



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PDR

JAN 10 1984

50-289

MEMORANDUM FOR: Commissioner Asselstine
FROM: William J. Dircks
Executive Director for Operations
SUBJECT: THREE MILE ISLAND, UNIT 1 (TMI-1) STEAM GENERATOR
REPAIR PROGRAM - NO SIGNIFICANT HAZARDS CONSIDERATION
AND LICENSE AMENDMENT (SECY 83-474)

Your memorandum dated December 5, 1983, subject as above, requested that the staff provide: (1) a list of the plants for which a license amendment has been issued in the past five years involving a steam generator modification or repair along with an indication of whether "no significant hazards" determinations were made; and (2) a judgment on the length of time the hearing would take for the steam generator repair issue on the TMI-1 license amendment case.

In response to your first request, the enclosed table provides a list of license amendments and orders that have been issued between 1979 and the present time that relate directly to steam generator repairs or modifications. As the table shows, most amendments did not offer a prior opportunity for a hearing and the staff determined that the amendment did not involve a significant hazards consideration. Those amendments for which a prior opportunity for a hearing was offered are identified and explained in individual footnotes. Most of these involved steam generator replacement.

After the Sholly decision of November 19, 1980, the NRC staff operated under interim guidance that caused a prior hearing to be offered if a prior expression of public interest had been made or if the amendment involved irreversible aspects (irrespective of significant hazards consideration). It was under this guidance that the three Point Beach 1 amendments were noticed for a prior hearing (a significant hazards consideration determination was not made).

Your second request regarding the possible length of the hearing to consider the TMI-1 steam generator repairs was discussed at the December 7, 1983 Commission briefing on steam generators. In response to a question from Chairman Palladino (see transcript, page 100), the staff stated that the mechanisms for a hearing were currently underway, that the discovery period had started and was scheduled to finish in January 1984, and that we estimated that completion of the hearing process and issuance of a decision would take at least another eight or nine months beyond January. That information remains as our best estimate for completing the hearing process.

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(Signed) William J. Dircks
William J. Dircks
Executive Director for Operations

Enclosures and cc:
See next page

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Enclosure:
Table Listing Steam Generator
License Amendments and
Orders issued from 1979
to Present

cc w/enclosure:
Chairman Palladino
Commissioner Gilinsky
Commissioner Roberts
Commissioner Bernthal
SECY
OPE
OGC

DISTRIBUTION	
Central File	GHolahan
PRC System	DPickett
ORAB Rdg	EButcher
WDircks	LBerry/FMiraglia (GT 13841)
JRoe	MJambor/DEisenhut (GT 13841)
TRehm	MGarver (GT 13841)
VStello	KBowman (GT 13841)
GCunningham	TSpeis
Case/Denton	
RMattson	
RVollmer	
HThompson	
NGrace	
BSnyder	
PPAS	

*PREVIOUS INITIALS - SEE DATE

ORAB:DL*	ORAB:DL*	C:ORAB:DL*	ORB#1:DL*	ORB#2:DL*
DPickett:dm	EButcher	GHolahan	SVarga	DVassallo
12/21/83	12/21/83	12/21/83	12/22/83	12/22/83
ORB#3:DL*	ORB#4:DL*	ORB#5:DL*	AD OR:DL	AD OR:DL
JMiller	JStolz	DCrutchfield	GLamas	FMiraglia
12/22/83	12/22/83	12/22/83	12/23/83	12/23/83
WELD	D/DE	DD/RR	D/NEA	EDO
12/21/83	DEisenhut	ECase	HDevton	WDircks
	12/21/83	12/16/84	12/16/84	01/10/84

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William J. Dircks
Executive Director for Operations

Enclosure:
Table Listing Steam Generator
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Orders issued from 1979
to Present

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VStello	KBowman (GT 13841)
GCunningham	
Case/Denton	
RMattson	
RVollmer	
HThompson	
NGrace	
BSnyder	
PPAS	
TSpeis	
ORAB Rdg	

ORB#1:DL SVarga 12/21/83	ORB#3:DL JMiller 12/21/83	ORB#4:DL JStolz 12/22/83	ORB#5:DL DDeutchfield 12/22/83	AD/OR:DL GJames 12/ /83
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ORAB:DL DPickett:dm 12/21/83	ORAB:DL EButcher 12/21/83	CORAB:DL GHolahan 12/21/83	AD/SA:DL FMiraglia 12/ /83	D/DL DEisenhut 12/ /83	DD/NRR ECase 12/ /83	DYNRR HDenton 12/ /83
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LICENSE AMENDMENTS, ORDERS, ETC ON
STEAM GENERATOR REPAIRS OR REPLACEMENT

