CEB REPORT

TVA 10752 (EN DES-2-83)

TITLE	REPORT NO.
~~Browns Ferry Nuclear~~ Plant Torus Integrity Long-Term Program Plant Unique Analysis Report	CEB-83-34
	PLANT/UNIT BFN Units 1, 2, and 3
	SAR SECTION(S)

VENDOR	CONTRACT No.	KEY NOUNS	UNID SYSTEM(S)
N/A	N/A	Torus Integrity	Containment Systems

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TENNESSEE VALLEY AUTHORITY

DIVISION OF ENGINEERING DESIGN

CIVIL ENGINEERING SUPPORT BRANCH

	Revision 0	R1	R2
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TORUS INTEGRITY LONG-TERM PROGRAM PLANT UNIQUE ANALYSIS REPORT

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R—Denotes review

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ENGINEERING SUPPORT BRANCHES

CEB		EEB		MEB		NEB		QEB							
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A
[illegible]	[illegible]			SRL	SRL	TCT	TCT								
BGR	DLR					WRG	WRG								
WAL	[illegible]					TWB	[illegible]								
RAC	RAC														
[illegible]	[illegible]														

NUCLEAR PROJECTS DESIGN

BLP		BWP		DNP		IRP		PWP		WBP					
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A

FOSSIL, HYDRO, & SPECIAL PROJECTS DESIGN AND ARCHITECTURAL SUPPORT BRANCH

CBP		COP		FDP		HDP		SDP		ASB					
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A

ESB		MEDS		PBB		OQA									
R	A	R	A	R	A	R	A	R	A	R	A	R	A	R	A

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LIST OF ABBREVIATIONS

ABBREVIATION	
ABS	Absolute Summation
ACI	American Concrete Institute
ADS	Automatic Depressurization System
AE	Architect/Engineer
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing Materials
BDC	Bottom Dead Center
BFN	Browns Ferry Nuclear Plant
BWR	Boiling Water Reactor
CFR	Code of Federal Regulations
CH	Chugging
CMM	Consistent Mass Matrix
CO	Condensation Oscillation
DBA	Design Basis Accident
DLF	Dynamic Load Factor
ECCS	Emergency Core Cooling System
EN DES	Engineering Design
EP	Engineering Procedure
EPRI	Electric Power Research Institute
EQ	Earthquake
F	Fahrenheit
FSAR	Final Safety Analysis Report
FSI	Fluid Structure Iteration
FSTF	Full Scale Test Facility
g	Acceleration due to gravity (32.2 ft/sec^2)
GE	General Electric Company
gpm	Gallons per minute
HPCI	High Pressure Coolant Injection
Hz	Hertz
IBA	Intermediate Break Accident
ksi	Kips per square inch
LDR	Load Definition Report
LOCA	Loss-of-Coolant Accident
LTP	Long-Term Program
MCR	Main Control Room
MS	Main Steam
MSIV	Main Steam Isolation Valve
NOC	Normal Operating Condition.
NRC	Nuclear Regulatory Commission

ABBREVIATION (Continued)

OBE	Operating Basis Earthquake
P_b	Primary bending stress
P_L	Local primary membrane stress
P_m	General primary membrane stress
PDM	Pittsburgh Des Moines
psi	Pounds per square inch
psia	Pounds per square inch absolute
psid	Pounds per square inch differential
psig	Pounds per square inch gage
PUAAG	Plant Unique Analysis Application Guide
PUAR	Plant Unique Analysis Report
PULD	Plant Unique Load Definition
Q	Secondary stress due to primary plus bending
QSTF	Quarter Scale Test Facility
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RPS	Reactor Primary System
RPV	Reactor Pressure Vessel
RTD	Resistance Temperature Detectors
S_y	Yield Stress
S_a	Alternating Stress Intensity
S_{an}	Spectral Acceleration
SAC	Structural Acceptance Criteria
SBA	Small Break Accident
SER	Safety Evaluation Report
SORV	Stuck Open Relief Valve
SRSS	Square Root of the Sum of the Squares
S/RV	Safety/Relief Valve
SSE	Safe Shutdown Earthquake
STP	Short-Term Program
TES	Teledyne Engineering Services
TMM	Tributary Mass Matrix
TVA	Tennessee Valley Authority
WRC	Welding Research Council
ZPA	Zero Period Acceleration

Truncation of the downcomers reduces pool swell loads. Addition of S/RV quenchers and RHR return elbow discharge devices ensures stable steam condensation during S/RV blowdowns for all postulated accident conditions. The quenchers also mitigate S/RV discharge loads on the tori for all normal and postulated LOCA events. Finally, addition of the 10-inch S/RV vacuum breakers reduces water clearing loads on the S/RV piping systems for rapid second actuation conditions.

The basic functional requirements for these modifications were defined from generic and plant unique information provided by the Mark I Owners Group and GE and approved by NRC. The other generically approved load mitigation methods were inappropriate or unnecessary for BFN.

1.6.2 Composition of the BFN-PUAR

1.6.2.1 Contents

BFN containment systems are described in Section 2. The new hydrodynamic loads for structural analysis of those systems are summarized in Section 3. Structural analysis of the BFN containment systems and structural design of the necessary plant modifications were performed according to the BFN LTP general design criteria described in Section 4. The five basic categories of structural analysis and design activity are described in Sections 5 through 9.

An evaluation of the bulk and local pool temperatures for various postulated accident conditions was conducted as required by NUREG 0661. Section 10 summarizes the results of that evaluation and describes the new pool temperature monitoring system for each BFN unit.

Section 11 gives a general summary and status of BFN LTP and related modification activities upon submittal of this report for NRC review (on approximately December 31, 1983). It also draws basic conclusions regarding completion of BFN LTP activities for all three BFN units.

Additional information on structural analysis and design methods, as well as confirmatory postmodification S/RV test results, are given in Appendices A through F. Appendix G contains construction photographs of some major BFN LTP modifications.

1.6.2.2 Arrangement

The Table of Contents, beginning on page ii, lists the headings and subheadings of each section and appendix. It locates the List of Tables, List of Illustrations, and List of Abbreviations, as well as References.

The title page of each section and appendix is brown, to provide easy access. The text of each section and appendix is numbered separately. For example, page 2-9 is the ninth page in Section 2.

