REPORT NUMBER: 17100

REPORT TYPE: Subcategory - Construction

(Final Report)

REVISION NUMBER: 3

TITLE: Mechanical

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	the profession of the board of
EASON FOR REVISION:	
ncorporate SRP comments and incorporate Line Management's esponses to WBN and NPS CATDs.	Revision 1
Incorporate SRP comments, Line Management's responses to remaining CATDs, and finalize report.	Revision 2
Incorporate SRP comments into the Executive Summary.	Revision 3
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SAF: Vinne Wy	DATE DATE
SIGNATURE DATE SIGNATURE	DATE
APPROVED BY:	
ECSP MANAGER OF NUCLEAR CONCURRENCE (FINAL REPO	POWER DATE ORT ONLY)

\*SRP Secretary's signature denotes SRP concurrences are in files.

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#### Preface

This subcategory report is one of a series of reports prepared for the Employee Concerns Special Program (ECSP) of the Tennessee Valley Authority (TVA). The ECSP and the organization which carried out the program, the Employee Concerns Task Group (ECTG), were established by TVA's Manager of Nuclear Power to evaluate and report on those Office of Nuclear Power (ONP) employee concerns filed before February 1, 1986. Concerns filed after that date are handled by the ongoing ONP Employee Concerns Program (ECP).

The ECSP addressed over 5800 employee concerns. Each of the concerns was a formal, written description of a circumstance or circumstances that an employee thought was unsafe, unjust, inefficient, or inappropriate. The mission of the Employee Concerns Special Program was to thoroughly investigate all issues presented in the concerns and to report the results of those investigations in a form accessible to ONP employees, the NRC, and the general public. The results of these investigations are communicated by four levels of ECSP reports: element, subcategory, category, and final.

Element reports, the lowest reporting level, will be published only for those concerns directly affecting the restart of Sequoyah Nuclear Plant's reactor unit 2. An element consists of one or more closely related issues. An issue is a potential problem identified by ECTG during the evaluation process as having been raised in one or more concerns. For efficient handling, what appeared to be similar concerns were grouped into elements early in the program, but issue definitions emerged from the evaluation process itself. Consequently, some elements did include only one issue, but often the ECTG evaluation found more than one issue per element.

Subcategory reports summarize the evaluation of a number of elements. However, the subcategory report does more than collect element level evaluations. The subcategory level overview of element findings leads to an integration of information that cannot take place at the element level. This integration of information reveals the extent to which problems overlap more than one element and will therefore require corrective action for underlying causes not fully apparent at the element level.

To make the subcategory reports easier to understand, three items have been placed at the front of each report: a preface, a glossary of the terminology unique to ECSP reports, and a list of acronyms (terms formed from the first letters of a series of words).

Additionally, at the end of each subcategory report the reader will find at least two attachments. The first is a Subcategory Summary Table that includes the following information: the concern number, a brief statement of the concern, and a designation of nuclear safety-related concerns. The second attachment is a listing of the concerns included in each issue evaluated in the subcategory.

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The subcategories are themselves summarized in a series of eight category reports. Each category report reviews the major findings and collective significance of the subcategory reports in one of the following areas:

- management and personnel relations
- · industrial safety
- · construction
- · material control
- · operations
- quality assurance/quality control
- · welding
- engineering

A separate report on employee concerns dealing with specific contentions of intimidation, harassment, and wrongdoing will be released by the TVA Office of the Inspector General.

Just as the subcategory reports integrate the information collected at the element level, the category reports integrate the information assembled in all the subcategory reports within the category, addressing particularly the underlying causes of those problems that run across more than one subcategory.

A final report will integrate and assess the information collected by all of the lower level reports prepared for the ECSP, including the Inspector General's report.

for more detail on the methods by which ECTG employee concerns were evaluated and reported, consult the Tennessee Valley Authority Employee Concerns Task Group Program Manual. The Manual spells out the program's objectives, scope, organization, and responsibilities. It also specifies the procedures that were followed in the investigation, reporting, and closeout of the issues raised by employee concerns.

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### ECSP GLOSSARY OF REPORT TERMS\*

classification of evaluated issues the evaluation of an issue leads to one of the following determinations:

- Class A: Issue cannot be verified as factual
- Class B: Issue is factually accurate, but what is described is not a problem (i.e., not a condition requiring corrective action)
- Class C: Issue is factual and identifies a problem, but corrective action for the problem was initiated before the evaluation of the issue was undertaken
- Class D: Issue is factual and presents a problem for which corrective action has been, or is being, taken as a result of an evaluation
- Class E: A problem, requiring corrective action, which was not identified by an employee concern, but was revealed during the ECTG evaluation of an issue raised by an employee concern.
- collective significance an analysis which determines the importance and consequences of the findings in a particular ECSP report by putting those findings in the proper perspective.
- concern (see "employee concern")
- corrective action steps taken to fix specific deficiencies or discrepancies revealed by a negative finding and, when necessary, to correct causes in order to prevent recurrence.
- criterion (plural: criteria) a basis for defining a performance, behavior, or quality which ONP imposes on itself (see also "requirement").
- element or element report an optional level of ECSP report, below the subcategory level, that deals with one or more issues.
- employee concern a formal, written description of a circumstance or circumstances that an employee thinks unsafe, unjust, inefficient or inappropriate; usually documented on a K-form or a form equivalent to the K-form.

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evaluator(s) the individual(s) assigned the responsibility to assess a specific grouping of employee concerns.

findings includes both statements of fact and the judgments made about those facts during the evaluation process; negative findings require corrective action.

issue a potential problem, as interpreted by the ECTG during the evaluation process, raised in one or more concerns.

K-form (see "employee concern")

requirement a standard of performance, behavior, or quality on which an evaluation judgment or decision may be based.

root cause the underlying reason for a problem.

\*Terms essential to the program but which require detailed definition have been defined in the ECTG Procedure Manual (e.g., generic, specific, nuclear safety-related, unreviewed safety-significant question).

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### Acronyms

AI Administrative Instruction

AISC American Institute of Steel Construction

ALARA As Low As Reasonably Achievable

ANS American Nuclear Society

ANSI American National Standards Institute

ASME American Society of Mechanical Engineers

ASTM American Society for Testing and Materials

AWS American Welding Society

BFN Browns Ferry Nuclear Plant

BLN Bellefonte Nuclear Plant

CAQ Condition Adverse to Quality

CAR Corrective Action Report

CATD Corrective Action Tracking Document

CCTS Corporate Commitment Tracking System

CEG-H Category Evaluation Group Head

CFR Code of Federal Regulations

CI Concerned Individual

CMTR Certified Material Test Report

COC Certificate of Conformance/Compliance

DCR Design Change Request

DNC Division of Nuclear Construction (see also NU CON)

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DNE Division of Nuclear Engineering

DNQA Division of Nuclear Quality Assurance

DNT Division of Nuclear Training

DOE Department of Energy

DPO Division Personnel Officer

DR Discrepancy Report or Deviation Report

ECN Engineering Change Notice

ECP Employee Concerns Program

ECP-SR Employee Concerns Program-Site Representative

ECSP Employee Concerns Special Program

ECTG Employee Concerns Task Group

EEOC Equal Employment Opportunity Commission

EQ Environmental Qualification

EMRT Emergency Medical Response Team

EN DES Engineering Design

ERT Employee Response Team or Emergency Response Team

FCR Field Change Request

FSAR Final Safety Analysis Report

FY Fiscal Year

GET General Employee Training

HCI Hazard Control Instruction

HVAC Heating, Ventilating, Air Conditioning

II Installation Instruction

INPO Institute of Nuclear Power Operations

IRN Inspection Rejection Notice

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L/R Labor Relations Staff

M&AI Modifications and Additions Instruction

MI Maintenance Instruction

MSPB Merit Systems Protection Board

MT Magnetic Particle Testing

NCR Nonconforming Condition Report

NDE Nondestructive Examination

NPP Nuclear Performance Plan

NPS Non-plant Specific or Nuclear Procedures System

NQAM Nuclear Quality Assurance Manual

NRC Nuclear Regulatory Commission

NSB Nuclear Services Branch

NSRS Nuclear Safety Review Staff

NU CON Division of Nuclear Construction (obsolete abbreviation, see DNC)

NUMARC Nuclear Utility Management and Resources Committee

OSHA Occupational Safety and Health Administration (or Act)

ONP Office of Nuclear Power

OWCP Office of Workers Compensation Program

PHR Personal History Record

PT Liquid Penetrant Testing

QA Quality Assurance

QAP Quality Assurance Procedures

QC Quality Control

QCI Quality Control Instruction

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QCP Quality Control Procedure

QTC Quality Technology Company

RIF Reduction in Force

RT Radiographic Testing

SQN Sequoyah Nuclear Plant

SI Surveillance Instruction

SOP Standard Operating Procedure

SRP Senior Review Panel

SWEC Stone and Webster Engineering Corporation

TAS Technical Assistance Staff

T&L Trades and Labor

TVA Tennessee Valley Authority

TVTLC Tennessee Valley Trades and Labor Council

UT Ultrasonic Testing

VT Visual Testing

WBECSP Watts Bar Employee Concern Special Program

WBN Watts Bar Nuclear Plant

WR Work Request or Work Rules

WP Workplans

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#### EXECUTIVE SUMMARY

#### MECHANICAL

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#### I. SUMMARY OF THE ISSUES

Of the 44 concerns evaluated within the Construction - Mechanical Subcategory, 39 were evaluated at WBN. Four of these concerns were deemed potentially generically applicable to SQN as well as an additional SQN specific concern. Three of those concerns were found potentially generically applicable to and evaluated at both BFN and BLN. Four additional site-specific concerns were raised and evaluated at BLN. Therefore, a total of 54 site concerns were evaluated within this subcategory. Of these, nine site problems (17 percent) were identified that had not been fully addressed.

The 44 concerns received were related to six issues normally considered in the mechanical engineering discipline: valves; heating, ventilating, and air-conditioning systems (HVAC); mechanical equipment; insulation; pipe/fittings; and mixed structural connections.

The five problematic concerns (actually nine site concerns) addressed:
(1) a Class B valve in a Class A line; (2) Limitorque valve orientation and maintenance; (3) containment penetration vendor welds not properly hydroed; (4) the perception that the ERCW system was designed as stainless steel but not constructed as such; (5) cosmetically rusted valves.

#### II. MAJOR FINDINGS

One of the concern identified problems, Class B valve in Class A line at WBN, had already been addressed under an NSRS evaluation. Corrective action had been identified and completed at the time of this evaluation.

Three of the problematic site concerns were actually one Limitorque valve orientation/maintenance concern raised at BLN and evaluated at each site. It was found to be a problem issue at three of the four sites: WBN, BFN, and BLN. This issue was being partially addressed at those sites by the Environmental Qualification programs (EQ Binders/QMDS).

One other WBN issue (containment penetration vendor welds not properly hydroed) was factual and a problem at WBN and also was potentially generic to all sites. Proper documentation (NCRs) of this condition had been issued and the CAQ made generic to all sites before the concern was raised through QTC. This evaluation found that neither SQN nor BFN had addressed this potential CAQ at their sites.

