

July 16, 1999

LICENSEE: Tennessee Valley Authority

FACILITY: Sequoyah Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY - JULY 15, 1999, MEETING TO DISCUSS TVA'S EVALUATION OF THE FEE STRUCTURE COMPARED WITH RECENT ACTUAL FEES AND THE NRC GUIDANCE IN ESTIMATING REVIEW EFFORT FOR LICENSING ACTIONS

On July 15, 1999, representatives of the Tennessee Valley Authority (TVA), the licensee for the Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants, met in a public meeting with members of the U.S. Nuclear Regulatory Commission (NRC) staff at NRC Headquarters in Rockville, Maryland. TVA requested this meeting to brief the staff regarding their recent efforts in comparing actual licensing action review level of effort (over the past two years) against the example estimates given in the enclosure to Office of Nuclear Reactor Regulation (NRR) Office Letter (OL) No. 803. A list of attendees is given in Enclosure 1. The handout provided by TVA during the meeting is included as Enclosure 2.

TVA performed an evaluation of the NRC fee structure and a review of actual NRC billings during FY97 and FY98 for all three operating TVA nuclear plant sites. The billings included review of licensing actions submitted to NRC for approval and plant inspections conducted primarily by NRC Region II (see Enclosure 2). This meeting focused on the cost to TVA for review of licensing actions with detailed discussions of those reviews that required an extraordinary amount of NRC review time as measured by comparison to the estimated review times given in OL 803. The NRR Project Managers for Sequoyah and Watts Bar were present and discussed particular problems with the outlier review issues. The Lead Project Manager for OL 803 was also present.

The information presented by TVA at the meeting was very extensive and will be useful to the NRC in the next update to OL 803 and to understanding the reasons that some reviews in the past have required more resources than anticipated. This information may also be used in other current NRC initiatives involving the Project Manager function within NRR.

Original signed by:

Ronald W. Hernan, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures: 1. Attendance List
2. TVA Handout

cc w/enclosures: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 16, 1999

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FACILITY: Sequoyah Nuclear Plant, Units 1 and 2

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THE FEE STRUCTURE COMPARED WITH RECENT ACTUAL FEES AND THE
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A handwritten signature in cursive script, reading "Ronald W. Hernan", is positioned above the typed name.

Ronald W. Hernan, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

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cc w/enclosures: See next page

NRC/TVA MEETING TO DISCUSS TVA'S EVALUATION OF THE FEE STRUCTURE
COMPARED WITH RECENT ACTUAL FEES AND THE NRC GUIDANCE IN ESTIMATING
REVIEW EFFORT FOR LICENSING ACTIONS

THURSDAY, JULY 15, 1999

ATTENDEES

<u>Name</u>	<u>Affiliation</u>
Ronald Hernan	NRC
Herb Berkow	NRC
Sheri Peterson	NRC
Ron Hernan	NRC
Bob Martin	NRC
Suzanne Black	NRC
Bill Reckley	NRC
Kathleen O'Donohue	NRC
Ralph H. Shell	TVA
Ernest Stembridge	TVA

ENCLOSURE 1

**Evaluation of the NRC Fee Structure for the Detection of Amendment
Review and Inspection Overcharges**

**Prepared By:
Ernest Stembridge**

May 25, 1999

ENCLOSURE 2

Table 1.1
NRC Target Hours vs. Range of Invoiced Man Hours

Technical Complexity

Low Medium High

Low	NRC 10 - 40	NRC 40 - 120	NRC > 120
	BFN 86.5 - 137	BFN 101	BFN None
	SQN 27	SQN 22 - 98	SQN 244 - 585
	WBN None	WBN 38 - 579.5	WBN 866
Medium	NRC 10 - 40	NRC 40 - 80	NRC > 80
	BFN None	BFN 70 - 463.5	BFN None
	SQN None	SQN 11 - 349.4	SQN 1061
	WBN None	WBN 34 - 311	WBN 1018
High	NRC 10 - 20	NRC 20 - 60	NRC > 60
	BFN 118	BFN 169.5 - 199	BFN None
	SQN None	SQN 32 - 209	SQN None
	WBN 26 5	WBN 41 - 92.5	WBN None

Similarity

Note: Items that are bold indicate that the numbers exceeded the expected target.

**Attachment A: Results Summary for the Study of NRC Fees Assessed on
BFN**

12 Pages

BFN Technical Specification Changes for '97 & '98									
TS #	Description	Similarity Ranking			Technical Complexity				
		Low	Medium	High	Low	Medium	High		
353	Power Range Neutron Monitor Upgrade		x			x			
354	Oscillation Power Range Monitor		x			x			
360	TIP Operability Requirements	x			x				
362	Changes to Instrument STI's			x		x			
372	Administrative Section Changes	x				x			
376	Extended Emergency DG(s)		x			x			
377	MCPR Safety limit & Base Rev			x	x				
384	Power Uprate		x						x
386	Safety/Relief valve setpoint		x			x			
387	Single Recirculation Loop Operation			x	x				
390	Change Refueling interval			x		x			
391T	Temporary Extension of EDG	x			x				
393	Pressure-Temperature Curve Update			x		x			
395	RHRSW LCO		x			x			

Notes:

The similarity between an application and precedent can, for the current purposes, be categorized into three levels:

No or Low Similarity - There is either no precedent to apply, or major modification to the precedent license amendment that would be required for use in the application under consideration.

Medium Similarity - The review of the application could apply a precedent with limited technical modifications.

High Similarity - The review of the application could directly apply a precedent without technical modifications.

The technical complexity of a required review can also be categorized into three levels:

Low Complexity - includes changes to position titles in the TS administrative controls section and simple changes to setpoints or other TS details.

Medium Complexity - includes extensions of allowed outage times or surveillance test intervals, alternate action statements, reload related changes, or other changes which do not involve major changes or review of established NRC policies.

High Complexity - includes power rerates, significant restructuring of TS, changes that introduce significantly different analytical methodologies, and changes that are related to revising established NRC policies.

