

# EGAN, FITZPATRICK, MALSCH & LAWRENCE, PLLC

Counselors at Law

www.nuclearlawyer.com  
Joseph R. Egan (1954-2008)

CASE NO: 2016-0496

DATE REC'D: 6/6/16

SPECIALIST: S. BRITT

RELATED CASE: 2016-0393

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Albuquerque, NM 87109  
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June 6, 2016

## VIA EMAIL

FOIA/Privacy Act Officer  
U.S. Nuclear Regulatory Commission  
Mail Stop T-6 D8  
Washington, D.C. 20555-0001

Re: Freedom of Information Act — Request for Documents

To Whom It May Concern:

Pursuant to the Freedom of Information Act (“FOIA”), 55 U.S.C. 552, please provide all documents<sup>1</sup> in your possession meeting the following descriptions, with respect to NUREG/CR-7209 (“A Compendium of Spent Fuel Transportation Package Response Analyses to Severe Fire Accident Scenarios”), whose preparation is referred to below as “the project” or “NRC Job Code J5710” [note: this is **not** an appeal of my prior March 21, 2016 FOIA request which NRC denominated FOIA 2016-0303; NRC’s May 6, 2016 FOIA response (attached as Exhibit A) was vastly inadequate, but the undersigned requester has concluded that **this** FOIA request may be a faster and less expensive alternative, rather than appealing the prior FOIA to the same federal agency which previously responded poorly; the comments in “[ ]” below are comments of the requester, clarifying the inadequacies of the prior response]:

1. All documents related to the history of the project, including all documents discussing the initial decision to summarize studies of truck and rail transport accidents involving fires, relative to regulatory requirements for shipment of commercial spent nuclear fuel, the selection of the contractor, all communications to and from any potential or actual contractor, the original project schedule, or the actual start work date and conclusion. [NRC’s May 6, 2016 response did not provide **any** documents in answer to this request, and accordingly, it is repeated verbatim; for your information, the requester’s earlier March 21, 2016 FOIA

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request is attached as Exhibit B. Focused additional requests below are not posed **instead** of item number 1, but in the interest of specificity.]

2. All requests for proposals or other solicitations of interest or invitations to bid to participate in the project, or NRC Job Code J5710.
3. All responses to requests for proposals or other solicitations of interest or invitations to bid to participate in the project, or NRC Job Code J5710.
4. All communications relating to the project or NRC Job Code J5710 sent or received by any employee of NRC, or any actual or potential contractor to perform work on the project, or NRC Job Code J5710.
5. All criteria, guidelines, or methodology prescribed by NRC for the identification or selection of the studies or analyses of truck or rail accidents involving fires in the transport of spent nuclear fuel (SNF) addressed in the project, or NRC Job Code J5710.
6. All criteria, guidelines, or methodology employed by Pacific Northwest National Laboratory (“PNNL”) or other non-NRC entity for the identification or selection of the studies or analyses of truck or rail accidents involving fires in the transport of spent nuclear fuel (SNF) addressed in the project, or NRC Job Code J5710.
7. All documents related to or disclosing the total cost of, and/or budget details for, the project, including contractor costs and NRC staff costs. [Requester has attached as Exhibit C a Monthly Letter Status Report prepared by PNNL (the same vendor engaged by NRC (NRC Job Code J5710) in connection with the analysis used by NRC in NUREG/CR-7209) in a different project; the attached PNNL Monthly Report predictably included a seven-page detailing of costs incurred in that (different) project; presumably the heavily redacted monthly reports from PNNL, which were the **only** documents produced by NRC in its May 6, 2016 FOIA response, each contained similar cost information; this was specifically requested by requester (see Exhibit B, request number 3), but **all** of it has apparently been redacted as “outside of scope.” It was **not** out of scope, obviously, but is again requested in **this** FOIA request.]
8. Complete copies of every page of the 11 PNNL monthly letter reports (on NRC Job Code J5710), which were provided in heavily redacted form on May 6, 2016. Those reports were for the following months: May through December 2014, except for November 2014; and January, February, March, and September 2015. [Note: There is a discrepancy between the “JCN5701” job number recited by

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June 6, 2016

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PNNL in its monthly reports and the JCN5710 used by NRC. Accordingly, the requester uses JCN5710 throughout.]