The concern citing that the ERCW system was designed as stainless steel but not constructed as such was found partially factual and a problem at SQN. SQN had implemented an ECN to change portions of the ERCW system piping inside the plant from carbon to stainless steel because of corrosion problems. The change-out was performed on a piece-meal basis as outages and manpower permitted. The complete status of the pipe change-out was not adequately known; therefore, DNE and SQN Modifications were in the process of evaluating the as-built piping.

The last site concern related problem (the ninth) was identified by a BLN specific concern. It cited that some valves in the plant were, "rusty on the outside but okay on the inside". The concern itself was found to not constitute a problem; however, in the process of evaluation, it was determined that DNC employees did not have a vehicle comparable to the ONP Maintenance Request for initiating and tracking corrective maintenance of plant equipment. The current vehicle at their disposal was the employee concern program, which this evaluation concluded, was a very inefficient means of identifying and correcting minor maintenance items.

The remainder of the 54 site concerns (83 percent) were found to be either not factual or fectual but not a problem.

### III. COLLECTIVE SIGNIFICANCE

All of the issues evaluated were each represented by one concern with three exceptions: (1) the two concerns addressed under Procedure Violation (containment penetration vendor welds not hydroed), (2) two concerns (raised by the same individual) citing that the ERCW line at WBN was originally designed as stainless steel but that stainless steel was not installed. (3) five concerns were raised citing that mixed schedules and grades of pipe were welded together at WBN within the same systems. No collective significance could be assigned to issues (1) and (2) and no overall patterns or trends were identified when all issues were coalesced. However, the five factual but not a problem concerns, issue (3), did imply a problem. Why did the five concerned individuals think that a problem existed? It was the evaluator's opinion that the problem perception was due to ignorance of pipe classification criteria and the fact that system design change points could be appropriately designated where the criteria changed. Based on the concerned individuals ignorance of these basic facts, the effectiveness of management in answering basic questions such as these either through training, employment involvement meetings, or a simple question and answer must be questioned.

#### IV. CAUSES OF THE MAJOR FINDINGS

The inadequacies and incongruencies found in the WEN, BFN, and BLN Limitorque preventative mailtenance programs were due in part to the fact that numerous persons/organizations were assigned the responsibilities of defining these activities for their respective organizations. The problematic findings were also attributed to

inadequate programs and controls established to ensure that all applicable vendor, EQ, and other TVA specified PM activities and storage requirements were defined and updated as necessary, scheduled, and then performed at the required intervals and on the required equipment.

Designer error was the root cause, as specified on the applicable NCR, for a 2-inch Class B check valve having been installed in a Class A line at WBN. The valve tags not being in place was attributed to normal wear and tear.

The causes for corrective action not being taken on cosmetically rusted valves at BLN could be attributed to two factors: (1) DNC employees had no efficient vehicle, such as the ONP MR program, for initiating and tracking corrective maintenance or plant equipment short of the employee concerns program, and (2) the responsibilities of ONP employees for initiating an MR when the need for corrective maintenance was identified was not delineated in the appropriate plant procedures.

Within the HVAC, mechanical equipment, mixed structural connections, and insulation issues; no problems were identified.

The concerns evaluated at each site under "Procedure Violation" cited that neither the vendor nor TVA had hydro tested a circumferential vendor weld in the process pipe portion of containment penetrations at The cause of this problem at WBN, as cited on the previously generated NCR's documenting this CAQ, was that the DNE Contract Engineering Unit failed to ensure that code requirements had been met on the DNE-procured penetrations in question. The evaluation of this issue for generic applicability to SQN had been initiated in response to the WBN NCR but had not been completed at the time of this investigation. BFN had not yet begun their evaluation at the time of this investigation. The cause for evaluation delay of this potentially generic CAQ to BFN was the BFN Design Project not performing the evaluation according to procedure, but attempting to transfer the responsibility for the evaluation of this potential CAQ to the ONP Site Director's Organization. The BFN Site Director was also at fault for neither accepting nor rejecting this transfer of responsibility. cause for BLN not revising their applicable QCPs requiring their inspectors to specifically examine the welds in question during hydrostatic testing, as stated in their response to the Potential Generic Condition Evaluation memorandum, was attributed to a miscommunication between the cognizant DNE and DNC engineers.

The second problem identified within the pipe/fittings issue was at SQN and was related to a WBN concern which cited that the ERCW piping was required to be stainless steel. At SQN, portions of the ERCW piping system within the plant were changed from the original design of carbon steel to stainless steel under an ECN. Some of the piping was changed-out; however, the as-constructed status of the system was not adequately known. The DNE Mechanical Pipe Unit was in the process of evaluating the as-built piping. The cause for the portion of the SQN ERCW piping, required to be stainless steel under the applicable ECNs, not being changed from carbon steel was that the design change had been

initiated after the plant had gone into operation with the originally designed carbon steel piping; thus restricting the ability to get the changes made in a timely manner.

### V. CORRECTIVE ACTION ON MAJOR FINDINGS

BLN had taken action to address the incongruencies in their DNC and ONP PM programs by assigning the equipment Preventive Maintenance assessment responsibilities to the appropriate ONP System Engineer. Although this was a step in the right direction, it had not been brought to fruition at the time of this evaluation as documented by the deficiencies identified in this report.

An SCR had documented the issue of a Class B valve in a Class A line at WBN. The valve was upgraded under an ECN by Kerotest, the vendor. The Class 1 ASME tag was placed on the valve. The SCR was closed.

An NCR had been issued to document and resolve the issue of containment penetrations not properly hydroed by either the vendor or TVA. This NCR had been closed on a use-as-is basis. An additional NCR had been issued to further document the cited problem at WBN (both NCR's had been generated before the employee concern). At the time of evaluation, the second NCR was still open pending hydrostatic testing and arbitration between TVA and NRC relative to the acceptability of the first NCRs use-as-is disposition. SQN, BFN, and BLN had been notified of this potential CAQ; however, only BLN had responded to the Potential Generic Condition Evaluation memorandums at the time of this evaluation.

Relative to the SQN ERCW system piping change-out, three ECNs had already been issued to document that part of the ERCW system was left as carbon steel instead of replaced by stainless. The DNE Mechanical Pipe Unit was in the process of evaluating the as-built piping present status.

ISSUES	ISR I	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE   SIGNIFICANCE
IN-85-719-001	X	1	1	Ī	1	NOTE: The following summary of
During the 1979	1	1	This concern issue was	None	None	collective significance was
hydrostatic test of	1	1	ifactual in that an MSIV	1	1	lapplicable to all issues evaluated
a thirty-six inch	1	1	seat leakage problem was	1	1	within this subcategory.
main steam line,	1	1	encountered during the 1979	1	1	1
the valve which	1	1	unit 1 main steam hydro-	1	1	All of the issues evaluated were
isolated the tur-	1	1	static test. However, ap-	1	1	leach represented by one concern
bine leaked. This	1	1	plicable portions of G-29	1	1	with three exceptions: (1) the
valve was located	1	1	allowed for seat leakage	1	1	Itwo concerns addressed under Pro-
in the south valve	1	1	during hydrostatic test	1	1	cedure Violation (containment
room.	1	1	conduct; therefore, this	1	1	penetration vendor welds not
	1	1	was not considered a defi-	i	1	(hydroed), (2) two concerns
	1	1	(cient condition. The leak-	1	1	(raised by the same individual)
	1	1	(age problem was attributed	1	1	citing that the ERCW line at WBN
	1	1	to the operation of the	1	1	was originally designed as stain-
	1	1	valves under abnormal con-	i	1	less steel but that stainless
	1	1	ditions (hydrostatic vs	1	1	steel was not installed, and (3)
	1	1	dynamic steam) rather than	1	1	five concerns were raised citing
	1	1	(seat failure. No valve	l	1	that mixed schedules and grades of
	1	1	seat performance problems	1	1	pipe were welded together at WBN
	1	1	had been identified nor	1	1	within the same systems. No
	1	1	repairs made since instal-	1	1	collective significance could be
	1	i	lation of these valves.	ł	1	[assigned to issues (1) and (2)
	1	1	1	1	1	and no overall patterns or trends
IN-86-284-002	į X	1	•	None	None	were identified when all issues
Valves V329 and	1	1	Inot be verified as factual	1	1	were coalesced. However, the five
V330 in the in-core	•	1	since both pneumatic and	1	1	factual but not a problem
instrument building		1	hydrostatic tests were	1	1	concerns, issue (3), did imply a
were pressure-test-	-	1	required and performed on	1	1	problem. Why did the five con-
ed by air in 1980.	1	1	these valves. The valves	1	1	cerned individuals think that a
but these valves	1	1	in question were replaced	1	1	problem existed? It was the
should have been	1	1	in late 1983 after they	1	1	levaluator's opinion that the
hydro-tested. CI	1	1	(failed and could not be	ŧ	1	problem perception was due to
stated that the	1	1	modified to pass a pneumat-	1	1	lignorance of pipe classification
valves were re-	1	1	lic containment isolation	1 .	1	criteria and the fact that system
placed (possibly	1		valve leak rate test which	1	1	design change points could be

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-86-284-002	<del></del>	1	was required by Appendix J	<del> </del>		appropriately designated where the
(continued)	i	i	to 10 CFR 50. The replace-			criteria changed. Based on the
after testing).	i	i	ment valves were success-	i		concerned individuals ignorance of
CI has no further	i	i	fully retested (pneumatic)	i		these basic facts, the effective-
information.	i	i	in early 1984. Both the	i		ness of management in answering
Construction Dept.	ĺ	i	original valves and the	i		basic questions such as these
concern.	ĺ	i	replacement valves were	i		leither through training, employ-
	1	1	hydrostatically tested	1		ment involvement meetings, or a
	1	1	before conduct of the pneu-	1		simple question and answer must be
	i	1	matic test (late 1982 and	1		Iquestioned.
	1	1	late 1983). Contrary to	1	1	
	i	1	the statement of the con-	1	I	Of the 54 site concerns, 83 per-
	l	1	cern, no pressure tests	1	1	cent were found either not factual
	1	1	were conducted on these	1	I	or factual but not a problem. Why
	l	1	valves in 1980.	1		did 34 persons (85 percent of the
	1	1	1	1	I	concerned individuals) perceive
	1	1	1	1		problems when problems did not
	1	1	1	1		lexist? It was the evaluator's
	1	1	1	1		lassumption that this collectively
	ı	1	1	1		significant question would be
	1	1	1	1		laddressed on the Category or ECTG
	1	1	!	1		Final Report levels. Neverthe-
	1	!	!	!		lless, this question was evident
	!	!	!	!		lupon reflection on the evaluation
	!	!	!	!		findings.
XX-85-094-007	l X	1	1	1		
Limitorque valves		:		I Numaraus	ı  The corrective action	1
at BLN were not	1	:	•		of NCR 7199 RO is the	•
stored or	:	!	valve operators adequately		corrective action	
installed in the	:	;	addressed the applicable PM		•	<u> </u>
correct attitude.	:	ì	and storage requirements		CATD.	 
nor were they main-	i	1		ble for de-	•	
tained properly.	i	i	-	fining Lim-	•	
property.	i	i	specified no humidity or	litorque	i	
	i	1	temperature control, no	maintenance		

