Resources: This task will require the use of:
                 ♦ NEI 99-02 guidance
Knowledge: This task will require personnel with:
                 ♦ Detailed knowledge CDE
                 ♦ Detailed understanding of the guidance in NEI 99-02
Effort: Task Completion: 80 person hours per site
Product: Revised Administrative Control Procedures

Task 7: Interface with NRC to support inspection activities related to MSPI implementation
Task Description: The MSPI initial inspection activities by the NRC will be defined in a TI that will be implemented by resident inspectors and regional SRAs. It is intended that the MSPI basis document generated by previous tasks will have all the information required to support the inspection activities.
Resources: This task will require the use of:
                 ♦ NEI 99-02 guidance
                 ♦ MSPI Basis Document from tasks 1-4
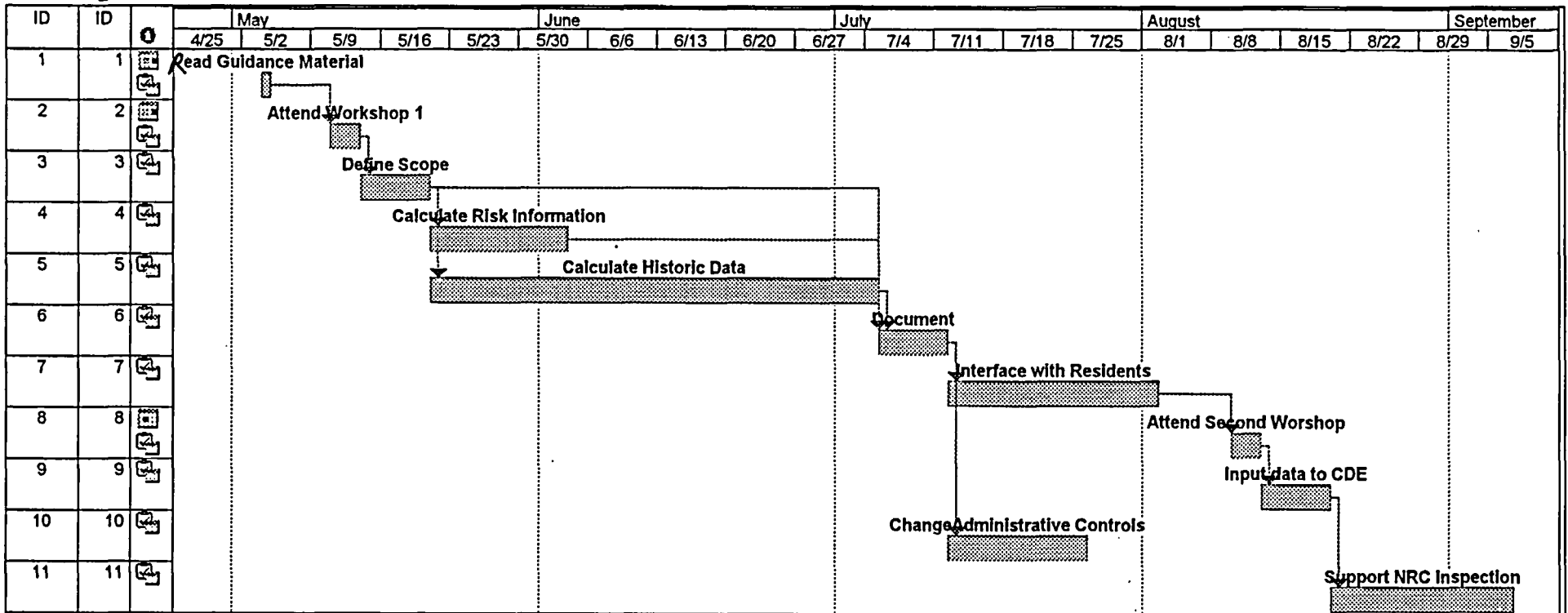Knowledge: This task will require personnel with:
                 ♦ Detailed knowledge CDE
                 ♦ Detailed knowledge of the Plant PRA
                 ♦ Detailed understanding of the guidance in NEI 99-02
Effort: Task Completion: 40-80 person hours
Product: Completed TI.

YKM 1

ID	ID	O	May				June				July				August				September	
			4/25	5/2	5/9	5/16	5/23	5/30	6/6	6/13	6/20	6/27	7/4	7/11	7/18	7/25	8/1	8/8	8/15	8/22	8/29	9/5
1	1		Read Guidance Material																		
2	2			Attend Workshop 1																	
3	3				Define Scope															
4	4					Calculate Risk Information														
5	5						Calculate Historic Data													
6	6												Document							
7	7													Interface with Residents						
8	8															Attend Second Worshop				
9	9																Input data to CDE			
10	10											Change Administrative Controls								
11	11																	Support NRC Inspection		

Task	▓▓▓	Milestone	◆	External Tasks	▓▓▓
Split	....	Summary	◥━━◤	External Milestone	◈
Progress	━━━━	Project Summary	▽━━▽	Deadline	⇩

Project: Project_mspi
Date: Tue 1/20/04

Page 1