October 20, 2009

Dr. Robert A. Vaughan
Managing Director
Croft Associates Limited
Building 4F, Culham Science Centre
Culham, Abingdon
Oxfordshire, OX14 3BD, United Kingdom

SUBJECT: APPLICATION FOR THE MODEL NO. 3979A TRANSPORTATION PACKAGE – SUPPLEMENTAL INFORMATION NEEDED

Dear Dr. Vaughan:

By application dated July 30, 2009, Croft Associates Limited requested approval of the Model No. 3979A as a Type B(U) transportation package. Staff performed an acceptance review of your application to determine if the application contains sufficient technical information in scope and depth to allow the staff to complete the detailed technical review.

This letter is to advise you that based on our acceptance review, the application requires supplemental information, as described in the enclosure to this letter. In order to complete our technical review in accordance with the schedule provided below, this supplemental information should be provided by October 29, 2009. If the information described is not received by this date, the application review will be delayed. This letter confirms our phone call, and subsequent e-mail, on October 9, 2009, with respect to the supplemental information needed and the proposed date for your submittal.

We have established a schedule for the review, which allows for staff to issue a Request for Additional Information (RAI) in January 2010. If timely response to the RAI is received, staff anticipates that the Certificate of Compliance would be issued by June 2010. In general, no additional changes to the application should be submitted except for changes resulting from your response to an RAI.

Please reference Docket No. 71-9337, and TAC No. L24361, in future correspondence related to this request. If you have any questions regarding this matter, please contact me at (301) 492-3292.

Sincerely,

/RA/

Michele M. Sampson, Sr. Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9337
TAC No. L24361

Enclosure: Request for Supplemental Information

Please reference Docket No. 71-9337, and TAC No. L24361, in future correspondence related to this request. If you have any questions regarding this matter, please contact me at (301) 492-3292.

Sincerely,

/RA/

Michele M. Sampson, Sr. Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9337
TAC No. L24361

Enclosure: Request for Supplemental Information

Distribution:
A. Istar, D. Forsyth, R. Parkhill, N. Day, M. Gordon

G:\SFST\Sampson\AcceptanceLtr.doc

OFC:	SFST	E	SFST		SFST		SFST		SFST		SFST	
NAME:	MSampson		A. Istar		C. Regan		MDeBose		SBaggett			
DATE:	10/19/09		10/19/09		10/19/09		10/20/09		10/20/09		/ /	

C = COVER E = COVER & ENCLOSURE N = NO COPY OFFICIAL RECORD COPY

Request for Supplemental Information
Croft Associates Limited
Docket No. 71-9337
Model No. 3979A

By application dated July 30, 2009, Croft Associates Limited requested approval of the Model No. 3979A as a Type B(U) transportation package. This request for supplemental information (RSI) identifies information needed by the U.S. Nuclear Regulatory Commission (NRC) staff in connection with its review of the amendment.

RSI-1(a) Provide test reports for Normal Conditions of Transport (NCT) and Hypothetical Accident Conditions (HAC) referenced in Subsection 7, "References," of Section 2, "Structural Evaluation," of the Safety Analyses Report for Packaging Safkeg-LS, Design No 3979A, the application, specifically note References 20, 21, 22, and 23.

Since there is no clear-guidance of how to place accelerometers on structures subjected to drop tests, predictions of any response are highly dependent on the experience of the analyst(s). The applicable test procedures and reports from the initial fabrication/preparation/set-up to results should be provided to allow the staff to determine whether the worst responses can be characterized for qualifying this transportation package subjected to NCT and HAC cases. It should be noted that it is critical to select the right type of accelerometer(s) that are mounted correctly at the appropriate locations with intended translation direction (alignment) for the drop tests. As a general-rule, "the closer the accelerometers are mounted to the impact location, the higher the input g values."

RSI-1(b) Provide drop angle(s) for Test Nos. 6, 9, and 11, the top rim edge drop cases (slap-down condition), and provide a justification that the chosen angle(s) are those which would result in the worst package responses. Furthermore, provide justification that the selected drop orientations result in the worst package responses for the drop tests; i.e., responses in top versus bottom cases.

This information is needed to determine compliance with 10 CFR 71.71 and 71.73.

RSI-2 Provide input and output files of the finite element analyses performed to determine stress levels at critical locations subjected to the NCT and HAC loading conditions that was performed by VERTRA Group Limited (Report No: 925-3272/R1) in Appendix 3 of Section 2, "Structural Evaluation," of the application for Packaging Safkeg-LS, Design No 3979A.

Based on the acceptance review, it was not clear how the acceleration values of 180g and 300g for NCT and HAC loading cases were applied to the package structure to determine the stress levels at the identified locations; i.e., consideration of the boundary condition of the structure, direction of applied acceleration values to the dead weights of each material, interaction of different type of materials, etc.,.

This information is needed to determine compliance with 10 CFR 71.71 and 71.73.