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CP-201300944
Log # TXNB-13026

Ref. # 10 CFR 52

August 1, 2013

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
ATTN: David B. Matthews, Director
Division of New Reactor Licensing

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4
DOCKET NUMBERS 52-034 AND 52-035
SUPPLEMENTAL RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION
260 (6493) (SECTION 1) AND 261 (6527) (SECTION 1.5)

Dear Sir:

Luminant Generation Company LLC (Luminant) submits herein supplemental information for the responses to Requests for Additional Information 260 (6493) and 261 (6527) for the Combined License Application for Comanche Peak Nuclear Power Plant Units 3 and 4. The supplemental information addresses byproduct materials, spent fuel instrumentation, and communications.

Should you have any questions regarding the attached supplemental information, please contact Don Woodlan (254-897-6887, Donald.Woodlan@luminant.com) or me.

This letter completes Regulatory Commitment #8374 and #8375 (ML12207A599; July 24, 2012). There are no new commitments in the letter.

I state under penalty of perjury that the foregoing is true and correct.

Executed on August 1, 2013.

Sincerely,

Luminant Generation Company LLC


Rafael Flores

Attachments: 1. Supplemental Response to Request for Additional Information 260 (6493)
2. Supplemental Response to Request for Additional Information 261 (6527)

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NRO

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U. S. Nuclear Regulatory Commission
CP-201300944
TXNB-13026
8/1/2013

Attachment 1

Supplemental Response to Request for Additional Information 260 (6493)

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 260 (6493)

SRP SECTION: 01 - Introduction and Interfaces

QUESTIONS for USAPWR Projects Branch (NMIP)

DATE OF RAI ISSUE: 6/25/2012

QUESTION NO.: 01-12

Luminant is requested to address the financial assurance for decommissioning requirements stated in 10 CFR 30.35, and 10 CFR 40.36. For a Part 30 and 40 license, 10 CFR 30.35 and 10 CFR 40.36 do not provide an option for a COL applicant to defer submitting financial assurance for decommissioning funding until after issuance of the COL. Therefore, Luminant is requested to provide a response to the following questions:

If Luminant is requesting to possess unsealed byproduct material and sealed sources or plated foils in the amounts specified in 10 CFR 30.35, then Luminant is requested to provide a decommissioning funding plan (DFP) and cost estimate in accordance with the requirements of 10 CFR 30.35. After the NRC completes the review of DFP and cost estimate, and finds them to be acceptable, Luminant is then requested to provide an appropriate instrument in support of the financial assurance (FA) for decommissioning as required in 10 CFR 30.35. As an alternative, Luminant may inform the staff that the amount of unsealed byproduct material and sealed sources or plated foils will be below the amounts specified in 10 CFR 30.35(a) and (b).

SUPPLEMENTAL INFORMATION S01:

This supplemental response supersedes the initial response (ML12207A599) with regard to classification of source material and byproduct material used in the US-APWR source assemblies and reactor vessel surveillance capsules, and when decommissioning funds will be made available.

In the initial response, Luminant added an enclosure to COLA Part 11 entitled "Byproduct Material Possessed or Used by CPNPP Units 3 and 4 Prior to Initial Fuel Load," which stated that the Cf-252 primary source assemblies and the U-238/Np-237 reactor vessel surveillance capsules were not considered byproduct materials. After subsequent review of the definition of byproduct material in 10 CFR 30.4 and byproduct and source materials in 10 CFR 40.4, Luminant has determined that the isotopes Cf-252 and U-238/Np-237 are considered to be byproduct materials. The COLA Part 11 enclosure has been revised to provide the quantities of Cf-252 primary source assemblies and the U-238/Np-237 expected in the reactor vessel source assemblies. The amount of U-238/Np-237 reactor vessel source assemblies does not exceed the 10 CFR 30.35 unit limit required for determining whether

decommissioning funds would need to be available prior to bringing the source assemblies on site. However, the amount of Cf-252 that will be needed for the primary neutron source assemblies exceeds unity established in 10 CFR 30.35 for the financial assurance decommissioning funds and would require a separate decommissioning fund if brought onsite prior to the 10 CFR 50.75 decommissioning plan implementation.

