

## Exhibit 300 (BY2009)

## PART ONE

## OVERVIEW

1. Date of Submission:	2007-09-10
2. Agency:	429
3. Bureau:	00
4. Name of this Capital Asset:	Reactor Program System (RPS)
5. Unique Project Identifier:	429-00-01-03-01-2000-00
6. What kind of investment will this be in FY2009? Operations and Maintenance	
7. What was the first budget year this investment was submitted to OMB? FY2001 or earlier	
8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap. RPS is a work planning and staff resource management system that provides the NRC staff with reactor inspection and work planning, scheduling, and reporting capabilities. RPS is used as the primary tool to plan and schedule work assignments and inspection activities, and to record inspection findings. RPS supports the NRC's reactor inspection and licensing programs, and is used to schedule inspection activities at operating power reactors, decommissioning reactors, fuel, independent spent fuel facilities, and combined operating licenses. The assignments and schedules entered into RPS are passed electronically to the Human Resources Management System (HRMS) where Time and Labor (T&L) data is collected. RPS retrieves these hours for reporting, budgeting, and planning purposes. In addition to inspection information, RPS also includes plant performance indicators, inspection follow-up items, NRC staff data, facility characteristics, and other reactor regulatory data. The RPS is one of the tools used by NRC managers to assess the effectiveness and uniformity of the implementation of the NRC reactor inspection programs. The NRC's inspection program is an integral part of the Reactor Oversight Process (ROP) and the data is important in providing confidence in the continued protection of the public health and safety. The RPS software was upgraded to PowerBuilder 10.2 this fiscal year. RPS supports the NRC goals and objectives by improving information sharing to decrease response times for actions and improving the quality of decision making related to nuclear power reactor facilities. On August 10, 2007, RPS was certified and the C&A package was sent to the SITSO/DAA for accreditation. RPS supported three programs assessed using OMB's PART: Reactor Inspection and Performance Assessment, Reactor Licensing and Fuel Facility Licensing and Inspection.	
9. Did the Agency's Executive/Investment Committee approve this request? yes	
9.a. If "yes," what was the date of this approval? 2007-08-29	
10. Did the Project Manager review this Exhibit? yes	

11. Project Manager Name:

MacWilliams (RPS), Mike

Project Manager Phone:

301-415-1877

Project Manager Email:

MLM4@NRC.GOV

11.a. What is the current FAC-P/PM certification level of the project/program manager?

Mid/Journeyman-level

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project.

yes

12.a. Will this investment include electronic assets (including computers)?

yes

12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)

no

13. Does this investment directly support one of the PMA initiatives?

yes

If yes, select the initiatives that apply:

Expanded E-Government

Human Capital

13.a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)

Human Capital - RPS improves utilization, efficiency and effectiveness of the NRC staff through better planning, allocating, scheduling and monitoring of work performed. E-Government - Although RPS is not an approved shared service provider or managing partner, it provides a one-stop location for the public to access nuclear reactor information electronically posted on the NRC internet web site.

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?

yes

14.a. If yes, does this investment address a weakness found during the PART review?

no

14.b. If yes, what is the name of the PARTed program?

Reactor Inspection and Performance Assessment

14.c. If yes, what rating did the PART receive?

Effective

15. Is this investment for information technology?

yes

16. What is the level of the IT Project (per CIO Council's PM Guidance)?

Level 1

17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance)

(1) Project manager has been validated as qualified for this investment

18. Is this investment identified as high risk on the Q4 - FY 2007 agency high risk report

(per OMB memorandum M-05-23)?

yes

19. Is this a financial management system?

no

20. What is the percentage breakout for the total FY2008 funding request for the following? (This should total 100%)

Hardware	0
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Software	0
----------	---

Services	100
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Other	0
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21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?

yes

22. Contact information of individual responsible for privacy related questions.

Name

Sandra Northern

Phone Number

301-415-6879

Title

Privacy Program Officer

Email

SSN@NRC.GOV

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?

yes

24. Does this investment directly support one of the GAO High Risk Areas?

no

#### SUMMARY OF SPEND

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated Government FTE Cost, and should be excluded from the amounts shown for Planning, Full Acquisition, and Operation/Maintenance. The total estimated annual cost of the investment is the sum of costs for Planning, Full Acquisition, and Operation/Maintenance. For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

All amounts represent Budget Authority

	PY-1 & Earlier	PY	CY
	-2006	2007	2008
<b>Planning Budgetary Resources</b>		0.035	0.000
<b>Acquisition Budgetary Resources</b>		2.700	0.000
<b>Maintenance Budgetary Resources</b>		5.100	0.850

**Government FTE Cost**  
**# of FTEs**

0.844 0.341 0.420  
7 2 3

Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies).

Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's?

no

**PERFORMANCE**

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative measure. Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding Measurement Area and Measurement Grouping identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at [www.egov.gov](http://www.egov.gov). The table can be extended to include performance measures for years beyond FY 2009.

Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
1	2006 Management	Mission and Business Results	Program Monitoring	Software must meet the regulatory requirements and user needs and inspection requirements. It is not acceptable to be less than 100% compliant.	The RPS is 100% compliance with evolving regulatory requirements.	The RPS maintains 100% compliance with evolving regulatory requirements	RPS maintained 100% compliance with evolving regulatory requirements
2	2006 Openness	Customer Results	Availability	RPS must be available	The RPS is available to 97% during	The RPS is available to 98% of users	RPS was available to 99% of

				normal working hours (7:30 AM - 5:00 PM EST) to provide access to the data. RPS will maintain full compliance with the FISMA to ensure IT security and to reduce risk to the government. RPS software must use vendor supported versions of PowerBuilder and Sybase to reduce risk and provide cost effectiveness. Software must meet the regulatory requirements and user needs and inspection requirements. It is not acceptable to be less than 100% compliant. RPS must be available 97% during	the time	the time	the time
3	2006	Security	Processes and Activities	Security	RPS does not have a current ATO.	RPS will obtain an ATO and meet all FISMA requirements.	RPS operated under an IATO
4	2006	Effectiveness	Technology	Improvement	RPS currently uses vendor supported releases of all software.	Upgrade to new versions of software to ensure software is supported by the software vendor.	All RPS software is a current vendor supported version. All RPS modules were upgraded to PowerBuilder 10.2 in FY06.
5	2007	Management	Mission and Business Results	Program Monitoring	The RPS is 100% compliance with evolving regulatory requirements.	The RPS maintains 100% compliance with evolving regulatory requirements	RPS maintained 100% compliance with evolving regulatory requirements
6	2007	Openness	Customer Results	Availability	The RPS is available to users 97% of	The RPS is available to users 98% of	RPS was available to users 99% of

				normal working hours (7:30 AM - 5:00 PM EST) to provide access to the data.	the time	the time	the time
7	2007 Security	Processes and Activities	Security	The time it takes to respond to high, medium and low categories of POA&M items.	Respond to 'high' category POA&M items within 1 month, 'medium' within 1 quarter and 'low' within 6 months.	Respond to 'high' category POA&M items within 1 week, 'medium' within 1 month and 'low' within 1 quarter.	RPS has respond to 'high' category POA&M items within 1 week, 'medium' within 1 month and 'low' within 1 quarter.
8	2007 Effectiveness	Technology	Improvement	RPS software must use vendor supported versions of PowerBuilder and Sybase to reduce risk and provide cost effectiveness. Software must meet the regulatory requirements and user needs and inspection requirements. It is not acceptable to be less than 100% compliant.	RPS currently uses vendor supported releases of all software.	Upgrade to new versions of software to ensure software is supported by the software vendor.	All RPS software is a current vendor supported version.
9	2008 Management	Mission and Business Results	Program Monitoring		The RPS is 100% compliance with evolving regulatory requirements.	The RPS maintains 100% compliance with evolving regulatory requirements	Pending
10	2008 Openness	Customer	Availability	RPS must be	The RPS is	The RPS is	Pending

		Results		available 97% during normal working hours (7:30 AM - 5:00 PM EST) to provide access to the data.	available to users 97% of the time	available to users 98% of the time	
112008	Security	Processes and Activities	Security	The time it takes to respond to high, medium and low categories of POA&M items.	Respond to 'high' category POA&M items within 1 month, 'medium' within 1 quarter and 'low' within 6 months.	Respond to 'high' category POA&M items within 1 week, 'medium' within 1 month and 'low' within 1 quarter.	Pending
122008	Effectiveness	Technology	Improvement	RPS software must use vendor supported versions of PowerBuilder and Sybase to reduce risk and provide cost effectiveness. Software must meet the regulatory requirements and user needs and inspection requirements. It is not acceptable to be less than 100% compliant.	RPS currently uses vendor supported releases of all software.	Upgrade to new versions of software to ensure software is supported by the software vendor.	Pending
132009	Management	Mission and Business Results	Program Monitoring		The RPS is 100% compliance with evolving regulatory requirements.	The RPS maintains 100% compliance with evolving regulatory requirements.	Pending

