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RECIP.NAME RECIPIENT AFFILIATION
DENTON,H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Clarifies & revises Item 7, "Crane Load Block," in Table 2.1.3.c.1, restricting movement of crane load block over spent fuel pool only when main hoist deenergeized, per NUREG-0612. W/two oversize drawings.

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September 11, 1985
AEP:NRC:0514M

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
NUREG-0612 "Control of Heavy Loads"
CLARIFICATION OF LETTER NO. AEP:NRC:0514C

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: Letter No. AEP:NRC:0514C dated June 18, 1982.

Dear Mr. Denton:

This letter and its attachments clarify and revise Item No. 7, "Crane Load Block" in Table 2.1.3.c.1 noted in attachment to the above-referenced letter. Attachment 1 to this letter modifies Table 2.1.3.c.1 to restrict movement of the crane load block over the spent fuel pool only when the main hoist is deenergized. Attachment 2 contains the Whiting Corporation drawing Nos. T-49576 and U-61740 showing the details of load block and the crane.

The current requirements regarding control of heavy loads prohibit us from moving the crane load block of the main hook over the spent fuel pool. Since the load block and hook are integral parts of the trolley, as can be seen in Attachment 2, these requirements prevent movement of the trolley over the spent fuel pool whenever maintenance work using the trolley is being performed. The area of the spent fuel pool is defined as that area of the pool which contains the spent fuel racks.

The crane is equipped with both geared and paddle-type upper-limit switches for both the main and auxiliary hooks to prevent the load blocks from moving up and coming into contact with the upper block (i.e., two-blocking) and thus potentially stretching the cable to failure. In addition to these limit switches, upon receiving the NRC approval, we will be revising the plant procedures to deenergize the main hoist prior to the trolley being moved over the spent fuel pool. With a combination of limit switches and deenergization of the main hoist, the load block will become a passive component of the trolley rather than an active component and be an integral part of the crane itself. We believe this change satisfies the requirement of NUREG-0612 while relieving the plant of the administrative controls that are in effect.

DRAWING TO PM

A033
1/1

Attachment 1 also corrects a typographical error in Item No. 3 of Table 2.1.3.c.2 of our submittal No. AEP:NRC:0514C dated June 18, 1982. In that letter the weight of the reactor vessel lower internals was reported as 80 tons. The correct weight of the lower internals is 135 tons, as was noted in WCAP-10230, which was transmitted to your office in our later submittal No. AEP:NRC:0514G dated July 5, 1983. We have received Revision 1 to WCAP-10230, which further updates the weight of the lower internals. Once our evaluation of the report is completed, we anticipate sending you a revision to WCAP-10230 which will update this number to approximately 163.0 tons.

We request an expedited review of this submittal by the Commission since we have implemented an administrative control not to move the crane trolley over the spent fuel pool.

This letter has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,

M. P. Alexich
Vice President

RBK 9/9/85

cm

Attachment

cc: John E. Dolan
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Bruchmann
G. Charnoff
NRC Resident Inspector - Bridgman

