



**LOUISIANA  
POWER & LIGHT**

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August 16, 1984

W3P84-2196  
3-A1.01.04  
3-D45

Director of Nuclear Reactor Regulation  
Attention: Mr. G.W. Knighton, Chief  
Licensing Branch Number 3  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: Waterford Steam Electric Station - Unit Number 3  
Docket 50-382  
Submittal of Additional Information  
Concerning Radioactive Waste Solidification  
Process Control Programs

REFERENCES: (1) Louisiana Power & Light Company Letter Number W3P84-1122  
from K.W. Cook to G.W. Knighton dated April 25, 1984  
(2) Louisiana Power & Light Company Letter Number W3P84-0423  
from K.W. Cook to G.W. Knighton dated February 21, 1984

Dear Mr. Knighton:

With the referenced letters, LP&L has submitted information and Waterford Steam Electric Station - Unit Number 3 (Waterford 3) and vendor supplied documents for review as a package of information tantamount to a radioactive waste solidification Process Control Program (PCP). In addition to this information for Westinghouse Hittman Nuclear Incorporated (Hittman) and Chem-Nuclear Systems, Incorporated (CNSI) processes, LP&L is now submitting similar information for the NUS Process Services Corporation (NUS) process, as we have also entered into a General Services Agreement with NUS, and currently plan to utilize their services for the initial solidification of Waterford 3 radioactive wastes.

NUS Topical Report on Radwaste Solidification System, document number PS-53-0378 is under review by the Standardization and Special Projects Branch for approval as a generic PCP. Copies are available for use by LP&L at both Waterford 3 and the corporate offices. The types of process wet radioactive wastes which will be solidified are: bead resins with greater than 1  $\mu\text{Ci}/\text{cc}$  activity, or when dewatering is not practical; evaporator bottoms and boric acid concentrates from the Liquid Waste and Boron Management Systems; an. filters with greater than 1  $\mu\text{Ci}/\text{cc}$  activity, or when dewatering is not practical.

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The waste containers which will be used, and approximate system process capacities are as follows:

Liner	Disposal Volume, ft <sup>3</sup>	Waste Volume, ft <sup>3</sup>	Waste
<u>CNSI process:</u>			
NUS-182	170	136 136	Bead Resin Evaporator Bottoms and Boric Acid Concentrates
NUS-100	83	66 66	Bead Resin Evaporator Bottoms and Boric Acid Concentrates
NUS-208	195	145 140	Bead Resin Evaporator Bottoms and Boric Acid Concentrates

The attached drawing shows the expected placement of equipment in the Portable Solidification Building. Plant interfaces will consist of station air, primary makeup water, electrical power, and connections to the Solid Radwaste Management Systems. During resin solidification, vendor equipment will be connected to both the Resin Waste Management System outlet and dewatering inlet to allow for the transfer of resin and dewatering of the liner. Vendor equipment will be connected to the Solid Waste Management System outlet when evaporator bottoms are being solidified. Test solidifications, full scale calculations and operation of the solidification equipment will be performed by vendor personnel. Plant staff will provide Health Physics and Quality Assurance coverage, operate plant radwaste systems, collect samples and perform isotopic analyses.

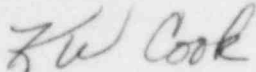
Surveillance Procedure RW-2-210; draft Revision 1 which was submitted by Reference 1 pertains to LP&L's solid radioactive waste management practices and incorporates by reference Hittman, CNSI and NUS process control programs for radioactive waste solidification. As such, it is the equivalent of a Waterford 3 specific PCP. Revision 1 has been approved since its previous submittal, and is attached. However, as this document is a specific procedure rather than a descriptive program, it should be considered as only an interim PCP, until your guideline for PCP preparation is available and we generate an appropriate PCP. No exceptions or deviations from vendor supplied procedures or topical reports is anticipated.

Please review the information provided in this letter and the two referenced letters as soon as possible so that we may receive at least

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interim approval to process wet radioactive wastes, as discussed with Charles Willis. Should you require any additional information, or wish to discuss this matter further, please contact Chadi D. Groome of our Nuclear Licensing office at (504) 363-8997.