<u>PLANT NAME</u>	<u>ISSUE DATE</u>	<u>DESCRIPTION</u>	<u>REGULATORY ACTION (Amdt, Order, etc)</u>	<u>AMENDMENT NO.</u>	<u>PRE-HEARING OFFERED?</u>	<u>WAS A NO SIGNIFICANT HAZARDS CONSID. DETERM. MADE?*</u>
Turkey Pt. 4	3/23/79	Approved Operation and provided ISI intervals	Amendment	38	No	Yes
Turkey Pt. 4	6/15/79	ISI Intervals	Amendment	41	No	Yes
Turkey Pt. 4	12/14/79	ISI Intervals	Amendment	43	No	Yes
Turkey Pt. 4	2/22/80	ISI Intervals	Amendment	44	No	Yes
Turkey Pt. 4	3/13/80	ECCS Analysis w/20% tubes plugged	Amendment	46	No	Yes
Turkey Pt. 4	3/21/80	ISI Interval	Amendment	48	No	Yes
Turkey Pt. 4	5/15/80	ECCS analysis w/25% tubes plugged	Amendment	50	No	Yes
Turkey Pt. 4	6/12/80	ECCS analysis w/25% tubes for units 3/4 plugged and 6 months of operation for unit 4	Amendment	51	No	Yes
Turkey Pt. 4	1/15/81	ISI Interval	Amendment	54	No	Yes
Turkey Pt. 4	6/23/81	ISI Interval	Amendment	59	No	Yes
Turkey Pt. 4	6/23/81	Update of licensee conditions	Amendment	60	No	Yes
Turkey Pt. 4	6/24/81	S/G Replacement	Amendment	61	12/7/77	No (1)

* A "yes" in this column indicates that the staff determined that the amendment did not involve a significant hazards consideration.

(1) The staff determined that prior authorization was required and that an opportunity for a prior hearing should be offered.

LICENSE AMENDMENTS, ORDERS, ETC ON
STEAM GENERATOR REPAIRS OR REPLACEMENT

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Turkey Pt. 4	7/6/81	Permitted operation and restricted ISI interval	Amendment	62	No	Yes
Turkey Pt. 4	9/10/81	ISI Interval	Amendment	66	No	Yes
Turkey Pt. 3	3/30/79	Approved startup and ISI Interval	Amendment	46	No	Yes
Turkey Pt. 3	9/26/79	ISI Interval	Amendment	50	No	Yes
Turkey Pt. 3	1/25/80	ISI Interval	Amendment	52	No	Yes
Turkey Pt. 3	3/13/80	ECCS analysis w/22% tubes plugged	Amendment	54	No	Yes
Turkey Pt. 3	5/15/80	ECCS analysis w/20% tubes plugged	Amendment	57	No	Yes
Turkey Pt. 3	6/12/80	ECCS analysis w/25% tubes plugged	Amendment	58	No	Yes
Turkey Pt. 3	7/30/80	ISI Intervals	Amendment	59	No	Yes
Turkey Pt. 3	10/30/80	ISI Intervals	Amendment	60	No	Yes
Turkey Pt. 3	4/17/81	ISI Intervals	Amendment	64	No	Yes
Turkey Pt. 3	6/23/81	Updated ECCS analysis	Amendment	67	No	Yes
Turkey Pt. 3	6/23/81	ISI Intervals	Amendment	68	No	Yes
Turkey Pt. 3	6/24/81	S/G Replacement	Amendment	69	12/7/77	No (1)

(1) The staff determined that prior authorization was required and that an opportunity for a prior hearing should be offered.

LICENSE AMENDMENTS, ORDERS, ETC ON
STEAM GENERATOR REPAIRS OR REPLACEMENT

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WAS A NO
SIGNIFICANT
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CONSID.
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<u>PLANT NAME</u>	<u>ISSUE DATE</u>	<u>DESCRIPTION</u>	<u>REGULATORY ACTION (Amdt, Order, etc)</u>	<u>AMENDMENT NO.</u>	<u>PRE-HEARING OFFERED?</u>	<u>WAS A NO SIGNIFICANT HAZARDS CONSID. DETERM. MADE?</u>
Turkey Pt. 3	8/13/82	Change T/S to modify F ₀ & Figure 3.2-3, K(2) versus core height, for repaired S/G	Amendment	88	No	Yes
Turkey Pt. 4	8/13/82	Change TS to modify F ₀ & Figure 3.2-3, K(2) versus core height, for repaired steam generators	Amendments	82	No	Yes
Turkey Pt. 3	12/28/82	Modify the required flow rate of AFWS from 600 gpm to 373 gpm for the new model 44F steam generator	Amendment	90	No	Yes
Turkey Pt. 4	12/28/82	Modify the required flow rate of AFWS from 600 gpm to 373 gpm for the new model 44F steam generator	Amendment	84	No	Yes
Turkey Pt. 3	3/24/82	Incorporate steam generator inservice inspection requirements into TS - replaces license conditions	Amendment	81	No	Yes
Turkey Pt. 4	3/24/82	Incorporate steam generator inservice inspection requirements into TS - replace license conditions	Amendment	75	No	Yes
Turkey Pt. 3	4/22/82	Correct the Hot Channel Factor Normalization Operating Envelop	Amendment	86	No	Yes
Turkey Pt. 4	4/22/82	Correct the Hot Channel Factor Normalization Operating Envelop	Amendment	79	No	Yes