ISSUES	I SR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
XX-85-094-007	1	1	preferred operator orienta-	activities		
(Continued)	1	1	tion specified, no inspec-	for their	f and the second	
	1	1	tion of motor leads for	respective	1	
	1	1	oil/grease damage during	lorganiza-		
	1	1	IPM, and no verification of	tions. Al-		
	1	1	limit switch assembly screw	Iso, inade-		
	1	1	length and lock washer	quate pro-		
	1	1	installation.	Igrams and		나 그 내용하는 사람들은 사람들은 사람들은 다른 사람들은 다른 사람들은 다른 사람들이 되었다.
	1	1	(CATD 17101-WBN-01)	controls		를 보고 있는 것이 되는 것으로 가장 하게 되었다. 그런 그런 그런 그런 것으로 되었다. 
	1	1	1	lestablished		
	1	1	1	to ensure		그는 그는 사람이 하다 하지 않는데 그렇게 하는 것이 없다.
	1	1	1	all applic-		이 시민 병원 교육을 보지하기 했다. 기계를 받는
	1	1		lable ven-		
	1	1		dor, EQ,		
	1	1		and other		
	1	1		ITVA speci-	1	
	1	1		Ified PM		
	1	1	1	activities		
	1	1	1	and storage		
	1	1	1	require-		
	i	i	1	ments were	i	
	1	1	1	defined and	, ,	
	i	i	i	updated as	•	
	1	1	1	necessary,	-	
	i	i	1	scheduled		
	i	i	i	and per-	i	
	i	i	i	formed.	i	
	i	i	i	i	i	
	i	i	The WBN ONP Limitorque PM	See above	Limitorque PM	
	i	i	Program was found deficient		instructions will be	
	i	i	in areas of complying with	*	revised to include	
	í	i	vendor recommendations and		meggering of CSSC op-	
	ĺ	i	testing operator motors.	i	erator motors and ex-	
	i	i	(CATD 17101-WBN-02)	i	ercising on non-CSSC	레이트 그 그들은 그들은 그리는 아이들이 가장 그들은 그들은 사람이 되어 되었다면 하는데 이렇게 되었다.
	i	i	1	i	operators where and	[17] 스마트 전환경기 경우 경우 시간 (17) 10 전 10
	i	i	i de la companya de l	i	when practical. A	[1] [1] [1] [4] [1] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
XX-85-094-007	1	ī	1		review will be per-	
(Continued)	1	1	1		formed to assure all	
	1	1	1		applicable vendor,	
	1	1	1		QMDS, and other TVA	
	1	1	1		requirements are	
	1	1	1		being met. Review	
	1	1	1		and documentation of	
	1	1	1		deficiencies will be	
	1	1	1		done according to	
	1	1	1		AI-9.2. All 1E harsh	
	1	1	1		environment Limi-	
	1	1	1		torque motors will be	
	ı	1	1		tested as the PM	
	1	1	1		schedule dictates.	
	1	1	1		DNC plans to take	
	1	1	1	1	responsibility for	
	1	1	1	s .	developing their own	
	1	1	!		PM program.	
	1	1	  Based on the deficiencies	See above		
	i		found in the PM program for		action is to revise	
	i		Limitorque valve operators,		AI-9.2 attachment 11,	
	i		ONPs programs/controls were		MSL 2.2, and ESL 4.5	
	i		inadequate.		to include evaluation	
	i		((CATD 17101-WBN-03)		of other TVA speci-	
	i	i	1		fied requirements for	
	i	i	i :		IPM activities and	
	i	i	i		evaluation of any	
	i	i	i		available documented	
	i	i	i		operating experience.	
	i	i	i		A program is now	
	i	i	;		underway to evaluate,	
	i	i	;	- 4	review, and revise	
	i	:	;		the MMS and EMS PM	
	- 1	;	:			
	- 1	:	:		program. As a mini-	
					mum, this program	

ISSUES	I S R	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
X-85-094-007	ī	ī	ī		will evaluate all	
(Continued)	i	i	i i		CSSC PMs before	
	ĺ	i	i i		lunit 1 fuel load.	
	i	i	i i		The Site Director/	
	i	i	i i		Project Manager will	
	i	i	i i		review the WBN PM	
	i	i	i i		program to determine	
	i	i	i i		if changes similar to	
	i	i	i i		the BNP PM program	
	i	i	i i		would be cost	
	i	i	i		effective.	
	i	i	i :		lorrective.	
	i	i	TS 01.00.15.14.03 (DPM N82  S	See ahove	DPM N82A17 will be	
	i		(A17), RO, paragraph 7.26	Dee above	modified to include	
	i		relative to the minimum		Limitorque Corpora-	
	- ;		storage requirements for		tion recommended	
	1		the Limitorque valve opera-			
	- 1		tors was inadequate.		long-term storage	
		-	•		requirements. These	
	!	:	(CATD 17101-NPS-01)		are consistent with	
	!	!	!!!		EQ requirements. The	
	!	!	!!!		applicable portions	
	!	1	!!!		of N82M3 dealing with	
	1	1	!		storage of Limitorque	
	1	1	1		operators will be	
	1	1	1		reviewed for incor-	
	1	1	1		poration into DPM N82	
	1	ı	1		A17.	
	1	1	1		1 · · · · · · · · · · · · · · · · · · ·	
	1	•		See Above	Our review of this	
	1	1	adequate programs/controls		problem revealed one	
	1	1	to ensure that all appli-		item related to	
	1	1	cable vendor, EQ, and other		limitorque preventive	
	1		TVA specified PM activities		maintenance for which	
	1		and storage requirements		corrective action is	
	1		((such as DPM N82M3) are		required. This item	
	i		lidentified, updated as		is related to the	
	i	i	Inecessary, scheduled, and		implementation of DPM	
	i	i	then performed at the		N82M3 by section	

ISSUES	SR	I NS	FINDINGS   CAU	SE	CORR ACT.	COLLECTIVE SIGNIFICANCE
XX-85-094-007	1	1	required intervals and on		instruction letter	
(Continued)	1	1	the required equipment.		EMSIL-14.3.1. The	
	1	1	(CATD 17101-BLN-01)		limitorque mainte-	
	1	1	1		nance requirements	
	1	1	1		contained in EMSIL-	
	1	1	1		[14.3.1 will be placed]	
	1	1	1		in a plant procedure	
	1	1	1		which requires PORC	
	1	1	1		review. This action	
	1	1	1		will be completed by	
	1	١	1		09/01/87. No other	
	1	1	1		program deficiencies	
	1	1	1		related to limitorque	
	1	1	1		preventive mainte-	
		1	1		nance has been	
	1	ı	1		identified.	
	1	1	1		Concerns related to	
	1	1	1		the application of	
	1	1	1		vendor requirements	
	1	1	1		and environmental	
	1	1	1		qualification	
	1	1	1		requirements in the	
	í	1	1		BLNP preventive	
	1	1	1		maintenance program	
	1	1	1		are addressed in our	
	1	1	1		responses to CATD	
	(	1	1		Numbers 17101-BLN-03	
	1	1	1		and 17101-BLN-05.	
	1	1	1		1	
	1	1	BLN DNCs storage procedure,  See A	bove	BNP-QCP-1.1 (Receiv-	
	1	1	QCP-1.2, should be revised		ing Inspection)	
	1	1	specifying proper Limi-		requires the N-5	
	1	1	torque operator storage		Receiving Inspector	
	i	1	level and orientation		to forward a copy of	
	1	1	requirements.		BNP-QCP-1.1 Attach-	
	1	1	(CATD 17101-BLN-02)		ment C to the Plant	
					Superintendent of	

ISSUES	ISR	I NS	FINDINGS   CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
X-85-094-007		1	1	(Maintenance PS(M) to	
(Continued)	i	i	i	specify any special	
,	i	i	i	storage/maintenance	
	i	i	i i	requirements of	
	i	i	i	permanent material/	대통령 이 사람은 대통령이는 경험 사람은 경험 개통령
	i	;	i i	equipment received a	
	i	i	i	the warehouse. BNP-	되어. 특히 그렇게 하다는 그들은 이번 사이를 하는데 하는데 얼굴이었다. 그는 것이다. 이번 시간에 본 기본 시간을 모르는데 그렇게 되었다.
	i	i	i	QCP-1.2 requires the	
	;	i	i	IPS(M) to perform a	
	i	i	i :	review of vendor	그 걸으로 이번째를 보았는데 얼굴한 하셨다니까?
	ì	i	i	literature to deter-	그리아 그 사람들은 사람이 얼마를 하면 살았다.
	i	i	i	mine special require	
	i	i	i	ments for storage of	
	i	i	i	materials or equip-	
	i	i	i	ment covered by	
	i	i	i i	vendor manuals. The	
	i	i	i i	storage levels and	
	i	i	i i	orientation of	i i
	i	i	i i	limitorque operators	
	i	i	i i	while in storage	i
	i	i .	i i	would be specified	
	i	i	i i	by the PS(M) on the	i
	i	i	i i	Attachment C of	
	i	i	i i	BNP-QCP-1.1.	
	i	i	i i	1	
	i	i	IBLN ONP Standard Practice   See Abo	e  The guidelines for	
	i	i	BLM-3.1 should outline	ONP system engineers	
	i	i	guidelines to be used by	to use in the assess	
	i	i	System Engineers in assess-	ment of equipment	
	i	i	ment of equipment PM/	PM/storage require-	
	i	i	Storage requirement. These	ments is given in	
	i	i	ONP PM/Storage assessment (	Standard Practice	
	i	i	guidelines were currently	BLA7.8, Section 5.0	
	i	i	specified in Construction	Preventive Mainten-	그 [1] [1] :
	i	i	Procedure QCP-1.3.	lance. This procedur	el
	i	i	(CATD 17101-BLN-03)	will be revised by	가다.
		:	1	May 1, 1987 to state	크림에 살아 있다. 이 회사가 되었는데 얼마를 가지 말을 때 하다.

