

June 15, 2016

Ms. Sarah Bryson
Licensing Engineer
Croft Associates Limited
Building 4F, Culham Science Centre
Culham Abingdon
Oxfordshire, OX14 3DB, United Kingdom

SUBJECT: SECOND REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF THE
MODEL NO. 3977A PACKAGE

Dear Ms. Bryson:

By letter, dated December 14, 2015 (Agencywide Documents Access and Management System (ADAMS) accession number ML15351A324), as supplemented on May 23, 2016 (ADAMS accession number ML16147A126), Croft Associates Limited submitted an application for amendment of Certificate of Compliance No. 9338 for the Model No. 3977A package. To assist with our review, the U.S. Nuclear Regulatory Commission staff needs the information identified in the enclosure to this letter. Discussion of this request for additional information (RAI) and a response date occurred on June 8, 2016.

We request that you provide this information by July 15, 2016. Inform us at your earliest convenience, but no later than July 8, 2016, if you are not able to provide the information by that date. If you are unable to provide a response by July 15, 2016, please propose a new submittal date with the reasons for the delay.

Please reference Docket No. 71-9338 and TAC No. L25075 in future correspondence related to this amendment request. The staff is available to discuss these questions as well as your proposed responses. If you have any questions regarding this matter, feel free to contact me at (301) 415-6877.

Sincerely,

/RA/

Chris Allen, Project Manager
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9338
TAC No. L25075

Enclosure: Request for Additional Information

Ms. Sarah Bryson
 Licensing Engineer
 Croft Associates Limited
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Enclosure: Request for Additional Information

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Request for Additional Information
Docket No. 71-9338
Model No. 3977A Package

By letter, dated December 14, 2015 (ADAMS accession number ML15351A324), as supplemented on May 23, 2016 (ADAMS accession number ML16147A126), Croft Associates Limited submitted an application for amendment of Certificate of Compliance No. 9338 for the Model No. 3977A package. This RAI letter identifies information needed by the staff in connection with its review of the application. NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material," was used by the staff in its review of the application.

Each individual RAI describes information needed by the NRC staff to complete its review of the application to determine whether the applicant has demonstrated compliance with the regulatory requirements.

Thermal Review

- 3.1 Perform a gas generation calculation that demonstrates hydrogen and other flammable gases comprise less than 5% by volume of the total gas inventory within any confined volume. Alternatively, provide adequate justification that a higher value will not result in a hydrogen ignition event or that the consequences from such an event are negligible and do not pose any risk to public safety.

Page 3-15a of the Safety Analysis Report predicts a hydrogen concentration is 45% which is much higher than the NUREG-1609 recommended limit. The applicant indicated during a June 8th conference call that this value was generated using very conservative parameters. The applicant should provide a detailed calculation using parameters which are more indicative of the actual parameters for transportation of I-131; i.e., typical transportation times, actual content amounts presented for transport, etc. The applicant should provide adequate justification for any conservative assumption utilized. Details on how the hydrogen concentration is calculated need to be provided either in the application or in a separate calculation package. The staff needs this information to determine if this package and its contents can be transported safely without undue risk to public health and safety.

This information is needed to determine compliance with 10 CFR 71.43(d)