

DUKE POWER COMPANY

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July 23, 1984

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

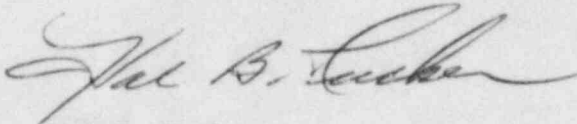
Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

Enclosed are six copies of Revision 4 to the Catawba Nuclear Station
(Unit 1) Pump and Valve Inservice Testing Program.

Very truly yours,



Hal B. Tucker

RWO/slb

Enclosures

cc: (w/o enclosures)

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GENERAL RELIEF REQUEST

Test Requirement: Measure pump suction pressure (P_i) before pump startup per Table IWP-3100-1.

Basis for Relief: Purpose for measuring pump suction pressure prior to starting pump is to ensure adequate NPSH is available. Some pumps may already be running to support normal plant operation when the pump test is run. Since pump may already be in service, NPSH requirements have been met. It is unnecessary to stop an operating pump only to measure static suction pressure.

Alternate Testing: Pump suction pressure, prior to and following startup, will be measured for pumps which are not currently in operation at time of test. Pump suction pressure with the pump running will be measured for pumps which are currently in operation at time of test.

9. Test Req - The following is a list of abbreviations used to specify the Code Test Requirements for each valve.

Q - Exercise Valve (Full Stroke) for operability per IWV-3410 every 3 months.

LT - Leak Test Valve per IWV-3420 not less than once every 2 years

MT - Stroke Time Valve (Full Stroke) per IWV-3410 every 3 months.

CV - Exercise Check Valve (Full Stroke) to the position required to fulfill its function per IWV-3520 every 3 months.

SRV - Safety and Relief Valves are tested per IWV-3510.

DT - Test Category D Valves per IWV-3600

FS - Test Valve for Fail Safe Actuation per IWV-3415 every 3 months.

RP - Remote Position Indication Verification per IWV-3300 not less than once every 2 years.

10. Relf Reqs - If the valve is being tested in accordance with the shortest Code-Required Test Frequency, this column will be blank. A reference number will be entered in this column for valves which the shortest code-required test frequency cannot be met. This reference number identifies a specific relief request in Section D.

11. Test Alter - If the valve is being tested in accordance with the shortest Code-Required Test Frequency, this column will be blank. An alternate test abbreviation will be entered in this column for valves which the shortest Code-Required Test Frequency cannot be met. A list of these abbreviations is as follows:

CS - Perform required testing during cold shutdown (mode 5). In case of frequent shutdowns testing will not be performed more often than once every 3 months.*

RF - Perform required testing during refueling (mode 6).

- Z - Exercise valve (partial stroke) for operability every 3 months during power operation and exercise valve (full stroke) for operability during cold shutdown (mode 5).
- CZ - Exercise check valve (partial stroke) toward the position required to fulfill its function during operation and exercise valve (full stroke) toward the position required to fulfill its function during cold shutdown (mode 5).
- RR - Refer to Relief Request For Test Frequency.
- BV - Pressure boundary valve leak rate test. **

*NOTE: The following condition applies for all testing performed during cold shutdown:

Valve testing will commence as soon as possible, but no later than 48 hours, after reaching cold shutdown conditions. Valve testing will proceed in a normal manner until all testing is complete or the plant is ready to return to power. A completion of all valve testing is not a prerequisite to return to power. Any testing not completed by the end of one cold shutdown will be performed during subsequent cold shutdowns, starting from the last test performed at the previous cold shutdown.

** NOTE: All leak rate tests are performed in accordance with 10CFR50, Appendix J, Type C leak rate procedure with the exception of Pressure boundary valves, whose test is a differential pressure test with water as a medium. Test frequency will be in accordance with Tech Spec Surveillance Requirement 4.4.6.2.2.

- 12. Flow Diagram - The Duke flow diagram number on which the valve appears.
- 13. Coordinates - Location of the Duke flow diagram where the valve is found
- 14. Valve Time - This column provides the limiting valve of full stroke time (in seconds) for power operated valves.
- 15. ESF - The following is a list of abbreviations used to specify which safety signal certain valves receive:
 - S - Receives a safety injection signal
 - T - Receives a containment isolation signal from containment high pressure (1 psig)