Illustrations include both figures and plates (photographs). All figures and tables are located at the end of each section and appendix. For example, Figure 2-1 is the first figure in Section 2 and Table A-2 is the second table in Appendix A. Plates are located in Appendix G.

The QBUBS02 code predicts shell pressures which envelop both rigid-wall and flexible-wall test data. It also predicts conservative attenuation rates with time which produce conservative dynamic amplification of torus motion inputs to piping systems and other components attached to the torus.

The first mode frequencies of the vent system downcomers in both the longitudinal and transverse directions were within the frequency range of S/RV discharge air bubbles. Therefore, use of the conservative load attenuation with time according to computer code TQFORBF would result in excessively conservative predictions of downcomer responses. The more realistic attenuation rates of TQFOR03 provided a reasonable drag load definition for combination with other downcomer loads and design of downcomer bracing modifications.

SRSS of multiple valve effects in combination with the conservative aspects of this load definition produced a reasonable analysis and design approach. Absolute summation of multiple valve effects would be excessively conservative because there are 13 S/RV lines discharging into 16 bays of each BFN torus (see Figure 7-3).

Both single and multiple valve tests were run in the S/RV confirmatory test, thereby verifying the overall load interpretation and analytical approach. Load reduction factors were conservatively defined based upon correlation of both single and multiple valve test results (Appendix C).

4.2.3 DBA Condensation Oscillation Hydrodynamic Loads

4.2.3.1 Interpretation

The torus was analyzed for shell pressure harmonic forcing functions at 1-Hz intervals from 1 to 30 Hz. Forcing functions above 30 Hz were neglected.

Referring to Table 4.4.1-2 and Figure 4.4.1-1 of the LDR (Reference 14), the largest input pressure coefficient for each 1-Hz interval was selected from the three alternatives. The response for each interval was determined on the basis of maximum response for any frequency within the 1-Hz band. Then the responses was combined by the following procedure:

1) The responses for four forcing functions (at 4-5 Hz, 5-6 Hz, 10-11 Hz, and 15-16 Hz) were added absolutely.

2) The responses for the other 26 forcing functions were combined by SRSS.

3) The results of 1) and 2) were added absolutely.

DBA condensation oscillation (CO) drag load responses for each structural mode were determined by the same procedure.

4.2.3.2 Justification

This interpretation was developed early in 1980 on the basis of Full Scale Test Facility (FSTF) data analysis by GE and Mark I LTP consultants. That data analysis indicated that input above 30 Hz is of such low energy content as to be negligible in determining torus response. Further, the forcing functions were found to have little or no phase relationship to each other. Very loose phase relationships were seen by one study for forcing functions at 5-6, 10-11, and 15-16 Hz, whereas a more definitive study, Reference 19, showed essentially random phasing of all forcing functions.

The procedure outlined above recognized the remote possibility of constant phase relationships between forcing functions at 5-6, 10-11, and 15-16 Hz. It also recognized the random phasing between all other forcing functions and assured that the desired 84 percent nonexceedance probability was achieved.

Additional conservatisms which were inherent to the BFN DBA CO analysis methods are described in Section 5.4.2.9 and Appendix D.

This interpretation reduced the total calculated response by a factor of 2 or more relative to absolute summation of maximum responses for all 50 forcing functions defined in the LDR. Therefore it eliminated excessive conservatism but ensured a satisfactory nonexceedance probability of the predicted dynamic responses.

4.2.4 Post-Chug Hydrodynamic Loads

4.2.4.1 Interpretation

The torus was analyzed for shell pressure harmonic functions at 1-Hz intervals from 1 to 30 Hz. Forcing functions above 30 Hz were neglected. The dynamic response for each of the 30 forcing functions was calculated separately on the basis of maximum response for any frequency within the 1-Hz band. Then the responses were combined by absolute summation.

Post-chug drag loads were defined and analyzed for harmonic forcing functions at 1-Hz intervals from 1 to 50 Hz. The dynamic responses for each interval were determined on the basis of maximum response for any frequency within the 1-Hz band. Then the combined response for each structural mode was determined by absolute summation of the response for the five largest input coefficients plus SRSS of the other 45 responses.

4.2.4.2 Justification

This interpretation was justified by analysis of FSTF data as documented by Reference 20. The procedure for torus analysis was established and the analysis was performed before completion of Reference 20. By relating Reference 20 results to those obtained by this procedure it was clear that the desired 84 percent nonexceedance probability response was attained. (See Section 5.4.2.11 for a more detailed discussion of this topic.)

The procedure for post-chug drag load on submerged structures is in compliance with the recommendation of Reference 20 for 84 percent nonexceedance probability loading.

Appendix D gives a detailed discussion of the BFN fluid drag load analytical method and identified conservatisms inherent to that method.

This interpretation reduced the analytically predicted responses by a factor of 2 or more relative to the absolute summation of responses for all 50 inputs. Therefore, it eliminated significant excess conservatism from the load definition, but preserved the desired nonexceedance probability.

4.2.5 DBA Pool Swell Hydrodynamic Loads

4.2.5.1 Interpretation

The torus was analyzed for average hydrodynamic pressure loads as defined by the PULD and LDR Section 4.3.2. A 6.5 percent margin was added to predicted responses to account for uncertainties in the test data for both operating and zero ΔP cases.

The vent system and S/RV piping systems in each torus were analyzed for pool swell impact and drag loads at operating and zero ΔP conditions, as defined by the PULD and LDR. Zero ΔP velocity, displacement, and circumferential time

delay curves were defined from the 1/4 scale BFN test results. Resulting vent support column reaction time histories for each condition were applied to the torus model in combination with the corresponding pool swell average pressure loads, prior to addition of the 6.5 percent uncertainty margin described above.

Pool swell impact and drag loads for other internal structures were analyzed for one enveloping load case in accordance with LDR Section 4.3.4 and the PULD.

4.2.5.2 Justification

This interpretation was based upon the fact that the 1/12 scale Electric Power Research Institute (EPRI) 3-dimensional test model was a prototypical model of BFN in every significant detail and it was consistent with the BFN 1/4 scale model. This fact eliminated the majority of NRC's concerns expressed in NUREG 0661, which led to specification of an additional 15 percent upload margin and definition of an enveloping longitudinal time delay and velocity distribution for the vent system and other above-pool structures.

