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Reactor Oversight Process Budget Overview

November 2018

Mary Anderson

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Per Federal Register / Vol. 83, No. 122 / Monday, June 25, 2018 / Rules and Regulations:

- The Division of Inspection and Regional Support within the NRC's Office of Nuclear Reactor Regulation is also working on a new document that will be made publicly available to explain the highlights and overall structure of the Reactor Oversight Process budget model.

This brief explains the highlights and overall structure of the ROP budget model

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ROP Budget Structure: Preparation

In order to execute the baseline inspection program, the Resident/Senior Resident Inspector (or Regional Inspectors for team inspections) must prepare for the inspection.

- Preparation (prep) activities include but are not limited to:
  - inspection plan development; information requests; licensee discussions; review of information requested in advance of documentation review; research; attending a briefing from resident inspectors; badging / site access, including obtaining dosimetry; and entrance meetings.

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ROP Budget Structure: Inspection

Each bill includes charges from the baseline inspection program governed by the inspection procedures referenced in IMC 2515 Appendix A.

- Each inspection procedure has resource estimates for the hours required to accomplish the associated work (sample/inspection).
  - These inspection procedures are evaluated every two years to ensure that these resource estimates are appropriate.

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ROP Budget Structure: Documentation Cont.

- Documentation activities include but are not limited to:
  - writing inspection reports; review of report inputs and feeders; reviewing reports for final signature; certifying reports and troubleshooting; updating the PIM for this specific inspection report; updating open items; entering inspection data (samples, completion status) into RPS; whole body count; and exit meetings.

Prep/doc activities are an additional ~70% of baseline inspection resource estimates

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ROP Budget Structure: Other Activities

- Travel – Time devoted to traveling to and from a location to perform inspection activity.
- Plant Status – Resident inspectors have a specific responsibility, outside of inspection activities, to be aware of plant conditions on a routine basis. The issues and concerns identified during plant status shall be inspected and charged under the applicable inspection procedure. For additional details and resource estimate, please see IMC 2515, Appendix D.

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ROP Budget Structure: Other Activities

- Reactor Performance Assessment – Time spent evaluating assessment inputs (PIs and findings) and determining follow-up action in accordance with IMC 0305.
- Routine Inspection-Related Communications (must be at a plant-specific bases in order to use this CAC).
  - Examples are: morning plant status call with the sites
  - presenting at the morning meeting
  - discussions with licensing personnel;

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ROP Budget Structure: Other Activities

- Significance Determination Process (SDP):
  - Time spent evaluating the significance of inspection findings using the detailed risk evaluations or flow charts.
- Team inspections vary based off of complexity of issues and other variables.
- There is non-fee billable program support to aid in the execution of inspection.
- Historical data to support these different activities can be found at:
  - *https://www.nrc.gov/docs/ML1727/ML17271A262*.

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ROP Budget Structure: Historical (Site) Hours

			Low	Average	High	
Operating Reactors	Oversight	Baseline Inspections	1,625	2,100	1,863	This is relative to the number of plants, whether the site is a unique site, and/or is a BWR/PWR plant. The estimate also does not include the recent new Design Basis Assurance inspection indicated separately below.
Operating Reactors	Oversight	Inspection Support Activities	2,022	4,954	3,488	Documentation, Preparation, Communication of Inspection, SDP, travel to site and Plant Status. Numbers vary based on Regional and site needs.
Operating Reactors	Oversight	95001	44	70	57	Reactive Inspections do not occur at each plant annually. Hours may range based of the severity of an event.
Operating Reactors	Oversight	95002	122	220	171	
Operating Reactors	Oversight	95003	790	2,117	1,454	
Operating Reactors	Oversight	Other Inspections and Assessment	40	330	185	Includes Event Response, IPE TI/SY, 95003 Follow-Up, IMC 0350, NRR Funded ISFSI Inspection, Assessment and Public Outreach

The values range for significantly number of plants, severity/complexity of issues etc.

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ROP Budget Structure: Historical (Site) Hours

			Low	Average	High	
Operating Reactors	Oversight	Design Basis Assurance (DBA) Inspection: Inspection Procedures 71111.21M and 71111.21N	765	1,035	900	The DBA inspection is new and was first implemented the beginning of CY17. As such these are preliminary estimates. When additional actual data becomes available these estimates may be revised. The DBA inspection is a triennial inspection.

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ROP Budget Structure: FY18 Fee Rule

Consistent with 10 C.F.R. § 170.12(c)(1), resident inspectors are using new CACs to ensure that inspection fees will be assessed to "recover full cost for each resident inspector (including the senior resident inspector), assigned to a specific plant or facility." As further noted by § 170.12(c)(1), inspection fees are "based on the number of hours that each inspector assigned to the plant or facility is in an official duty status (*i.e.,* all time in a non-leave status), excluding time spent by a resident inspector in support of activities at another site."

