

PCG Meeting Project Action Sheet Update For Physical Protection Projects

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Outline

- **Comments**
- **Update on Active Project Action Sheets**
- **Update on New Project Action Sheets**
- **Summary**



Active Project Action Sheets

- ***PP-01 Demonstrations of Physical Protection System Effectiveness and Efficiency Analysis***
- ***PP-02 Guard Post Optimization & Automated Access Control Portal Study***
- ***PP-03 Video Detection & Tracking Testing and Development***
- ***PP-04 Development of Security by Design Handbook for Future Nuclear Facilities***



New Project Action Sheets

- ***PP-05 Planning of the Integrated Support Center***
- ***PP-06 Program for Nuclear Security Training at the Integrated Support Center***
- ***PP-07 Implementation of Nuclear Security Training Courses for the Integrated Support Center***
- ***PP-08 Needs Identification & Development of IT-Aided, Training, Research & Analysis Tools for the Integrated Support Center***



PP-01 Demonstrations of Physical Protection System Effectiveness and Efficiency Analysis

- **Objective**

Compare JAEA and DOE methods and tools that are currently used to perform a comprehensive physical protection system effectiveness analysis on nuclear facilities.



PP-01 Demonstrations of Physical Protection System Effectiveness and Efficiency Analysis

• Tasks and Task Status

Task	Description	Status	Scheduled Start Date	Scheduled End Date*	Completion Date / New End Date
A	Hypothetical Facility Description	Complete	June 1, 2008	Nov. 30, 2008	Nov. 2008
B	Interim Report describing DOE approach to system effectiveness and efficiency analysis	Complete	Oct. 1, 2008	Mar. 30, 2010	March 2010
C	Interim report describing JAEA approach to system effectiveness and efficiency analysis	In process	Feb. 1, 2010	Dec, 31, 2010	March 31, 2011
D	Collaboration on final report that will compare the DOE and JAEA approaches	In process	Oct 1, 2010	Mar. 31, 2011	June 30, 2011

* Per March 2010 PCG Meeting.



PP-01 Demonstrations of Physical Protection System Effectiveness and Efficiency Analysis

- **Activity since last PCG**
 - A review of general methods used in development of Task B was provided to JAEA during a visit to SNL in July 2010.
- **Next Steps**
 - Complete tasks per new schedule
 - Discuss Task C and D reports at proposed meeting, April 2011, in Japan.



PP-02 Guard Post Optimization & Automated Access Control Portal Study

- **Objective**

Apply computer simulation techniques to a hypothetical nuclear facility access control system to explore procedural and technological means for system improvement.



PP-02 Guard Post Optimization & Automated Access Control Portal Study

• Tasks and Task Status

Task	Description	Status	Scheduled Start Date	Scheduled End Date*	Completion Date / New End Date
A	Select portal configurations for analysis	Complete	July 1, 2008	Oct. 31, 2008	Oct. 2008
B	Determine applicable regulations, requirements and standards	Complete	June 1, 2008	Nov. 30, 2008	Nov. 2008
C	Develop simulation model	Complete	July 1, 2008	Jan. 31, 2009	Jan. 2009
D _i	Initial - Conduct baseline simulations to determine and show resource utilization and effectiveness	Complete	Feb. 1, 2009	Feb. 28, 2009	Feb. 2009
D _r	Revised - Conduct baseline simulations to determine and show resource utilization and effectiveness	Complete	Mar. 12, 2009	April 30, 2010	April 30, 2010**
E	Provide upgrade analysis for the representative portals	In progress	Apr. 1, 2010	June 30, 2010	May 31, 2011
F	Complete final report with results and recommendations		July 1 2010	Sept. 30, 2010	August 31, 2011

* Per March 2010 PCG Meeting.

** Discussed at July 2010 meeting in Albuquerque, NM.



PP-02 Guard Post Optimization & Automated Access Control Portal Study

- **Activity since last PCG**
 - Baseline simulation (Task D) was discussed during a visit to SNL in July 2010.
 - [Action Item from March 2010 PCG.] Pursued options to provide JAEA with capability to use the simulation – software and associated training. Due to the cost of the simulation software, a runtime application is probably the best option.
- **Next Steps**
 - Complete tasks per new schedule.
 - JAEA to validate assumptions made in Task D and provide input for Task E the upgrade analysis.
 - If feasible, SNL to provide runtime software and associated training on the simulation to JAEA.



PP-03 Video Detection & Tracking Testing and Development

- **Objective**

Conduct field evaluations of commercial 2D- and SNL 3D-Video Motion Detection systems at a Japanese test bed



PP-03 Video Detection & Tracking Testing and Development

• Tasks and Task Status

Task	Description	Status	Scheduled Start Date	Scheduled End Date*	Completion Date / New End Date
A	Develop Test and Evaluation Procedures	Complete	Dec. 1, 2008	Jan. 31, 2009	Jan. 2009
B	Perform Tests and analyses	Complete	Jan. 1, 2009	June 30, 2010	June 2010
C	Write report with results and recommendations	In process	July 1, 2010	Sept. 30, 2010	June 30, 2011

* Per March 2010 PCG Meeting.