142009	Openness	Customer Results	Availability	RPS must be available 97% during normal working hours (7:30 AM - 5:00 PM EST) to provide access to the data.	The RPS is available to users 97% of the time	The RPS is available to users 98% of the time	Pending
152009	Security	Processes and Activities	Security	The time it takes to respond to high, medium and low categories of POA&M items.	Respond to 'high' category POA&M items within 1 month, 'medium' within 1 quarter and 'low' within 6 months.	Respond to 'high' category POA&M items within 1 week, 'medium' within 1 month and 'low' within 1 quarter.	Pending
162009	Effectiveness	Technology	Improvement	RPS software must use vendor supported versions of PowerBuilder and Sybase to reduce risk and provide cost effectiveness.	RPS currently uses vendor supported releases of all software.	Upgrade to new versions of software to ensure software is supported by the software vendor.	Pending

#### EA

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

yes

1.a. If no, please explain why?

The target enterprise architecture is in a draft form presently and has not been approved. However, RPS is identified in the draft target enterprise architecture.

2. Is this investment included in the agency's EA Transition Strategy?



yes

2.a. If yes, provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

The EA Transition Strategy and segment architecture is in a draft form presently and has not been approved. However, RPS is identified in the draft Transition Strategy.

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

no

4. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to <http://www.whitehouse.gov/omb/egov/>.

Component: Use existing SRM Components or identify as NEW. A NEW component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: Internal reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. External reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

Agency Component Name	Agency Component Description	Service Type	Component	Reused Component Name	Reused UPI	Internal External Reuse?	Funding %
1 Process Tracking	RPS provides the capability for planning, scheduling, conducting, reporting, and analyzing inspection activities for U.S. nuclear power facilities	Tracking and Workflow	Process Tracking	Performance Management	429-00-01-01-01-2015-00	Internal	15
2 Case	RPS	Tracking and Case				No	7

	Management	provides the ability to record, track, and close finding from inspections at U.S. nuclear power facilities RPS is used for the	Workflow Management	Management	Reuse	
3	Program / Project Management	management and control of the inspection effort RPS defines the actions, business rules and policy of the Reactor Oversight Process (ROP) RPS is used to help ensure ROP satisfies its intended requirements RPS allows users to access power plant data RPS supports the use of data in a multi-user environment with real-time	Management of Processes	Program / Project Management	No Reuse	7
4	Governance / Policy Management	rules and policy of the Reactor Oversight Process (ROP) RPS is used to help ensure ROP satisfies its intended requirements RPS allows users to access power plant data RPS supports the use of data in a multi-user environment with real-time	Management of Processes	Governance / Policy Management	No Reuse	7
5	Quality Management	ensure ROP satisfies its intended requirements RPS allows users to access power plant data RPS supports the use of data in a multi-user environment with real-time	Management of Processes	Quality Management	No Reuse	4
6	Information Retrieval	users to access power plant data RPS supports the use of data in a multi-user environment with real-time	Knowledge Management	Information Retrieval	No Reuse	4
7	Information Sharing	in a multi-user environment with real-time	Knowledge Management	Information Sharing	No Reuse	2

		replication between 6 servers					
8	Knowledge Capture	RPS facilitates the collection of data and information	Knowledge Management	Knowledge Capture		No Reuse	4
9	Knowledge Distribution and Delivery	RPS distributes information to the system users	Knowledge Management	Knowledge Distribution and Delivery		No Reuse	7
10	Ad Hoc	RPS supports dynamic reporting on an as needed basis	Reporting	Ad Hoc		No Reuse	4
11	Standardized / Canned	RPS has over 100 pre-written reports	Reporting	Standardized / Canned		No Reuse	7
12	Data Exchange	RPS supports the exchange of data between multiple systems	Data Management	Data Exchange	Resource Planning and Allocation	429-00-01-01-02-1005-00 Internal	5
13	Data Mart	RPS maintains a collection of data for near real-time reporting	Data Management	Data Mart		No Reuse	2
14	Extraction and Transformation	RPS supports the manipulation and change of data	Data Management	Extraction and Transformation		No Reuse	2
15	Loading and Archiving	RPS supports loading and archiving data from	Data Management	Loading and Archiving	System Resource Monitoring	429-00-01-04-02-1005-00 Internal	1

		systems inside and external to the NRC RPS						
16	Time Reporting	RPS provides data vital to staff time reporting	Human Resources	Time Reporting	Time Reporting	429-00-01-01-01-2015-00	Internal	8
17	Software Development	RPS maintains its own test environment	Development and Integration	Software Development			No Reuse	1
18	Enterprise Application Integration	RPS supports development by integrating its systems with other systems throughout the NRC RPS	Development and Integration	Enterprise Application Integration	Data Exchange	429-00-01-01-01-2015-00	Internal	5
19	Resource Planning and Allocation	RPS provides the tool for the assignment of employees to support inspection and licensing activities	Human Capital / Workforce Management	Resource Planning and Allocation			No Reuse	1
20	Access Control	RPS controls access to the system	Security Management	Access Control			No Reuse	1
21	Task Management	RPS is used to assign specific tasks to an individual	Collaboration	Task Management	Time Reporting	429-00-01-01-01-2015-00	Internal	3
22	Query	RPS supports the retrieval of data that	Search	Query			No Reuse	1