BFN Hours
Browns Ferry Nuclear Plant

NRC Guidance for Estimating Application Review Hours of Effort

Similarity Between Application and Precedent

Technical Complexity

and/or

No or Low

Medium

High

Risk Significance

Low

10 - 40 hours

10 - 40 hours

10 - 20 hours

Medium

40 - 120 hours

40 - 80 hours

20 - 60 hours

High

> 120 hours

> 80 hours

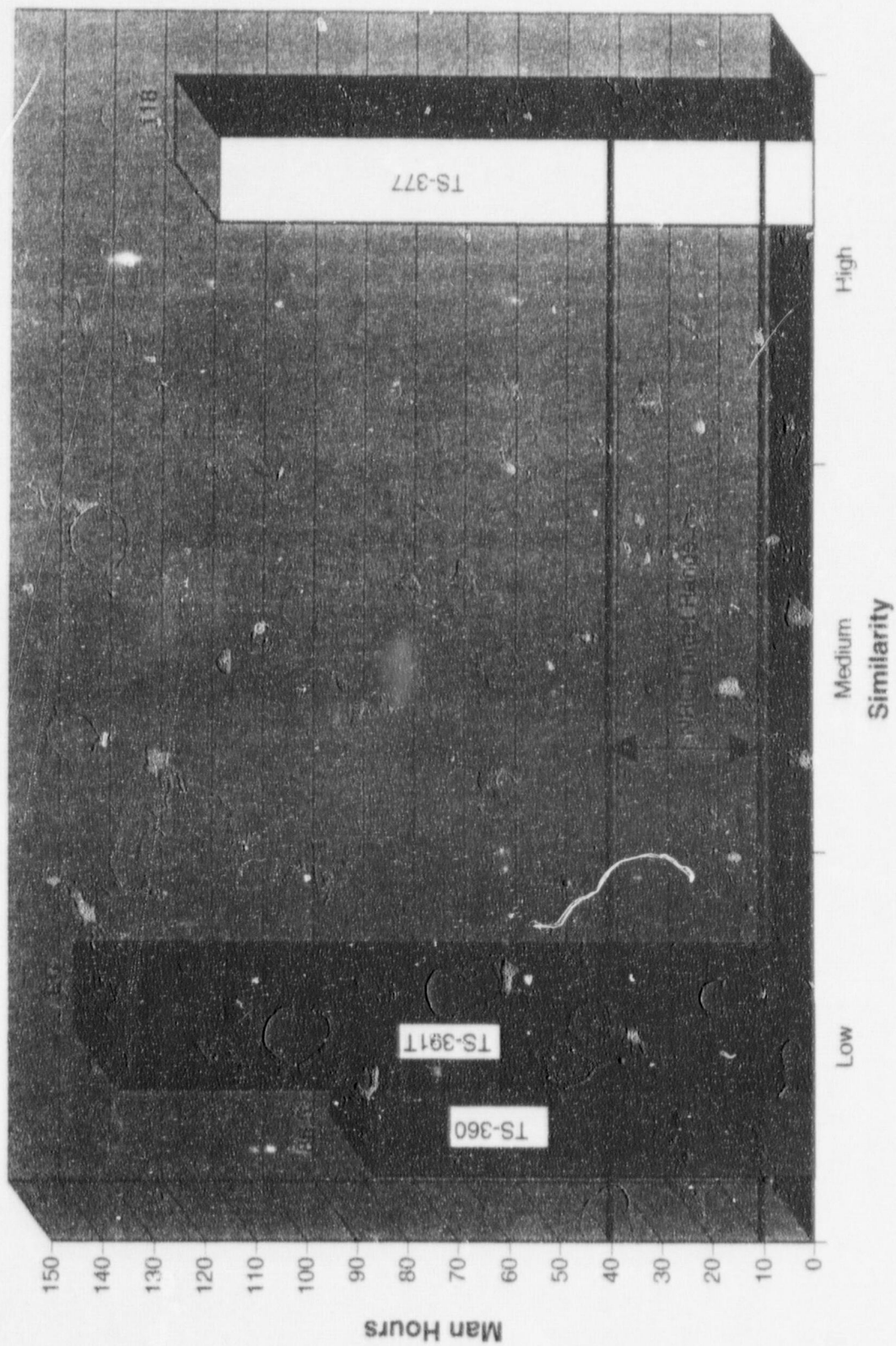
> 60 hours

NRC Target Hours vs. Invoiced Man Hours

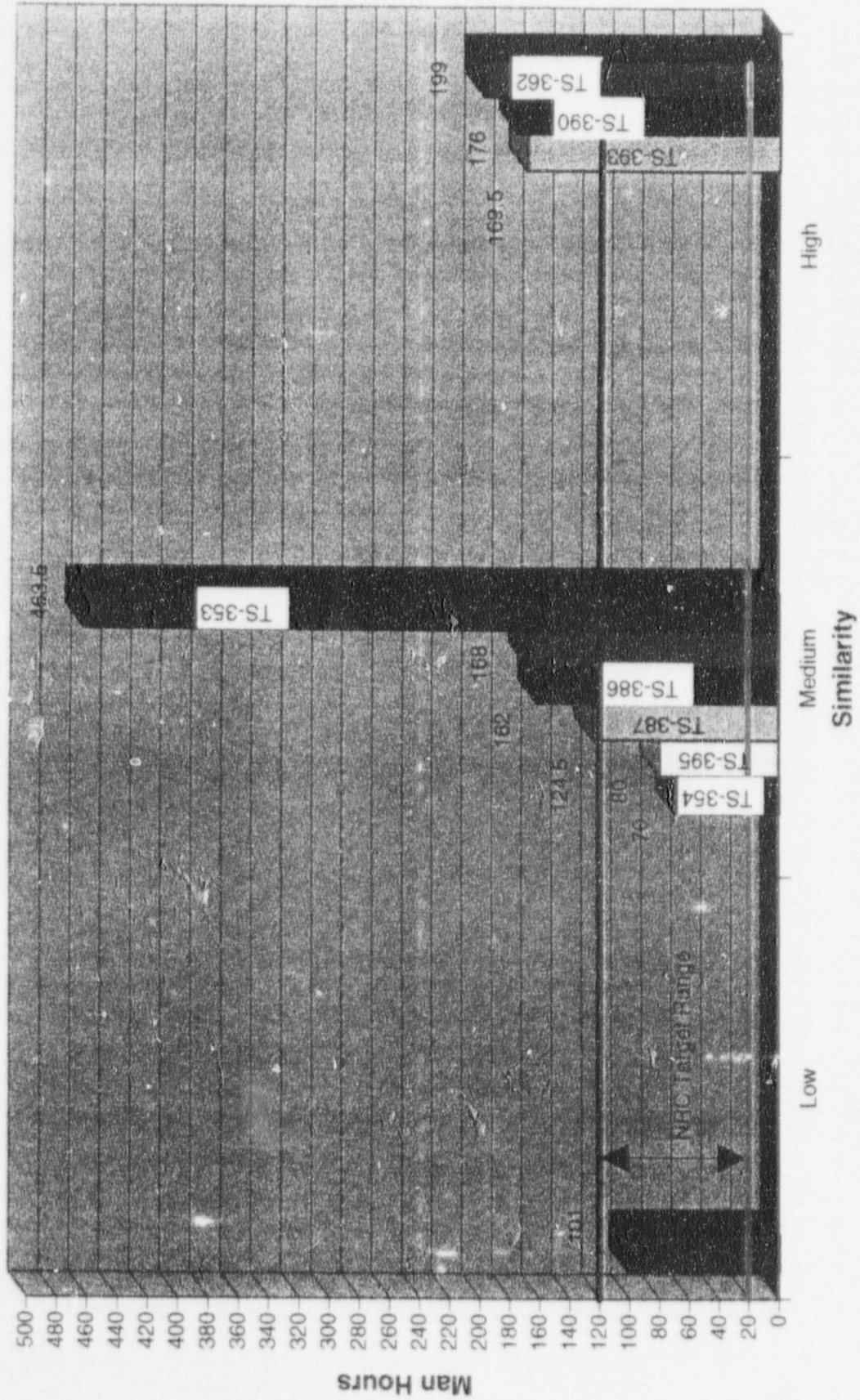
TS Change No.	Description	Similarity	Complexity	NRC Guidelines	Invoiced Man Hours
TS-353	Power Range NM Upgrade	Medium	Medium	40 - 80 hours	463.5
TS-354	Oscillation Power Range Monitor	Medium	Medium	40 - 80 hours	70.0
TS-360	TIP Operability Requirements	Low	Low	10 - 40 hours	86.5
TS-362	Changes to Instrument STI's	High	Medium	20 - 60 hours	199.0
TS-372	Administrative Section Changes	Low	Medium	40 - 120 hours	101.0
TS-376	Extended emergency DG(s)	Medium	Medium	40 - 80 hours	168.0
TS-377	MCPR safety limit and bases rev	High	Low	10 - 20 hours	118.0
TS-384	Power Uprate	Medium	High	80 < hours < 120	2073.5
TS-386	Safety/Relief valve setpoint	Medium	Medium	40 - 80 hours	162.0
TS-387	Single recirculation loop operation	Medium	Medium	40 - 80 hours	124.5
TS-390	Change refueling interval	High	Medium	20 - 60 hours	176.0
TS-391T	Temporary Extension of EDG	Low	Low	10 - 40 hours	137.0
TS-393	Pressure-Temp. curve update	High	Medium	20 - 60 hours	169.5
TS-395	RHRSW LCO	Medium	Medium	40 - 80 hours	80.0

Note: Items that are bold indicate that the invoiced hours exceeded the expected target hours.

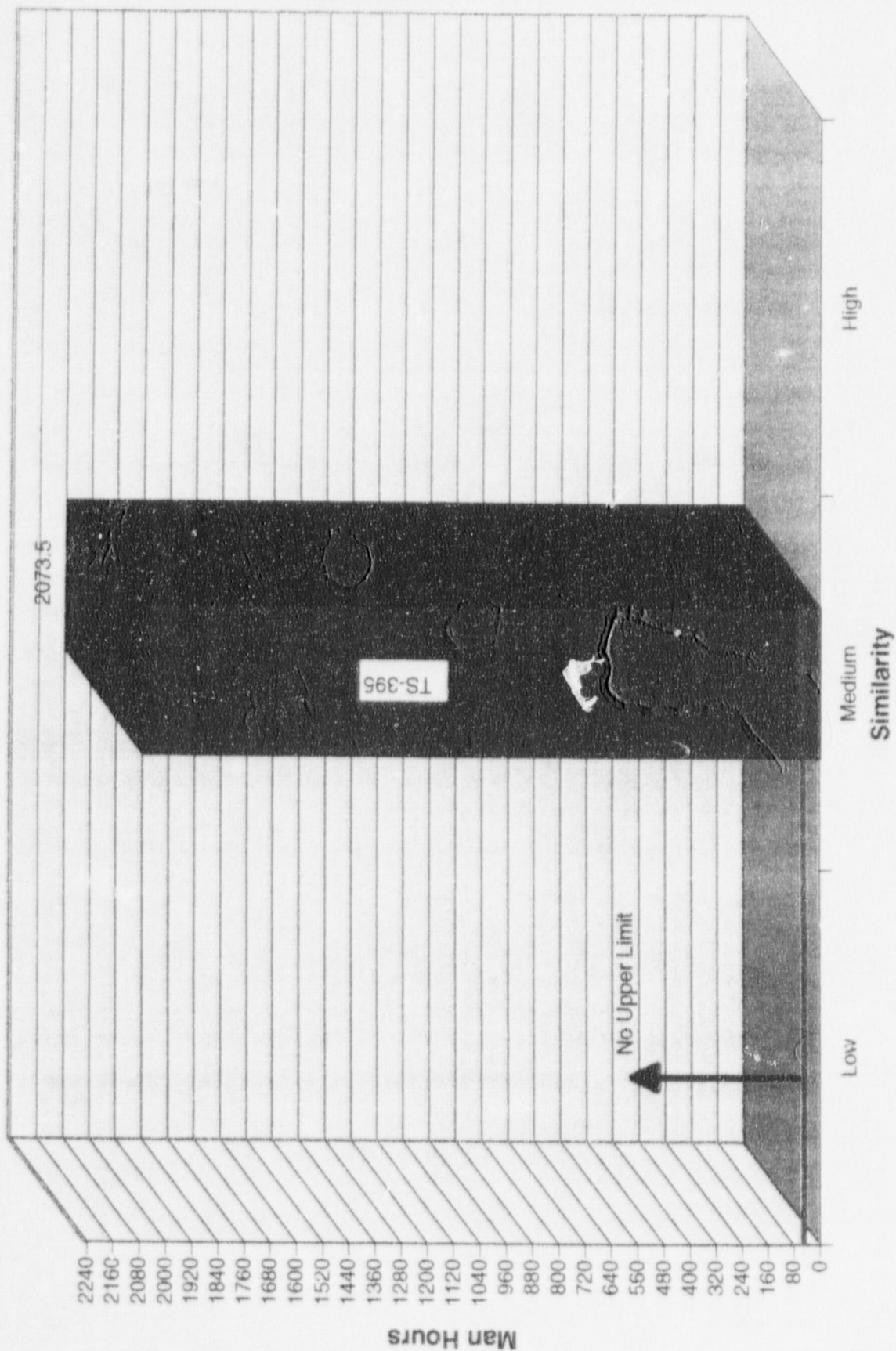
BFN
(Complexity - Low)