9. Complete copies of every page of every **other** periodic progress report (other than those listed in number 8 above) submitted by PNNL on “the project.” [Those heavily redacted reports which were provided stated a “Period of Performance” beginning January 1, 2012, some two and one-half years before the first monthly progress report provided by NRC with its May 6, 2016 FOIA response, specifically the May 2014 PNNL monthly report.]
10. All communications between any employee of NRC and any employee of PNNL relating to “the project.”
11. All communications between any employee of NRC and any employee of any entity other than PNNL, relating to the project (including, but not limited to, any potential contractor for the project).
12. Each draft of any report submitted by PNNL to the NRC (attached as Exhibit D is a page excerpted from the September 2015 monthly report on the project by PNNL, which refers to one such draft submitted by PNNL to NRC).
13. All documents related to any peer review of the report by any non-NRC person or entity, including selection of peer reviewers, cost of peer review, peer review comments, and/or resolution of any concerns raised during peer review. [No responsive documents were produced to an identical request in NRC’s May 6, 2016 response.]
14. All documents related to or containing any comments by NRC staff members as part of its review, or NRC staff comments in addition to any peer review. [NRC’s May 6, 2016 FOIA response included **no** documents responsive to an identical request; but as proven by the words of Exhibit D, PNNL stated “initial NRC staff comments from NRC staff were received on August 18, 2015. . . .” Such NRC Staff comments were previously requested, but **none** were provided.]
15. A copy of the basic contract for services relating to the project between PNNL and NRC (NRC Job Code J5710).
16. A copy of each modification of the basic contract referred to in number 10 above. [Requester believes there were at least 13 modifications to the contract.]

This request is made on behalf of the State of Nevada.

EGAN, FITZPATRICK, MALSCH & LAWRENCE, PLLC  
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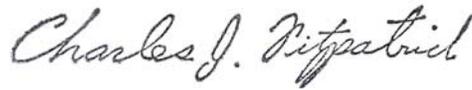
June 6, 2016

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The requesting party is willing to pay up to a total amount of \$1,000 for search time and document copying costs without the necessity for further approval. The requesting party has specifically made this request as narrow as possible in order to facilitate expeditious and timely response by NRC.

Thank you for your prompt attention to this request. If you have any questions, please do not hesitate to contact me.

Sincerely,



Charles J. Fitzpatrick

CJF:sd

Enclosures

cc: Mr. Bob Halstead (via email)  
Belinda A. Suwe, Esq. (via email)  
Marta A. Adams, Esq. (via email)  
Mr. Roger Andoh (via email)

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<sup>1</sup> "Documents," in this regard, should be given the broadest possible interpretation, to include, without limitation, all electronic documents and hard copies, tapes, CD-ROMs, notes, letters, papers, books, reports, graphics, studies and files, together with any associated compilations.

# **Exhibit A**



# RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

FOIA 2016-0393

1

RESPONSE TYPE  INTERIM  FINAL

**REQUESTER:**

Charles J. Fitzpatrick

**DATE:**

05/06/2016

**DESCRIPTION OF REQUESTED RECORDS:**

All documents meeting the listed descriptions, with respect to NUREG/CR-7209 ("A Compendium of Spent Fuel Transportation Package Response Analyses to Severe Fire Accident Scenarios")

### PART I. -- INFORMATION RELEASED

- Agency records subject to the request are already available in public ADAMS or on microfiche in the NRC Public Document Room.
- Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Comments.

### PART I.A -- FEES

AMOUNT\*

\$

1,690.80

- You will be billed by NRC for the amount listed.
- None. Minimum fee threshold not met.
- You will receive a refund for the amount listed.
- Fees waived.

\*See Comments for details

### PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- We did not locate any agency records responsive to your request. Note: Agencies may treat three discrete categories of law enforcement and national security records as not subject to the FOIA ("exclusions"). 5 U.S.C. 552(c). This is a standard notification given to all requesters. It should not be taken to mean that any excluded records do, or do not, exist.
- We have withheld certain information pursuant to the FOIA exemptions described, and for the reasons stated, in Part II.
- Because this is an interim response to your request, you may not appeal at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue our final determination.
- You may appeal this final determination within 30 calendar days of the date of this response by sending a letter or email to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or [FOIA.Resource@nrc.gov](mailto:FOIA.Resource@nrc.gov). Please be sure to include on your letter or email that it is a "FOIA Appeal."