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Turkey Pt. 4	6/4/82	Extends operating interval to ten equivalent full power months at which time steam generators shall be inspected	Amendment	80	No	Yes
McGuire 1	1/8/82	Authorizes power above 90% to test Model D S/G	Amendment	11	No	Yes
McGuire 1	5/5/83	Added condition for verifying acceptability of Model D2 S/G design modifications	Amendment	21	No	Yes
Summer	11/12/82	Restricts operation to 50% until S/G documentation submitted	Amendment	5	No	Yes
Summer	5/5/83	Permits operation of modified model D3 S/G	Amendment	16	No	Yes
Salem 2	10/10/80	Allows licensee to exceed 5% power w/o plugging S/G tubes	Amendment	3	No	Yes
Salem 1	4/23/82	Modifies radiological T/S to permit S/G channel head insp.	Amendment	42	No	Yes
Salem 1	5/13/82	Provides alternative S/G tube insp. for cycle 4 testing	Amendment	43	No	Yes
Salem 2	1/27/83	Allows licensee to delay installation of S/G upper inspection port	Amendment	17	No	Yes

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Ginna	5/82	SER related to restart following S/G tube rupture	NUREG-0916	51	No	Yes
Ginna	6/2/82	Modification to license to determine the criteria to be provided in the SGTR procedures to describe when to discontinue use of main condenser in favor of atmospheric steam dump valves	Amendment	52	No	Yes
Ginna	10/8/82	Modification to license to confirm next S/G insp. re: ECT and visual insp. and water lancing will be performed during next refueling	Amendment	55	No	Yes
Zion 1	3/11/82	Allows S/G leakage to exceed 500 gallons/day until next refueling outage	Amendment	73	No	Yes
Zion 1	6/18/82	Provides monitoring & reporting S/G leakage in cycle 7	Amendment	74	No	Yes
Maine Yankee	2/27/81	Revises T/S to allow S/G tube leakage of 1 gpm	Amendment	53	No	Yes
Maine Yankee	11/29/82	One time exception for a Category C-3 S/G tube insp.	Amendment	68	No	Yes
Surry 1	1/19/79	S/G replacement	Amendment	47	10/21/77	No ⁽²⁾

(2) The staff determined that the amendment required review and approval and that an opportunity for a prior hearing should be offered.

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Surry 2	1/19/79	S/G replacement	Amendment	46	10/21/77	No (2)
Surry 2	12/20/79	Added S/G ISI requirements	Amendment	54	No	Yes
Surry 1	5/9/79	28% plugging authorized	Amendment	49	1/15/79	No (2)
Surry 1	2/5/80	Restricted ISI interval	Amendment	55	No	Yes
Surry 2	5/16/80	ECCS analysis based on 3% S/G tube plugging	Amendment	58	No	Yes
Surry 1	7/28/80	Restricted ISI interval	Amendment	59	No	Yes
Point Beach 1	11/30/79	Increased ISI frequency, more restrictive leakage limits, and more restrictive reactor coolant radioactivity limits and surveillance frequency	Order		No	N.A. (3)
Point Beach 1	1/3/80	Operation restricted to 2000 psi Order	Order		No	N.A. (3)
Point Beach 1	4/4/80	Revised testing and ISI frequency of 11/30/79 Order	Order		No	N.A. (3)

(2) The staff determined that the amendment required review and approval and that an opportunity for a prior hearing should be offered.

(3) Immediately effective Order. No findings relating to significant hazards considerations were made in connection with these Orders.