ATTACHMENT NO. 1

TO

AEP:NRC:0514M

TABLE 2.1.3.C.1
SURVEY OF HEAVY LOADS*
AEP:NRC:0514C

AREA	CRANE (A = AUX. BLDG. CRANE; FHC = NEW & SPENT FUEL HANDLING CRANE)	LOADS HANDLED	OVER (O) OR ONLY PROXIMITY (P) TO SPENT FUEL	APPROXIMATE WEIGHT	FREQUENCY HANDLED	LIFTING DEVICE	HANDLING PROCEDURE
AUXILIARY BUILDING	A	1. Spent Fuel Shipping Cask	(P)	110 Tons	(Future)	(Future)	(Future)
	A	2. Radiation Protection Shields	(P)	55 Tons	As required during refueling outages	Slings	12 MHP 5021.001.036
	A	3. Irradiated Specimen Shipping Cask	(P)	1-2 Tons	8 times in 20 yrs. (2 Units)	Slings	12 MHP-SP-006
	A	4. Plant Equipment (e.g. pumps, motors, valves, heat exchangers)	(P)	Max 4 Tons	As required for Modification or replacement	Slings	12 MHP 5001.001.036
	A	5. New Fuel Shipping Containers with Assembly	(P)	1-1/2 Tons	50/year	Slings	12 MHP 4050 FDF .001 12 MHP 4050 FDF .002
	FHC	6. Spent Fuel Assembly	(O)	1850#/1890#	100-150 per refueling	Handling Tool	12 MHP 4050 FDF .008
	A	7a. Crane Load Block	(P)¶	4.25 T	Integral to Crane	Crane Ropes	12 MHP 4050 FDF .011
		7b. Crane Load Block	(O)¶¶	4.25 T	Integral to Crane	Crane Ropes	12 MHP 5021.082.020 12 MHP 5021.001.036
	A & FHC	8. New Fuel Assembly	(P)	1850#/ 1890#**	100-150 per refueling	Handling Tool	12 MHP 4050 FDF .008
	A	9. Superstructure New & Spent Fuel Handling Crane	(P)	25 Tons	Approx. every 18 mos.	Slings	Instruction Book #105671 Dwight Foote, Inc.
	A	10. Equipment Hatch	(P)	45 Tons	As required during refueling	Slings	12 MHP 5021.001.032
	A	11. Reactor Coolant Pump Rotating Assembly	(P)	28 Tons	As required during Maintenance	Slings	12 MHP 5021.001.036
	A	12. Reactor Coolant Pump Motor	(P)	38 Tons	As required during Maintenance	Slings	12 MHP 5021.001.036
	A	13. LSA Waste Boxes	(P)	2 Tons	52/year	Slings	12 MHP 5021.001.036
	A	14. Waste Container Metal Bin	(P)	2 Tons	52/year	Slings	12 MHP 5021.001.036
	A	15. Glycol Tank	(P)	5 Tons	12/year	Slings	12 MHP 5021.001.036
	A	16. Reactor Stud Rack (12 Studs/Rack)	(P)	4-5 Tons	4/year	Slings	12 MHP 5021.001.036

* Heavy loads are defined as "any load, carried in a given area after a plant becomes operational, that weighs more than the combined weight of a single spent fuel assembly and its associated handling tool for the specific plant in question."

** Unit No. 1 1850#, Unit No. 2 1890#

¶ With main hoist energized

¶¶ With main hoist deenergized

TABLE 2.1.3.C.2

SURVEY OF HEAVY LOADS*

AEP:NRC:0514C

Area	Crane (P = Polar, M = Manipulator)	Loads Handled	Over (O) or only Proximity (P) to Spent Fuel	Approximate Weight	Frequency Handled	Lifting Device	Handling Procedure
Containment Building	P	1. Reactor Vessel Head	(P)	148.5 Tons	2 times (per refueling)	Head Lifting Rig W Spin Fister	12 MHP 5021.001.002
	P	2. Upper Internals	(O)	58 Tons	2 times (per refueling)	Internals Lifting Rig W Spin Fister	MHP 5021.001.003A
	P	3. Lower Internals	(1)	135 Tons	Once every 10 years	Internals Lifting Rig W Spin Fister	MHP 5021.001.003B
	M/P	4. In-Service Inspection Tool	(O)	1.5 Tons	Used at least once every 3 yrs.		12 QHP 5020 ISI .007
	P	5. Missile Shields	(P)		2 times (per refueling)	Missile Shield Lifting Rig	12 MHP 4050 FDF .026
		a Beams 1 & 4		39 Tons			
		b Beams 2 & 3		87 Tons			
	P	6. Cavity Bulkhead Sections	(P)		2 times (per refueling)	Lifting Beams MK-31864 LB1 and LB 2	12 MHP 4050 FDF .026
		a Bll 1 & 2		28 Tons			
		b Bll 3		30 Tons			
	P	7. Crane Load Block	(P)	6.25 Tons	Integral to Polar Crane	Crane Ropes	12 MHP 4050 FDF .025
	P	8. In-Containment Equipment (Including reactor coolant pump internal assembly & motor)	(P)	38 Tons	Administrative control of all equipment brought into containment during refueling outage	Slings	MHP 5021.002.002
	M	9. New and Spent Fuel Assembly	(O)	1850#/1850#**	260 times/Refueling	Integral to M	12 MHP 4050 FDF .015

(1) All fuel is removed from containment when lower internals are handled.

* Heavy loads are defined as "any load, carried in a given area after a plant becomes operational, that weighs more than the combined weight of a single spent fuel assembly and its associated handling tool for the specific plant in question."

** Unit No. 1 1850#, Unit No. 2 1850#

ATTACHMENT NO. 2

TO

AEP:NRC:0514M