### PART I.C COMMENTS ( Use attached Comments continuation page if required)

The attached are the results of the search after your discussion with staff that you sought any background information as to the planning, funding and review of NUREG/CR-7209 and not the drafting of the same.

The incoming request will be made available in ADAMS as ML16081A180. Records with an ML accession number are publicly available in the NRC's Public Electronic Reading Room at <http://www.nrc.gov/reading-rm.html>. If you need assistance in obtaining these records, please contact the NRC's Public Document Room (PDR) at 301-415-4737, or 1-800-397-4209, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov).

SIGNATURE - FREEDOM OF INFORMATION ACT OFFICER

*Roger Andoh*

FOIA 2016-0393

1

**RESPONSE TO FREEDOM OF INFORMATION  
ACT (FOIA) REQUEST Continued**

RESPONSE  
TYPE

INTERIM

FINAL

REQUESTER:

Charles J. Fitzpatrick

DATE:

05/06/2016

**PART I.C COMMENTS (Continued)**

\*The fees have been paid in advance.

# **Exhibit B**

# EGAN, FITZPATRICK, MALSCH & LAWRENCE, PLLC

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4801 Lang Ave., N.E. · Suite 110  
Albuquerque, NM 87109  
Tel: 505.610.8564

March 21, 2016

### VIA EMAIL

FOIA/Privacy Act Officer  
U.S. Nuclear Regulatory Commission  
Mail Stop T-6 D8  
Washington, D.C. 20555-0001

Re: Freedom of Information Act — Request for Documents

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1. All documents related to the history of “the project,” including all documents discussing the initial decision to summarize studies of truck and rail transport accidents involving fires, relative to regulatory requirements for shipment of commercial spent nuclear fuel, the selection of the contractor, all communications to and from any potential or actual contractor, the original project schedule, or the actual start work date and conclusion;
2. All documents and communications related to any direct involvement by members of the Commission in this project;
3. All documents related to or disclosing the total cost of, and/or budget details for, the project, including contractor costs and NRC staff costs;
4. All documents related to any peer review of the report by any person or entity, including selection of peer reviewers, cost of peer review, peer review comments, and/or resolution of any concerns raised during peer review; and

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Counselors at Law

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March 21, 2016

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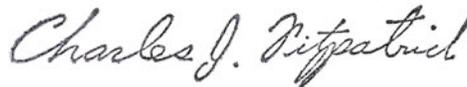
5. All documents related to or containing any comments by NRC staff members as part of the peer review, or NRC staff comments in addition to the peer review.

This request is made on behalf of the State of Nevada.

The requesting party is willing to pay up to a total amount of \$1,000 for search time and document copying costs without the necessity for further approval. The requesting party has specifically made this request as narrow as possible in order to facilitate expeditious and timely response by NRC.

Thank you for your prompt attention to this request. If you have any questions, please do not hesitate to contact me.

Sincerely,



Charles J. Fitzpatrick

CJF:sd

cc: Mr. Bob Halstead (via email)  
Belinda A. Suwe, Esq. (via email)  
Marta A. Adams, Esq. (via email)

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# **Exhibit C**

JCN - J5167

MONTHLY LETTER STATUS REPORT  
For April 2002

Project Title: Spent Fuel Review Assistance  
Period of Performance: February 3, 1997 - September 30, 2003  
JCN: J5167  
PNNL Project Manager: M. A. Khaleel (509-375-2438)  
Address: PO Box 999, Mail Stop K2-18  
Richland, WA 99352  
Facsimile: 509-375-6605  
NRC Project Manager: P. Kinney (301-415-7805)  
NRC Technical Monitor: C. Bajwa (301-415-1237)

Project Objective: The objective of this project is to conduct safety and environmental reviews and development of regulatory guidance related to Independent Spent Fuel Storage Installations and Dry Cask Storage facilities.

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Task Orders 1, 2, 3, 4, 5, 6, 7, 8, & 9 COMPLETED

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Task #10

Title: ADVANCED NUHOMS THERMAL ANALYSIS

JCN: J5167

PNNL Task Manager: T. E. Michener (509-375-2162)  
NRC Technical Monitor: C. Bajwa (301-415-1237)

OBJECTIVE

The objective of this task is to perform thermal-hydraulic calculations of the Advanced NUHOMS cask system design in order to determine the thermal responses of the Pressurized Water Reactor (PWR) Westinghouse 14x14 fuel cladding, canister components (24PT1-DSC), and the Advanced Horizontal Storage Module (AHSM) under normal, off-normal, and accident conditions which also includes transfer, vacuum-drying and backfilling operations, and conditions as directed by the SRP (NUREG-1536).