The BFN torus was analyzed with a constant effective added fluid mass equal to 80 percent of the total contained fluid mass. The 6.5 percent margin exceeded one standard deviation of the BFN 1/4 scale test data. These considerations ensured an upper bound prediction of torus response, particularly during the upload phase. (See Section 5.4.2.7 for a more detailed discussion in this regard.)

The vent system and S/RV piping systems pool swell impact analysis in the unmodified and modified conditions was completed well before release of NUREG 0661 and subsequent revision of the BFN PULD. The interpretation defined above was more accurate for BFN than that identified by NUREG 0661 Appendix A and it predicted higher impact velocities for the critical regions of the vent header and S/RV piping. Therefore, reanalysis of the BFN vent system and S/RV piping for revised longitudinal variations was not necessary or appropriate. (See Sections 6 and 7 for more discussion of the vent system and S/RV piping analyses.)

Other above-pool structures were conservatively analyzed for one enveloping pool swell impact and drag load case in accordance with NUREG 0661. (Appendix D describes the specific analytical method which was applied.)

6.4 Vacuum Breaker/Main Vent End Cap Intersection

The vacuum breaker valves located on the end cap of the main vent pipes are evaluated in the following paragraphs. Figure 6-6 shows the vacuum breaker/main vent intersection.

6.4.1 Analytical Procedure

6.4.1.1 Analytical Model

The vacuum breaker intersection was modeled using the TPIPE computer program (see Appendix F) for consideration of reactions induced by pool swell vent response and coincident loads. A set of shell pipe intersection spring rates was calculated using Bijlaard procedures from Reference 64. Using the output reactions from the TPIPE model, the shell stresses at the vacuum breaker penetration were determined using the WERCO computer program.

6.4.1.2 Static and Dynamic Loads

Due to location, the load experienced by the vacuum breaker valve varies from the loading imposed on structures previously discussed. The vacuum breaker elevation is such that it is above the water level inside the torus. This significantly reduces the number of phenomena that will act upon the valves. S/RV loads, CO loads, and chugging loads are insignificant at this location, leaving only the effects from pool swell, deadweight, and seismic. Time history data generated by Bechtel Corporation (Reference 17) for the pool swell impact loading analysis was input into the TPIPE model.

6.4.2 Controlling Load Combinations

The number of controlling load combinations required to evaluate this component was reduced to one. Table 6-7 identifies that combination.

6.4.3 ASME Code Allowables

The allowable stress intensities for SA-516 GR 70 carbon steel are shown in Table 6-8. This is consistent with the material composition at the temperature provided in Table 6-3.

6.4.4 Results and Comparisons

The stress experienced by the vacuum breaker/main vent intersection was in large part due to the pool swell impact load. Thus, only combination event 18 from Table 3-1 was required for analysis as seen in Tables 6-7 and 6-8. The calculated stress intensity of 16.7 ksi was well below the Service Level B allowable of 28.95 ksi.

6.5 Vent Header/Downcomer Intersection

The vent header and downcomer pairs typically intersect as shown in the finite element representation which simulated this intersection (Figure 6.6).

6.5.1 Analytical Procedure

6.5.1.1 Analytical Models

The vent header/downcomer intersection was modeled into 45° and 180° beam models for the purpose of evaluating loads described in Section 6.5.2. Flexibility constants were input at adjacent nodes which, when connected, formed a short beam portraying the spring rate of the intersection. Analysis output forces and moments from the beam models were input to a STARDYNE computer code finite element plate and shell model as shown in Figure 6-6. The fine mesh of elements extending around the intersection served to obtain accurate stress output.

6.5.1.2 Static and Dynamic Loads

The loading conditions to which the vent header/downcomer intersection was subjected are identical to those outlined in Section 6.2.1.2.

6.5.2 Controlling Load Combinations

The 27 load combinations were reduced to three controlling combinations as shown in Table 6-9.

6.5.3 ASME Code Allowables

The material composition of the vent header/downcomer intersection is SA-516 GR 70 carbon steel. Stress intensity allowable values are listed in Tables 6-10.

6.5.4 Results and Comparisons

The results and comparisons presented in this section are products of stress and fatigue evaluations. The fatigue analysis provides information for DBA, SBA, and IBA conditions.

6.5.4.1 Stress Evaluation

The downcomer/vent header stress evaluation was completed using the controlling combinations in Table 6-9. The intersection was most affected by the $P_L + Q$ stress category during the DBA condensation oscillation event from Case 27. The calculated stress intensity of 57.6 ksi, compared to an allowable of 57.9 ksi, could be further reduced by removing thermal expansion since it is a one-time occurrence. The most critical pool swell event combination resulted a stress intensity of 44.4 ksi as compared to a 45.2 ksi allowable. The SBA chugging combination 15, realizing a $P_L + Q$ stress intensity of 53.3 ksi, could also be reduced by removing the thermal loads as previously mentioned.

6.5.4.2 Fatigue Evaluation

The ASME Code for Class MC requires that a component or structure be evaluated to demonstrate adequate margin against fatigue damage in a cyclic load environment. The approach for this evaluation is to compare maximum stress cycle histogram components with conservative strain cycling fatigue data. The strain cycling data is defined by the fatigue curve in Figure I-9 of the Appendices to the ASME Code. This figure plots the alternating stress intensity (S_a) against the number of allowable cycles which may occur for that particular stress intensity. An analysis for cyclic service is not required for a vessel, component, or structure, provided that Paragraph NE-3221.5d is satisfied for all conditions. The only components of the vent system requiring further evaluation were the downcomer/vent header and downcomer/tiebar intersections and the torus bellows/main vent connection. These three portions of the vent system were critical because of their discontinuity and stress concentration characteristics which resulted in high localized stresses.

Since the occurrence of one accident condition (DBA, SBA, or IBA) and cumulative normal load occurrences was postulated in the fatigue life of the vent system, all three LOCA

events were examined. Table 6-11 presents the usage factors compared with the allowable fatigue usage. Note that thermal transient through-wall stresses were not included in the fatigue evaluation since that stress profile would occur only one time in the design life.

