



**LOUISIANA
POWER & LIGHT**

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April 25, 1984

W3P84-1122
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 Number 50-382
Submittal of Additional Information Concerning
Radioactive Waste Solidification Process
Control Programs

Reference: Louisiana Power & Light Company Letter Number W3P84-0423
from K.W. Cook to G.W. Knighton dated February 21, 1984

Dear Mr. Knighton:

Supplementary information regarding the use of vendor supplied portable solidification equipment and Process Control Programs was requested by Mr. Jack Hayes of the NRC Staff after reviewing the referenced letter. This letter is Louisiana Power & Light Company's (LP&L) response to that request, providing information regarding plant specific parameters, interfaces and procedures which adapt the vendor supplied, process specific documents to Waterford Steam Electric Station - Unit Number 3 (Waterford 3).

At the present time, LP&L has General Service Agreements with both Westinghouse Hittman Nuclear Incorporated (Hittman) and Chem-Nuclear Systems, Incorporated (CNSI) to provide solidification services on an as needed basis. The types of process wet radioactive waste which will be solidified are: bead resins with greater than 1 uCi/cc activity, or when dewatering is not practical; evaporator bottoms and boric acid concentrates from the Liquid Waste and Boron Management Systems; and filters with greater than 1 uCi/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 ₃ Volume, ft ³	Waste Volume, ft ³	Waste
<u>CNSI process:</u>			
CNSI 14-195	195	135	Bead Resin
		117	Evaporator Bottoms and Boric Acid Concentrates
CNSI 14-170	170	120	Bead Resin
		102	Evaporator Bottoms and Boric Acid Concentrates
CNSI 8-120	120	78	Bead Resin
		72	Evaporator Bottoms and Boric Acid Concentrates
<u>Hittman process:</u>			
HN-100	170	132	Bead Resin
		114	Evaporator Bottoms and Boric Acid Concentrates
HN-200	70	54	Bead Resin
		46	Evaporator Bottoms and Boric Acid Concentrates

The attached drawings show the expected placement of equipment in the Portable Solidification Building for both the Hittman and CNSI processes. 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.

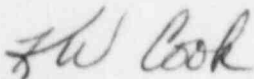
Surveillance Procedure RW-2-210, Revision 0, "Radioactive Waste Solidification", which was submitted by the referenced letter, has been updated to reflect LP&L's solid radioactive waste management practices.

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Draft Revision 1, which is in the approval cycle, is attached for your review. This procedure incorporates by reference both Hittman and CNSI process control programs for radioactive waste solidification and, as such, is the equivalent of a Waterford 3 specific process control program. No exceptions or deviations from vendor supplied procedures or topical reports is anticipated.

Should you have any questions or comments regarding this matter, please feel free to contact Chadi D. Groome of our Nuclear Licensing Office at (504) 363-8997.