BFN (Complexity - Medium)



BFN
(Complexity - High)



Browns Ferry Nuclear Plant - NRC Fees

1997											
1st Qtr			2nd Qtr			3rd Qtr			4th Qtr		
	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	1997 Total
NRC Review											
TECH SPEC CHANGES											
TS Change 372	\$ 5,568.00	43.5			\$ 192.00	1.5	\$ 196.50	1.5	\$ 5,956.50		46.5
Subtotal	\$ 5,568.00	43.5			\$ 192.00	1.5	\$ 196.50	1.5	\$ 5,956.50		46.5
ISI											
ASME Second Inspection Interval	\$ 192.00	1.5	\$ 1,344.00	10.5	\$ 14,415.00	111.0	\$ 589.50	4.5	\$ 16,540.50		127.5
Program Revision			\$ 1,152.00	9.0	\$ 524.00	4.0	\$ 1,572.00	12.0	\$ 3,248.00		25.0
Contractor Fees			\$ 6,965.00		\$ 9,698.00		\$ 3,727.00		\$ 20,390.00		
Subtotal	\$ 192.00	1.5	\$ 9,461.00	19.5	\$ 24,637.00	115.0	\$ 5,888.50	16.5	\$ 40,178.50		152.5
ITS											
Improved Tech Spec	\$ 84,672.00	661.5	\$ 22,092.80	172.6	\$ 49,063.50	378.0	\$ 23,252.50	177.5	\$ 179,080.80		1389.6
Contractor Fees	\$ 91,360.00		\$ 8,032.00						\$ 99,392.00		
Subtotal	\$ 176,032.00	661.5	\$ 30,124.80	172.6	\$ 49,063.50	378.0	\$ 23,252.50	177.5	\$ 278,472.80		1389.6
RELIEF REQUESTS											
SPT-1 & SPT-4	\$ 2,048.00	16.0							\$ 2,048.00		16.0
ASME Section XI, Subsec IWE			\$ 1,344.00	10.5	\$ 384.00	3.0			\$ 1,728.00		13.5
Cycle 9 Outage			\$ 128.00	1.0	\$ 1,822.00	14.0	\$ 2,489.00	19.0	\$ 4,439.00		34.0
Contractor Fees					\$ 1,476.00		\$ 3,647.00		\$ 5,123.00		
Subtotal	\$ 2,048.00	16.0	\$ 1,472.00	11.5	\$ 3,682.00	17.0	\$ 6,136.00	19.0	\$ 13,338.00		63.5
INSPECTIONS											
IR 96-13											
Routine Fees	\$ 26,176.00	204.5							\$ 26,176.00		204.5
Non-Routine Fees	\$ 1,536.00	12.0							\$ 1,536.00		12.0

[illegible]

1998

[illegible]

IR 97-17	Routine Fees	\$ 63,993.50	488.5							\$ 63,993.50	488.5
	Non-Routine Fees	\$ 524.00	4.0							\$ 524.00	4.0
IR 97-18	Routine Fees									\$0.00	0.0
	Non-Routine Fees									\$0.00	0.0
IR 98-01	Routine Fees									\$0.00	0.0
	Non-Routine Fees									\$0.00	0.0
IR 98-02	Routine Fees	\$ 96,219.50	734.5							\$96,219.50	734.5
	Non-Routine Fees										
IR 98-03	Routine Fees	\$ 73,818.50	563.5							\$ 73,818.50	563.5
	Non-Routine Fees	\$ 262.00	2.0							\$ 262.00	2.0
IR 98-04	Routine Fees	\$ 65,565.50	500.5							\$ 66,089.50	504.5
	Non-Routine Fees	\$ 262.00	2.0							\$ 262.00	2.0
IR 98-05	Routine Fees	\$ 75,348.50	575.5							\$ 75,348.50	575.5
	Non-Routine Fees	\$ 7,336.00	56.0							\$ 7,336.00	56.0
IR 98-06	Routine Fees									\$ 50,726.00	400.5
	Non-Routine Fees									\$ 6,568.00	51.5
IR 98-10	Routine Fees									\$ 71,094.00	573.0
	Non-Routine Fees									\$ 4,960.00	40.0
IR 98-12	Routine Fees									\$ 8,866.00	71.5
	Non-Routine Fees										
IR 98-99	Routine Fees	\$ 18,667.50	142.5							\$ 18,667.50	142.5
	Non-Routine Fees										
Resident Fees		\$ 16,802.00	135.5							\$ 43,648.00	352.0
Contractor Fees		\$ 1,688.00								\$ 1,688.00	
Subtotal		\$ 160,737.00	1,227.0	\$ 158,575.50	1,210.5	\$ 101,698.50	771.0	\$ 178,980.00	1,433.0	\$ 599,991.00	4,641.5

OPERATOR EXAMS

[illegible]

TOTALS BY QUARTER

			TOTAL		
1997	1st Qtr	Fees	\$ 290,949.00	Mhrs	1,558.5
	2nd Qtr	Fees	\$ 275,845.80	Mhrs	1,921.6
	3rd Qtr	Fees	\$ 240,982.00	Mhrs	1,760.0
	4th Qtr	Fees	\$ 308,543.00	Mhrs	2,299.0
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 1,116,319.80</i>	<i>Mhrs</i>	<i>7,539.1</i>
1998	1st Qtr	Fees	\$ 351,318.50	Mhrs	2,655.5
	2nd Qtr	Fees	\$ 372,760.50	Mhrs	2,845.5
	3rd Qtr	Fees	\$ 299,661.50	Mhrs	2,311.5
	4th Qtr	Fees	\$ 249,939.00	Mhrs	1,976.5
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 1,273,679.50</i>	<i>Mhrs</i>	<i>9,789.0</i>
Total		Fees	\$ 2,389,999.30	Mhrs	17,328.1

**Attachment B: Results Summary for the Study of NRC Fees Assessed on
SQN**

13 Pages

SQN Technical Specification Changes for '97 & '98									
TS #	Description	Similarity Ranking			Technical Complexity				
		Low	Medium	High	Low	Medium	High		
94-15	Delete PASS license cond	x					x		
95-19	Sect. 6.0 upgrade to MERITS		x			x			
96-01	Fuel Conversion		x				x		
96-02	Reduction of ice weight		x			x			
96-03	CST applicability	x			x				
96-04	Delete fire protection			x		x			
96-05	Eliminate cycle specific APC	x				x			
96-06	Delete offsite circuit X-fer	x				x			
96-07	Code & atmosphere safety 3%			x		x			
96-08	7-day DG AOT	x							x
96-09	Remove OT shift hour req.		x		x				
97-01	Fuel storage vault enrichment	x				x			
97-02	CSS system SR revisions		x			x			
97-03	Addition of LCO for FWI		x			x			
97-04	Relocate snubber SRs			x		x			
97-06	DG 24-hour SR at power			x		x			
97-07	MSIV SR addition		x			x			
98-01	Deletion of PORV MODE 4 Req	x				x			
98-02	Iodine Reduction SG plugging			x		x			
98-06	EDG relay & timers SR rev	x				x			