ISSUES	SR	INS	FINDINGS   (	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
X-85-094-007		ī	1		"In assessing the	310111111110
(Continued)	1	1	1		need for periodic	
	1	ĺ	1		maintenance, the	
	i	i	i		((maintenance) sec-	
	1	1	i i		tions shall consider	
	1	1	i i		vendor recommenda-	
	1	i	i i		tions, other TVA	
	ĺ	i	i		special PM require-	
	1	1	1		ments, the probable	
	1	ĺ	i i		status (e.g. dry lay-	
	1	i	i i		up, wet, deenergized,	
	1	1	1		etc.) of the equip-	
	1	1	i i		ment from time of	
	i	i	i		tentative transfer to	
	1	1	i i		plant operations and	
	1	1	i i		shall review DNC	
	1	1	1		preventive mainten-	
	1	1	i i		lance methods to	
	1	1	i		determine if they	
	1	1	1		should be continued	
	1	1	i i		lafter transfer."	
	1	1	i		BLE 10 "Long-Term	
	1	1	i i		Preservation and	
	Í	1	i i		Maintenance of Plant	
	1	i	i		[Equipment" is the	
	i	i	i		upper tier document	
	ĺ	i	i i		for implementation of	
	i	i	i i		BNP-QCP-1.3 and	
	i	i	i i		BLM 3.1.	
	1	i	i i			
	i	i	The maintenance activities  Sec	e Above	BLA7.8 Section 5.0	
	i	i	specified in Section 5.0 of		requires 'he system	
	1	1	Standard Practice BLA-7.8		lengineer to have the	
	1	1	R6 should be specified		grease in Limitorque	
	1	1	within the PM Data Base.		operators replaced if	
	- 1	1	Also, the PM activities		the grease in the	
	1	1	specified in EMSIL-14.3.1		limitorque operator	

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
XX-85-094-007	1	ī	(reference DPM-N82M3)		is not Nebula EP-1.	
(Continued)	1	1	(should be specified within )		This is presently	
	1	1	the PM program.		being accomplished	
	1	1	(CATD 17101-BLN-04)		via MR. No correc-	
	1	1			tive action is	
	1	1	1		required in this	
	i	1	1		larea. The grease in	
	1	1	1		the limit switch	
	1	1		1 m	gears of all Class 1E	
	ĺ	1	1		operators located in	
	4	1	1		harsh environments	
	i	i	i		will be changed to	
	ĺ	ĺ	1		Mobilgrease 28 by DNC	
	1	í	1		prior to system/	
	1	1	1	s ' ' ' '	component transfer to	
	1	1	1		plant operations. A	
	1	1	1		limit switch grease	
	1	1	1		inspection program	
	1	1	1		will be initiated	
	1	1	1		just prior to fuel	
	1	1	1		loading. EMSIL-14.3.1	
	1	1	1		will be put in an	
	1	1	1	1	Electrical Mainte-	
	1	1	1		nance Guidelines	
	- 1	1	1		(EMG) and implemented	
	1	1	1		through the PM data	
	1	1	1		base by 9/1/87.	
	1	1	1		Reference CATD 30801-	
	1	i	i		BLN-01, ECSP Report	
	1	i	i		is 308.01-BLN for	
	ĺ	i	i		inclusion of inspec-	
	1	ĺ			tion program into the	
	ĺ	ĺ	i de la companya de l	le de la companya de	BLN PM program.	
	1	1	1			
	L_					

ISSUES	ISR J	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
(X-85-094-007	1	1	1		NOTE: The following	
(Continued)	1	1	1		was the CAP for	
	1	1	1		CATD 30801-BLN-	
	1	İ	į į		01:	
	1	1			The BLN (DNC and ONP)	
	1	1	1		PM program data base	그 그림에 내려가 하는 사람이 모든 때문에
	1	1	1		will be revised to	
	1	1	1		include requirements	
	i	i	1		for lubricant inspec-	
	1	1	1		tion in the Limitor-	
	1	1	1		que limit switchgears	
	1	1	1		of the operators.	
	1	1	1		This action will be	
	1	1	1		completed by July 1,	
	1	1	1		11987.	
	1	1	1		i	
	1	1	BLN had no QMDS implemen-  Se	e Above	(1) DNE complete the	
	1		tation program or any		development of an	
	1	1	recognition of environ-		EQ program for	
	1	1	mental qualification main-		BLN which	
	1	1	tenance requirements within		complies with the	
	1	1	their maintenance programs.		requirements of	
	1	1	BLN should be implementing		10 CFR 50.49 and	
	1	1	QMDS PM requirements.		Regulatory Guide	
	1	1	(CATD 17101-BLN-05)		1 1.89.	
	1	1	i i		(2) ONP implement the	
	1	1	i i		requirements of	
	1	1	t i		EQ maintenance in	
	1	1	1 1		plant procedures.	
	ļ	!	I 4 .			
1	ļ	!	1		Background	
	ļ	1	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		BLN's current program	
	1	1	1		for maintenance of	
	1	1	1		environmentally	
	- 1	1	1		qualified (EQ) equip-	
		1	11		ment is described in	

ISSUES	ISR	INS I	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
(X-85-094-007	Ī	1 1			BLM1, Section 1.10 on	
(Continued)	1	1 1		İ	Maintenance of Class	
	1	1 1		i	[1E equipment, and ]	
	i	ii			lalso in BLM10.1,	
	i	ii		i	Section 2.2.2 and	
	i	ii		i	3.0, Preparation of	
	i	i i			MRs. Purchase of	
	i	i i		i	spare/replacement	
	i	: :			parts of Class 1E	
	i	; ;			equipment is describ-	
	- 1	; ;			ed in BLA9.1 and	
	- ;	: :			BLA9.8.	
	-	; ;				
	1	: :			DNE started develop-	
	1	: :		!	ment of an EQ program	
	!	1 1		!	to comply with the	
	!	!!			requirements of	
	!	!!			110 CFR 50.49 and	
	!	!!		!	preparation of an EQ	
	!	!!		1	manual to classify	
	!	!!			parts work was	
	Į.	1 1			stopped on the	
	1	1 1			program for BLN.	
	1	1 1		1	This work activity	
	1	1 1		1	is being tracked on	
	1	1 1		1	TROI (SCR BLN-EES-	
	1	1 1		i	[8543].	
	1	1 1			i i i i i i i i i i i i i i i i i i i	
	1	1 1		i		
	i	1 1		i	i	
	i	ii		i	i	
	i	ii		i		
	i	ii				
	;	: :		!		

IN-85-055-N04   X     Based on a review of   NA The NRC identified	NA NA	SIGNIFICANCE

ISSUES		ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
BNP-QCP-10.	35-8-17	X	1	No functional problem	The causes	General Employee	SIGNIFICANCE
ome valves			i	lexisted in accordance with		Training course GET 4	
lant (BLN)		i	i	the statement of the	•	identifies that all	
usted. He		i	i	concern, only a cosmetic	•	employees have the	
hey were pr	obably	i	1	jone. A problem was in		responsibility for	
K but just			i	levidence in that the		initiating a mainte-	
ad.		1	1	employees concern about a		nance request when	
		1	1	routine plant maintenance	-	the need for correc-	
		1	1	lissue was raised through	valves at	tive maintenance has	
		1	1	QCP-10.35 which was an	BLN could	been identified. All	
		1	1	employee concerns program.	be attri-	plant personnel are	
		1	1	It was found that DNC	buted to	required to attend	
		1	1	employees did not have a	two	GET 4 training.	
		1	1	vehicle comparable to the	Ifectors:		
		1	1	IONP MR for initiating and	(1) DNC	i da da da da da da da da da da da da da	
		1	1	tracking corrective mainte-	employees	DNC will initiate a	
		ł	1	nance of plant equipment.	had no	program that provides	
		1	1	It was also found that the	efficient	DNC employee's a	
		1	1	responsibilities of ONP	vehicle,	vehicle to initiate	
		1	1	employees for initiating	such as the	and track corrective	
		1	1	(corrective action (an MR)	JONP MR pro-	maintenance on	
		1	1	when the need for correc-	Igram, for	permanent plant	
		1	1	tive maintenance was	initiating	equipment. This	
		1	1	identified was not deli-	and track-	program will be in	
		1	1	neated in the appropriate	ling correc-	the form of a new BNP	
		1	1	plant procedures.	tive main-	procedure or revision	
		1	1	(CATDs 17101-BLN-06 and	tenance on	to an existing BNP	
		1	1	(07)	plant	procedure. The new	
		1	1	1	equipment	procedure will be	
		1	1	1	short of	incorporated into the	
		1	1	1	the	existing DNC program	
		1	1	1	Employee	by December 15, 1987.	
		1	1	1	Concerns	r i de la companya di di di di di di di di di di di di di	
		1	1	1	Program.		
		1	1		and (2)	<u>la la u>	

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
QCP-10.35-8-17	1	1	1	the respon-		
(Continued)	1	1		sibilities		
	1	1	1	of ONP		
	1	1	1	employees		
	1	1	1	for initi-		
	1	1	1	lating an	1	
	1	1	1	MR, when		
	1	1	1	the need	1	
	1	1	1	for correc-	1	
	1	i	1	tive main-	1	
	1	1	1	tenance was	1	
	1	1	1	lidentified,	1	
	1	١	1	was not	1	
	1	1	1	delineated	1	
	1	1		in the	1	
	i	1	1	appropriate	loui Yan Basada	
	1	1	1	plant	1	
	1	1	1	procedures.	1	
FW 05 4/0 000	! _	!	!	1	1	
IN-85-463-003	i x	!	<u>!</u>			
Sheet metal cover	!	!	This concern was factual in	•	None	
oox could not be	!	!	that a potential interfer-			
installed over an	I	!	lence existed between valve	1		
electrical penetra-		!	2-FCV-30-58 and the sheet	1		
tion in the unit 2	•	!	metal cover for an adjacent			
n-core Instrument	!	!	electrical penetration. No			
Room because of	!	!	personnel electrical hazard	1		
nterference with	!	!	lexisted from the exposed			
ither Flow Control	!	!	electrical penetration con-			
Valve (FCV)-30-20	!	!	iductors since no cables had	1		
or FCV-30-58.	!	!	been terminated at the			
	!	!	penetration (the installa-			
	!	!	Ition of the cover was a	1		
	!	!	prerequisite to cable	1		
	!	!	termination).			

ISSUES	ISP.	INS	f FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
EX-85-034-001	X	1	This concern was factual in	None	None	
Mechanical discrep-	1	1	that a "mechanical discrep-	1		
ancies existed on	1	1	lancy" did exist on both			
notor operated	1	1	12-FCV-62-90 and 133 at the			
valves.	1	1	time the concern was	1		
	1	1	(September 1985).		기계 생물 보이는 나는 하는 것은 얼굴이 얼굴하다.	
	1	1	QTC for confidentiality			
	1	1	reasons, would not provide	1	크네일이 되어졌다면서 하는 사이라면	
	1	1	information descriptive of	1		
	1	1	the mechanical discrepan-	1		
	1	1	cies. For organizational	1	사실 이렇게 들어 그래요 전혀졌다면 하네요.	
	1	1	reasons, they were assumed	1		
	1	1	to be clearance related;			
	1	1	however, this evaluation	1		
	1	1	did not support that ass-	1		
	1	1	lumption. At the time,	1		
	ı	1	10 CFR 50.55e deficiency	1	"1	
	1	1	reports had been issued			
	1	1	against these valves be-		1	
	1	1	cause of an NCR documenting			
	1	1	three compensator housing	1	1	
	1	1	failures in 1983. These			
	1	1	failures were on valve	1	1	
	1	1	operators of the same model	1	1	
	1	1	number and casting material	l .	1	
	1	1	(grey iron). As corrective		1	
	1	1	laction, all gray iron com-	l	4	
	1	1	pensator housings on this	1		
	1	1	model valve, including the	l ·		
	1	١	valves in question, were			
	1	1	replaced with ductile iron			
	1	1	housings. The new housings			
	1	1	were on material restraint			
	!	!	for a long duration; how-			
				1. 1		