6.6 Vent Pipe Drain

The vent drain is located at the lowest elevation of the head at the end of the main vent inside the wetwell. The drain extends into the water and must be able to withstand the hydrodynamic and accident related loads resulting from a LOCA. The following sections confirm the fact that the drain and modified support configuration shown in Figure 6-8 and described in Section 6.6.5 are qualified.

6.6.1 Analytical Procedure

The vent drain and support were modeled into STARDYNE and a modal analysis was performed. It was determined that the dominant frequency (35.1 Hz) was in a key range for chugging. The resulting loads were evaluated by simple hand calculations.

6.6.2 Controlling Load Combinations

Since the frequency of the vent drain and support is out of the range of the condensation oscillation event, it was determined by inspection that either combinations 11, 16, 18, or 25 would control. Because the structure would be in resonance with key post-chug frequencies, combination 11 (SBA + S/RV + CH) actually controls.

6.6.3 Allowable Stress

The allowable stress for SA-333 GR B carbon steel is 0.66 times the yield stress, or 23.1 ksi, in accordance with Section 4.3.4.

6.6.4 Stress Results and Comparisons

The calculated stress in the new support structure is 21.1 ksi. This is less than the allowable value of 23.1 ksi.

6.6.5 Description of Modifications

The vent pipe drains were truncated to the same elevation as the vent header downcomers, i.e., three feet below minimum pool level. The existing support for each drain was removed

6.7.3 Allowable Stresses

The downcomer/tiebar intersection is made of SA-516 Grade 70 carbon steel. Table 6-13 compares actual stresses derived from the analyses with the ASME and AISC Code allowable stresses per Section 4.3.2 and Section 4.3.4.

6.7.4 Results and Comparisons

6.7.4.1 Stress Evaluation

The downcomer/tiebar intersection was analyzed to Service Level B for Cases 15, 25, and 27. From Tables 6-12 and 6-13, the greatest primary plus secondary stress occurs during the SBA event. The maximum calculated stress intensity was 53.8 ksi, compared to the stress allowable of 57.9 ksi. The largest primary local membrane stress intensity of 27.9 ksi also occurred during the SBA event for Case 15, as compared to a 28.95 ksi allowable stress.

The tiebar itself was further analyzed as a linear support for the loads described in Tables 6-12 and 6-13. As seen from Table 6-14, the most severe stress occurred during the CO event combination at a level of 20.1 ksi. This is below the allowable of 0.66 times the yield stress, or 23 ksi.

6.7.4.2 Fatigue Evaluation

The fatigue evaluation of the downcomer/tiebar intersection is comparable to the evaluation discussed in Section 6.5.4.2. It can be seen from Table 6-11 that the usage factors are well below 1.0, as required.

6.7.5 Description of Modifications

A new tiebar with V-bracing members was required between each downcomer pair to minimize downcomer lateral response induced by condensation oscillation effects. As a result, bending stresses in the vent header/downcomer intersection are reduced and no further reinforcement of that area was required, except as described in Section 6.11.

The tiebar was installed at elevation 534'-0" and the V-bracing members intersect the tiebar at midspan. Fabrication consisted of 3- and 4-inch schedule 40 pipe for the tiebars with short sections of 3-1/2-inch schedule 40 pipe for the bracing at the downcomer end to facilitate field adjustability. All pipe material is ASTM A 53 Grade B or A 106 Grade B.

The connections to the downcomer shell were reinforced using pad plates rolled to match contour and wrapped 120°. The plates were 1/2-inch thick by 7 inches wide for the tiebar connection and 5/8-inch thick by 7 inches wide for the bracing connection. Additional 3/8-inch gussets and small pad plates were provided at the tiebar ends to distribute the loads for adequate structural integrity. A 3/8-inch thick saddle plate was provided at the bracing to tiebar intersection to distribute stresses. All plate material is ASME SA-516 Grade 70. For the configuration, see Figure 6-9 and Plate 9.

6.8 Vent Header Support Columns

6.8.1 Analytical Procedure

The vent header support columns are 8-inch diameter double extra strong pipes attached to the vent header miter bends via pipe collars. Figure 6-2 shows the support columns as they are represented in the computer model. The beams extending from the straight portion of the columns to the vent header are rigid, representing the minimal flexibility of the collars.

6.8.2 Controlling Load Combinations

The 27 design load combinations were reduced to three controlling cases given in Tables 6-15 and 6-16.

6.8.3 Allowable Stresses

The vent column supports are constructed of 8-inch double extra strong A 53 Grade B piping. Table 6-16 compares actual stresses derived from the analysis with AISC stress allowables per Section 4.3.4.

6.8.4 Stress Results and Comparisons

The calculated stresses indicated by Table 6-16 are less than the allowable stress of 16.6 ksi. The combination of events in Table 6-15 are composed of Service Level C loads and compared against Service Level B allowables. The most severe case is due to pool swell impact which imposes a stress of 10.4 ksi. The buckling check evaluates the maximum axial load plus bending moment and shows the highest combined effect occurring for pool swell as expected. The maximum buckling factor is 0.63 compared to a Service Level B allowable of 1.0.

6.9 Vent System Miter Bends

There are three structural areas in the vent system at which miter bends are located. The main vent, vent header, and downcomer miter bends are all Class MC components. However, for analysis purposes these items lend themselves more to treatment as piping components. Paragraph NB-3680 was introduced for stress evaluation while retaining the Class MC allowables. The following subsections summarize the analysis of these three types of miter bends.

6.9.1 Analytical Procedure

As mentioned above, the ASME Code provides a guide for the evaluation of miter bends. The modeling of the bends is indicated in Figure 6-2. Stress intensification factors are presented in Table 6-17. These stress intensification factors were calculated using the vent system beam model in conjunction with results from the Bechtel analysis, which provided detailed modeling of the miters in question. Maximum primary plus secondary stresses were ratioed to the nominal section stresses generated from the beam model thereby defining the stress intensification factors.

6.9.2 Controlling Load Combinations

The three controlling load combinations are shown in Tables 6-17, 6-18, and 6-19.

6.9.3 ASME Code Allowables

The ASME Code allowable stresses are presented in Tables 6-17, 6-18, and 6-19.