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Sequoyah Nuclear Plant

NRC Guidance for Estimating Application Review Hours of Effort

Similarity Between Application and Precedent

Technical Complexity

and/or

No or Low

Medium

High

Risk Significance

Low

10 - 40 hours

10 - 40 hours

10 - 20 hours

Medium

40 - 120 hours

40 - 80 hours

20 - 60 hours

High

> 120 hours

> 80 hours

> 60 hours

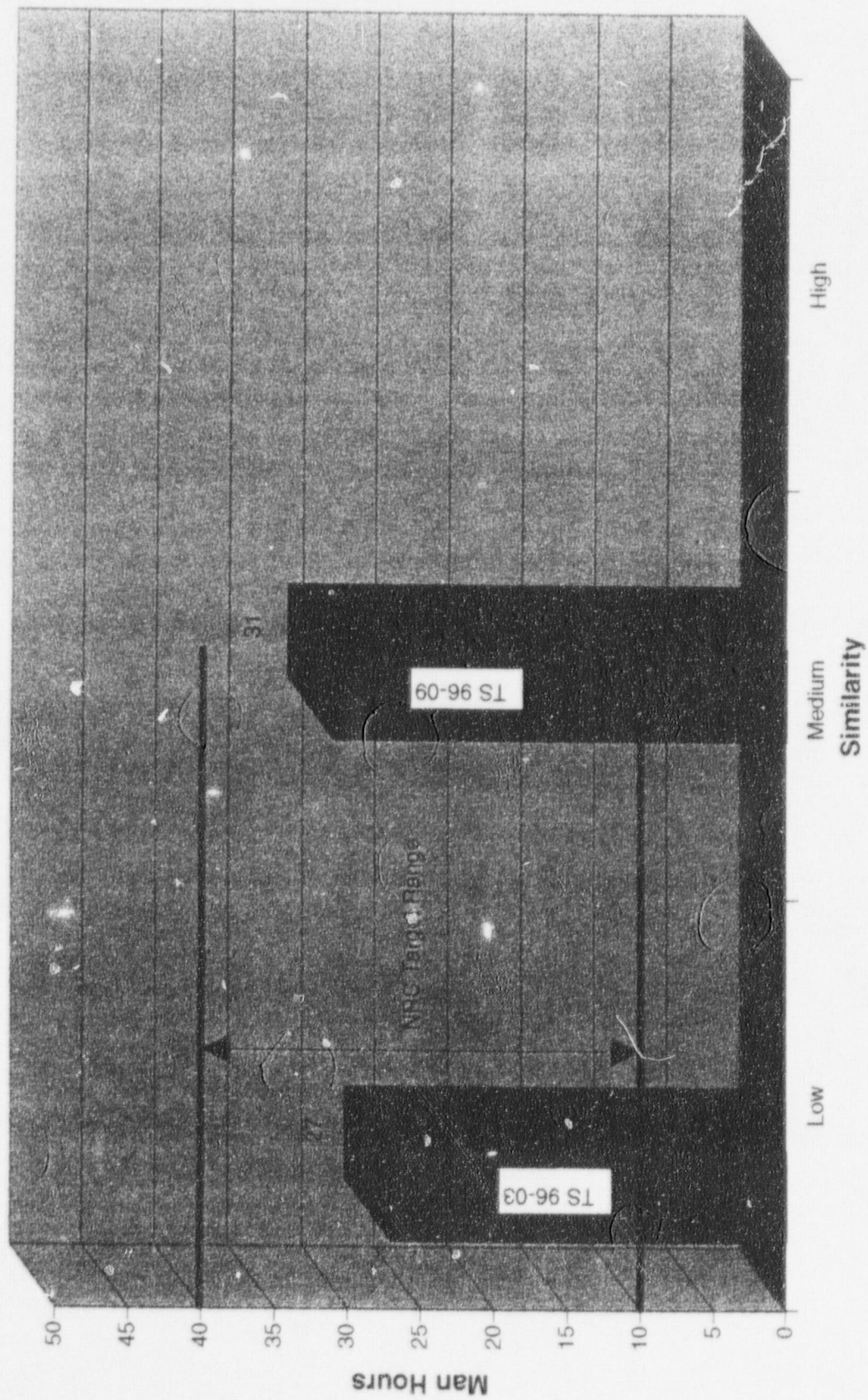
NRC Target Hours vs. Invoiced Man Hours									
TS Change No.	Description	Similarity	Complexity	NRC Guidelines	Invoiced Man Hours				
TS 94-15	Delete PASS License cond.	Low	High	> 120 hours	244.0				
TS 95-19	Section 6.0 upgrade to MERITS	Medium	Medium	40 -80 hours	349.4				
TS 96-01	Fuel Conversion	Medium	High	80 < hours < 120	1061.0				
TS 96-02	Reduction of Ice Weight	Medium	Medium	40 - 80 hours	185.0				
TS 96-03	CST applicability	Low	Low	10 - 40 hours	27.0				
TS 96-04	Delete fire protection	High	Medium	20 - 60 hours	52.0				
TS 96-05	Eliminate cycle specific APC	Low	Medium	40 - 120 hours	98.0				
TS 96-06	Delete offsite circuit X-fer	Low	Medium	40 - 120 hours	32.0				
TS 96-07	Code & atmosphere safety 3%	High	Medium	20 - 60 hours	209.0				
TS 96-08	7-day DG AOT	Low	High	> 120 hours	585.0				
TS 96-09	Remove OT shift hour req.	Medium	Low	10 - 40 hours	31.0				
TS 97-01	Fuel Storage Vault Enrichment	Low	Medium	40 - 120 hours	86.0				
TS 97-02	CSS system SR revisions	Medium	Medium	40 - 80 hours	11.0				
TS 97-03	Addition of LCO for FWI	Medium	Medium	40 - 80 hours	27.0				
TS 97-04	Relocate snubber SRs	High	Medium	20 - 60 hours	32.0				

SQN Hours

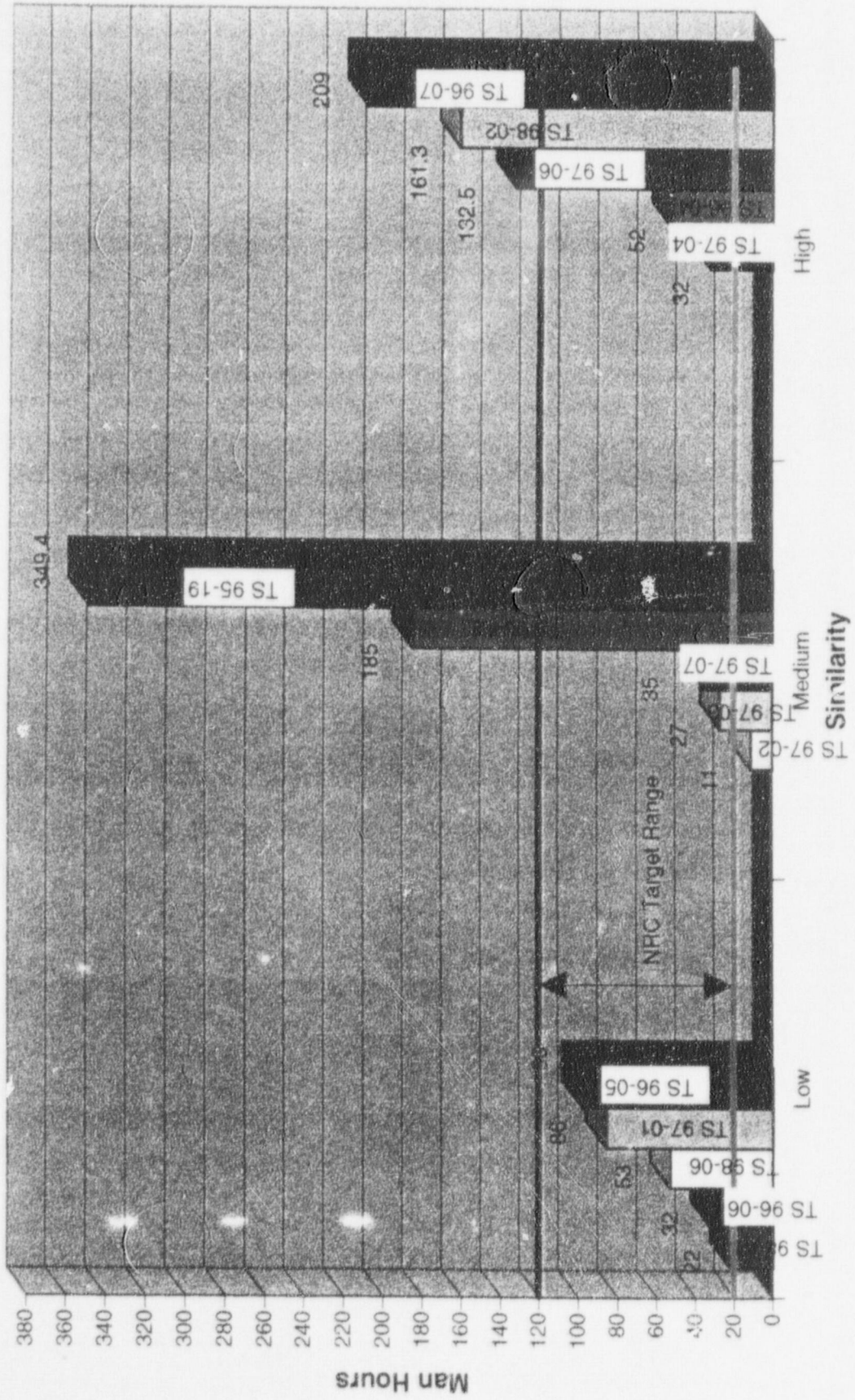
TS 97-06	DG 24-hour SR at power	High	Medium	20 - 60 hours	132.5
TS 97-07	MSiV SR addition	Medium	Medium	40 - 80 hours	35.0
TS 98-01	Deletion of PORV MODE 4 Req.	Low	Medium	40 - 120 hours	22.0
TS 98-02	Iodine Reduction SG plugging	High	Medium	20 - 60 hours	161.3
TS 98-06	EDG relay & timers SR rev	Low	Medium	40 - 120 hours	53.0