ISSUES	SR	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
EX-85-034-001		1	valves in question, were			
(Continued)		1	replaced with ductile iron			
1		1	housings. The new housings			
1		1	were on material restraint			
- 1		1	for a long duration; how-			
1		1	ever, they were received		(1.1일) 시기는 생활을 가게 가르는 하고 하다.	
1		1	and installed under a work			
1	1	1	release in early 1986. The			
1	1	1	proper operation of the			
1	١	1	valves after compensator			그는 이 사람들이 많이 얼마지만 하나면 되었다면
1	l	1	housing replacement was			
1	l	1	documented under the work			
1		1	releases by test 70 to			
1	1	1	QCP-4.10.9. Because of			
1		1	limited concern information			도 얼마 그림으로 하고 한번 하는 것 같아.
i	l	1	and since no deficient con-			[하고 있는 하나 생각하는 남자 나를 하는 것이 하다면
1	1	1	ditions were noted for			선생님이 내가 있다는 이 사람들은 하나 되었다.
		1	these valves under test 70			사람이 많아 있었다. 얼마 얼마 얼마 나를 다 했다.
		i	of QCP-4.10.9, the "mechan-			(2011년) [11년 중 12년 왕 왕 12년 기계 (22년 12년
1	1	1	ical discrepancy" was as-			그 나는 그런 경험에 가는 하나 하나를 받는다.
		1	sumed to be corrected by			요즘 그 원칙회 하셨다. 그 개념하는 이 집에 가입니다.
	ĺ	i	the compensator housing			집 회교를 통해 사이 절환의 경치 내용 경치
	1	1	replacement.			[18] - 18 - 네 경기 (18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18] - 18]
	ì	i	1			
IN-85-169-001	X	i				
two-inch Class B	1	1	[This concern, Class B valve]	Designer	MR A496490 was initi-	B. 1: 10 THE SMILE IN SECTION (1)
alve was installed		1	in a Class A line, was fac-		ated to fabricate,	
n a unit one Class	1	1	tual. The concern was ad-	normal wear	install, and document	(1) : [1] :
system	l				the installation of	보이라 이 발견을 하는 것이 없었다. 그리는 이 없는 사람이
	I	-	I-85-169-001 and in re-		the TVA ID tag. As	보기 많은 경기가 하는 사람이 없는 것은 그렇게 하는 것은 것이다.
	1	1	sponse, an SCR was genera-		far as TVA class and	[[레이지 연락들어의 교육사업 경험 등의 대회 내내]
i	ı	1	ted to document the condi-		drawing tag, the up-	이 아이는 그는 이번 모든 아니라 아내는 아이들이 되는 것이 마음에 되어 그 모든 아이들이 가지 않는데 그리다.
	1	i	tion adverse to quality.		graded ASME tag in-	많이 하나 나는 나를 하나 하는 것 같아. 그 나를 하는 것
	i	i	An ECN was written to cor-		stailed by WP E5841-1	
	i	i				마르크 (1975년 - 1985년 - 1 1985년 - 1985년

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-169-001	1	1	[rect the discrepant drawing]		has the required ASME	
(Continued)	1	1	and have the check valve		class 1 identifica-	
	1	1	either upgraded or re-		tion and also has the	
	1	1	placed. The vendor upgra-		figure number which	
	1	1	ded the valve and a work-		is also the vendor	
	1	1	plan installed the upgra-		dwg. for the valve.	
	1	1	ded ASME tag; however, no		There is no other	
	1	1	vehicle was generated to		requirement. One	
	1	1	replace the missing system		problem was identi-	
	1	1	ID and TVA Class and draw-		fied with a TVA dwg.	
	1	1	ling tags as identified in		which still shows the	
	1	1	the NSRS report. The con-		old valve dwg.	
	1	1	cern was closed with this		FCR-87-58 has been	
	1	1	deficient condition not ad-		linitiated.	
	ĺ	1	addressed.		i i	
	1	1	(CATD 17101-WBN-04)		i i	
	1	1	1		i i	
EX-85-046-001	X	1	1		i i	
he fire dampers in	1	1	INSRS investigation report	None	None	
iesel Generator	1	1	I-85-757-WBN adequately ad-			
uildings 1 and 5	1	1	dressed the DGB fire damper			
ad never been ob-	1	1	lissue. According to this			
erved to operate	1	ĺ	report and the responsible			
roperly.	1	1	test personnel, the fire			
100	1	1	dampers in Diesel Generator			
	1	1	Buildings 1 and 5 were			
	1	1	tested in Preop Tests		i i	
	1	1	TVA-24 and TVA-74F, respec-		i i i i i i i i i i i i i i i i i i i	
	1	1	tively. All dampers passed			
	1	1	the tests required by the			
	i	i	Itest documents.			
	1	1	1			
	i	i			내 있었다. 그 하다가 되었다면서 제작되었	
	i	i			이 집에 전혀 하셨습니다.	
	i	i	i i		, 기업 등의 시민들이라고 하고 있다면 모든 [편집] 등	

ISSUES	ISR I	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-879-001	X	1				
The inspections	1	1	The concern related to the	None	None	
done in 1981 on the	1	1	unit 1 Ice Condenser System	1		
air supply and re-	1	1	was factual; however, not			
turn wall ducts for	1	1	considered a problem. That	1	a i a sa a sa a sa a sa a sa a sa a sa	
the unit one Ice	1	1	concern cited that the as-	1		
Condenser System	1	1	sociated ducts were	1	지수는 이번 경험하게 되었었다.	
revealed that a	1	1	"blocked/restricted varying	1		
number of the ducts	1	1	from 30 percent to 100 per-	1		
were blocked, re-	1	1	cent." The cited blockages	1	아이 이 많은 사람들이 가는 것을 가게 하셨다.	
stricting the air	1	1	had been previously identi-	1		
flow through the	1	1	fied in the related Preop	1		
ducts.	1	1	Test. A test deficiency	1		
	1	1	had been generated, correc-	1	1	
	1	1	Itive measures taken, and	1		
	1	1	the affected test section	1		
	1	1	successfully retested to	1	1	
	ı	1	clear the deficiency. Some	1	1	
	١	1	duct blockage was consid-	1	1	
	1	1	ered acceptable since the	1	1	
	1	1	required average air flow-	1	1	
	i	1	rate was exceeded in the	les de la companya de la companya de la companya de la companya de la companya de la companya de la companya d	1	
	1	1	retesting and no signifi-		1	
	1	1	cant ice condenser tempera-	1	4	
	١	1	ture increases were	l	1	
	l	1	recorded.	1		
	1	1	1	1	1	
	l X	1	1	1	1	
A tank in the Aux-	1	1	From discussions with cog-	•	None	
iliary Building,	1	1	Inizant personnel and review	•	1	
elevation 713, unit		1	of construction NCRs 3877,	-	1	
one, was over pres-	-	1	Revision 1 and 6379, it was		1	
surized by approxi-	1	1	determined that the facts			
mately 200 psi.	1	1	were that the unit 1 and 2		1	
		1				

ISSUES	ISR I	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE   SIGNIFICANCE
PH-85-035-004	ī	ī	Volume Control Tanks had			
(Continued)	1	1	been or could have been			
This caused a bulge	1	1	overpressurized. However,			
n the tank at an	1	1	the statement that the tank		[ - 이 아이는 그 사람들이 있다.	
angle iron band.	1	1	was "bought off" was found			
The tank was	1	1	Inot justifiable. Noncon-			
oought-off by	1	1	formance reports identi-			
Engineering because	1	1	fied each case of possible			
it could not be	1	1	overpressurization and for			
removed for repair.	1	1	each NCR a comprehensive		1	
	1	1	evaluation of the tank was			그 그 그 그 그 보다는 경험 경험 사람들은 사람들이 되었다.
	1	1	dictated as the corrective			그렇는 기술이 보면 보면 있는 것 같은 사람들이 없었다.
	1	1	action. These dispositions			그 있는 [18] 이번 조건방이를 이 경험 취소하셨다.
	1	1	were based on significant			그렇게 그렇게 하는 아이들에 가는 사람이 하셨다면서 없어 하셨다.
	1	1	Westinghouse input and			도 집에 없는 이 사람들이 있었다. 나를 가게 되었다. 하나 없는 것이다.
	1	1	approval and field inspec-			보이고 그는 이 하는 아이들은 그를 모르겠다고 없었다.
	1	1	tion, measurements, and			보다 그 회사 내는 이웃리면 가장 과학 기가 있다면
	1	1	tests. The tanks were			보고 그리다 가장하셨다면서 그런 경기 이렇게 되었다.
	1	1	found acceptable-as-is.		1	그는 내용 이번 그런 회사를 하고 하면 화면서 되었다.
	1	1	1		1	그 이 [이전 ] 공사를 막게 되었는데; [사]
IN-85-559-001	1	1 X	1			마마 마마 (1) 12 12 12 12 12 12 12 12 12 12 12 12 12
Neutron detector	1	1		None	None	보다는 <b>(</b> - ) 이 보고 있다면 하면 하면 하면 하다.
ooxes, in-core	1	1	that fabrication by TVA		1	그는 경기 나무를 하는 것을 하는 것이 없었다.
reactor two, eleva-	-	1	craft personnel of items on		1	교육 1시 : 1시 : 1시 : 1시 : 1시 : 1시 : 1시 : 1시
tion 713 or a lit-	1	1	Westinghouse drawings was		1	기가 그녀의 가능한 경험하는 사람들이 되었다.
le above. The	1	1	an approved practice via		1	그는 것 보다, 가지 말했다. 내 시간하다면 가다다. 요하
0-inch by 30-inch	•	1	numerous methods. Discus-		t e	물이 있다. 사람이의 발생님들은 경기를 보고 있다면서 없었다.
oxes were shown on	1	1	sions with cognizant per-			
he Westinghouse	1	1	sonnel confirmed that this		1	그러게 되었다면 살아왔다면 하면 하면 하면 없었다면 하다.
lrawing but were	1	1	was an accurate statement.		1	시 시간을 다시다는 경찰을 하는 때 작품을 하는 것들었다.
abricated and in-	1	1	These items were intended		1	있는데, [2] 기상 기상 하는데 말라 되었다면 말하는데.
stalled onsite	1	1	to be fabricated and in-			: Park British (1985) - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 19
(1974/1975).	1	1	istalled by TVA. Therefore,			사고 되다. 이 나는 사람들은 사람들이 하는 것이다.
	!	!	!			1
	!	!	!			
	!	!				1
	1	1	그 그 그 그 그 그 그 이 전 나는 하다 내 마음 하셨다.		기를 하는 경기를 내려가 하는 것 같아 있다.	얼마나 여기 의민 면접 얼마를 되었다면 다니다면 목에를 하나 하는 점점 없었다.