PROGRESS DURING REPORTING PERIOD

During the month of April PNNL continued to provide support for the TN 32 assembly DSC application. This included performing sensitivity analyses with the COBRA-SFS and ANSYS computer codes to try and provide insight as to why the applicants temperature predictions were over 100°F higher than our predictions. Our conclusion was that the TN model was incorrectly formulated.

The Star-CD tip over of the Hi-Storm cask was completed and the results provided to Michael Waters of the NRC

1  
A/1

TRAVEL

None.

REPORT, PAPERS, AND PUBLICATIONS

None.

ANTICIPATED AND ENCOUNTERED PROBLEM AREAS

None.

PLANS FOR NEXT REPORTING PERIOD

April will be the last month for activities under this task. Any additional supporting work in this area will be performed under Task 12.

FINANCIAL STATUS AND VARIANCE ANALYSIS

See attached financial status report. The cost and funding information reported on the Cost Status by Element Table includes the necessary adjustments to account for the DOE Adder. All other cost information reflects only the Pacific Northwest National Laboratory costs and does not include the DOE Adder.

No additional funds remain on this task order.

PROPERTY AND SOFTWARE

None.

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**Task #11**

Title: THERMAL-HYDRAULIC ANALYSIS CODE VERIFICATION TECHNICAL SUPPORT

JCN: J5167

PNNL Task Manager: T. E. Michener (509-375-2162)  
NRC Technical Monitor: C. Bajwa (301-415-1237)

OBJECTIVE

The objective of this task is to provide SFPO technical staff assistance in validating the ANSYS computer program for thermal-hydraulic analyses of dry storage casks and to provide technical assistance in the area of thermal-hydraulic modeling techniques.

PROGRESS DURING REPORTING PERIOD

PNNL continued to provide support to NRC staff on general ANSYS modeling approaches and potential new work scope, in addition to providing technical reviews on an as requested basis.

TRAVEL

None.

REPORT, PAPERS, AND PUBLICATIONS

None.

ANTICIPATED AND ENCOUNTERED PROBLEM AREAS

None.

PLANS FOR NEXT REPORTING PERIOD

This task will be completed by May 1, 2002. All new support in this area will be performed under Task 12.

FINANCIAL STATUS AND VARIANCE ANALYSIS

See attached financial status report. The cost and funding information reported on the Cost Status by Element Table includes the necessary adjustments to account for the DOE Adder. All other cost information reflects only the Pacific Northwest National Laboratory costs and does not include the DOE Adder.

Funds currently allocated to this task have been spent.

PROPERTY AND SOFTWARE

None.

**Task #12**

**Title: Development and Analysis of Spent Fuel and Radioactive Material Cask Models for Casework Evaluations**

JCN: J5167

PNNL Task Manager: T. E. Michener (509-375-2162)  
NRC Technical Monitor: C. Bajwa (301-415-1237)

**OBJECTIVE**

The objective of this task order is to provide package analyses in support of ongoing casework using the ANSYS, ANSYS LS-DYNA FEA, COBRA-SFS, and Star-CD packages.

**PROGRESS DURING REPORTING PERIOD**

Work on this new task was initiated in April. PNNL staff performed a review of the MP-197 SAR, latest round of thermal related RAI's issued to the NRC, and the associated NCT and HAC analytical models provided by Transnuclear.

Comments were provided on two line items lacking proper conservatism, followed by reviewed Transnuclear's response concerning these items. An additional item in the form of a model error was discovered on the last submittal. TN has yet to correct and submit for final review.

We also reviewed/commented on the MP-197 SER documentation generated by NRC staff. Development of the Holtec HiStar 100 thermal model to be used for the Baltimore tunnel fire evaluation and future HAC criteria establishment was initiated in April.

**TRAVEL**

None.

**REPORT, PAPERS, AND PUBLICATIONS**

None.

**ANTICIPATED AND ENCOUNTERED PROBLEM AREAS**

None.

**PLANS FOR NEXT REPORTING PERIOD**

We will continue to support all ongoing efforts describe above and will respond to requests for support as directed by the NRC technical monitor.