Very truly yours,



K.W. Cook  
Nuclear Support & Licensing Manager

Attachments

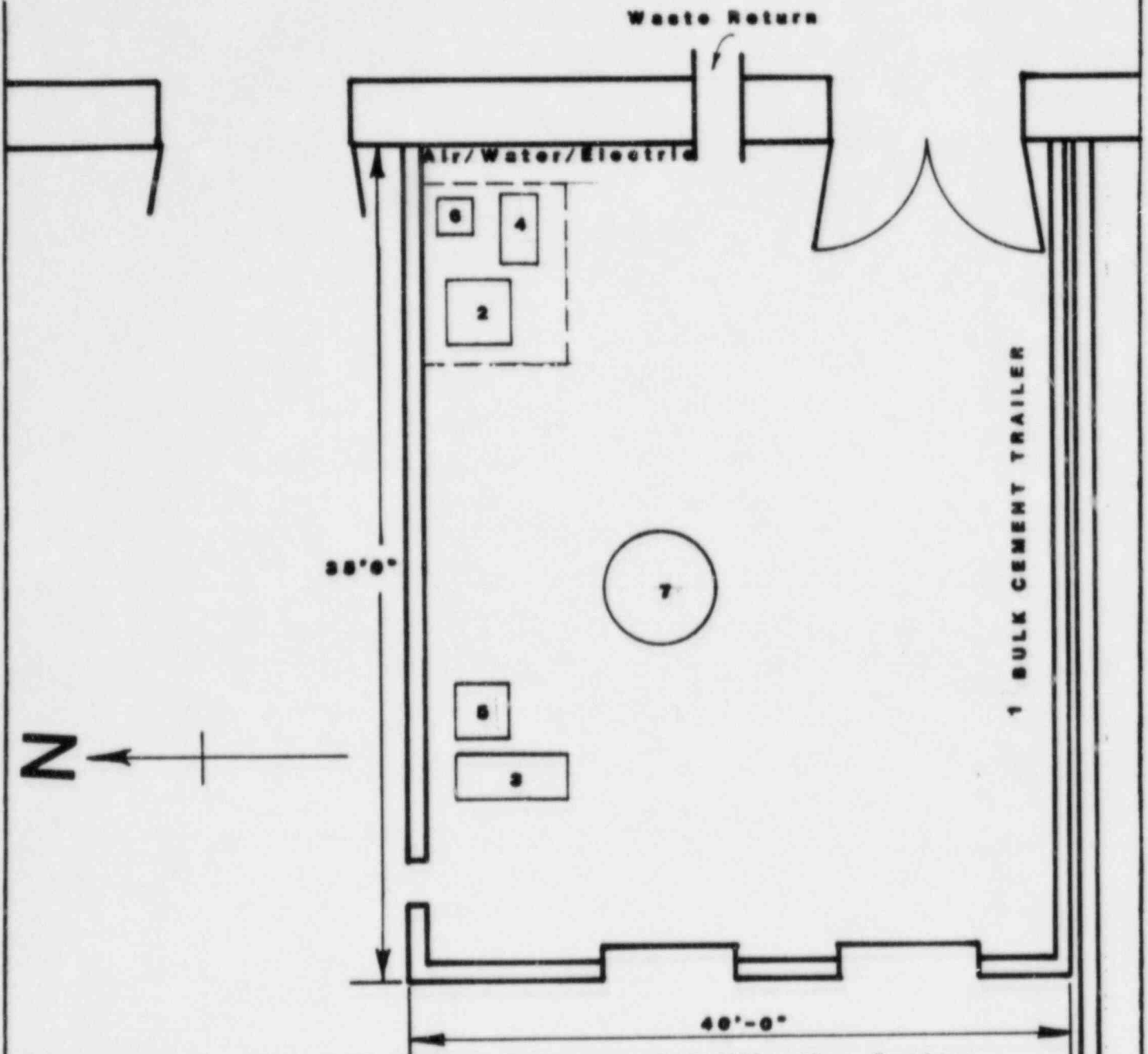
cc (without attachments): E.L. Blake, W.M. Stevenson, J. Wilson,  
G.L. Constable, J.T. Collins, D.M. Crutchfield,

cc (with attachments): C. Willis

bcc (without attachments): R.S. Leddick, R.P. Barkhurst, F.J. Drummond,  
T.F. Gerrets, G.G. Hofer (Ebasco),  
W.A. Cross (LP&L Bethesda Office),  
J.W. Veirs (CE), R.M. Nelson, M.J. Meisner,  
Licensing Library

bcc (with attachments): R.W. Kenning, L.R. Simon, J.L. Etheridge,  
Project Files, Administrative Support (3)

LAYOUT OF NUS MOBILE RADWASTE SOLIDIFICATION UNIT



Dimensions For The NUS Mobile Radwaste Solidification System Are As Follows

1. Bulk Cement Trailer 40'L x 8'W x 15'H
2. Fill Head Assembly 38"OD x 60"H
3. Main Control Panel 4'W x 2' Deep x 6'H
4. Process Piping Skid 4'L x 'W x 4'H
5. Hydraulic Power Package 4'L x 3'W x 3'H
6. Vent Blower 2'L x 2'W x 3'H
7. Cask

AMENDMENT NO.

LOUISIANA POWER & LIGHT CO. Waterford Steam Electric Station	PORTABLE SOLIDIFICATION SYSTEM	Figure
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