6.9.4 Stress Results and Comparisons

The main vent miter bend was evaluated for three load cases using Service Level C loads and Service Level B allowables. As seen from Table 6-17, these stresses are considerably below the allowables, showing a maximum value of 3.9 ksi, compared with a 28.95 ksi allowable for the condensation oscillation event combination.

In the same manner, the vent header miter bend and the downcomer miter bend were evaluated for three cases, each involving CO, chugging, and pool swell (Tables 6-18 and 6-19). The maximum local membrane stresses for the Service

Level C loading on the miter bends were found to be 18.6 ksi and 20.7 ksi, respectively. When compared with the Service Level B allowable of 28.95 ksi, these areas are qualified.

6.10 Torus Bellows

The torus bellows are flexible expansion joints allowing movement of the main vent pipes through the torus wall while maintaining the required pressure boundary. The analysis performed on this structure was done in accordance with Standards of the Expansion Joint Manufacturer's Association, Inc., (Reference 24). Fatigue life is the dominant concern.

6.10.1 Analytical Procedure

6.10.1.1 Analytical Model

The flexibility of the bellows was the concern in accurately representing the bellows in the 45° and 180° beam models. In Figure 6-2, local springs were inserted. Output from the 45° and 180° models in the form of displacements was extracted from the various loading events. The combination of these cases as described in Section 6.10.2 was then used to calculate stresses in the bellows.

6.10.1.2 Static and Dynamic Loads

The loading events to which the torus bellows are subjected are explained in Section 6.2.1.2.

6.10.2 Design Loading Conditions

The controlling loading conditions were provided by Reference 21 for SBA, IBA, and DBA events.

6.10.3 ASME Code Allowables

The ASME Code makes reference to bellows in Paragraph NE-3365. Standards of the Expansion Joint Manufacturer's Association, Inc., offers a more straightforward and acceptable approach for fatigue evaluation of bellows.

6.10.4 Results and Comparisons

Results of the fatigue evaluation are shown in Table 6-12 of Section 6.5.4. No significant usage factor is observed. Therefore, the fatigue failure of these components does not present a significant concern.

TABLE 6-9

CONTROLLING LOAD COMBINATIONS AND SERVICE LEVELS OF DOWNCOMER/VENT HEADER INTERSECTION

EVENT	COMBINATION	SERVICE LEVEL
27	DBA + SSE EQ + S/RV + CO	B
27	DBA + SSE EQ + S/RV + CO	B
25	DBA + SSE EQ + S/RV + PS	C
18	DBA + OBE EQ + PS	B
15	SBA + SSE EQ + S/RV + CH	B
15	SBA + SSE EQ + S/RV + CH	B

TABLE 6-10

MAXIMUM STRESS INTENSITIES ON DOWNCOMER/VENT HEADER INTERSECTION

EVENT	STRESS CATEGORY	STRESS	ALLOWABLE
27	$P_L + Q$	57.60 KSI	57.9 KSI
27	P_L	14.6	37.6
25	P_L	44.4	45.2
18	P_L	31.4	37.6
15	$P_L + Q$	53.3	57.9
15	P_L	21.6	37.6

TABLE 6-11

FATIGUE USAGE FACTORS FOR CONTAINMENT VENT SYSTEM

COMPONENT	ALLOWABLE FATIGUE USAGE	DBA USAGE	SBA/IBA USAGE
DOWNCOMER / VENT HEADER INTERSECTION	1.0	.559	.610
DOWNCOMER / TIEBAR INTERSECTION	1.0	.107	.353
TORUS BELLOWS INTERSECTION	1.0	.000	.000

TABLE 6-12

CONTROLLING LOAD COMBINATIONS AND SERVICE LEVELS OF DOWNCOMER/TIEBAR INTERSECTION

EVENT	COMBINATION	SERVICE LEVEL
27 (CASE 1)	DBA + SSE EQ + S/RV + CO	B
27 (CASE 2)	DBA + SSE EQ + S/RV + CO	C
27	DBA + SSE EQ + CO	B
25	DBA + SSE EQ + S/RV + PS	B
15	SBA + OBE EQ + S/RV + CH	B
15	SBA + SSE EQ + S/RV + CH	B

TABLE 6-13

MAXIMUM STRESS INTENSITIES ON DOWNCOMER/TIEBAR INTERSECTION

EVENT	STRESS CATEGORY	STRESS	ALLOWABLE
27 (CASE 1)	P_L	21.7 KSI	28.95 KSI
27 (CASE 2)	P_L	30.6	34.74
27	$P_L + Q$	30.9	57.9
25	P_L	28.4	28.95
15	$P_L + Q$	53.4	57.9
15	P_L	27.97	28.95

TABLE 6-14
STRESS EVALUATION ON TIEBAR

EVENT	STRESS CATEGORY	STRESS	ALLOWABLE
27	P_L	20.7 KSI	23 KSI
25	P_L	8.7	23
15	P_L	18.0	23

TABLE 6-15

CONTROLLING LOAD COMBINATIONS AND SERVICE LEVELS OF THE VENT COLUMN SUPPORTS

EVENT	COMBINATION	SERVICE LEVEL
27	DBA + SSE EQ + S/RV + CO	B
25	DBA + SSE EQ + S/RV + PS	B
15	DBA + SSE EQ + S/RV + CH	B

TABLE 6-16

STRESS AND BUCKLING EVALUATION ON VENT COLUMN SUPPORTS

EVENT	STRESS CATEGORY	STRESS	ALLOWABLE	BUCKLING FACTOR
27	P_L	7.1 KSI	16.6 KSI	.43
25	P_L	10.4	16.6	.63
15	P_L	7.6	16.6	.46