Note: Items that are bold indicate that the invoiced hours exceeded the expected target hours.

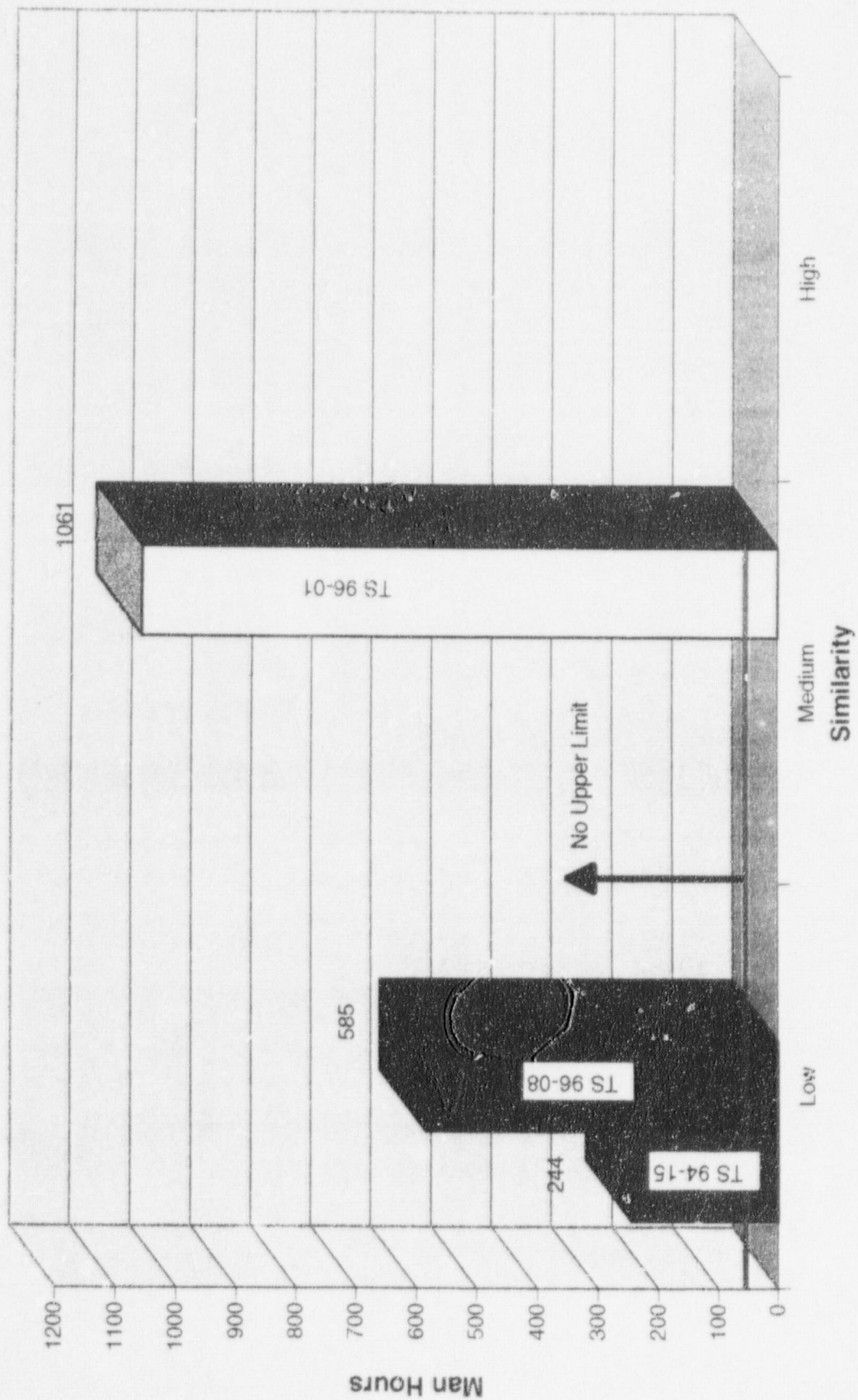
SQN (Complexity - Low)



SQN (Complexity - Medium)



SQN
(Complexity - High)



Sequoyah Nuclear Plant - NRC Fees

1997

NRC Review	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr		1997 Total	
	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs
TECH SPEC CHANGES										
TS Change 95-19	\$ 5,363.20	41.9	\$ 832.00	6.5			\$ 1,572.00	12.0	\$ 7,767.20	60.4
TS Change 96-01	\$ 51,200.00	400.0	\$ 27,264.00	213.0					\$ 78,464.00	613.0
TS Change 96-02	\$ 10,624.00	83.0	\$ 3,328.00	26.0					\$ 13,952.00	109.0
TS Change 96-04	\$ 256.00	2.0			\$ 6,442.00	50.0			\$ 6,698.00	52.0
TS Change 96-05	\$ 10,496.00	82.0	\$ 1,792.00	14.0					\$ 12,288.00	96.0
TS Change 96-06					\$ 3,668.00	28.0			\$ 3,668.00	28.0
TS Change 96-07	\$ 7,936.00	62.0	\$ 3,840.00	20.0	\$ 5,502.00	42.0	\$ 786.00	6.0	\$ 18,064.00	140.0
TS Change 96-08	\$ 2,304.00	18.0	\$ 2,944.00	23.0	\$ 1,036.00	8.0	\$ 12,772.50	97.5	\$ 19,056.50	146.5
TS Change 97-01			\$ 10,240.00	80.0	\$ 768.00	6.0			\$ 11,008.00	86.0
TS Change 97-02							\$ 393.00	3.0	\$ 393.00	3.0
Subtotal	\$ 88,179.20	688.9	\$ 50,240.00	392.5	\$ 17,416.00	134.0	\$ 15,523.50	118.5	\$ 171,358.70	1,332.9
ISI										
10-Year Program Review	\$ 512.00	4.0	\$ 768.00	6.0	\$ 786.00	6.0	\$ 917.00	7.0	\$ 2,983.00	23.0
Contractor Fees	\$ 349.00		\$ 2,237.00		\$ 372.00		\$ 4,670.00		\$ 7,628.00	
Subtotal	\$ 861.00	4.0	\$ 3,005.00	6.0	\$ 1,158.00	6.0	\$ 5,587.00	7.0	\$ 10,611.00	23.0
RELIEF REQUESTS										
Subsection IWE	\$ 3,072.00	24.0	\$ 1,280.00	10.0					\$ 4,352.00	34.0
Subtotal	\$ 3,072.00	24.0	\$ 1,280.00	10.0					\$ 4,352.00	34.0
INSPECTIONS										
IR 96-12										
Routine Fees	\$ 72,192.00	564.0							\$ 72,192.00	564.0
Non-Routine Fees										
IR 96-14										
Routine Fees	\$ 56,896.00	444.5							\$ 56,896.00	444.5

[illegible]

[illegible]

