

May 14, 2010

Mr. David J. Krueger, CHP
Corporate Radiation Safety Officer
PETNET Solutions, Inc.
810 Innovation Drive
Knoxville, TN 37932

Dear Mr. Krueger:

We have completed our review of the Decommissioning Funding Plan and Financial Assurance Instrument submitted by PETNET Solutions, Inc., for the Indianapolis facility, and determined that in order for us to complete our review you will need to submit the following additional information:

Cost Estimate

1. Labor costs in the cost estimate are based, according to Section III, "Process," on nationwide mean salaries for the appropriate labor categories based on the latest available data from the Bureau of Labor Statistics. Section IV., "Cost Estimate Details," further explains that the worker unit cost schedule is based on 2007 BLS data, adjusted upward by 1.8 percent to account for the consumer price increase from 2007 to 2009. Salaries are adjusted upward by 20 percent to account for the cost of employee benefits. A 50 percent multiplier is also added to account for profit to the contractor. Please add clarification to the labor cost estimates as follows:
 - a. Provide a justification for the estimate of only 20 percent for employee benefits, which appears to be low if vacation, sick leave, and general and administrative costs are all included in this category;
 - b. Provide a formula that clarifies how the labor costs are calculated. Is the sequence as follows: BLS salary x 1.018 x 1.20 x 1.50 or is the salary data simply multiplied by 1.718, which results in a lower estimate?
 - c. Provide a citation to the BLS document(s) and data schedules that are the source of the worker cost data for 2007;
 - d. Provide citations to the sources for the 2007 and 2009 consumer price indices that are the sources for the 1.8 percent escalator and demonstrate how the escalator was calculated; and
 - e. Add a note to Table 3.12, "Worker Unit Cost Schedule," that clarifies that the estimated labor costs include fee as well as salary, fringe benefits, and corporate overhead.

2. The cost estimate in Section III, "Process," states that NUREG-1757 "requires the cost estimate to assume an out-of-state contractor performs the work." (emphasis added)

Although this is not correct it may not affect the basis for the cost estimate because such a contractor would satisfy the requirement for labor rates to be based on a third-party contractor. Please clarify whether "nationwide mean salaries" for the labor categories are at least equal to third-party salaries for those labor categories at the site of the facility in Indianapolis, IN.

3. The cost estimate in Attachment N, Section 3.4 contains two unnumbered tables. The first contains a detailed estimate of the dimensions of contaminated equipment for the cyclotron vessel, shielding, and underlying floor. The second contains a separate estimate for the balance of the facility, minus cyclotron and shielding. However, the second table provides dimensions for several components, including floors, walls, ceilings, and possibly also radwaste areas, whose dimensions are apparently not included in the total for "Feature/Equipment Volume" in the second table. The General Assumptions state that "The shielded walls of the Cyclotron Room are expected to be neither activated nor contaminated." Please clarify the table labeled "Balance of facility, minus cyclotron and shielding" either by removing those dimensions that are not included in the total requiring decommissioning or, if the dimensions are left in the table, adding a footnote or footnotes explaining why they are not included in the total.
4. The cost estimate states in the Executive Summary that "This decommissioning plan should be evaluated in 3 years and revised to account for any changes in the costs required for decommissioning activities." Please revise this statement to say that the decommissioning plan "will be evaluated at least every 3 years or more frequently if the amounts or types of material at the facility change, facility conditions or operations change, changes occur in expected decommissioning procedures, or to account for inflation."
5. Estimates are provided for the costs of packaging, shipping, and disposal of radioactive wastes in Table 3.14. Please provide additional supporting information concerning this table, as follows:
 - a. A footnote should be added to the table providing a source for the "Unit Cost of Container" entry;
 - b. The discussion of Table 3.14 in Section VI, "Cost Estimate Details," states that "Experience has shown more than half the volume of the cyclotron will be radioactive waste." The source for this assumption should be provided;
 - c. Section V, "General Assumptions" states that "Experience has shown that only a small fraction of the shielding material surrounding the cyclotron is activated and needs to be handled as radioactive waste. . . ." The source for this assumption should be provided;

- d. The tables and related "General Assumptions" section contain assumptions for the fraction of the waste mass that will require disposal as radioactive waste. The source for these assumptions should be provided;
- e. The "General Assumptions" also state that "waste mass is multiplied by marketplace rates for waste processing and disposal." However, no source is provided for those "marketplace" rates, which are detailed in Table 3.14 (c), "Waste Disposal Costs (shipping included)". The waste processing is assumed to take place at a licensed facility in Oak Ridge, Tennessee. Please identify the facility and clarify whether its rates are the basis for the estimate, or, if not, what is the source of the estimated rates;
- f. Similarly, the cost estimate does not describe the source of the estimate for transportation costs for DAW, Concrete, BSFR, Contaminated Lead, and Metal, described in Table 3.14 (b), "Shipping Costs." A source for the estimated transportation costs should be provided. The assumptions also do not explain why, if shipping is included in the waste disposal costs as indicated by Table 3.14 (c), shipping costs are also included as a separate Table 3.14 (b);
- g. Tables 3.14 (b) and (c) contain entries for surcharges (\$/mile) and overweight charges (\$/mile) but these entries are not used in calculating the total shipping and disposal costs presented in those tables. Please explain the relationship of these entries in Tables 3.14 (b) and (c) to the "unit cost" category in Tables 3.14 (b) and (c).

Financial Mechanisms

Both the Letter of Credit and the Standby Trust have been executed, and appear to be currently in effect. The Standby Trust refers to "License Number 41-32727-01 issued pursuant to 10 CFR Part 30" in Section 2 of the trust. The correct license number is 41-32720-01. Also please designate both the Letter of Credit and Standby Trust as "NRC License Number 41-32720-01."