FINANCIAL STATUS AND VARIANCE ANALYSIS

See attached financial status report. The cost and funding information reported on the Cost Status by Element Table includes the necessary adjustments to account for the DOE Adder. All other cost information reflects only the Pacific Northwest National Laboratory costs and does not include the DOE Adder.

PROPERTY AND SOFTWARE

None.

SPENT FUEL REVIEW ASSISTANCE

M. A. Khaleel  
 (509) 375-2438  
 April 2002

|  | <u>Current<br/>Month</u> | <u>FYTD</u>      | <u>Cumulative<br/>To Date</u> |
|--|--------------------------|------------------|-------------------------------|
| I. Direct Staff Labor Hours                        | 284.0                    | 2,189.5          | 13,519.7                      |
| II. Direct Salaries                                | 16,102                   | 131,844          | 698,505                       |
| Materials & Services (Excluding ADP)               | 0                        | 1,498            | 6,380                         |
| ADP Support  | 0                        | 0                | 0                             |
| Subcontracts                                       | 0                        | 0                | 57,316                        |
| Travel Expenses                                    | 0                        | 3,274            | 44,083                        |
| Indirect Labor Costs                               | 6,804                    | 58,223           | 306,085                       |
| Other Direct Costs                                 | 1,261                    | 10,687           | 72,902                        |
| G&A, Nuclear, and Serv Assmt                       | 10,918                   | 92,217           | 516,629                       |
| <b>Total PNNL Costs</b>                            | <b>\$35,085</b>          | <b>\$297,743</b> | <b>\$1,701,899</b>            |
| Percent Spent                                      |                          | 70%              | 93%                           |
| <b>Total Costs to NRC<br/>(Includes DOE Adder)</b> | <b>\$36,138</b>          | <b>\$306,675</b> | <b>\$1,756,734</b>            |

III. Overall Funding Status

PNNL Available Funding (Adjusted: Reflects DOE Adder Initiated in FY92)

| <u>Total<br/>JCN Funding</u> | <u>Prior FY<br/>Carryover</u> | <u>FY02 Projected<br/>Funding Level</u> | <u>FY02 Funds<br/>Received to Date</u> | <u>FY012 Funding<br/>Bal. Needed</u> |
|------------------------------|-------------------------------|---|--|--------------------------------------|
| \$1,829,741                  | \$134,706                     | TBD                                     | \$290,880                              | TBD                                  |

NRC Funding Provided to DOE

| <u>Total<br/>JCN Funding</u> | <u>Prior FY<br/>Carryover</u> | <u>FY02 Projected<br/>Funding Level</u> | <u>FY02 Funds<br/>Received to Date</u> | <u>FY02 Funding<br/>Bal. Needed</u> |
|------------------------------|-------------------------------|---|--|-------------------------------------|
| \$1,888,100                  | \$138,747                     | TBD                                     | \$299,606                              | TBD                                 |

JCN - J5167

Task Funding Status (PNNL dollars)

| Task No.  | NRC \$<br>Task Funds | PNNL \$<br>Task Funds | NRC<br>Funds Rec<br>To Date | PNNL<br>Funds Rec.<br>To Date | Monthly<br>Costs | Cumulative<br>Costs | Remaining<br>Funds | Additional NRC<br>Funds<br>Requested |
|---|----------------------|-----------------------|-----------------------------|-------------------------------|------------------|---------------------|--------------------|--------------------------------------|
| Unobligated   | 0                    | 0                     | 0                           | 0                             | 0                | 0                   | 0                  | 0                                    |
| 01  | 18,089               | 17,343                | 18,089                      | 17,343                        | 0                | 17,343              | 0                  | 0                                    |
| 02  | 50,729               | 48,638                | 50,729                      | 48,638                        | 0                | 48,638              | 0                  | 0                                    |
| Sub-Total   | 68,818               | 65,981                | 68,818                      | 65,981                        | 0                | 65,981              | 0                  | 0                                    |
| NOTE: PNNL received a stop work order on the tasks above. |                      |                       |                             |                               |                  |                     |                    |                                      |
| 03  | 191,974              | 185,743               | 191,974                     | 185,743                       | 0                | 184,880             | 863                | 0                                    |
| 04  | 50,400               | 48,322                | 50,400                      | 48,322                        | 0                | 48,291              | 31                 | 0                                    |
| 05  | 298,139              | 288,169               | 298,139                     | 288,169                       | 0                | 288,164             | 5                  | 0                                    |
| 06  | 113,503              | 110,197               | 113,503                     | 110,197                       | 0                | 110,197             | 0                  | 0                                    |
| 07  | 155,400              | 150,874               | 155,400                     | 150,873                       | 0                | 150,785             | 88                 | 0                                    |
| 08  | 165,300              | 160,485               | 165,300                     | 160,485                       | 0                | 159,744             | 741                | 0                                    |
| 09  | 352,800              | 342,524               | 352,800                     | 342,524                       | 0                | 342,515             | 9                  | 0                                    |
| 10  | 228,200              | 221,553               | 228,200                     | 221,553                       | 9,344            | 221,551             | 2                  | 0                                    |
| 11  | 154,700              | 150,194               | 113,564                     | 110,256                       | 6,200            | 110,251             | 5                  | 41,136                               |
| 12  | 200,000              | 194,175               | 150,000                     | 145,631                       | 19,541           | 19,541              | 126,090            | 50,000                               |
| Total   | 1,979,234            | 1,918,218             | 1,888,100                   | 1,829,741                     | 35,085           | 1,701,899           | 127,835            | 91,136                               |