Sequoyah Nuclear Plant - NRC Fees

1998

NRC Review	1st Qtr			2nd Qtr			3rd Qtr			4th Qtr			1998 Total	
	Fees	Mhrs		Fees	Mhrs		Fees	Mhrs		Fees	Mhrs		Fees	Mhrs
TECH SPEC CHANGES														
TS Change 94-15	\$ 15,720.00	120.0	\$	8,908.00	68.0	\$	1,364.00	11.0	\$	2,852.00	23.0	\$	4,216.00	34.0
TS Change 95-19							1,048.00	8.0					25,676.00	196.0
TS Change 96-03										\$ 4,092.00	23.0	\$	4,092.00	23.0
TS Change 96-08	\$ 5,109.00	39.0	\$	6,353.50	48.5	\$	13,106.00	104.0	\$	30,380.00	245.0	\$	54,948.50	436.5
TS Change 96-09										\$ 3,844.00	31.0	\$	3,844.00	31.0
TS Change 97-02	\$ 1,048.00	8.0											1,048.00	8.0
TS Change 97-03	\$ 524.00	4.0	\$	3,013.00	23.0								3,537.00	27.0
TS Change 97-04	\$ 524.00	4.0	\$	262.00	2.0	\$	3,294.00	26.0					4,080.00	32.0
TS Change 97-06	\$ 524.00	4.0	\$	10,742.00	82.0	\$	6,091.50	46.5					17,357.50	132.5
TS Change 97-07	\$ 524.00	4.0	\$	917.00	7.0					\$ 2,976.00	24.0	\$	4,417.00	35.0
TS Change 98-01										\$ 2,728.00	22.0	\$	2,728.00	22.0
TS Change 98-02							15,923.20	120.3	\$	5,518.00	41.0	\$	21,441.20	161.3
TS Change 98-06										\$ 2,232.00	18.0	\$	2,232.00	18.0
Subtotal	\$ 23,973.00	183.0	\$	30,195.50	230.5	\$	40,826.70	315.8	\$	54,622.00	427.0	\$	149,617.20	1,156.3
ISI														
10-Year Program Review	\$ 1,834.00	14.0	\$	2,882.00	22.0								\$ 4,716.00	36.0
Contractor Fees	\$ 85.00												\$ 85.00	
Subtotal	\$ 1,919.00	14.0	\$	2,882.00	22.0								\$ 4,801.00	36.0
RELIEF REQUESTS														
IST Relief Request	\$ 262.00	2.0	\$	2,358.00	18.0	\$	4,847.00	37.0					\$ 7,467.00	57.0
ASME Relief Request						\$	2,358.00	18.0					\$ 2,358.00	18.0
Subtotal	\$ 262.00	2.0	\$	2,358.00	18.0	\$	7,205.00	55.0					\$ 9,825.00	75.0

[illegible]

IR 98-13												
Routine Fees					\$ 51,460.00	415.0	\$	51,460.00				415.0
Non-Routine Fees												
IR 98-99												
Routine Fees				129.0	\$ 16,899.00							
Non-Routine Fees				2.0	\$ 262.00							
Resident Fees												
Contractor Fees	\$ 25,938.00				\$ 36,776.00			\$ 25,296.00	204.0	\$ 9,858.00	73.5	\$ 35,154.00
								\$ 175.00				\$ 62,889.00
<i>Subtotal</i>	\$ 164,470.50	1,057.5	\$ 297,243.30	1,988.3	\$ 225,835.50	1,733.5	\$ 189,504.00	1,520.5	\$	877,053.30		6,299.8
OPERATOR EXAMS												
NRC Personnel	\$ 6,681.00	51.0	\$ 31,964.00	244.0	\$ 18,786.00	151.5	\$ 17,546.00	141.5	\$	74,977.00		588.0
Contractor Fees										\$ 57,431.00		446.5
<i>Subtotal</i>	\$ 6,681.00	51.0	\$ 31,964.00	244.0	\$ 18,786.00	151.5	\$ 17,546.00	141.5	\$	74,977.00		588.0
MISCELLANEOUS												
Topical Report BAW-2328												
10 CFR Exemptions	\$ 7,925.50	60.5			\$ 2,914.00	23.5	\$ 9,300.00	75.0	\$	12,214.00		98.5
Insertion of Test Assem										\$ 7,925.50		60.5
										\$ 2,666.00		21.5
<i>Subtotal</i>	\$ 7,925.50	60.5			\$ 2,914.00	23.5	\$ 11,966.00	96.5	\$	22,805.50		180.5
TOTAL	\$ 205,231.00	1,368.0	\$ 364,642.80	2,502.8	\$ 295,567.20	2,279.3	\$ 273,638.00	2,185.5	\$ 1,139,079.00			8,335.6
	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Total 1998		Mhrs

TOTALS BY QUARTER

		TOTAL			
1997	1st Qtr	Fees	\$ 472,584.46	Mhrs	3,226.4
	2nd Qtr	Fees	\$ 222,141.00	Mhrs	1,718.0
	3rd Qtr	Fees	\$ 388,509.50	Mhrs	2,919.0
	4th Qtr	Fees	\$ 208,684.00	Mhrs	1,559.0
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 1,291,918.96</i>	<i>Mhrs</i>	<i>9,422.4</i>
1998	1st Qtr	Fees	\$ 205,231.00	Mhrs	1,368.0
	2nd Qtr	Fees	\$ 364,642.80	Mhrs	2,502.8
	3rd Qtr	Fees	\$ 295,567.20	Mhrs	2,279.3
	4th Qtr	Fees	\$ 273,638.00	Mhrs	2,185.5
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 1,139,079.00</i>	<i>Mhrs</i>	<i>8,335.6</i>
Total		Fees	\$ 2,430,997.96	Mhrs	17,758.0

**Attachment C: Results Summary for the Study of NRC Fees Assessed on
WBN**

13 Pages

WBN Technical Specification Changes for '97 & '98									
TS #	Description			Similarity Ranking			Technical Complexity		
				Low	Medium	High	Low	Medium	High
95-015	Slave Relay Test Frequency			x				x	
98-024									
96-010	Rerack Spent Fuel Pit				x				x
96-010	Fuel Cask Pit Shield					x		x	
96-011	Appendix J, Option B Testing				x			x	
96-018	Online Testing of DGs & Battery				x			x	
96-021									
97-001	Tritium (TPBAR) Lead Test			x					x
97-002	Cycle 2 Reload			x				x	
97-004	PT Limits Exemption & Amendment				x			x	
97-008	F(Q) (Burnup) into COLR					x		x	
97-012	Atmos DMP VLVS/Air Supply			x				x	
98-002	New Fuel Enrichment Increase - 5%				x			x	
98-006	Flux High Neg Rate Trip Deletion				x			x	
98-007	TD AFW Surv. @ 1092 psig					x	x		
98-008	Cold OV-Press Mitigation in Mode 4				x			x	
98-011	Hydrogen Igniters			x				x	
98-014	Ice Flow Blockage SR 3.6.11.4				x			x	
98-027	Inlet Door Position Monitoring System			x				x	

Notes:

The similarity between an application and precedent can, for the current purposes, be categorized into three levels:

No or Low Similarity - There is either no precedent to apply, or major modification to the precedent license amendment that would be required for use in the application under consideration.

Medium Similarity - The review of the application could apply a precedent with limited technical modifications.

High Similarity - The review of the application could directly apply a precedent without technical modifications.

The technical complexity of a required review can also be categorized into three levels:

Low Complexity - includes changes to position titles in the TS administrative controls section and simple changes to setpoints or other TS details.

Medium Complexity - includes extensions of allowed outage times or surveillance test intervals, alternate action statements, reload related changes, or other changes which do not involve major changes or review of established NRC policies.

High Complexity - includes power rerates, significant restructuring of TS, changes that introduce significantly different analytical methodologies, and changes that are related to revising established NRC policies.