Decommissioning funding for the Cf-252 primary source assemblies will be provided as part of the 10 CFR 50.75 funds that will be established prior to receipt of the source assemblies on site. A note has been added to the enclosure stating that the primary source assemblies will not be received on site until the 10 CFR 50.75 decommissioning funds have been established. COLA Part 1 currently specifies the establishment of decommissioning funds in accordance with 10 CFR 50.75. Therefore, decommissioning funding for the primary source assemblies will fall under the 10 CFR 50.75 decommissioning fund established for CPNPP Units 3 and 4.

The enclosure has been revised to include the amounts of U-238/Np-237 reactor vessel source assemblies and the amounts of Cf-252 primary source assemblies that are expected to be used in CPNPP Units 3 and 4. A footnote has been added to state that primary source assemblies will not be received on site until the 10 CFR 50.75 decommissioning funds have been established.

Finally, the amounts of all other byproduct materials expected to be present in the US-APWR prior to fuel load remain below the amounts specified in 10 CFR 30.35(a) and will not require a separate decommissioning fund prior to receipt of these materials.

Impact on R-COLA

See attached marked-up COLA Part 11 enclosure entitled "Byproduct Material Possessed or Used by CPNPP Units 3 and 4 Prior to Initial Fuel Load" (cover sheet and two pages).

Impact on DCD

None.

Comanche Peak Nuclear Power Plant Units 3 and 4

Byproduct Material Possessed or Used
by CPNPP Units 3 and 4 Prior to Initial Fuel Load

RCOL2_01
-12

Revision 01
July 20122013

RCOL2_01
-12 S01

**Byproduct Material Possessed or Used
by CPNPP Units 3 and 4 Prior to Initial Fuel Load**

RCOL2_01
-12

10 CFR § 30.35(a)(1) Financial assurance and recordkeeping for decommissioning requires that the quantities of byproduct materials need to be $< 10^5$ times the quantities of byproduct materials found in Appendix B to Part 30. For the US-APWR, the following quantities and types of byproduct material are provided and may be on site prior to initial fuel load:

Type of Equipment	Use of Equipment	Byproduct Source Used	Amount of Byproduct Used (μCi)	Appendix B x 10^5 Limit (μCi)
Calibration Source for NaI Detector - Fuel Shipping Inspection	Calibration Source	Co-60, Cs-137, Ba-132	TBD ⁽¹⁾	Co-60 - 10^5 Cs-137 - 10^6 Ba-132 - 10^4
LLW Inspection Equipment	1) Proofreading radiation measurement equipment 2) Measurement of the upper space drum	Co-60 Cs-137 Co-58 Ba-133	Co-60 - 43.24 Cs-137 - 110.8 Co-58 - 2.70 Ba-133 - 135.1	Co-60 - 10^5 Cs-137 - 10^6 Co-58 - 10^6 Ba-133 - 10^6
Box-type Clearance Equipment	Proofreading radiation measurement equipment	Co-60 Cs-137	Co-60 - 13.51 Cs-137 - 27	Co-60 - 10^5 Cs-137 - 10^6
Tray-type Clearance Equipment	Proofreading radiation measurement equipment	Co-60	2.70	Co-60 - 10^5
Reactor Vessel Surveillance Capsule	Dosimeter	U-238 Np-237	<u>U-238 - 0.004 per capsule</u> <u>Np-237 - 12.51 per capsule</u> <u>(6 capsules per unit)</u> <u>Not considered Byproduct material as defined by 10 CFR Part 30 Schedule B</u>	<u>Mixture of Alpha particle emitters - 10^2</u> <u>N/A</u>
Primary Source Assembly ⁽²⁾	Neutron Source	Cf-252	<u>Not considered Byproduct material as defined Approx. 162,000.0 per source assembly</u> <u>(2 assemblies per unit) by 10 CFR Part 30 Schedule B</u>	<u>N/A</u> <u>Alpha particle emitters - 10^2</u>

RCOL2_01-12
S01

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S01

⁽¹⁾ This will be similar to the amounts used in the LLW Inspection equipment.