LICENSE AMENDMENTS, ORDERS, ETC ON
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Point Beach 1	11/10/81	Approved SG Sleeving	Amendment	56	8/7/81	No (4)
Point Beach 1	9/30/83	S/G replacement program	Amendment	75	7/12/82	No (4)
Point Beach 1	4/4/83	S/G tube sleeving	Amendment	71	8/3/81	No (4)
Point Beach 2	4/4/83	S/G tube sleeving	Amendment	76	8/3/81	No (4)
Millstone 2	5/12/79	Reduces S/G surveillance	Amendment	52	No	Yes
Millstone 2	10/6/80	S/G tube & support plate inspection	Amendment	61	No	Yes
Millstone 2	3/5/82	Allow reactor heat up for Cycle 5 operation w/less than 100% inspection of tubes in each SG	Amendment	73	No	Yes
Millstone 2	3/16/83	Defer S/G inservice inspection requirements to May 1983 outage	Amendment	83	No	Yes
TMI-1	8/25/83	Authorization for S/G hot functional testing w/repai red S/Gs. SGs repaired by the kinetic expansion process	Amendment	86	No	Yes (Hot Functional Testing)

(4) Prior opportunity for hearing offered under the post-Sholly decision (11-19-80) criteria (expression of public interest and irreversible impacts (large mar-rem exposures)).

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Robinson 2	11/17/79	Revised ISI program	Amendment	44	No	Yes
Robinson 2	8/28/81	License condition for revised inspection frequency and leak rate limits	Amendment	60	No	Yes
Robinson 2	11/31/81	Modification of the above license condition	Amendment	61	No	Yes
Robinson 2	7/23/82	Revise license condition to include S/G inspections & S/G tube leakage criterion (pre-replacement amdt.)	Amendment	71	No	Yes
San Onofre 1	6/8/81	Authorized 6 month operation after SG sleeving repairs	Amendment	55	No	Yes
Indian Point 2	9/7/79	Restricted ISI interval	Amendment	58	No	Yes
Indian Point 3	6/27/80	Requires special S/G insp.	Amendment	31	No	Yes
Indian Point 3	1/15/81	Establishes date of next S/G inspection	Amendment	34	No	Yes
Indian Point 2	4/22/81	Allows 12% of tubes to be plugged	Amendment	69	No	Yes

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Indian Point 3	11/13/81	Allows operation w/12% tubes plugged	Amendment	40	No	Yes
Indian Point 3	11/13/81	Temporary definition of degraded tube	Amendment	41	No	Yes
Indian Point 2	10/21/82	Modifies TS to redefine insp. requirements for tubes in S/G	Amendment	81	No	Yes
Indian Point 3	5/27/83	S/G tube and girth weld repairs	Amendment	47	No	Yes
Palisades	1/9/78	Augmented inservice insp. program for S/G tubes	Amendment	33	No	Yes
Palisades	4/7/78	Change to TS plugging limits	Amendment	39	No	Yes
Palisades	10/15/79	S/G tube surveillance	Amendment	52	No	Yes

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St. Lucie 1	11/16/81	Allows S/G insp. w/less than 100% tubes	Amendment	47	No	Yes
Oconee 1	2/22/80	S/G tube surveillance	Amendment	80	No	Yes
Oconee 1	3/30/81	S/G tube surveillance	Amendment	94	No	Yes
Oconee 2	2/22/80	S/G tube surveillance	Amendment	80	No	Yes
Oconee 2	3/30/81	S/G tube surveillance	Amendment	94	No	Yes
Oconee 3	2/22/80	S/G tube surveillance	Amendment	77	No	Yes
Oconee 3	3/30/81	S/G tube surveillance	Amendment	91	No	Yes
ANO-1	4/11/79	S/G tube surveillance	Amendment	41	No	Yes
North Anna 1	1/27/83	LOCA ECCS reanalysis for 7% S/G tube plugging	Amendment	45	No	Yes
North Anna 2	1/27/83	LOCA-ECCS reanalysis for 7% S/G tube plugging	Amendment	28	No	Yes
North Anna 1	4/13/82	ECCS performance for postulated larger break LOCA assuming 7% S/G uniform tube plugging	Amendment	39	No	Yes
North Anna 2	4/13/82	ECCS performance for postulated large break LOCA assuming 7% S/G uniform tube plugging	Amendment	20	No	Yes

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Crystal River 3	9/17/80	S/G tube inspection	Amendment	33	No	Yes
Crystal River 3	7/21/81	Potential dose from S/G tube	Amendment	41	No	Yes
Davis Besse	10/1/79	S/G inspection requirements	Amendment	21	No	Yes
Davis Besse	9/30/83	S/G inspection requirements	Amendment	62	No	No (5)
Prairie Island 1	2/2/83	S/G tube surveillance	Amendment	61	No	Yes
Prairie Island 2	2/2/83	S/G tube surveillance	Amendment	55	No	Yes

(5) A proposed NSHC determination was made. No final determination was made because a full 30-day notice of opportunity for hearing was published and no hearing was requested.