DATA SORTED BY VALVE NAME

DUKE POWER COMPANY
CATAMBA NUCLEAR STATION
VALVE INSERVICE TESTING COMMITMENTS

VALVE NAME	ASME CLASS	CATEGORY	PASSIVE	SIZE	VALVE TYPE	ACT	NORM POS.	TEST REQ.	REL REQ	TEST ALTER	FLOW DIAGRAM	COORDINATES	VALVE TIME	ESF	RESP. PARTY
1KC429B	2	A		2.0	GL	EL	Ø	RP			CN-1573-15	H-02		T	PRF
1KC429B	2	A		2.0	GL	EL	Ø	Q			CN-1573-15	H-02		T	PRF
1KC430A	2	A		2.0	GL	EL	Ø	MT			CN-1573-13	J-03	10	T	PRF
1KC430A	2	A		2.0	GL	EL	Ø	RP			CN-1573-13	H-02		T	PRF
1KC430A	2	A		2.0	GL	EL	Ø	LT			CN-1573-13	J-03		T	PRF
1KC430A	2	A		2.0	GL	EL	Ø	Q			CN-1573-13	H-02		T	PRF
1KD 6	3	C		8.0	CK	SA	-	CV	X01	RR	CN-1609-10	J-10			O/M
1KD 21	3	C		8.0	CK	SA	-	CV	X01	RR	CN-1609-10	E-10			O/M
1KF101B	2	B		4.0	GA	EL	C	RP			CN-1570-10	H-13		S	PRF
1KF101B	2	B		4.0	GA	EL	C	Q			CN-1570-10	H-13		S	PRF
1KF101B	2	B		4.0	GA	EL	C	MT			CN-1570-10	H-13	10	S	PRF
1KF103A	2	B		4.0	GA	EL	C	RP			CN-1570-10	H-12		S	PRF
1KF103A	2	B		4.0	GA	EL	C	Q			CN-1570-10	H-12		S	PRF
1KF103A	2	B		4.0	GA	EL	C	MT			CN-1570-10	H-12	10	S	PRF
1NB260B	2	A		1.0	GL	EL	C	RP			CN-1556-20	G-04		T	PRF
1NB260B	2	A		1.0	GL	EL	C	LT			CN-1556-20	G-04		T	PRF
1NB260B	2	A		1.0	GL	EL	C	MT			CN-1556-20	G-04	10	T	PRF
1NB260B	2	A		1.0	GL	EL	C	Q			CN-1556-20	G-04		T	PRF
1NB262	2	AC		.75	CK	SA	-	CV	D01	RF	CN-1556-20	G-06			PRF
1NB262	2	AC		.75	CK	SA	-	LT			CN-1556-20	G-06			PRF
1NC 1	1	C		6.0	RL	SA	-	SRV			CN-1553-11	K-03			MNT
1NC 2	1	C		6.0	RL	SA	-	SRV			CN-1553-11	K-04			MNT
1NC 3	1	C		6.0	RL	SA	-	SRV			CN-1553-11	K-06			MNT
1NC 32B	1	B		4.0	GL	P	C	FS			CN-1553-11	G-04			PRF
1NC 32B	1	B		4.0	GL	P	C	RP			CN-1553-11	G-04			PRF
1NC 32B	1	B		4.0	GL	P	C	MT			CN-1553-11	G-04	3		PRF

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4

13/60

DATA SORTED BY VALVE NAME

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
VALVE INSERVICE TESTING COMMITMENTS

VALVE NAME	ASME CLASS	CATEGORY	PASSIVE	SIZE	VALVE TYPE	ACT	NORM POS.	TEST REQ.	REL REQ	TEST ALTER	FLDN DIAGRAM	COORDINATES	VALVE TIME	ESF	RESP. PARTY
INC 32B	1	B		4.0	GL	P	C	Q			CN-1553-11	G-04			PRF
INC 34A	1	B		4.0	GL	P	C	RP			CN-1553-11	G-03			PRF
INC 34A	1	B		4.0	GL	P	C	Q			CN-1553-11	G-03			PRF
INC 34A	1	B		4.0	GL	P	C	FS			CN-1553-11	G-03			PRF
INC 34A	1	B		4.0	GL	P	C	MT			CN-1553-11	G-03	3		PRF
INC 36B	1	B		4.0	GL	P	C	MT			CN-1553-11	G-02	3		PRF
INC 36B	1	B		4.0	GL	P	C	RP			CN-1553-11	G-02			PRF
INC 36B	1	B		4.0	GL	P	C	Q			CN-1553-11	G-02			PRF
INC 36B	1	B		4.0	GL	P	C	FS			CN-1553-11	G-02			PRF
INC 53B	2	A		1.0	GL	EL	C	RP			CN-1553-11	K-11		T	PRF
INC 53B	2	A		1.0	GL	EL	C	LT			CN-1553-11	K-11		T	PRF
INC 53B	2	A		1.0	GL	EL	C	MT			CN-1553-11	K-11	10	T	PRF
INC 53B	2	A		1.0	GL	EL	C	Q			CN-1553-11	K-11		T	PRF
INC 54A	2	A		1.0	GL	EL	C	LT			CN-1553-11	K-09		T	PRF
INC 54A	2	A		1.0	GL	EL	C	RP			CN-1553-11	K-09		T	PRF
INC 54A	2	A		1.0	GL	EL	C	MT			CN-1553-11	K-09	10	T	PRF
INC 54A	2	A		1.0	GL	EL	C	Q			CN-1553-11	K-09		T	PRF
INC 56B	2	B		3.0	GA	EL	C	RP			CN-1553-11	I-13		T	PRF
INC 56B	2	B		3.0	GA	EL	C	MT			CN-1553-11	I-13	10	T	PRF
INC 56B	2	B		3.0	GA	EL	C	Q			CN-1553-11	I-13		T	PRF
INC 57	2	AC		3.0	CK	SA	-	CV	E01	RF	CN-1553-11	I-12			PRF
INC 57	2	AC		3.0	CK	SA	-	LT			CN-1553-11	I-12			PRF
INC141	2	A	X	2.0	GA	M	LC	LT			CN-1553-13	J-08			PRF
INC142	2	A	X	2.0	GA	M	LC	LT			CN-1553-13	K-08			PRF
INC195B	2	A		2.0	GA	EL	C	RP			CN-1553-13	E-07		T	PRF
INC195B	2	A		2.0	GA	EL	C	Q			CN-1553-13	E-07		T	PRF