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-559-001	1	1	this does not represent a	1		
(Continued)	í	1	condition adverse to qual-	1		
	!	!	lity.			
IN-85-070-001	X	i				
There was a possi-	1	1	A review of the response	None	None	그 [1] 아이지 아이들 하고 아이들 때문에 가장하다.
ble cracked sleeve	1	ĺ	from QTC/ERT revealed the	1		
through the crane	1	1	following:	1		하다 그 사람들은 사람들이 가지 않는데 하다니다.
wall around the	1	1	11. Concern as stated cannot	1		그 : : : : : : : : : : : : : : : : : : :
reactor coolant	1	1	l be factual since neither	1		
system piping in	1	1	hot or cold leg passes	1		
unit one. The con-	1	1	through crane wall.	1		그 일반에 하는데 가장 아내는 생생이라는 하는 사람이다.
cerned individual	1	1	12. Concern as expressed	1		그리다 마양 등에서 가는 때 보다가 된 것을 하고 있다.
(CI) did not know	1	1	secondhand and was over-	1		그들은 기사는 사람들에게 되는 아이들은 살아보고 있다.
which loop or	1	1	heard nearly three years	1		[14] [1 ] : : : : : : : : : : : : : : : : : :
whether it was	1	1	ago.	1		
around the hot leg	1	1	3. A sleeve generally	1	1	- 교리의 1 그 경기 기업 가격하게 넘어가셨다.
or cold leg piping.	1	1	serves as a form for	1	1	
	1	1	concrete placement to	1	1	
	1	1	keep concrete off the	1	-1	하다 그는 사람들에 가게 되었다.
	1	1	pipe going through the	1	1	Burk : 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1	1	hole. Cracks in con-	1	1 1	그 [18 일본) 시작되면 시작하는 경우 얼마나 없는 사람이 있다.
	1	1	crete in the biological	1		그녀, 그로 살인하게 되었다고 있는 사람들은 것이라고 있다.
	1	1	shield wall have been	1	1	- 배크를 발표하는 경우를 발표하는 사람들이 걸려왔다.
	1	1	evaluated by the subcat-	1	1	[MEN] [MEN]
	1	1	egory "Concrete."	1		H [2012] 영역학 제공 경영(경우) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	1	1	Cracks were determined	1	L. L.	시 [11] 경영병원 사용원 사용원 시간 사용
	1	1	to be shrinkage cracks	1	1	
	1	1	and either within the	1	1	이 [이 1966년 이 1982년 시 기계 1986년 1987년 1
	1	1	l limits of G-2 or evalu-	1		하나 (1905년 1915년) (1915년 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일
	١	1	ated by DNE.	1	1	
	1	1	4. Even if a crack existed			[He He
	1	1	it would not affect pip-	1		
	1	1	ing since the only	l		
	1	1	possible loading on the	1		
	1	1	sleeve is compressive.	1		그리 (이번 ) 등 보기에 하고 있었다. 이 등에 발생하는데 없어 다

ISSUES	1	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-86-311-001	X	1	Discussions with cognizant	None	None	240111 2011101
Bellows were in-	1	1	construction personnel	1		
stalled without	1	1	could not identify a fire	1		
proper paperwork is	n I	1	room. However, bellows		교생 - 기계 시민 이 기계 시간 시간 사람이 있다.	
the annulus area	1	1	installation in the summer			
behind the north	1	1	of 1985 did occur in north	1		
fire room in the	1	1	valve room.	1		
summer of 1985.	1	1		1		
	1	1	Numerous problems were en-	1		
	1	1	countered with fit up,	1		H : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ] : [ ]
	1	1	alignment, and damage of	1	1.3 <b>4</b> 0   1.50	나는 그 아이들은 눈이 살아 하는 아이들 때를 가게 되었다.
	1	1	the bellows. These prob-	1	[14] [1] [1] [2] [2] [2] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	나를 하면 되었다. 아이들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들이 되었다.
	1	1	lems were all documented	1		[시대] 경영점(경우 시설 : 11 11 11 11 11 11 11 11 11 11 11 11 1
	1	1	via a number of NCRs.	1		
	!	1	!	1		보고는 하는 일과 없이 되었다면 보고 있다면 살아 없다면 하다.
	!	!	For the problem of damaged			[집 한 집] 문화하여의 중국부분하고 바라 하고 있는
	!	!	bellows, no acceptance cri-			
	!	!	teria existed. However, a	1		마니다 그 그림 그는 그리다는 사람이 있다.
	!	!	consultant recently exam-	1		그리 그 나는 내가 없는데 말하게 하는데 되었다. 하는데 없는데 없는데 없는데 없는데 없는데 없는데 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면
	!	!	lined the bellows and	1		보이 얼마나 회사하다 하나 하나 사람이 있는데 하다면요.
	!	!	recommended a "use-as-is"	1		생님도 이 발견되었다. 경기를 걸어가면 살이 걸어갔다.
	!	1	disposition. Therefore,	1		[1] 이번 이번 사람들을 잃었다면 얼마 그렇게 하다.
	:	1	the bellows are acceptable as is. There is not a	1		나는 이번 없는데 그런 배 얼마가 되는데 다
	1	1	problem of improper paper-	1		이 그림 시간에 무슨 이 만든 이번 뭐라고 있다고 하는데 모
	1	1	work. The CI may not have			나는 보고 있는 수밖에게 하는 경우로 어린다면서 하는데 모든
	1	!	been aware of the NCRs that			[대학생님 : 대학생님 : 그리는 그릇이 나 하나 있는 것]
	1		were filed or the consult-			
	:	1	lant's study of the bellows.	•		[1] 이 사람이 생겨를 보이하다 그렇게 되었다. [2] 이 사람이 되었다. [2] [2] [2] [2] [2] [2] [2] [2] [2] [2]
	1	1	i	:		
	:	1		1		
	i	i		1		[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
	i	i		4.3		
	ì	i		4		
	:	1		1		발표 이번 회가 없었다. 사람들은 생각은 10 일까지 하였다.

ISSUES	SR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-86-205-002	X	ī	According to the "Respon-	None	None	
Engineering person-	1	1	sibility Descriptions" for		i i	
nel were allowed to	1	ĺ	WBN, the assigned System	ĺ		
give bad technical	1	1	Engineer's responsibilities	1		
direction to the	ĺ	i	were: "Provide engineering		i i i i i i i i i i i i i i i i i i i	
craft on unit two	1	ĺ	support and interpretation	i	i	
Feedwater Heaters	1	1	to crafts. Ensure instal-	1	i i	
(numbers 1 and 2,	ı	1	lation is in accordance	1	i	
on elevation 692).	1	i	with design, vendor, and QC	i	i i	
Both work and final	1	ĺ	requirements. Perform non-	İ	i	
hardware adequacy	i	i	QA inspections." Met with		i	
were affected by	i	i	the DNC Mechanical Engin-	i	i	
technical misdi-	i	i	leering Unit Engineer re-	i	i	
rection, including	1	ĺ	sponsible for/cognizant of	1	i i	
inaccurate "shoot-	1	1	the unit 2 feedwater heater		i	
ing-in" of heater	ĺ	ĺ	change-out. The cognizant	-	i	
centerlines by	ĺ	i	System Engineer provided	İ	i i	
engineers.	ĺ	i	the following information:	ĺ	į.	
	1	1	1° The number 1 and number 2	1	i i	
	1	ĺ	feedwater (FW) heaters	1	i	
	1	1	were not located on ele-	1	i i i i i i i i i i i i i i i i i i i	
	1	1	vation 692 but on Turbine	1		
	1	1	Building floor elevation	1		
	1	i	708.	1	i	
	i	i	' These vessels were non-	i	i	
	ĺ	Ì	safety-related and were	Í	i	
	i	i	outside the scope of the	İ	i	
	i	i	WBN QA program; there-	i	i	
	i	i	fore, site QA procedures	i	i	
*	i	i	for equipment setting did	-	i	
	i	i	not apply.	i	i i i i i i i i i i i i i i i i i i i	
	i	i	1	i	i	
	i	i	i	i		
	i	i		i		
		:		1		

ISSUES	ISR I	INS I	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
N-86-205-002	1	1	No specific equipment			
(Continued)	1	1	setting tolerances were			
	1	1	given on DNE or vendor			
	ı	1	drawings/instructions.		1	
	1	ı	Nominal center line ele-			
	1	ı	vations were given on TVA		1	
	1	1	piping drawings and on			
	1	1	TVA revisions to the ven-		1	
	1	1	dor drawings.			
	1	1	The WBN heater bases mod-		1	
	1	1	ified by TVA to adapt the			
	1	1	Yellow Creek Nuclear		1	
	1	1	Plant heaters to the WBN	and the second second		
	1	1	system piping and embed-			
	1	1	ded rails. The finished		İ	
	1	1	installation was com-		.1	
	1	1	prised of field shortened			
	1	1	pedestals on YCN heaters		İ	
	1	1	bolted to salvaged wheel		1	
	1	1	assemblies cut from the		12	
	1	1	pedestals of the scrapped	3	i	
	1	1	WBN heaters. This was		İ	
	1	1	accomplished by means of			
	1	1	two welded base plates.			
	1	1	Provision was made for		i	
	1	1	shims to adjust heater			
	1	1	center line elevation.			
	1	1	The heaters were set			
	1	1	using an optical level to			
	1	1	locate the shell-end cen-			
	1	i	ter line (as marked by		i	
	ĺ	ĺ	the vendor). Civil QC			
	1	1	control points were used		i i i i i i i i i i i i i i i i i i i	
	ĺ	i	as elevation references			
	ĺ	i	for the optical level.			
	i	i	The shell center line was			
	i	i	transferred to the heater		시 경기 가장 성격 됐다. 1 사람	
	i	i	1		요즘 등 이 시간 경험을 하고 있다.	

ISSUES	SR	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
N-86-205-002	1	1	opposite end using a			
(Continued)	1	1	water level. Measure-			
1	1	1	ments were taken to the	i		
	ĺ	İ	closest 1/16-inch. Shims	i		
	1	1	were installed as re-			
	1	1	quired in 1/8-inch incre-			
	1	1	ments.			
	1	1	The finished installation			[일본 [2] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4
	1	1	met all design require-	1		[일시 조금 발생하는 경고 그는 사고를 되었다. 하시 않았다.
	1	.1	ments and was accom-			보다 그러 시간에 있다면 한 경험 가는 것이 되었다.
	1	1	plished with good engin-	1		k 40 m. 이 12 2020년 12 12 12 12 12 12 12 12 12 12 12 12 12
	1	1	eering practice.	1	- I	이 보는 사람들이 얼마를 들어 마셨다면 나를 다 되었다.
	1	1	The heater center lines	ı	1	[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
	1	1	were located as close as	1		
	1	1	practically possible and	1	1	[ ] - [ [ [ [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	1	1	were determined to be	1	e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l	[[] 보고 기타를 이 말을 남아올라 보다면 하는 것은
	1	1	acceptable by the DNC			
	1	1	Mechanical Engineering			[14] [14] 이 사람이 사용하게 하면서 하는 밤
	1	1	Unit.			
	i	i	The Feedwater Heater In-	i		
	1	1	struction Manual for the	· · · · · · · · · · · · · · · · · · ·	1	
	1	1	number 1 and number 2 heat-	- 1	1	ka - '' , '' 전하다면 보는 하다. 그렇는 이 작가요?
	1	1	ers transferred to WBN from	- 1		
	1	-	YCN was reviewed for rele-	- 1		
	1	-	vant information. Under		1	[ - 1 ]. 하실 보면서 보고 있는 사람이 하는데
	1	1	"Setting Heaters," it gave			
	1	1	<pre> no tolerance instruction/  </pre>	1	l	
	1		criteria for heater center	ı	l	
	1	1	line elevation. It did	1	<b>1</b>	
	1	1	state, "The fixed supports	1	1	
	!	1	have been designed so that			
	1	!	shims have to be used to			[4] 일시 [4] 강경 경기보다는 사람들 강에서 경기했다.
	!	!	obtain the proper elevation			
	ļ	!	and orientation."	<u> </u>		
	ļ	!	1		(성) 열 시민들은 하는 이 살이다.	물이 없는 내가 있는데 그 그렇게 가를 하셨다고요?
	!	!	1			[하고 : [하고 : ] 하고 : [하고 : ] [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
			11			그 그들은 이용에 이용하는 그렇게 되었다면서 하게 되었다.