Watts Bar Nuclear Plant

NRC Guidance for Estimating Application Review Hours of Effort

Similarity Between Application and Precedent

Technical Complexity

and/or

No or Low

Medium

High

Risk Significance

Low

10 - 40 hours

10 - 40 hours

10 - 20 hours

Medium

40 - 120 hours

40 - 80 hours

20 - 60 hours

High

> 120 hours

> 80 hours

> 60 hours

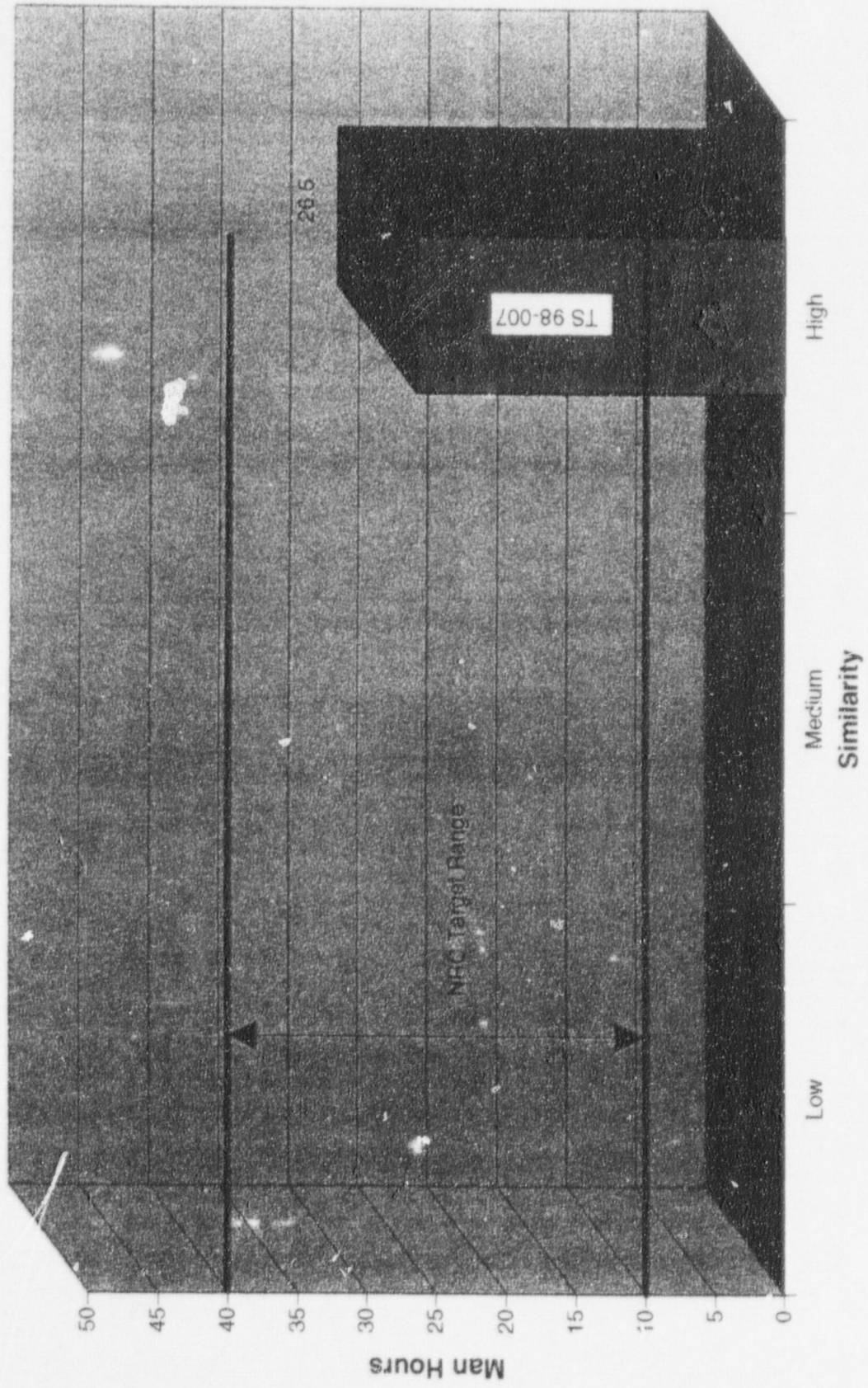
NRC Target Hours vs. Invoiced Man Hours						
TS Change No.	Description	Similarity	Complexity	NRC Guidelines	Invoiced Man Hours	
TS 95-015	Slave Relay Test Frequency	Low	Medium	40 - 120 hours	579.5	
TS 98-024						
TS 96-010	Rerack Spent Fuel Pit	Medium	High	80 < hours < 120	1018.0	
TS 96-010	Fuel Cask Pit Shield	High	Medium	20 - 60 hours	92.5	
T S 96-011	Appendix J, Option B Testing	Medium	Medium	40 - 80 hours	80.0	
TS 96-018	Online Testing of DGs & Battery	Medium	Medium	40 - 80 hours	311.0	
TS 96-021						
TS 97-001	Tritium (TPBAR) Lead Test	Low	High	> 120 hours	866.0	
TS 97-002	Cycle 2 Reload	Low	Medium	40 - 120 hours	140.0	
TS 97-004	PT Limits Exemption & Amend	Medium	Medium	40 - 80 hours	34.0	
TS 97-008	F(Q) (Burnup) into COLR	High	Medium	20 - 60 hours	41.0	
TS 97-012	Atmos DMP VLVS/Air Supply	Low	Medium	40 - 120 hours	68.0	
TS 98-002	New Fuel Enrich Increase - 5%	Medium	Medium	40 - 80 hours	90.0	

WBN Hours

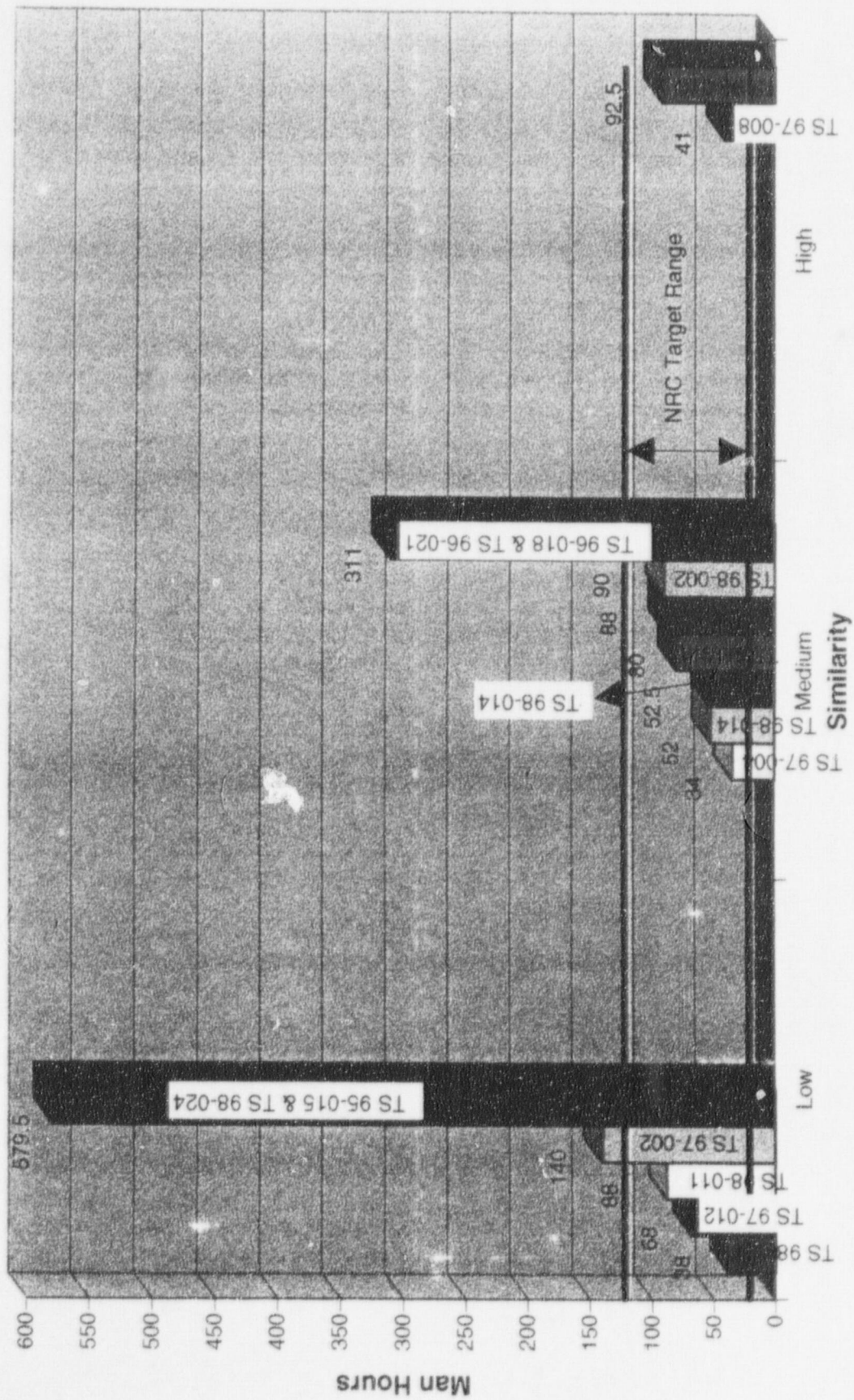
TS 98-006	Flux High Neg Rate Trip Deletion	Medium	Medium	40 - 80 hours	88.0
TS 98-007	TD AFW Surv. @ 1092 psig	High	Low	10 - 20 hours	26.5
TS 98-008	Cold OV Press Mitigate - Mode 4	Medium	Medium	40 - 80 hours	52.5
TS 98-011	Hydrogen Igniters	Low	Medium	40 - 120 hours	88.0
TS 98-014	Ice Flow Blockage SR 3.6.11.4	Medium	Medium	40 - 80 hours	52.0
TS 98-027	Inlet Door Position Mont. System	Low	Medium	40 - 120 hours	38.0

Note: Items that are bold indicate that the invoiced hours exceeded the expected target hours.