14/60

DATA SORTED BY VALVE NAME

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
VALVE INSERVICE TESTING COMMITMENTS

VALVE NAME	ASME CLASS	CATEGORY	PASSIVE	SIZE	VALVE TYPE	ACT	NORM POS.	TEST REQ.	RELF REQS	TEST ALTER	FLOW DIAGRAM	COORDINATES	VALVE TIME	ESF	RESP. PARTY
1RF457B	-	B		6.0	GA	EL	C	RP			CN-1599-22	C-02		T	PRF 1
1RF457B	-	B		6.0	GA	EL	C	MT			CN-1599-22	C-02	10	T	PRF 1
1RN 01A	3	B		48.	BF	EL	Ø	RP			CN-1574-10	J-08		P	PRF
1RN 01A	3	B		48.	BF	EL	Ø	Q			CN-1574-10	J-08		P	PRF
1RN 01A	3	B		48.	BF	EL	Ø	MT			CN-1574-10	J-08	60	P	PRF
1RN 02B	3	B		48.	BF	EL	Ø	MT			CN-1574-10	J-08	60	P	PRF
1RN 02B	3	B		48.	BF	EL	Ø	RP			CN-1574-10	J-08		P	PRF
1RN 02B	3	B		48.	BF	EL	Ø	Q			CN-1574-10	J-08		P	PRF
1RN 03A	3	B		48.	BF	EL	C	MT			CN-1574-12	K-11	70	P	PRF 2
1RN 03A	3	B		48.	BF	EL	C	Q			CN-1574-12	K-11		P	PRF
1RN 03A	3	B		48.	BF	EL	C	RP			CN-1574-12	K-11		P	PRF
1RN 04B	3	B		48.	BF	EL	C	MT			CN-1574-12	K-04	70	P	PRF 2
1RN 04B	3	B		48.	BF	EL	C	Q			CN-1574-12	K-04		P	PRF
1RN 04B	3	B		48.	BF	EL	C	RP			CN-1574-12	K-04		P	PRF
1RN 05A	3	B		48.	BF	EL	Ø	RP			CN-1574-10	K-05		P	PRF
1RN 05A	3	B		48.	BF	EL	Ø	Q			CN-1574-10	K-05		P	PRF
1RN 05A	3	B		48.	BF	EL	Ø	MT			CN-1574-10	K-05	60	P	PRF
1RN 06B	3	B		48.	BF	EL	Ø	MT			CN-1574-10	K-05	60	P	PRF
1RN 06B	3	B		48.	BF	EL	Ø	RP			CN-1574-10	K-05		P	PRF
1RN 06B	3	B		48.	BF	EL	Ø	Q			CN-1574-10	K-05		P	PRF
1RN 09	3	C		30.	CK	SA	-	CV			CN-1574-10	F-04			PRF 1
1RN 11A	3	B		2.0	GL	EL	Ø	Q			CN-1574-10	F-05		S	PRF
1RN 11A	3	B		2.0	GL	EL	Ø	MT			CN-1574-10	F-05	30	S	PRF 1 2 4
1RN 11A	3	B		2.0	GL	EL	Ø	RP			CN-1574-10	F-05		S	PRF
1RN 18	3	C		30.	CK	SA	-	CV			CN-1574-12	F-04			PRF 1 2 4
1RN 20B	3	B		2.0	GL	EL	C	MT			CN-1574-12	E-06	30	S	PRF 1 2 4