ISSUES	SR	INS	FINDINGS	CAUSE	CORR A	CT.	COLLECTIVE SIGNIFICANCE
IN-86-205-002	1	1	QAPP 10 revision 3, "Qual-				
(Continued)	1	1	lity Assurance Program Pol-		1		
	1	1	licy - Inspection, para-		1		
	1	1	Igraph 2, "Scope," stated in		1		r ^ 보통 전략 전략 및 환경 및 등로 발표하게 밝혔다면
	1	1	part, "This program is		1		ri 보이스 시네이 얼마나는 동생이 되었는데 되었다.
	1	1	applicable to all safety-		1		[1] 2 2시 - 1 시간 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	1	1	related items (contained in		1		E
	1	1	the Q-List, when it is		1		h : 사람이 없는 사람은 사람들은 사람이 사용하다.
	1	1	lissued) The Q-List		1		P = [강하다 : [사건] [2] = [하는 바다라다. [1] - [2] [2] [2]
	1	1	was reviewed for documenta-		1		느끼다 있다면서 되었는데 맛없이 걸려졌었다.하였다.
	1	1	Ition of the statement that	b, *	1		보고 없다. 이 작가 있는 가 있다. 저 여성 보였다.
	1	1	the number 1 and number 2		- 1		FN : 기계 : 1. 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1
	1	!	heaters were non-QA and;			1	보다의 전체들이 보는 사람들이 함께 가는 사람들이 함
	!	1	therefore, did not require			1	그 이 이 사람들이 나를 하면 되었다면 되었다.
	!	!	QA inspection. It listed				도 이 그는 이번 사람들이 가능한 때문에 대해 등업을
	!	!	"all valves, instruments,		ļ		
	!	!	lequipment, and piping: for		!		도시 시나를 보다는 것이는 회사를 하는 것 같습니다.
	1	!	systems 2, 5, and 6 as non-				
	!	!	QA. Relative to system 3			Į.	그는 그는 그런 그런 그리고 그렇게 되었다.
	!	!	it listed "heater Al, Bl,	. ,	!		그 그 그 아이들이 있는 물론 그 이번 하고 없다.
	!	!	and C1" as non-QA.		!		
IN-85-186-001	1	1 X	A review of the PMO re-	None	l I None		
The high pressure	i	i	sponse to this concern re-		1		
24-inch and 48-inch	i	i	vealed that the subject in-		i	i	하다 사람들은 사람들이 되는 것이 하는 것이다.
steam lines for	i	i	sulation was installed un-		i		
both units were iu-	i	i	Ider two contracts	2	ì		그 이 나는 생활하는 말라고 하는 그리고 있다.
sulated incorrectly	i	i	(71C62-54462 and		i		
by North Brothers	i	i	76K72-820594). Investiga-		i	i	
Contractors. The	i	i	Itions by PMO, revealed that		i	i	
metal insulation	1	ĺ	both of the above contracts		i	i	선생님이 가장하다 마하고 하는 이렇게 모르다
covering overlaps	ì	i	specify a two-inch lap of		i	i	
one-inch which did	1	İ	the metal insulation cover	and the section	i	i	나는 경기 나라들이 얼마 얼마 하는 사람들이 하는 것이다.
not comply with the	1	1	and that the insulation and				맛이 있는 이번 독취는 이렇게 중앙이 많은 나라면 된다.
specification that	-	1	lits metal cover were in-			i	[10] [15] 역계 [개호] [16학기 [18학(18학(18학)]]
the metal edges	1	1	stalled in full compliance			i	나는 이번 경기를 가고 하면 하는 그렇게 하셨다면 되어 있다.
touch without over-	1	1	to the contract specifica-			i	이 일반 생활일을 하고 말하는 사람들이 가능하게 하는데 하다.
lap.	1	1	tions. Upon interviewing			i	[시민에 바다 사람이 그 중하는 것이라고 하고 하는데 다시 다시 다시 다시 다시 다시 다시 다시 다시 다시 다시 다시 다시
	1	1	the individual responsible			i	[시경시] [전에 [1] 12 [조건 [1] 12 [C] [C] [C] [C] [C] [C] [C] [C] [C] [C]
2460T	1			el Alexandra barrer			이 물지되었을 그는 요즘 목대에 다른 그리움이다.

ISSUES	SR 	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-186-001	ī	ī	for the PMO response, it			Januar Tollmon
(Continued)	1	1	was determined that TVA		i	
(-	1	1	Contract Specification 2967		i i	
-1	ı	1	governed the installation		1	
	1	!	of insulation at WBN.		1	
	1	1				
	1	1	Specification 2967 veri-		i di salamatan di kacamatan di kacamatan di kacamatan di kacamatan di kacamatan di kacamatan di kacamatan di k	
	1	i	fied the fact that a two-		i i	
	1	1	[inch overlap in the metal		i	
	1	1	insulation cover was re-		i	
	1	1	[quired. This specification]		i	
1	1	1	did not require the covers		i	
1	1	1	to touch without overlap,		i i	
i	Í	1	as described in the con-		i	
	l	!	cern.		1	
	1 1	1				
	i	i	response by the PMO and a		i i	
	ĺ	i	review of the requirements		i	
(	İ	i	for installing metal in-		i i	
	ı	ĺ	sulation covers, there was		i	
	I	i	no problem with the pipe		i	
	l	!	insulation installation.		i	
IN-85-008-002	I I X	1				
Some insulation	1	i	The NSRS investigation de-	None	None	
ver ceiling plates	Ì	i	termined that at least one		i	
ind cable tray sup-	-	i	application of the fire		i i	
orts in the Auxil-	ĺ	Ì	barrier material was con-		i	
ary Building, ele-	I	1	trary to procedure (e.g.,		i	
ation 737, was in-	1	1	the slits in the material		i	
stalled contrary to	١	1	were directly over one		i i i e de la comita del comita de la comita del la comita del la comita del la comita de la comita de la comita de la comita del la comita	
procedure in the	ı	1	another instead of 180°		a in the Paragraphic in	
fall of 1984. The	1	1	(apart). Based on this, the			
slits in the mater-	1	1	INSRS recommended that an		i i	
ial were directly	1	1	lengineering evaluation be		i in the second second	
	1	1	1		injetik kole etilikisisti	

ISSUES	ISR I	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-008-002	1	ī	performed to determine if			22017 (1041104
(Continued)	1	1	the installed configuration		i i	
ver one another	1	1	was acceptable, The Mechan-		i i de la companya di managara di managara di managara di managara di managara di managara di managara di mana	
nstead of at least	1	1	ical Engineering Branch		i	
O-degrees apart.	1	1	(MEB) responded to this		1	그리고 있는데 그리고 있어요? 이 사람들은 사람들이 없었다.
	1	1	recommendation by emphasi-			그 사람 경기가 되었는데 가니라 하시아보다 했다.
	1	1	zing the fact that TVA had		1	
	1	1	committed to the NRC to in-		1	
	1	1	stall this material in		1	
	1	1	accordance with "3M-sup-		1	
	1	1	[plied documentation." This]		1	
	1	1	documentation was based on		1	
	1	i	barrier configurations that		1	
	١	1	had been satisfactorily		1	
	1	1	itested. A problem Identi-		1	
	1	1	fication Report (PIR) was		1- O	
	1	1	issued to address and track		1	
	1	1	this item. According to the		1	
	1	1	PIR, the vendor peformed a		1	
	ł	1	test to determine the		1	
	1	1	acceptability of the in-		1	
	1	1	stalled configuration. The		1	
	1	1	responsible 3M Corporation		1	
	1	1	individual stated that the		1	
	1	1	subject test was performed		1	
	1	1	and was successful in qual-		1	
	1	1	ifying the as-installed		1	
	1	!	fire barrier configuration.		1	
PH-85-003-004	X	i	i			
here was no	1	1	Interviews with various re- N	one	None	
nsulation between	1	1	sponsible personnel failed		i i i i i i i i i i i i i i i i i i i	
umps on elevation	1	1	to reveal any problems or		j mana iz	
92.	1	1	requirements with regard to			
	1	1	the insulation of pumps.		i da da da da da da da da da da da da da	
	1	1	1		į į	
	1	1	1		i i	
	1	1	1 1		i	

ISSUES	ISR I	I NS	FINDINGS	CAUSE	CORR AC	T.	COLLECTIVE SIGNIFICANCE
PH-85-003-004	1	1	The Design Standard Speci-				
(Continued)	1	1	fications covering the var-		1	1	
	1	i	lious pumps at WBN required				
	1	l	that all contractors supply		1		
	1	1	equipment that was in full		1	1	
	1	1	compliance with all Occupa-		1	1	
	1	1	tional Safety and Health		1.5		
	1	1	Act (OSHA) Standards.		1	1	
	1	1	1			1	
	!	!	Interviews with both the			1	
	ı	!	Construction and Operation		l	1	
	!	!	Safety Engineers did not			!	
	!	!	identify any pumps that		!	l l	
	!	!	were in violation of safety		A company	!	
	!	!	standards.		!	!	
	;	1	I walkdown of all number on I		1		
	- 1	1	A walkdown of all pumps on    elevation 692 did not re-		1		
	- 1	!	veal any conditions that		1		
		:	conflicted with the speci-		1		
		1	fications. Some of the		1		
	- 1	i	pumps in unit 2 were not		1		
	i	i	insulated. However, this		;	- 1	
	i	i	was because of the ongoing			1	
	i	i	construction work and will		i	1	
	i	i	be corrected as construc-		i		
	i	i	tion progresses.		i	i i	
	i	i	1		i	i	
	i	i	Based on the above find-		i	i	
	i	i	lings, there was no problem		i	i	
	i	i	with insulation between		i	i	
	1	i	pumps.		i	i	
	1	1	i		1	i	
IN-86-200-004	1	1 X	1		1	i	
The CI observed a	a	1	The concern was not factual	None	None	i	
foot to 150-	1	1	since no pipes of the spec-		1	İ	
foot run of 30-in	nch		lified diameter (30-inch)				그렇게 있다. 하는 사람들은 사람들은 사람들이 모르는 것