⁽²⁾ The primary source assemblies will not be received on site until the decommissioning funds are in place in accordance with 10 CFR 50.75.

Byproduct Material Possessed or Used
by CPNPP Units 3 and 4 Prior to Initial Fuel Load

Looking at the unity rule established in 30.35(a)(1) for the items above:

Type of Equipment	Unity Rule Equation
LLW Inspection Equipment	$(43.24/1 + 110.8/10 + 2.70/10 + 135.1/10) / 100000 = 6.81 \text{ E-}04 \lllll 1$
Calibration Source for NaI Detector – Fuel Inspection	TBD $\lll 1$
Box-type Clearance Equipment	$(13.51/1 + 27.0/10) / 100000 = 1.38 \text{ E-}05 \lllll 1$
Tray-type Clearance Equipment	$(2.70/1) / 100000 = 2.7 \text{ E-}05 \llllll 1$
Reactor Vessel Surveillance Capsule	$((0.004/0.01 + 12.51/0.01) / 100000) * (6 \text{ capsules}) = 0.0751 \lll 1$

RCOL2
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RCOL2_0
1-12 S01

As shown in the tables above, CPNPP does not possess or use unsealed byproduct material of half-life greater than 120 days and in quantities exceeding 10^5 times the applicable quantities set forth in appendix B to Part 30, prior to initial fuel load. In addition, for the combination of isotopes, R divided by 10^5 is much less than 1. As such, CPNPP is not required to have a decommissioning funding plan per 10 CFR § 30.35(a)(1).

10 CFR § 30.35(a)(2) requires applicants to put aside decommissioning funds for the authorization to possess and use sealed sources or plated foils of half-lives greater than 120 days and in quantities exceeding 10^{12} times the applicable quantities set forth in appendix B to part 30. No other sealed sources or plated foils with half-lives greater than 120 days other than those listed in the table will be used at CPNPP. Since these quantities were much less than 10^5 times the quantities, they are also much less than 10^{12} the Appendix B quantities. Similarly, because the R divided by 10^5 is much less than 1, the R divided by 10^{12} is also much less than 1. As such, CPNPP Units 3 and 4 is not required to have a decommissioning fund per 10 CFR § 30.35(a)(2).

In summary, based upon the quantities of byproduct material possessed or used by CPNPP Units 3 and 4 prior to initial fuel load, a decommissioning funding plan is not required for Luminant to possess a Part 30 byproduct material license per 10 CFR Part 30. Prior to fuel load, a decommissioning funding plan will be in place for CPNPP Units 3 and 4 per 10 CFR 50.75.

U. S. Nuclear Regulatory Commission
CP-201300944
TXNB-13026
8/11/2013

Attachment 2

Supplemental Response to Request for Additional Information 261 (6527)

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 261 (6527)

SRP SECTION: 01.05 - Other Regulatory Considerations

QUESTIONS for USAPWR Projects Branch (NMIP)

DATE OF RAI ISSUE: 6/25/2012

QUESTION NO.: 01.05-2

By letter dated May 16, 2012, (ML12124A036), the NRC staff informed you that the NRC staff has been directed by the Commission to implement the Fukushima Near-Term Task Force recommendations contained in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami" dated February 17, 2012. This request for additional information (RAI) specifically addresses Recommendation 7.1, "Reliable Spent Fuel Pool Instrumentation." The NRC staff requests that you address each of the provisions for monitoring key spent fuel pool parameters as described in the March 12, 2012 Order, EA-12-051 (ML12054A679), including any proposals for changes to your current application.

SUPPLEMENTAL INFORMATION S02:

This response supplements the initial response to this question provided on July 24, 2012 (ML12207A599). In that response, Luminant committed to provide a supplement to the RAI response to include necessary changes to the COLA describing implementation of the procedure and training provisions of Recommendation 7.1 within 90 days following the submittal of related DCD revisions. On March 18, 2013, Luminant extended the commitment schedule for this supplemental response to approximately five months after MHI submittal of the Fukushima Technical Report (ML13079A127).