41/60

DATA SORTED BY VALVE NAME

DUKE POWER COMPANY
CATAPBA NUCLEAR STATION
VALVE INSERVICE TESTING COMMITMENTS

VALVE NAME	ASME CLASS	CATEGORY	PASSIVE	SIZE	VALVE TYPE	ACT	NORM POS.	TEST REQ.	RELF REQS	TEST ALTER	FLOW DIAGRAM	COORDINATES	VALVE TIME	ESF	RESP. PARTY
1RN 20B	3	B		2.0	GL	EL	C	Q			CN-1574-12	E-06		S	PRF
1RN 20B	3	B		2.0	GL	EL	C	RP			CN-1574-12	E-06		S	PRF
1RN 28A	3	B		30.	BF	EL	Ø	Q			CN-1574-10	F-04		S	PRF
1RN 23A	3	B		30.	BF	EL	Ø	RP			CN-1574-10	F-04		S	PRF
1RN 28A	3	B		30.	BF	EL	Ø	MT			CN-1574-10	F-04	60	S	PRF
1RN 36A	3	B		4.0	GA	EL	Ø	RP			CN-1574-10	E-07		S	PRF
1RN 36A	3	B		4.0	GA	EL	Ø	Q			CN-1574-10	E-07		S	PRF
1RN 36A	3	B		4.0	GA	EL	Ø	MT			CN-1574-10	E-07	30	S	PRF
1RN 37B	3	B		4.0	GA	EL	Ø	MT			CN-1574-10	E-08	30	S	PRF
1RN 37B	3	B		4.0	GA	EL	Ø	Q			CN-1574-10	E-08		S	PRF
1RN 37B	3	B		4.0	GA	EL	Ø	RP			CN-1574-10	E-08		S	PRF
1RN 38B	3	B		30.	BF	EL	Ø	Q			CN-1574-12	E-04		S	PRF
1RN 38B	3	B		30.	BF	EL	Ø	MT			CN-1574-12	E-04	60	S	PRF
1RN 38B	3	B		30.	BF	EL	Ø	RP			CN-1574-12	E-04		S	PRF
1RN 47A	3	B		20.	BF	EL	Ø	MT			CN-1574-11	I-03	60	P	PRF
1RN 47A	3	B		20.	BF	EL	Ø	RP			CN-1574-11	I-03		P	PRF
1RN 47A	3	B		20.	BF	EL	Ø	Q			CN-1574-11	I-03		P	PRF
1RN 48B	3	B		20.	BF	EL	Ø	RP			CN-1574-11	I-05		P	PRF
1RN 48B	3	B		20.	BF	EL	Ø	Q			CN-1574-11	I-05		P	PRF
1RN 48B	3	B		20.	BF	EL	Ø	MT			CN-1574-11	I-05	60	P	PRF
1RN 49A	3	B		20.	BF	EL	Ø	MT	M01	CS	CN-1574-11	H-04	60	P	PRF
1RN 49A	3	B		20.	BF	EL	Ø	Q	M01	CS	CN-1574-11	H-04		P	PRF
1RN 49A	3	B		20.	BF	EL	Ø	RP			CN-1574-11	H-04		P	PRF
1RN 50B	3	B		20.	BF	EL	Ø	MT	M01	CS	CN-1574-11	G-04	60	P	PRF
1RN 50B	3	B		20.	BF	EL	Ø	Q	M01	CS	CN-1574-11	G-04		P	PRF
1RN 50B	3	B		20.	BF	EL	Ø	RP			CN-1574-11	G-04		P	PRF

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42/60

GENERAL RELIEF REQUESTS

- I. Test Requirement: Perform Trend Analyses on Category A and B valves as described in IWV-3417(a).
- Basis for Relief: Fast-acting valve stroke times (those with stroke times of ≤ 5 seconds) will not be trended. Since stroke times are only measured to the nearest second (per IWV-3413(b)) it is difficult to screen out variables which can influence stroke times of ≤ 5 seconds.
- Testing Alternative: Trend Analyses will not be performed on valves with stroke times of < 5 seconds. Corrective maintenance will be initiated if stroke time exceeds maximum specified time.
- II. Test Requirement: Measure the full stroke time for power operated valves as specified in IWV-3413(a).
- Basis for Relief: Catawba's Operator Aid Computer Response Time Testing Program measures response time between limit switch actuations, rather than from the initiation of the actuating signal. The only way to time the valve using the actuating signal as the initiating point is through the use of some manual means, such as a stop watch. More consistent and repeatable results can be obtained by timing the valve from limit switch to limit switch.
- Testing Alternative: Valves will normally be timed from limit switch to limit switch. In cases where this is not practical timing will be manually done from initiation of the actuating signal.