TABLE 6-17
MAXIMUM STRESS INTENSITIES ON
MAIN VENT MITER BEND

EVENT	STRESS CATEGORY	STRESS	SERVICE LEVEL	ALLOWABLE
27	P_L	3.9 KSI	B	28.95 KSI
25	P_L	1.8	B	28.95
15	P_L	2.4	B	28.95

TABLE 6-18
MAXIMUM STRESS INTENSITIES ON
VENT HEADER MITER BEND

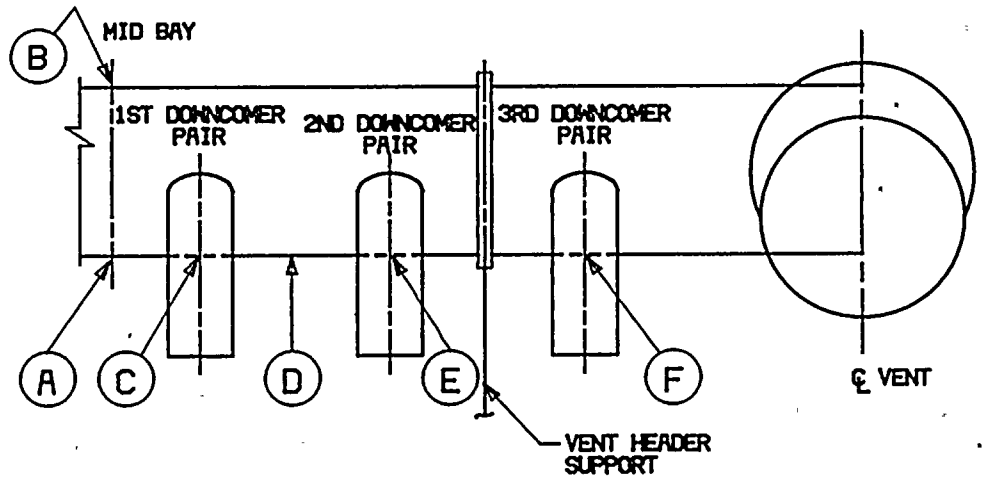
EVENT	STRESS CATEGORY	STRESS	SERVICE LEVEL	ALLOWABLE
27	P_L	18.0 KSI	B	28.95 KSI
25	P_L	15.5	B	28.95
15	P_L	18.7	B	28.95

TABLE 6-19
MAXIMUM STRESS INTENSITIES ON
DOWNCOMER MITER BENDS

EVENT	STRESS CATEGORY	STRESS	SERVICE LEVEL	ALLOWABLE
27	P_L	16.5 KSI	B	28.95 KSI
25	P_L	13.8	B	28.95
15	P_L	20.6	B	28.95

TABLE 6-20

STRESS EVALUATION AT KEY LOCATIONS FOR ZERO ΔP (LOAD COMBINATION P + W + T + PS ZERO ΔP)



LOCATION	STRESS INTENSITY	CALCULATED STRESS (KSI)	ALLOWABLE STRESS (KSI)	BUCKLING INTERACTION $\frac{\sigma_L}{\sigma_{LA}} + \frac{\sigma_H}{\sigma_{HA}} \leq 1.0$
MIDBAY BOTTOM ELEMENT 13	P_M	12.0	41.6	
	$P_L + P_b$	28.1	62.5	
	σ_L	12.0	25.5	
Ⓐ	σ_H	3.1	16.9	0.7
MIDBAY TOP ELEMENT 1	P_M	8.0	41.6	
	$P_L + P_b$	17.8	62.5	
	σ_L	4.6	25.5	0.2
Ⓑ	σ_H	0.5	16.9	
BOTTOM BETWEEN 1ST D/C PAIR ELEMENT 1062	P_M	9.0	41.6	
	$P_L + P_b$	41.2	62.5	
	σ_L	11.0	25.5	
Ⓒ	σ_H	0.7	16.9	0.5
BOTTOM BETWEEN TWO PAIRS OF D/C ELEMENT 1439	P_M	15.5	41.6	
	$P_L + P_b$	24.1	62.5	
	σ_L	13.9	22.5	
Ⓓ	σ_H	0.7	13.6	0.7
BOTTOM BETWEEN 2ND D/C PAIR ELEMENT 2062	P_M	17.4	41.6	
	$P_L + P_b$	41.6	62.5	
	σ_L	17.2	22.5	
Ⓔ	σ_H	3.4	13.6	1.0
BOTTOM BETWEEN 3RD D/C PAIR ELEMENT 3062	P_M	5.3	41.6	
	$P_L + P_b$	19.4	62.5	
	σ_L	5.0	22.5	
Ⓕ	σ_H	1.7	13.6	0.3

TABLE 7-1
DRYWELL LOAD COMBINATIONS

LOADS	DEADWEIGHT	PRESSURE	THERMAL (1)	NOC S/RV (2)	IBA S/RV (3)(6) (SUBSEQUENT ACTUATION, STEAM IN DRYWELL)	OBE (4)	SSE (4)	POOL SWELL (5)	SERVICE LEVEL
CASE 1	X	X	X	X		X			B
CASE 2	X	X		X			X		C
CASE 3	X	X			X		X		D
CASE 4	X	X		X			X	X	D

1. WORST CASE THERMAL EXPANSION
2. WORST CASE FIRST ACTUATION VS. SUBSEQUENT ACTUATION.
3. IBA S/RV SUBSEQUENT ACTUATION, STEAM IN DRYWELL.
4. SEISMIC EVENTS INCLUDE ANCHOR MOVEMENTS.
5. POOL SWELL INCLUDES VENT RESPONSE AND DISPLACEMENT.
6. EVALUATION OF PRELIMINARY ANALYSIS INDICATED SBA/IBA FIRST AND SECOND ACTUATIONS WITH AIR IN THE DRYWELL TO BE LESS SEVERE THAN NOC BLOWDOWNS. WITH THE EXCEPTION OF SUBSEQUENT ACTUATION, STEAM IN THE DRYWELL, THE NOC BLOWDOWNS ENVELOPE SBA/IBA BLOWDOWNS. BECAUSE OF THE LOW PROBABILITY OF STEAM IN THE DRYWELL COINCIDENT WITH MAX REFLOOD, ACTUATION UNDER THESE CONDITIONS IS ASSUMED TO BE SERVICE LEVEL D.