** Discussed at July 2010 meeting in Albuquerque, NM.



PP-03 Video Detection & Tracking Testing and Development

- **Activity since last PCG**
 - System testing was completed in June 2010.
 - SNL equipment was returned in August 2010.
 - Test data and preliminary conclusions were provided during a visit to SNL in July 2010.
- **Next Steps**
 - Complete task per new schedule.



PP-04 Development of Security by Design Handbook for Future Nuclear Facilities

- **Objective**

Develop a Security-by-Design Handbook for use by designers of future nuclear facilities and to be considered for use in developing countries.



PP-04 Development of Security by Design Handbook for Future Nuclear Facilities

• Tasks and Task Status

Task	Description	Status	Scheduled Start Date	Scheduled End Date*	Completion Date / New End Date
A	Review and collect existing physical protection principles and practices	Complete **	June 1, 2009	Aug. 30, 2011	
B	Describe the generic design process steps	Complete **	July 1, 2009	March 31, 2010	
C	Recommend where to apply Task B into the design process framework	In process	Dec. 1 2009	June 30, 2010	March 31, 2011
D	Develop a Security by Design Handbook	In process	July 1, 2010	Dec. 31, 2010	Sept. 30, 2011
E	Develop a Dissemination Plan***		Jan 1, 2012	March 31, 2012	Dec. 31, 2011
F	New Task – Peer Review		Sept. 30 2011	Dec. 31, 2011	

* Per March 2010 PCG Meeting.

** Effectively complete – “raft” to be removed from document.

*** Task added at the March 2010 PCG Meeting



PP-04 Development of Security by Design Handbook for Future Nuclear Facilities

- **Activity since last PCG**
 - Task B report was finalized
 - Task A report was modified to be consistent with Task B report
 - INMM Paper was presented
 - Task C recommendations were discussed during a visit to SNL in July 2010.

- **Next Steps**
 - Complete tasks per new schedule.



PP-05 Planning of the Integrated Support Center

- **Objectives**

- To collaborate on developing a planning basis document for the Center
- SNL to provide subject matter expertise to review the startup and early activities of the Center



PP-05 Planning of the Integrated Support Center

• Tasks

Task	Description	Start Date	End Date
1	Develop a planning document for the Integrated Support center activities.	Feb. 1, 2011	Sept. 30, 2011
1.1	Review planning information and analyze regional needs – Document recommendations for a training program.	Feb. 1, 2011	June 30, 2011
1.2	Meet in Albuquerque, New Mexico – review planning information, tour SNL and initiate planning document.	Mar. 1, 2011	Mar. 30, 2011
1.3	Meet in Japan to discuss planning basis and develop planning document	June 1, 2011	July 31, 2011
1.4.1	Optional meeting 1, as deemed necessary	May 1, 2011	May 31, 2011
1.4.2	Optional meeting 2, as deemed necessary	Sept. 1, 2011	Sept. 30, 2011
2	Monitor and review startup and early activities of the Integrated Support Center	Oct. 1, 2011	Dec. 31, 2012



PP-06 Program for Nuclear Security Training at the Integrated Support Center

- **Objective**

To collaborate in creating a nuclear security curriculum with the goal that the Support Center provides an effective training program that meets user needs on a sustainable basis.



PP-06 Program for Nuclear Security Training at the Integrated Support Center

• Tasks

Task	Description	Start Date	End Date
1	Develop a structured plan for a nuclear security curriculum	Apr. 1, 2011	July 31, 2011
1.1	Perform a preliminary needs analysis for regional users of the Integrated Support Center, per standard instructional design processes.	Apr. 1, 2011	July 31, 2011
1.2	Develop a structured nuclear security curriculum plan.	Apr. 1, 2011	July 31, 2011
2	Collaborate to develop a structured nuclear security curriculum based on the structured plan.	Aug. 1, 2011	Nov. 30, 2012
2.1	Collaborate on development of course summaries.	Aug. 1, 2011	Nov. 30, 2012
2.2	Collaborate on development of course planning documents for nuclear security courses based on the curriculum plan, covering both courses and exercises.	Aug. 1, 2011	Nov. 30, 2012



PP-07 Implementation of Nuclear Security Training Courses for the Integrated Support Center

- **Objective**


To collaborate in implementing nuclear security training courses consistent with the curriculum; implementing a supporting set of exercises for the Integrated Support Center training courses, when applicable; and in exchanging personnel between SNL and JAEA.