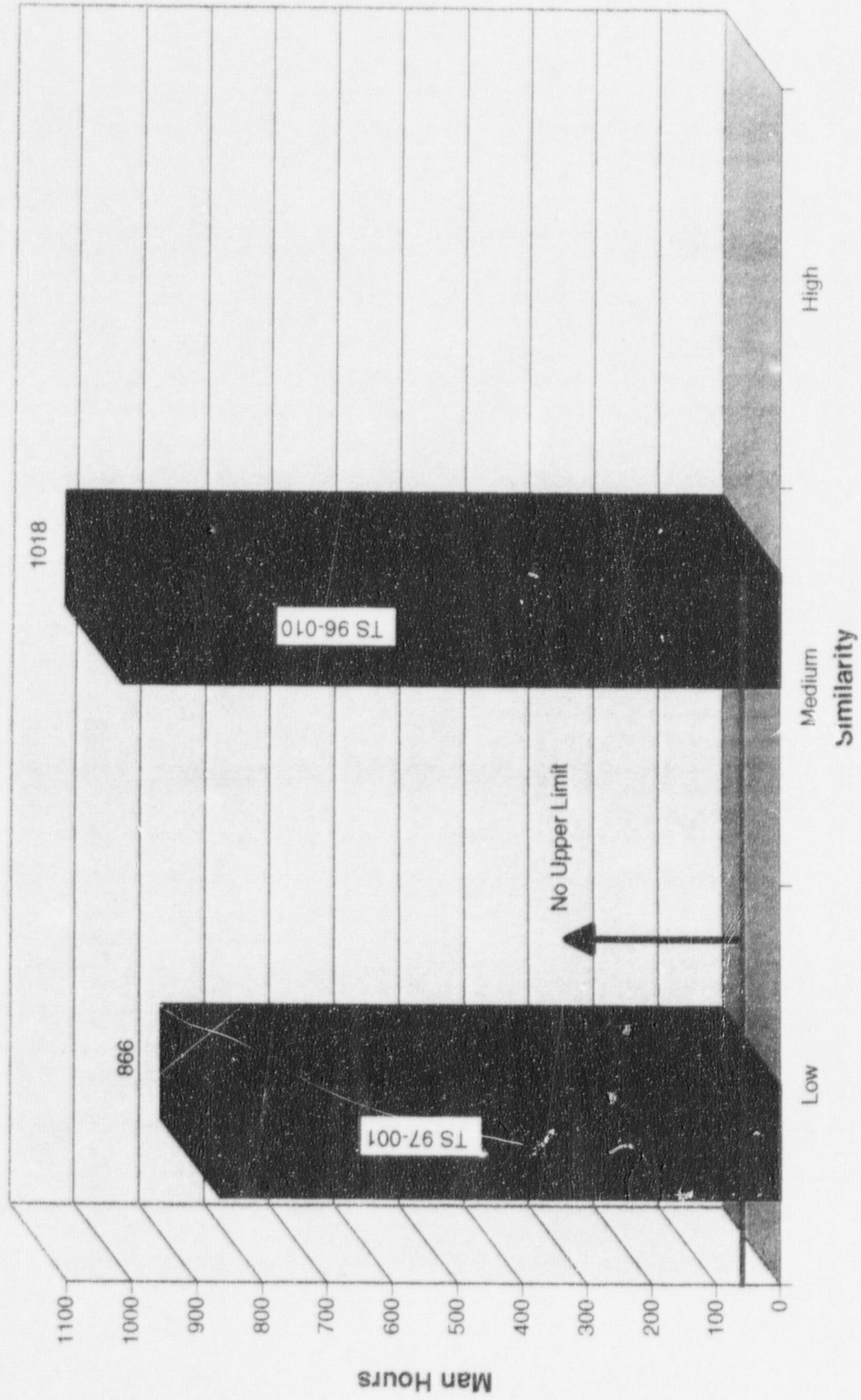
WBN
(Complexity - Low)



WBN (Complexity - Medium)



WBN (Complexity - High)



Watts Bar Nuclear Plant - NRC Fees

	1997											
	1st Qtr			2nd Qtr			3rd Qtr			4th Qtr		
	Fees	Mhrs		Fees	Mhrs		Fees	Mhrs		Fees	Mhrs	
NRC Review												
ISI & IST												
Program Review	\$ 1,536.00	12.0	\$ 704.00	5.5	\$ 1,542.00	12.0	\$ 262.00	2.0	\$ 4,044.00	25.0		
Contractor Fees	\$ 4,891.00		\$ 3,702.00		\$ 3,960.00		\$ 5,812.00		\$ 18,365.00			
<i>Subtotal</i>	\$ 6,427.00	12.0	\$ 4,406.00	5.5	\$ 5,502.00	12.0	\$ 6,074.00	2.0	\$ 22,409.00	31.5		
RELIEF REQUESTS												
ASME Section XI	\$ 6,144.00	48.0	\$ 7,552.00	59.0	\$ 11,648.00	91.0			\$ 25,344.00	198.0		
Containment Inspection Schedule			\$ 6,272.00	49.0	\$ 1,542.00	12.0			\$ 7,814.00	61.0		
Contractor Fees												
<i>Subtotal</i>	\$ 6,144.00	48.0	\$ 13,824.00	108.0	\$ 13,190.00	103.0			\$ 33,158.00	259.0		
INSPECTIONS												
IR 96-11												
Routine Fees	\$ (1,728.00)	-13.5							\$ (1,728.00)	-13.5		
Non-Routine Fees												
IR 96-12												
Routine Fees	\$ 1,152.00	9.0							\$ 1,152.00	9.0		
Non-Routine Fees												
IR 96-13												
Routine Fees	\$ 47,360.00	370.0							\$ 47,360.00	370.0		
Non-Routine Fees	\$ 5,632.00	44.0							\$ 5,632.00	44.0		
IR 96-14												
Routine Fees	\$ 25,472.00	199.0							\$ 25,472.00	199.0		
Non-Routine Fees	\$ 6,720.00	52.5										
IR 97-01												
Routine Fees			\$ 64,896.00	507.0					\$ 64,896.00	507.0		
Non-Routine Fees			\$ 8,256.00	64.5					\$ 8,256.00	64.5		

[illegible]

[illegible]

Watts Bar Nuclear Plant - NRC Fees

	1998							
	1st Qtr		2nd Qtr		3rd Qtr		4th Qtr	
	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs	Fees	Mhrs
NRC Review								
ISI & IST								
Program Review	\$ 1,441.00	11.0	\$ 3,144.00	24.0	\$ 620.00	5.0	\$ 5,205.00	40.0
Contractor Fees	\$ 4,705.00		\$ 487.00				\$ 5,195.00	
Subtotal	\$ 6,149.00	11.0	\$ 3,631.00	24.0	\$ 620.00	5.0	\$ 10,400.00	40.0
INSPECTIONS								
IR 97-10								
Routine Fees	\$ 12,772.50	97.5					\$ 12,772.50	97.5
Non-Routine Fees	\$ 720.50	5.5					\$ 720.50	5.5
IR 97-99								
Routine Fees	\$ 15,327.00	117.0					\$ 15,327.00	117.0
Non-Routine Fees								
IR 98-01								
Routine Fees	\$ 40,872.00	312.0					\$ 40,872.00	312.0
Non-Routine Fees	\$ 3,864.50	29.5					\$ 3,864.50	29.5
IR 98-02								
Routine Fees			\$ 40,937.50	312.5			\$ 40,937.50	312.5
Non-Routine Fees			\$ 655.00	5.0			\$ 655.00	5.0
IR 98-03								
Routine Fees			\$ 12,838.00	98.0			\$ 12,838.00	98.0
Non-Routine Fees			\$ 4,061.00	31.0			\$ 4,061.00	31.0
IR 98-04								
Routine Fees			\$ 45,326.00	346.0			\$ 45,326.00	346.0
Non-Routine Fees			\$ 393.00	3.0			\$ 393.00	3.0
IR 98-05								
Routine Fees					\$ 80,261.00	613.0	\$ 80,261.00	613.0
Non-Routine Fees								
IR 98-06								
Routine Fees					\$ 41,199.50	314.5	\$ 41,199.50	314.5
1998 Total								

TOTALS BY QUARTER

		TOTAL			
1997	1st Qtr	Fees	\$ 162,127.00	Mhrs	1,227.0
	2nd Qtr	Fees	\$ 229,430.00	Mhrs	1,763.5
	3rd Qtr	Fees	\$ 361,895.70	Mhrs	2,486.4
	4th Qtr	Fees	\$ 229,105.50	Mhrs	1,702.5
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 982,558.20</i>	<i>Mhrs</i>	<i>7,179.4</i>
1998	1st Qtr	Fees	\$ 91,390.70	Mhrs	661.7
	2nd Qtr	Fees	\$ 143,997.50	Mhrs	1,095.5
	3rd Qtr	Fees	\$ 173,342.50	Mhrs	1,338.0
	4th Qtr	Fees	\$ 242,561.50	Mhrs	1,935.0
	<i>Subtotal</i>	<i>Fees</i>	<i>\$ 651,292.20</i>	<i>Mhrs</i>	<i>5,030.2</i>
Total		Fees	\$ 1,633,850.40	Mhrs	12,209.6

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