TABLE 7-2

NOC - SERVICE LEVELS B AND C LOAD COMBINATIONS

LOADS	DEADWEIGHT	PRESSURE	NOC S/RV (1) 2ND ACTUATION EVENTS	NOC S/RV (1) 2ND ACTUATION EVENTS	SSE	SERVICE LEVEL
CASE 1	X	X	X			B
CASE 2	X	X		X		B
CASE 3	X	X	X		X	C
CASE 4	X	X		X	X	C

1. S/RV ACTUATION EVENTS INCLUDE TORUS RESPONSE, FLUID DRAG ON SUBMERGED STRUCTURES, BLOWDOWN FORCE IN PIPE AND QUENCHER WATER CLEARING THRUST

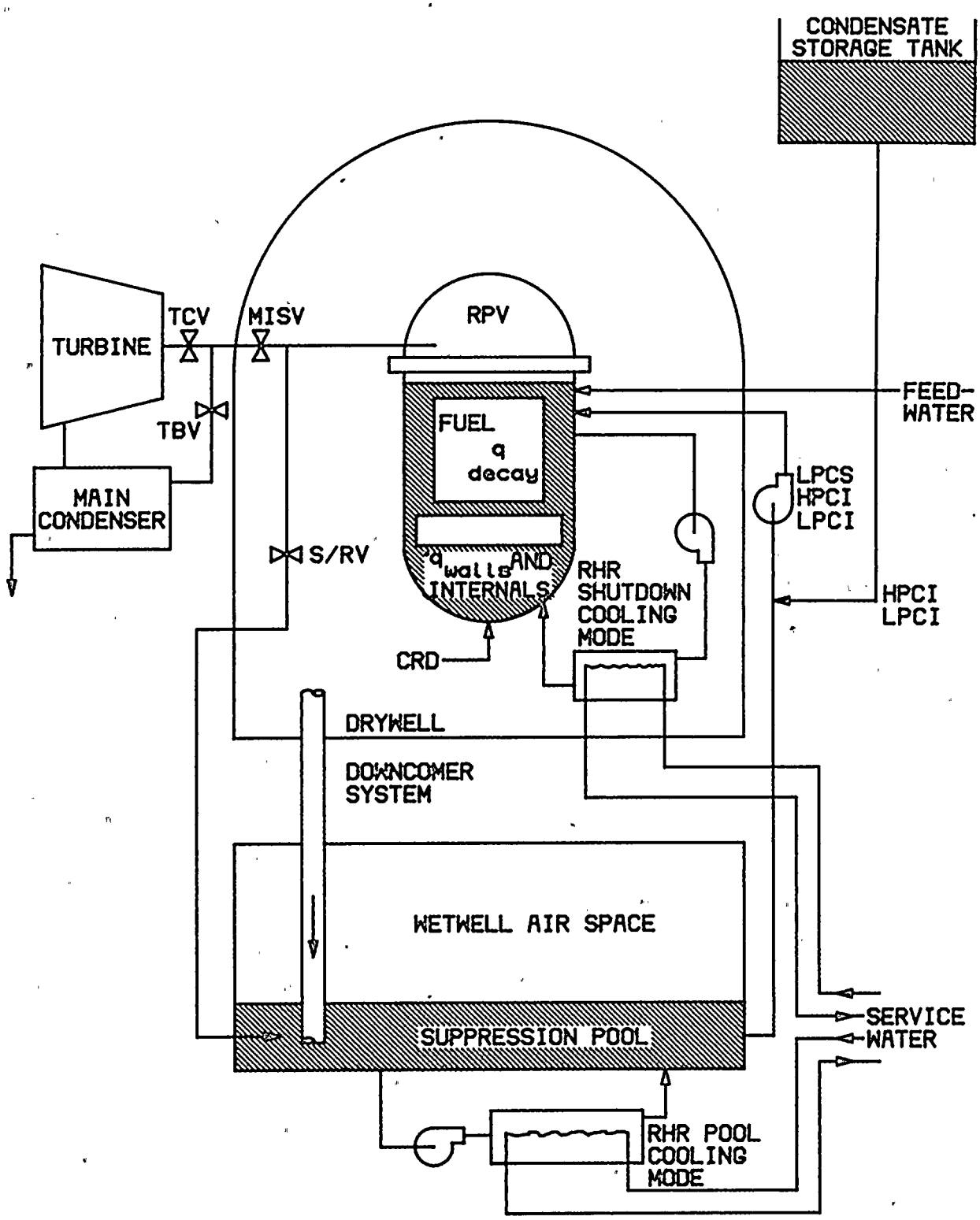


FIGURE 10-1

COUPLED REACTOR AND SUPPRESSION POOL MODEL

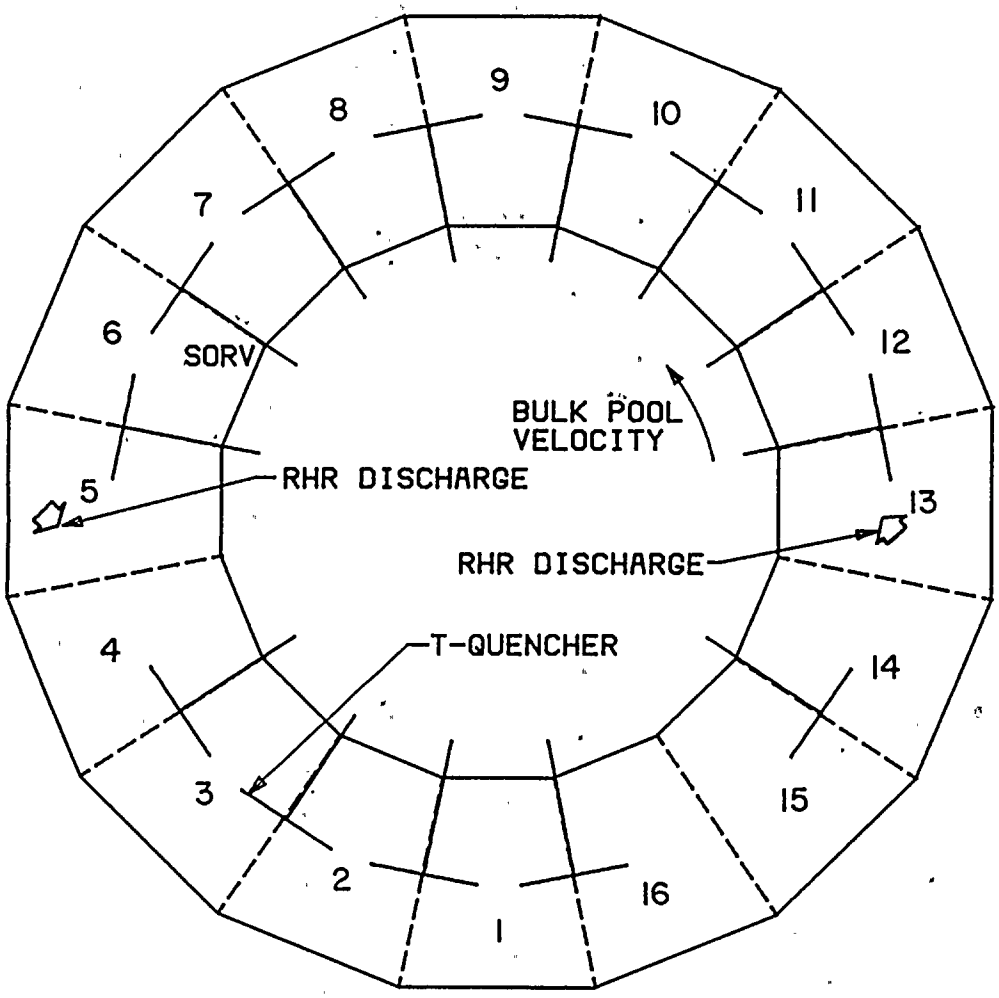


FIGURE 10-2

PLAN VIEW OF BROWNS FERRY SUPPRESSION POOL WITH T-QUENCHERS AND RHR DISCHARGE LOCATIONS USED IN THE LOCAL POOL TEMPERATURE MODEL

11.0 SUMMARY AND CONCLUSIONS

11.1 General

The BFN Torus Integrity LTP has been underway since 1977. The program objective was to upgrade the containment systems of each BFN unit for suppression pool hydrodynamic loads which were not explicitly included in the original design specification.

Mark I Owners Group and NRC activities resulted in generic load definitions and corresponding structural acceptance criteria to be applied for each domestic Mark I plant. NRC's generic safety evaluation report for the Mark I containment system long-term program, NUREG 0661 (Reference 1), was published in July 1980.

The current orders for completion of BFN LTP modifications were issued on January 19, 1982. Those orders require installation of all modifications necessary for compliance with NUREG 0661 before the start of Cycle 6 operations of each BFN unit.

11.2 Browns Ferry Design Criteria

The BFN LTP general design criteria (Section 4.0) defined the basis for structural analysis of BFN containment system components as well as structural design of required modifications. It also ensured compliance with the intent of NUREG 0661.

The detailed design criteria for analysis of torus attached piping systems (Appendix A) supplemented the general design criteria and defined specific requirements and procedures for analysis of torus attached piping systems.

11.3 Structural Analyses and Design of Required Modifications

Structural analysis and design of required modifications for each basic category of BFN containment system components were performed as described in Sections 5.0 through 9.0. The analyses addressed containment systems as configured for the start of Cycle 6 operations of each unit, including plant modifications installed for NUREG 0661 compliance and for other reasons. Modifications related to suppression pool local and bulk temperature requirements in NUREG 0661 were designed as described in Section 10.0. All modification designs complied with the Browns Ferry LTP design criteria and NUREG 0661.