satisfies  
specific  
query  
selection  
criteria

5. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

	SRM Component	Service Area	Service Category	Service Standard	Service Specification (i.e., vendor and product name)
1	Process Tracking	Component Framework	Data Management	Reporting and Analysis	Sybase PowerBuilder 10.2
2	Case Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
3	Information Retrieval	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
4	Information Sharing	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
5	Knowledge Capture	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
6	Knowledge Distribution and Delivery	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
7	Data Exchange	Service Platform and Infrastructure	Database / Storage	Database	Sybase Adaptive Server Enterprise 12.53
8	Data Mart	Service Platform and Infrastructure	Database / Storage	Database	Sybase Adaptive Server Enterprise 12.53
9	Extraction and Transformation	Service Platform and Infrastructure	Database / Storage	Database	Sybase Adaptive Server Enterprise 12.53
10	Loading and Archiving	Service Platform and Infrastructure	Database / Storage	Database	Sybase Adaptive Server Enterprise 12.53
11	Time Reporting	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2

12	Software Development	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
13	Resource Planning and Allocation	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
14	Access Control	Service Platform and Infrastructure	Support Platforms	Platform Dependent	Sybase PowerBuilder 10.2
15	Task Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
16	Query	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
17	Ad Hoc	Component Framework	Presentation / Interface	Dynamic Server-Side Display	Seagate Crystal Reports 9
18	Quality Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
19	Standardized / Canned	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sybase PowerBuilder 10.2
20	Governance / Policy Management	Component Framework	Data Management	Reporting and Analysis	Sybase PowerBuilder 10.2
21	Program / Project Management	Component Framework	Data Management	Reporting and Analysis	Sybase PowerBuilder 10.2
22	Enterprise Application Integration	Component Framework	Data Management	Database Connectivity	Sybase Adaptive Server Enterprise 12.53

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?

no

### PART THREE

#### RISK

You should perform a risk assessment during the early planning and initial concept phase of the investment's life-cycle, develop a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

yes

1.a. If yes, what is the date of the plan?

2007-08-06

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

no

#### COST & SCHEDULE

1. Was operational analysis conducted?

yes

1.a. If yes, provide the date the analysis was completed.

2007-08-25

What were the results of your operational analysis?

The RPS is a work planning and staff resource management system that provides inspection and work planning, scheduling, and reporting capabilities. RPS is not a system of records and contains no official record information. The RPS is one of the tools used by NRC managers to assess the effectiveness and uniformity of the implementation of the NRC reactor inspection program. The NRC's inspection program is an integral part of the Reactor Oversight Process (ROP) and RPS is important in providing confidence in the continued protection of the public health and safety. RPS data is posted on the external NRC web. RPS is a client-server application written in PowerBuilder with a Sybase data base. It has a production server and warm stand-by server in Headquarters and a server in each of the 4 regional offices. The Sybase replication feature is used to replicate data to all 6 servers. RPS can function as long as one of the six servers is operational. Access to RPS is limited to NRC employees. The PowerBuilder and Sybase database software has been updated as new versions are released by Sybase. The PowerBuilder software is easy to maintain and modify. RPS has been successfully modified to meet all changes in user requirements including the congressional mandated revised ROP. RPS has been at or below the budgeted costs each year since 1997 when the project started. One of the design strategies for RPS was the development of a data base with a single source of data, used by each of the RPS modules. RPS data is also used by 14 other systems at the NRC. Although RPS was designed to be used by NRR and the 4 Regions, 8 other Offices at the NRC are now using RPS. This has resulted in a significant cost avoidance for these Offices. RPS supports 3 PARTS: Reactor Inspection and Performance Assessment (Effective). Reactor Licensing (Moderately Effective). Fuel facilities Licensing and Inspection (Effective). Each region has a RPS Regional Counterpart who is a member of the RPS team. Regional Counterpart meetings are held each quarter to discuss the status of RPS and review proposed enhancements. A survey is conducted each year to obtain user satisfaction data. On August 10, 2007, RPS was certified and the C&A package was sent to the SITSO/DAA for accreditation. Although RPS is functioning as designed and still meets all user requirements, NRC is planning to perform an IV&V of RPS in FY2008 to see if it can be enhanced.

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