Mitsubishi Heavy Industries (MHI) submitted "US-APWR Evaluation and Design Enhancement to Incorporate Lessons Learned from TEPCO's Fukushima Dai-ichi Nuclear Power Station Accident", MUAP-13002 Revision 0, on March 4, 2013 (ML13084A278). FSAR Revision 3 Update Tracking Report (UTR) Revision 2 was submitted on August 1, 2013 (TXNB-13025), which included changes describing the implementation of the procedure and training provisions of Recommendation 7.1 as follows:

1. FSAR Subsection 13.2.1.1.4 was added with a requirement for licensed and non-licensed staff to receive training on spent fuel pit (SFP) instrumentation that includes the provisions of EA-12-051 and NEI 12-02.
2. FSAR Subsection 13.5.2.2 was revised to include the SFP water level instrument channels in instrument calibration and test procedures according to EA-12-051 and NEI 12-02.

Impact on R-COLA

Refer to marked-up FSAR Revision 3 pages in UTR Revision 2 submitted to the NRC on August 1, 2013 (TXNB-13025).

Impact on DCD

None.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI NO.: 261 (6527)

SRP SECTION: 01.05 - Other Regulatory Considerations

QUESTIONS for USAPWR Projects Branch (NMIP)

DATE OF RAI ISSUE: 6/25/2012

QUESTION NO.: 01.05-3

By letter dated May 16, 2012, (ML12124A036), the NRC staff informed you that the NRC staff has been directed by the Commission to implement the Fukushima Near-Term Task Force recommendations contained in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami" dated February 17, 2012. This request for additional information (RAI) specifically addresses Recommendation 9.3, "provisions for enhancing emergency preparedness." The NRC staff requests that you address each of the provisions for enhancing emergency preparedness as described in Enclosure 7 of SECY-12-0025, including any proposals for changes to your current application.

SUPPLEMENTAL INFORMATION S02:

This response supplements the initial response to this question dated July 24, 2012 (ML12207A599). In that response, Luminant committed to provide the results of an evaluation of the offsite communication equipment provisions of Recommendation 9.3, Item 1, in accordance with NEI 12-01, Revision 0 in a supplement to the response and include necessary changes to the COLA within 90 days following the submittal of the related DCD revisions. On March 18, 2013, Luminant extended the commitment schedule for this supplemental response to approximately five months after MHI submittal of the Fukushima Technical Report (ML13079A127).

As stated above, MHI submitted MUAP-13002 Revision 0 on March 4, 2013, which describes the on-site communication system provisions of Recommendation 9.3, Item 1. The evaluation concluded that enhancements in the power supply to the plant communication system, including a beyond-design-basis (BDB) external event UPS combined with a dedicated satellite telephone system connected to the plant PABX, provide an automatic alternate communication path for outside connections to the public switched telephone network that are effective in coping with a BDB external event. Based on this evaluation, Subsections 9.5.2.2.4 and 9.5.2.6 were added to the DCD and provided to the NRC staff in DCD Revision 3 Tracking Report Revision 4, on June 4, 2013 (ML13176A060).

Luminant has conducted an evaluation of the ability of the off-site communication system to cope with a BDB external event based on the standard plant communication design enhancements. The evaluation,

performed in accordance with NEI 12-01, Revision 0, concluded that a dedicated satellite telephone system connected to the plant PABX as described in DCD Subsection 9.5.2.2.2.4 will provide an automatic alternate communication path such that any plant telephone can continue to communicate with outside sources in the event that the normal outside links are not available.

FSAR Revision 3 UTR Revision 2 was submitted on August 1, 2013 (TXNB-13025) and includes the changes to FSAR Subsections 9.5.2.2.2.2 and 9.5.2.2.5.1 that address the results of the offsite communication system evaluation.

Impact on R-COLA

See marked-up FSAR Revision 3 pages in UTR Revision 2 submitted to the NRC on August 1, 2013 (TXNB-13025).

Impact on DCD

None.