ISSUES	SR 	INS	FINDINGS.	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-86-200-004	1	1	were located in the			
(Continued)	1	1	described area. A 24-inch	1		
od pipe drop in	1	1	pipe in the described area	1	1	[1] 그리는 이 얼마 하는 나를 살아 얼마나 다 먹다라면
the Turbine Build-	1	1	had undergone hanger re-	1	1	
ing 3 to 4 inches	1	1	work; however, the cogni-		1	i 하는 사람들은 사람들이 다니다. 이 전하실까?
when a hanger was	1	1	zant engineer was not aware	l	1	
removed under a	1	1	of the pipe moving the	1	1	
work package.	1	1	cited 3 to 4 inches. The		1	
	1	1	hangers for this section of	1	1	
	1	1	pipeline in the Turbine		1	
	1	i	Building were temporarily		1	1
	1	1	pinned (pending filling of	1	1	
	1	1	the line). According to		1	
	1	1	G-43, they will be perman-		1	
	1	1	ently set at time of hydro-	l de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	1	1
	i	1	static testing and any	l p	1	1
	1	1	hanger discrepancies will		1	
	1	1	be identified and corrected		1	
	1	1	at that time.	1	1	
	!	!	1	l	1 Sylven	
IN-85-211-001 and	1	1	1	vi	1	
IN -85 -211 -002	1 X	1	!		1	
The Essential Raw	!	!	•	None	None	
Cooling Water	!	!	discrepancies in the ERCW	l	1	1
System (ERCW) was	!	!	pipeline between the pump-		!	
designed to be	!	!	ling station and the plant		1	
stainless; however,	!	!	(WBN) were not factual.		!	
it was not con-	!	!	The NSRS evaluation found	1	!	1
structed of stain-	!	!	no evidence or documenta-		!	
less.	!	!	tion of leaks, or pump dam-		!	
	!	!	age because of water star-	!	!	
	!	!	vation. They also deter-			. [m : [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
	!	!	mined that the section of			
	1	!	pipe in question had always			
	!	!	been specified as carbon		!	그가 느낌이 하는 아니다 하다 하다 하다.
	!	!	steel and not stainless.			[마음] 전 1일 2011년 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일 1일
	!	!	This report concurred with	!	!	
			those conclusions.		•	

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE
	<u> </u>			<u> </u>		SIGNIFICANCE
IN-85-211-002	1	1	The SQN evaluation included			
(Continued)	!	1	the ERCW system inside the		•	
	1	1	Iplant buildings as an	•	1. The seismic	
	1	1	additional scope to the	linitiated	analysis will be	
	i	1		lafter the	revised to incor-	
	i	1	ERCW system within the	plant had	porate the carbon	
	l	!	plant buildings were chang-		to stainless steel	
	1	1	led from the original carbon	-	piping changes.	
	l	1	steel to stainless steel	with the	1	
	1	1	under an ECN in February	_	2. Another ECN will	
	ı	1	of 1981. Some of the	designed	be written to back!	
	ı	1		carbon	out portions of	
	١	1	[plant operations permitted;		the original ECN	
	1	1	however, the as-constructed		utilizing ONP	
	1	1	status was not adequately	plant	as-constructed	
	1	1	known.	operations	information.	
	l	1	1	restricted	1	
	1	1	1	the ability	1	
	ı	1	1	to get all	1	
	1	1	1	the changes	1	
	1	1	1	made.	1	
	1	i	1	1	1	
IN-85-964-002 and	l	1	1	1	1	
PH -85 -035 -001	X	١	1	1	1	
emporary	l	1	The following findings re-	None	None	
aterials/lines	1	1	late to concern	1	1	
ere put into per-	1	1	IN-85-964-002, citing that	1	1	
anent sevice with-	ı	1	la superintendent had temp-	1	1	
ut proper docu-	1	1	orary materials put into	1	1	
entation.	l	1	permanent service in the	1	l i	
	1	1	intake pumping structure.	1	1	
	1	1	1	1	1	
	1	1	According to interviews	1	i i	
	1	1	with the named WBN Craft	1	į į	
	1	1	Superintendent, an addi-	1	1	
	1	1	Itional WBN Craft Superin-	1	i i	
	ı	ĺ	tendent and other know-	i	i i	
	1	1	1	i	i i	

ISSUES	I SR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-964-002 and	1	1	ledgeable individuals, the	1		
PH-85-035-001	1	1	implicated craft superin-	1		
(Continued)	1	1	tendent was not involved	1		
	1	1	in any work at the Intake	1		
	1	ı	Pumping Station (IPS) dur-	1		
	1	1	ing the specified timeframe	1	in the state of th	
	1	1	((late 1984, early 1985).		ing repair into a longit	
	1	1	[Interviews with the cogni-	1		
	1	1	zant system engineers sup-		i i	
	1	1	ported that fact. (System	1	i	
	1	1	167, Essential Raw Cooling	i	i i	
	1	1	Water (ERCW) and system 26,	i	i i	
	1	1	High Pressure Fire Protec-	i	i	
	1	1	tion (HPFP) were the 'Q'	i	i i	
	1	1	systems located in the IPS	i	i	
	1	1	and were already trans-	i	i	
	1	1	ferred at that time. A re-	i	i i	
	1	1	view of applicable ONP	i	i	
	1	1	transfer documentation sup-	i	i	
	1	1	[ported this. The cognizant]		i	
	1	1	engineers were not aware of	i	i	
	1	1	lany work performed that fit!	i	i	
	1	1	the concern description.	i	i	
	1	1	They also stated that the	e i	i i i i i i i i i i i i i i i i i i i	
	1	1	fittings could only be	1	i i i i i i i i i i i i i i i i i i i	
	1	1	2-1/2-inches or 3-inches	i	į.	
	1	1	since fittings smaller than	1	i i	
	1	1	2-1/2-inches are socket	i	i i	
	1	i	[welded, not butt welded. A]	i	i	
	1	1	review of workplans per-	i	i	
	1	1	[formed during the specified]	i	i i	
	i	1	timeframe on the referenced		i da da da da da da da da da da da da da	
	ĺ	i	systems revealed that no	i	i de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	
	1	ĺ	work of the nature de-	i	i	
	í	í	scribed had been performed	i		
	i	i	during the timeframe speci-	i		
	i	i	fied by the CI.	i		
	i	i	1			

ISSUES	ISR	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-964-002 and	1	1	The following findings re-			
PH-85-035-001	1	1	late to concern	1		
(Continued)	1	1	PH-85-035-001 citing that	1		
	ı	1	a 4-inch SS drain line run-	1		
	1	1	ning from elevation 676 to	1		
	1	1	713 from the collector tank	1		이 나는 병에 가장하는 사람이 가지를 잃었다. 일어나 없었다.
	1	1	in unit 1, system 77 or 26 ;			
	i	1	was installed as a tempor-	1		
	1	1	ary line; however, the line	1		
	1	1	was left as permanent, with	1		
	1	1	[no inspection or paperwork ]	1		[20] - 이번 사람들은 다음 사람들은 하는 사람들
	1	1	documented.	1		
	1	1	1	1		
	1	1	[Conversations with DNC,	1		
	1	1	DNE, and ONP engineers	1		[10] [10] 하는 [10] 하나 다른 사람들은 하는 사람들이 되었다.
	1	i	determined that the line	1		
	1	1	could not be a fire Protec-	•		
	1	1	tion Line (system 26) since	1		[편집 : 10] : [10
	1	1	the fire protection system	1		
	1	1	did not utilize SS nor any	. 1		
	1	1	tanks in the described lo-	1		Prof 1 - 맛들면 보세 이 뭐 하셨다며 들다 보세 된다.
	1	1	cation. System 77, waste	1		
	1	1	disposal, utilized both SS	1		
	1	1	piping and tanks on the	1		
	1	ı	described elevation and was	1		
	1	1	lassumed to be the system in	1		
	ı	1	question.	1		
	1	1	1	1		
	1	1	The cognizant DNC and DNE	1		
	1	1	system engineers (the DNC	· · · · · · · · · · · · · · · · · · ·		
	1	1	engineers consulted were	1		
	ļ	1	cognizant of system 77 bact	1		
	1	1	(to 1973) had no knowledge	1		
	ı	1	of any temporary SS line	1		
	1	1	being installed much less	1		
	1	1	the described case of one	1		
	1	1	being installed temporary	1		
	1		1			

ISSUES	ISR	I NS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
N-85-964-002 and	ī	ī	and left permanent without			0.000.000.000
PH-85-035-001	1	1	proper paperwork.			
(Continued)	1	1	1			
	1	1	A review of the applicable		i	
	1	1	flow and physical drawings	1	i	
	1	1	with the aid of the cogni-		i i	
	1	1	zant DNC engineer as well			그 그 밥 옷 하고싶어요? 그 이 맛요한 이번 없었다.
	1	1	as conversations with DNE		i	
	1	1	revealed that only the			
	1	1	Itritiated drain collector		j	
	1	1	tank, had 4-inch SS lines		i	
	1	1	coming from elevation 713.		i	
	1	1	There were six of these	1	i	
	1	1	lines shown on the applic-	i	i	
	1	1	lable drawing. According to		i	
	1	1	this drawing, all of these		i	
	1	1	lines were class H; there-	i	i	
	1	1	fore, they provided no		i	
	1	1	safety function. A compar-		i	
	1	1	lison of the tritiated drain		i	
	1	1	collector tank and the		i	
	1	1	[floor drain collector tank	i	i i	
	1	1	piping installation (by	i	i	
	1	1	field inspection) with the		i	
	1	1	applicable as-constructed		i	
	1	ĺ	drawings revealed no dis-	i	i	
	1	i	(crepancies.		į	
	1	1	1		i	
	1	1	According to drawing notes	i	i	
	1	ı	hydrostatic tests did not	i	i	
	1	1	apply to these lines (QCT-	i	i	
	1	1	(4.37). Also a drawing note	•	i	
	1	1	stated " all system		i da da da da da da da da da da da da da	
	ĺ	1	piping shown is TVA class		i	
	ĺ	1	H unless indicated other-			
	i	i	wise The line and			
	i	i	Igrade procedure was not			
			1			

ISSUES	1	INS	FINDINGS	CAUSE	CORR ACT.	COLLECTIVE SIGNIFICANCE
IN-85-964-002 and	1	1	applicable to the sections			
PH-85-035-001	1	1	of pipe in question since		회사 경기 가능하는 것이 없는 것이 없어 없다.	
(Continued)	1	1	they were embedded drains	1	경기 때문에 가장 나를 본지 내려 먹는 다양	
	1	1	having no segment ID. The	1	송성의 이 그는 본 상에 가장으로 하네야?	
	1	1	only documented inspection	1		
	1	1	[applicable to these class H]	1		
	1	1	embedded drain lines was	1		
	1	1	DEC-QCP-2.2, RO, "Concrete	1		
	1		Placement and Documenta-	1		
	1	1	tion." Paragraphs 6.5.1	1		
	1	1	and 6.5.4 stated that the	1		
	1	1	pour card is the control	1	i i	
	1	1	and concrete record for	1		
	1	1	each pour and that the card	1		
	1		functions as a release when	1		
	1	1	signed by the appropriate			그는 가게 되었다. 이 얼마를 했다고 하는 것으로
	1	1	engineers and Construction	1	i da karantaran 1980 ing Papa <b>i</b> Baran	
	1	1	Shift Engineer. The pour	1	i i	
	1	1	cards applicable to the	1		
	1		concrete where the drain	1		
	1		lines come through the	1	i i	
	1		[ceiling (692) above the	1	1	
	1	-	tritiated drain collector	1	1	
	1		tank had been initiated by	1		
	1		both the lines and grades	1	1	
	1		lengineer and the mechanical	1		
	1	1	engineer. Their signature	1	<b>i</b>	
	1	1	signified that installa-	1		
	1	1	tions conformed to drawings		1.0	
	1	!	dimensional tolerances and	1		
	1	1	Inotes.	1		
	1	1	1	1		
	1	1	1	i		
	1	1	1		in a constant of the constant in the constant	
	1	1	1			
	1	1	1 i	i		
	1	1	1 i	i	2011 - 1211 J. 122 P. 1231 <b>i</b> 21	
	1	1	i	i	번째 : 100 HOURS NOT HOUR NOT HOUR HERE	