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Back Up Slides

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Sample Invoice (Old)

Billing Details:

Docket #: 05000456 **License #:** DPR-02

PART 170:

CAC/IR Number	CAC/IR Name	Pay Period End Date	Regular Hours	Non-Regular Hours	Hour Rate	Hourly Costs	Contract Costs	Total Costs
Inspection Report Details								
2016006/05000456	2016006/05000456	Feb 4, 2017	12.00	0.00	$265.00	$3,180.00	$0.00	$3,180.00
2016006/05000456	2016006/05000456	Feb 18, 2017	8.00	0.00	$265.00	$2,120.00	$0.00	$2,120.00
2016006/05000456	2016006/05000456	Mar 4, 2017	0.75	0.00	$265.00	$198.75	$0.00	$198.75
2016501/05000456	2016501/05000456	Jan 21, 2017	0.50	0.00	$265.00	$132.50	$0.00	$132.50
2017001/05000456	2017001/05000456	Jan 7, 2017	21.25	0.00	$265.00	$5,631.25	$0.00	$5,631.25
2017001/05000456	2017001/05000456	Jan 21, 2017	52.50	0.00	$265.00	$13,912.50	$0.00	$13,912.50
2017001/05000456	2017001/05000456	Feb 4, 2017	100.25	3.00	$265.00	$27,361.25	$0.00	$27,361.25
2017001/05000456	2017001/05000456	Feb 18, 2017	77.25	0.00	$265.00	$20,471.25	$0.00	$20,471.25
2017001/05000456	2017001/05000456	Mar 4, 2017	52.75	0.00	$265.00	$13,978.75	$0.00	$13,978.75
2017001/05000456	2017001/05000456	Mar 18, 2017	60.00	0.00	$265.00	$15,900.00	$0.00	$15,900.00
2017002/05000456	2017002/05000456	Mar 18, 2017	1.75	0.00	$265.00	$463.75	$0.00	$463.75
2017003/05000456	2017003/05000456	Feb 18, 2017	3.00	0.00	$265.00	$795.00	$0.00	$795.00
2017008/05000456	2017008/05000456	Jan 21, 2017	20.50	0.00	$265.00	$5,432.50	$0.00	$5,432.50
2017008/05000456	2017008/05000456	Feb 4, 2017	91.50	9.00	$265.00	$26,632.50	$0.00	$26,632.50
2017008/05000456	2017008/05000456	Feb 18, 2017	86.25	9.75	$265.00	$25,440.00	$0.00	$25,440.00
2017008/05000456	2017008/05000456	Mar 4, 2017	5.00	0.00	$265.00	$1,325.00	$0.00	$1,325.00
2017009/05000456	2017009/05000456	Feb 4, 2017	12.00	0.00	$265.00	$3,180.00	$0.00	$3,180.00
2017009/05000456	2017009/05000456	Feb 18, 2017	12.50	0.00	$265.00	$3,312.50	$0.00	$3,312.50
2017009/05000456	2017009/05000456	Mar 4, 2017	12.00	0.00	$265.00	$3,180.00	$0.00	$3,180.00
2017009/05000456	2017009/05000456	Mar 18, 2017	76.00	5.00	$265.00	$21,465.00	$0.00	$21,465.00
2017501/05000456	2017501/05000456	Feb 4, 2017	0.50	0.00	$265.00	$132.50	$0.00	$132.50
Adjustments								
No Adjustments Found								
Total IR Due for Docket			**735.75**	**26.75**		**$202,062.50**	**$0.00**	**$202,062.50**

Invoice Details for Inspection Before January 2018

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Sample Invoice (New)

EPID (Enterprise Project Identifier): An umbrella code for each licensing action, inspection report or project. The numbering schema begins with the letter corresponding to the type of EPID (e.g., I=inspection and L=licensing and certification); followed by the calendar year in which the work began; the inspection report number or project subtype; and ends with a 4-digit system-generated number to ensure the code is unique.*

NRC Staff Name: The name of the NRC employee that performed work.

Contractor: The contractor that performed work.

Billing Details:

Docket #: 05000123 License #

EPID #: I-2018-501-0003 EPID Name: Q1 Baseline Inspection

CAC #: 000475 CAC Name: FB-OR-EP ASSESSMENT (ESM)

NRC Staff Name	Pay Period End Date	Hourly Rate	Hours	
Doe, John	Jan 15, 2018	$263	16.5	
Smith, Jane	Jan 15, 2018	$263	30.0	7,890.00
Williams, Matt	Jan 15, 2018	$263	16.5	4,339.50
Patel, Vishi	Jan 15, 2018	$263	30.0	7,890.00
Smith, Ted	Jan 15, 2018	$263	16.5	4,339.50
Melvin, Craig	Jan 15, 2018	$263	30.0	7,890.00

Contractor	Pay Period End Date	Contract Cost
ACME, Inc.	Jan 15, 2018	5,000.00
ABC Corp.	Jan 15, 2018	5,000.00
Ace Place	Jan 15, 2018	5,00

CAC Total: 139.5 ,088.50

CAC #: 000481 CAC Name: FB-OR-EP SIGNIFICANCE DETERMINATION PROCESS (SDE)

NRC Staff Name	Pay Period End Date	Hourly Rate	Hours	Hourly Cost
Doe, John	Jan 15, 2018	$263	16.5	4,339.50
Smith, Jane	Jan 15, 2018	$263	30.0	7,890.00
Williams, Matt	Jan 15, 2018	$263	16.5	4,339.50
Patel, Vishi	Jan 15, 2018	$263	30.0	7,890.00

CAC Total: 93.0 $ 24,459.00

EPID Total: $ 76,147.50

Page Break

CAC (Cost Activity Code): CACs are now standardized and reusable, allowing the same code to be used on a number of projects for the same type of work. CACs are no longer specific to a project or site.

EPID Total: Total of all charges under the EPID for the invoice period. The EPID allows the grouping of costs for a single project so that costs are no longer commingled within the invoice for multiple projects.