July 2, 2003

The Honorable Richard G. Lugar
United States Senate
Washington, DC 20510-1401

Dear Senator Lugar:

Thank you for your letter of May 26, 2003, to Ashok C. Thadani, expressing your interest in a proposal concerning spent fuel pools at nuclear power plants by Purdue University and NOCHAR, Inc.

Members of the Nuclear Regulatory Commission's (NRC) Office of Research staff met with representatives of Purdue and NOCHAR in December 2002 to discuss a technology for rapidly filling a spent fuel pool with a polymer that would be solid at low temperatures but liquid at higher temperatures. The polymer's solidification would prevent the loss of the cooling water for the spent fuel in the case of a terrorist attack on the pool itself that causes a breach in the pool wall. During the meeting, the NRC staff clarified some aspects of normal spent fuel pool geometry that would be of importance in assessing the efficacy of the proposed technology. They encouraged the representatives of Purdue and NOCHAR discuss the technology with the Department of Energy and the nuclear industry. The NRC staff found the technology to be interesting, but noted several technical issues.

Should an actual proposal for the use of this technology be received by the NRC, I assure you that the NRC will give every consideration to its merits.

Sincerely,

***/RA/***

William D. Travers
Executive Director
for Operations

The Honorable Richard G. Lugar
United States Senate
Washington, DC 20510-1401

July 2, 2003

Dear Senator Lugar:

Thank you for your letter of May 26, 2003, to Ashok C. Thadani, expressing your interest in a proposal concerning spent fuel pools at nuclear power plants by Purdue University and NOCHAR, Inc.

Members of the Nuclear Regulatory Commission's (NRC) Office of Research staff met with representatives of Purdue and NOCHAR in December 2002 to discuss a technology for rapidly filling a spent fuel pool with a polymer that would be solid at low temperatures but liquid at higher temperatures. The polymer's solidification would prevent the loss of the cooling water for the spent fuel in the case of a terrorist attack on the pool itself that causes a breach in the pool wall. During the meeting, the NRC staff clarified some aspects of normal spent fuel pool geometry that would be of importance in assessing the efficacy of the proposed technology. They encouraged the representatives of Purdue and NOCHAR discuss the technology with the Department of Energy and the nuclear industry. The NRC staff found the technology to be interesting, but noted several technical issues.

Should an actual proposal for the use of this technology be received by the NRC, I assure you that the NRC will give every consideration to its merits.

Sincerely,

***/RA/***

William D. Travers
Executive Director
for Operations

Distribution:
G20030331/LTR-03-0380 **(ML031700039)**

| | | |
|---|---|---|
| CPaperiello, DEDMRS | MVirgilio, NMSS | PNorian, RES |
| WKane, DEDR | SCollins, NRR | CAder, RES |
| PNorry, DEDM | WDean, AO | TClark (RES-2003137) |
| Burns/Cyr, OGC | RPERWMB R/F | DSARE R/F |

**ADAMS Package ML031710022**

C:\ORPCheckout\FileNET\ML031710017.wpd
*See Previous Concurrence:
OAR in ADAMS? (Y or N) Y ADAMS ACCESSION NO.: **ML031710017** TEMPLATE NO. EDO-002
Publicly Available? (Y or N) Y DATE OF RELEASE TO PUBLIC 5 days SENSITIVE? NO
**To receive a copy of this document, indicate in the box: "C"** = Copy without enclosures **"E"** = Copy with enclosures **"N"** = No copy

| OFFICE | DSARE | | DSARE | | D/DSARE | | D/RES | | EDO | |
|---|---|---|---|---|---|---|---|---|---|---|
| NAME | JMitchell:jf:mmk | | CTrottier | | FEltawila | | AThadani by M. Mayfield | | WTravers | |
| DATE | 06/19/03* | | 06/19/03* | | 06/19/03* | | 06/19/03* | | 7/2/03 | |