Very truly yours,



K.W. Cook
Nuclear Support & Licensing Manager

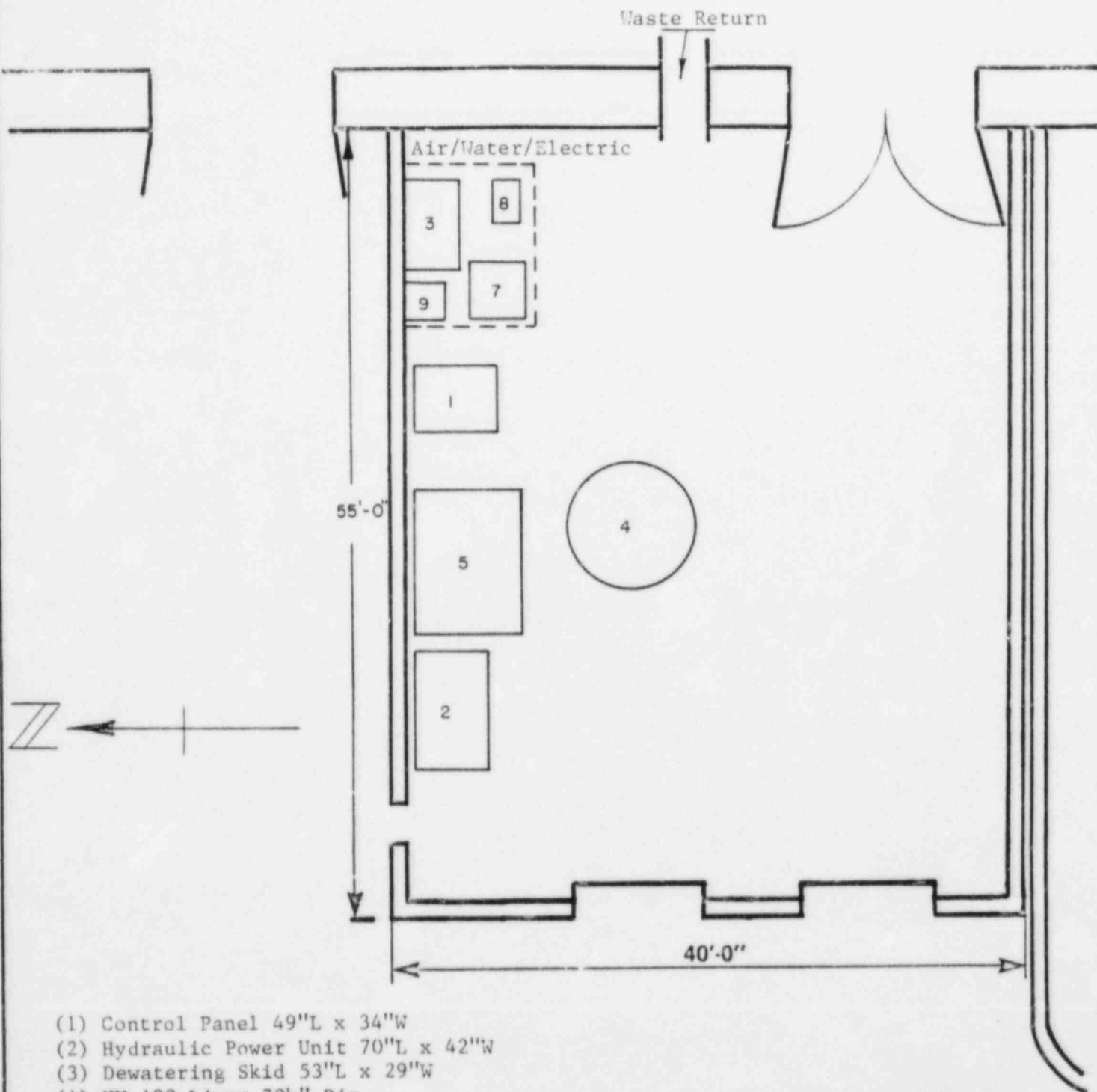
KWC/CDG/pco

Enclosures

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

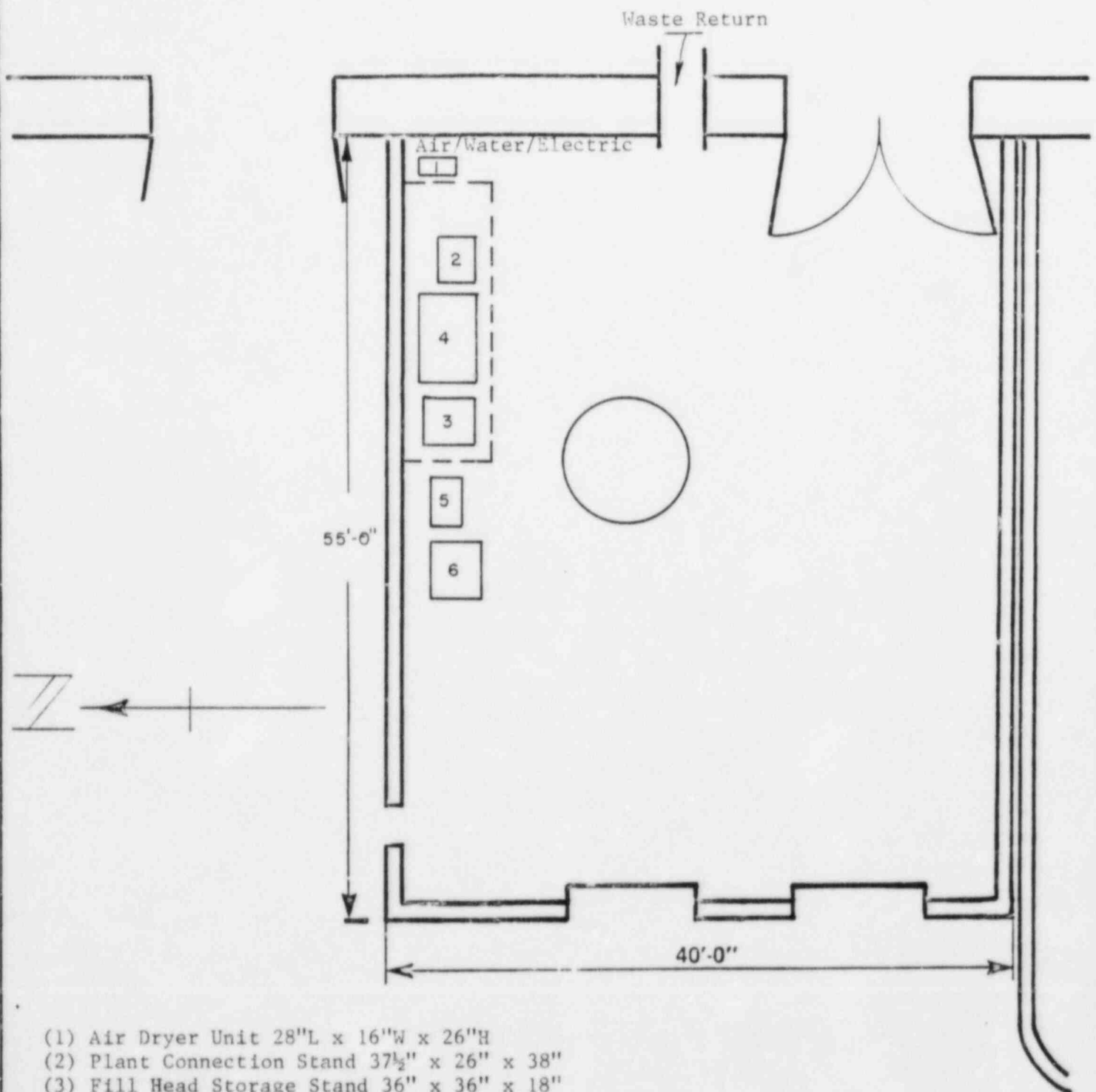
cc with enclosures: C. Willis

LAYOUT OF HNDC INCONTAINER SOLIDIFICATION UNIT



- (1) Control Panel 49"L x 34"W
- (2) Hydraulic Power Unit 70"L x 42"W
- (3) Dewatering Skid 53"L x 29"W
- (4) HN-100 Liner 72½" Dia.
- (5) Cement Hopper 48"L x 48"W
- (6) Conveyor 2½" Dia.
- (7) Mixer Head Storage Stand 37"L x 37"W
- (8) Level Indication Panels 30"L x 18"W
- (9) Receiver Tank 21"L x 21"W

LAYOUT OF CNSI MOBILE CEMENT SOLIDIFICATION UNIT



- (1) Air Dryer Unit 28"L x 16"W x 26"H
- (2) Plant Connection Stand 37½" x 26" x 38"
- (3) Fill Head Storage Stand 36" x 36" x 18"
- (4) Venturi Scrubber 74" x 24" x 52"
- (5) Control Panel 36" x 24" x 52"
- (6) Hydraulic Skid 60" x 36" x 42"
- (7) Bulk Cement Trailer 42' x 9' x 16'