PP-07 Implementation of Nuclear Security Training Courses for the Integrated Support Center

• Tasks


Task	Description	Start Date	End Date
1	Collaborate on preparation of an Integrated Support Center course to be presented to the International community, up to and including a Pilot Course.	Apr. 1, 2011	Sept. 30, 2011
2	Participants will collaborate with activities associated with offering courses and expert collaboration.	Aug. 1, 2011	Dec. 31, 2012
2.1	Participants will <ul style="list-style-type: none">• Conduct the course (from Phase 1)• Conduct feedback and review workshop;• Conduct train-the-trainer course• Develop and conduct a second class for the international community	Oct. 1, 2011	Dec. 31, 2012
2.2	An SNL expert may be stationed in Japan to provide consultation support in the nuclear security training and other aspects of the Integrated Support Center for up to one year.	Aug. 1, 2011	July 31, 2012
2.3	Participants may develop a planning document that will identify needs that can be best addressed through exchange programs of U.S. and/or Japanese experts for the purpose of cultivating additional nuclear security training experts.	Jan. 1, 2012	July 31, 2012



PP-08 Needs Identification & Development of IT-Aided, Training, Research & Analysis Tools for the Integrated Support Center

- **Objective**

To collaborate for needs identification and development of Information Technology (IT)-aided training, research and analysis tools for the Support Center



PP-08 Needs Identification & Development of IT-Aided, Training, Research & Analysis Tools for the Integrated Support Center

• Tasks

Task	Description	Start Date	End Date
1	Identify user needs and requirements for IT-aided training, research, and analysis tools for the Integrated Support Center.	Mar. 1, 2011	Sept. 30, 2011
2	If agreed upon, develop, test and field an IT-aided tool.	Oct. 1, 2011	Dec. 31, 2012



Summary

- **Work has continued and will continue on the four existing Project Action Sheets, per the new schedules**
- **Work on new Project Action Sheets will commence as soon as possible.**
 - **Pre-planning meeting to be held after this PCG.**
 - **Visit to SNL scheduled for March 2011**
 - **Review planning information**
 - **Tour SNL test beds**
 - **Initiate outline for planning document**



Conclusion

- Thank you
- Questions?



Backup Slides

PAS-PP01 Schedule

Item	Qtr 2, 2008	Qtr 3, 2008	Qtr 4, 2008	Qtr 1, 2009	Qtr 2, 2009	Qtr 3, 2009	Qtr 4, 2009	Qtr 1, 2010	Qtr 2, 2010	Qtr 3, 2010	Qtr 4, 2010	Qtr 1, 2011	Qtr 2, 2011
	Apr:May:Jun	Jul:Aug:Sep	Oct:Nov:Dec	Jan:Feb:Mar	Apr:May:Jun	Jul:Aug:Sep	Oct:Nov:Dec	Jan:Feb:Mar	Apr:May:Jun	Jul:Aug:Sep	Oct:Nov:Dec	Jan:Feb:Mar	Apr:May:Jun
Demonstration of Physical Protection System Effectiveness and Efficiency Analysis	Task A: Hypothetical facility Description												
		Task B: Interim report describing demonstration of DOE approach to PPS E&E Analysis											
	Task C: Interim report describing demonstration of JAEA approach to PPS E&E Analysis (Duration to be determined by JAEA)							Task D: Final Report describing DOE and JAEA					

PAS-PP02 Schedule

Item	Qtr 2, 2008			Qtr 3, 2008			Qtr 4, 2008			Qtr 1, 2009			Qtr 2, 2009			Qtr 3, 2009			Qtr 4, 2009			Qtr 1, 2010			Qtr 2, 2010			Qtr 3, 2010			Qtr 4, 2010			Qtr 1, 2011			Qtr 2, 2011			Qtr 3, 2011											
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep									
Guard Post Optimization and Automated Access Control Portal Study				Task A: Assessment and analysis of current requirements, guidelines, standards, and regulations																																															
				Task B: Selection of a representative subset of the portal configurations to be used in task A.																																															
				Task C: Development of simulation models for subset of potals identified in task B.																																															
				Task D: Baseline analysis of representative portals.																																															
				Task E: Upgrade analysis of representative potals.																																															
				Task F: Final report describing analysis, results and recommendation																																															
				Task G: Transfer Arena® Portal simulation model to IAEA																																															

PAS-PP03 Schedule

Item	Qtr 4, 2008			Qtr 1, 2009			Qtr 2, 2009			Qtr 3, 2009			Qtr 4, 2009			Qtr 1, 2010			Qtr 2, 2010			Qtr 3, 2010			Qtr 4, 2010			Qtr 1, 2011			Qtr 2, 2011					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			
Video Detection and Tracking Testing and Development																																				
				Task A: Developing test and evaluation procedures																		Task B: Executing test and analysis - 1Year, seasonal variations														
				Task C: Written reports, describing, actions, results, and recommendations																																



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 - **Third level 20 pt**
 - **Fourth level 18pt**
 - **Fifth level 18pt**