JCN - J5167

Task 09

CSFM Methodology for Calculating Cladding Temperature Limits for High Burnup

1. Financial Summary

PNNL Available Funding (Adjusted: Reflects DOE Adder Initiated in FY92)

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$342,524                                | \$342,524                           | \$0                 | \$342,515                            | 100.0%                                    |

NRC Funding Provided to DOE

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$352,800                                | 352,800                             | \$0                 | \$352,790                            | 100.0%                                    |

2. Task Cost Status:

|                                 | <u>Current</u><br><u>Month</u> | <u>Fiscal</u><br><u>Year to Date</u> | <u>Cumulative</u><br><u>To Date</u> |
|---------------------------------|--------------------------------|--------------------------------------|-------------------------------------|
| Direct Staff Labor Hours        | 0                              | 39                                   | 2,625                               |
| Labor                           | \$0                            | 6,071                                | \$313,388                           |
| Travel Expenses                 | 0                              | 0                                    | 9370                                |
| Service Equipment Centers       | 0                              | 0                                    | \$530                               |
| Other Intermediate Costs        | 0                              | 0                                    | \$0                                 |
| Value Added Overheads           | 0                              | 0                                    | \$0                                 |
| Services - Other RL Contractors | 0                              | 0                                    | \$0                                 |
| Procurements                    | 0                              | 0                                    | \$439                               |
| Subcontracts                    | 0                              | 0                                    | \$18,786                            |
| Total PNNL Costs                | \$0                            | \$6,071                              | \$342,515                           |
| Total Costs to NRC              | \$0                            | \$6,253                              | \$352,790                           |
| (Includes DOE Adder)            |                                |                                      |                                     |

JCN - J5167

Task 10

Advanced NUHOMS Thermal Analysis

1. Financial Summary

PNNL Available Funding (Adjusted: Reflects DOE Adder Initiated in FY92)

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$221,553                                | \$221,553                           | \$9,344             | \$221,551                            | 100.0%                                    |

NRC Funding Provided to DOE

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| 228,200                                  | 228,200                             | \$9,624             | \$228,199                            | 100.0%                                    |

2. Task Cost Status:

|                                 | <u>Current</u><br><u>Month</u> | <u>Fiscal</u><br><u>Year to Date</u> | <u>Cumulative</u><br><u>To Date</u> |
|---------------------------------|--------------------------------|--------------------------------------|-------------------------------------|
| Direct Staff Labor Hours        | 64.0                           | 1,185.2                              | 1,541.2                             |
| Labor                           | \$9,337                        | \$173,324                            | \$219,381                           |
| Travel Expenses                 | 0                              | 229                                  | \$229                               |
| Service Equipment Centers       | 0                              | 76                                   | \$76                                |
| Other Prime Costs               | 7                              | 7                                    | \$7                                 |
| Value Added Overheads           | 0                              | 0                                    | \$0                                 |
| Services - Other RL Contractors | 0                              | 0                                    | \$0                                 |
| Procurements                    | 0                              | 1,149                                | \$1,857                             |
| Subcontracts                    | 0                              | 0                                    | \$0                                 |
| Total PNNL Costs                | \$9,344                        | \$174,786                            | \$221,551                           |
| Total Costs to NRC              | \$9,624                        | \$180,030                            | \$228,199                           |
| (Includes DOE Adder)            |                                |                                      |                                     |