Letter of Credit

1. The Letter of Credit is issued by Fortis Bank, S.A./N.V., New York Branch, c/o 101 Hudson Street, 21st Floor, Jersey City, New Jersey, 07302, which is the location specified for drawing on the instrument. We did not find Fortis Bank on lists of banking institutions insured or regulated by the FDIC or the Office of the Comptroller of the Currency, nor is it on the list of New Jersey financial institutions maintained by the New Jersey State Banking Department. A call to the New Jersey Department of Banking and Insurance was returned by Mr. Rich Poliner, who stated that New Jersey did not regulate the Jersey City office of Fortis Bank, which was a "representative office" of a New York office. The Federal Reserve Bank of New York is the regulator of the New York office, as a branch of a foreign bank, according to Mr. Poliner. However, Mr. Poliner also noted that a representative office in New Jersey is prohibited from making loans or granting credit, and that New Jersey considered paying on a draft of a letter of credit to constitute a grant of credit and therefore not appropriate from New Jersey. Further research

indicated that Fortis Bank is listed as a foreign branch supervised by the New York Banking Department as of December 30, 2009. Thus, it appears that at least some elements of the Fortis Bank's operations are supervised and regulated by a State banking authority, as required by NUREG-1757. Please clarify the regulatory status of the Fortis Bank and in particular to determine whether the New Jersey location is an office legally empowered to service drafts on letters of credit issued by Fortis Bank. Because the letter of credit requires all draws to occur at the Jersey City location, there is a risk that NRC could be required to attempt to draw on the letter of credit at an office where the New Jersey Banking Authority has prohibited the draw from occurring.

2. The Letter of Credit differs from the recommended wording in NUREG-1757, in several ways, as follows:
 - a. In the clause that begins, "We hereby establish . . ." the words have been omitted "at the request and for the account of [name, address, and NRC license and docket numbers of licensee]." This information helps to establish the purpose of the Letter of Credit. Please add the phrase to the Letter of Credit.
 - b. A sentence reading "All charges are for the account of the applicant" has been added as a separate paragraph following the second paragraph in Section 2. Please explain the purpose and effect of this addition.
 - c. In the paragraph that begins "This letter of credit is effective . . ." the description of the procedure to be followed to notify NRC and the licensee that the letter of credit will not be extended has been amended by elimination, after the words "by certified mail" of the words "as shown on the signed return receipts" and the addition of the words "or courier, at the above address, that we do not intend to extend this letter of credit for any additional periods." To ensure documentation of when the required notice was sent and received, a method of delivery should be used that produces signed and dated return receipts. Please amend the letter of credit to allow only courier systems, such as FEDEX or UPS, which provide delivery confirmation documents. In addition, the reference to signed return receipts should be placed back into the letter of credit. Finally, the reference to the "above address" is not clear, since it could be interpreted as referring only to the address of the licensee. It should be revised to refer to "their respective addresses" or amended in some other way to indicate clearly that notice of non-renewal will be sent separately to the NRC and the licensee. The language stating that the bank does not intend to extend the letter of credit merely restates the purpose of the notice and is unobjectionable.
 - d. In the paragraph beginning "Whenever this letter of credit is drawn on," the final phrase stating "and we shall deposit the amount of the draft directly into the standby trust fund of [licensee] in accordance with your instructions" has been dropped. This phrase is important to ensure that the NRC does not receive the funds from the letter of credit directly, which could lead to a requirement that the funds be deposited into the U.S. Treasury rather than being available to pay for decommissioning. Please palce back the omitted phrase into the letter of credit.

- e. A new paragraph, beginning “We hereby engage . . .” has been added, summarizing the obligation undertaken by the bank to honor the credit upon presentation of the specified documents. Another paragraph has been added stating that “Documents must be presented, in one lot, to c/o 101 Hudson Street, 21st Floor, Jersey City, New Jersey 07302 Attention: Trade Services” and providing telephone and fax numbers. The first paragraph merely restates the basic duty undertaken by the bank in the letter of credit, and is unobjectionable. Inclusion of the c/o without the bank’s name in the second paragraph is unusual. Please confirm that omission of the Fortis Bank name is intentional in this paragraph. Submission of all required documents at the same time when drawing on a letter of credit is common practice and is unobjectionable.

Standby Trust

1. Section 2 cites License Number 41-32727-01, “issued pursuant to 10 CFR Part 30.” The Letter of Credit, in contrast, states that the materials license was issued “under 10 CFR Part 40.” Please correct this discrepancy, and change the License Number to 41-32720-01.
2. In Section 14 (b), you may eliminate the reference to “obligations of the Federal government such as GNMA, FNMA, and FHLM bonds.” Although that reference is currently included in NUREG-1757, the agency is no longer recommending that it be included in the Standby Trust.
3. Schedule A should be completed with the NRC license number and the date provided when the cost estimate is approved by NRC.
4. A draft unexecuted Specimen Certificate of Resolution and Letter of Acknowledgement should be prepared and attached to the Standby Trust, as was done with the Specimen Certificate of Events, as required by NUREG-1757.

In accordance with 10 CFR 2.390 of the NRC’s “Rules of Practice,” a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC’s Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Please submit a response to this letter within 30 days. In your response, please reference as “additional information to Control Number 300436.” Please contact me at 630-829-9854 if you have any questions.

Sincerely,

/RA/

Kevin G. Null
Materials Licensing Branch

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Kevin G. Null
Materials Licensing Branch

Docket No.: 030-38156
License No.: 41-32720-01

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