JCN - J5167

Task 11

Thermal Hydraulic Analysis Code Verification Technical Support

1. Financial Summary

PNNL Available Funding (Adjusted: Reflects DOE Adder Initiated in FY92)

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$150,194                                | \$110,256                           | \$6,200             | \$110,251                            | 100.0%                                    |

NRC Funding Provided to DOE

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$154,700                                | 113,564                             | \$6,386             | \$113,557                            | 100.0%                                    |

2. Task Cost Status:

|                                 | <u>Current</u><br><u>Month</u> | <u>Fiscal</u><br><u>Year to Date</u> | <u>Cumulative</u><br><u>To Date</u> |
|---------------------------------|--------------------------------|--------------------------------------|-------------------------------------|
| Direct Staff Labor Hours        | 43.0                           | 788.3                                | 891.8                               |
| Labor                           | \$6,192                        | \$92,017                             | \$104,922                           |
| Travel Expenses                 | 0                              | 4,772                                | \$4,772                             |
| Service Equipment Centers       | 0                              | 0                                    | \$0                                 |
| Other Prime Costs               | 8                              | 8                                    | \$8                                 |
| Value Added Overheads           | 0                              | 0                                    | \$0                                 |
| Services - Other RL Contractors | 0                              | 0                                    | \$0                                 |
| Procurements                    | 0                              | 548                                  | \$548                               |
| Subcontracts                    | 0                              | 0                                    | \$0                                 |
| Total PNNL Costs                | \$6,200                        | \$97,345                             | \$110,251                           |
| Total Costs to NRC              | \$6,386                        | \$100,265                            | \$113,557                           |
| (Includes DOE Adder)            |                                |                                      |                                     |

JCN - J5167

Task 12 - Development of Analysis of Spent Fuel & Radioactive Material Cask  
Cask Models for Casework Evaluations

1. Financial Summary

PNNL Available Funding (Adjusted: Reflects DOE Adder Initiated in FY92)

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$194,175                                | \$145,631                           | \$19,541            | \$19,541                             | 13.4%                                     |

NRC Funding Provided to DOE

| <u>Authorized</u><br><u>Cost Ceiling</u> | <u>Funding</u><br><u>Obligation</u> | <u>Period Costs</u> | <u>Total</u><br><u>Costs to Date</u> | <u>Cumulative</u><br><u>Percent Spent</u> |
|--|-------------------------------------|---------------------|--------------------------------------|---|
| \$200,000                                | 150,000                             | \$20,127            | \$20,127                             | 13.4%                                     |

2. Task Cost Status:

|                                 | <u>Current</u><br><u>Month</u> | <u>Fiscal</u><br><u>Year to Date</u> | <u>Cumulative</u><br><u>To Date</u> |
|---------------------------------|--------------------------------|--------------------------------------|-------------------------------------|
| Direct Staff Labor Hours        | 177.0                          | 177.0                                | 177.0                               |
| Labor                           | \$19,541                       | \$19,541                             | \$19,541                            |
| Travel Expenses                 | 0                              | 0                                    | \$0                                 |
| Service Equipment Centers       | 0                              | 0                                    | \$0                                 |
| Other Intermediate Costs        | 0                              | 0                                    | \$0                                 |
| Value Added Overheads           | 0                              | 0                                    | \$0                                 |
| Services - Other RL Contractors | 0                              | 0                                    | \$0                                 |
| Procurements                    | 0                              | 0                                    | \$0                                 |
| Subcontracts                    | 0                              | 0                                    | \$0                                 |
| Total PNNL Costs                | \$19,541                       | \$19,541                             | \$19,541                            |
| Total Costs to NRC              | \$20,127                       | \$20,127                             | \$20,127                            |

(Includes DOE Adder)



# **Exhibit D**

Outside of Scope

Task Area 3: Severe Accident Studies for Fuel Performance (NRC Technical Monitor:  
J. M. Piotter)

Outside of Scope

- The schedule for completion of the Fire Compendium report follows after completion of the MM and NP Fire reports. A draft version of the Fire Compendium report was submitted to NRC at the end of July and initial comments from NRC staff were received on August 18, 2015. During this report period, these comments were addressed in a revised draft that will be delivered to NRC by September 30, 2015.

Outside of Scope