Analysis and design of associated modifications to the 10-inch S/RV discharge line vacuum breakers and the drywell/wetwell vacuum breakers have also been completed.

Permanent documentation of all analysis and design activities associated with the BFN LTP was accomplished, in compliance with Section 4.6.

Future modifications to BFN containment system components will be designed in accordance with the BFN LTP design criteria, when the modifications are within the region of influence of torus hydrodynamic loads.

11.4 S/RV Confirmatory Test

An in-plant S/RV confirmatory test was successfully completed in BFN Unit 2 during April 1983 in accordance with Section 4.6. The test results were documented by Reference 41. Correlation of analysis and test results, including definition of selected load reduction factors, was accomplished as described in Appendix C.

11.5 Installation of Modifications and Final Conclusions

At this time (December 1983), all LTP modifications and 10-inch S/RV vacuum breaker modifications have been installed in BFN Unit 1. Major LTP modifications have been installed in Units 2 and 3, and 10-inch S/RV vacuum breaker modifications have been installed in Unit 2. Unit 3 is in its cycle 5 refueling outage.

All BFN containment system modifications for compliance with NUREG 0661 will be completed before restart for Cycle 6 operations of each unit, in accordance with NRC's orders (Reference 12). Other modifications will be installed according to a NRC-approved integrated schedule.

BFN LTP total costs are currently estimated at $105,000,000 excluding interest payments and lost power revenues while installing modifications. The extent and scope of those modifications are summarized by Table 11-1 and the construction photographs in Appendix G.

This PUAR provides an accurate and sufficient summary of LTP activities for all three BFN units.

TABLE A-4 (CONTINUED), SHEET 8
ANALYSIS CRITERIA FOR TORUS ATTACHED PIPING-LOCA EFFECTS (1, 2, 5)

DBA (CONTINUED)

PLANT CONDITION (LOAD SOURCE TYPE)	MOMENT CONSTITUENTS FROM LOAD SOURCES	EQUATIONS AND STRESS LIMITS
POSTPROCESSOR 8 PUAAG COMB. 16 0.0 POOL SWELL PRIMARY (PRESSURE + SUSTAINED + DBA) NONESS.-SVC LEVEL D ESS. - SVC LEVEL B	$M_A = M\ (DW + PL)$ $M_{BF} = M[(P_2 + (APID \text{ OR } PSF) + FI + PSDL + PSFB + DWJDL]$	$\frac{P_{max} d^2}{(D_o^2 - d^2)} + \frac{0.75i}{Z}(M_A + M_{BF}) \leqq 2.4\ S_h$ ESSENTIAL & NONESS. $\leqq 1.2\ S_h$ ACT.COMP. $P_{max} \leqq 2.0$ P NONESS. $\leqq 1.1$ P ESS.
SECONDARY (PRESSURE + SUSTAINED +EXPANSION + DBA)	$M_C = M(T_i + PS2 + PQ2)$ $i = 1,2$ OR $M_C = M[T_i]$ AND $M_D = M[PS2 + PQ2]$	$\frac{P_d^2}{(D_o^2 - d^2)} + \frac{0.75i M_A}{Z} + \frac{iM_c}{Z} \leqq S_A + S_h$ OR $\frac{iM_c}{Z} \leqq S_A$ $\frac{iM_D}{Z} \leqq 3S_c$

TABLE A-4 (CONTINUED), SHEET 9

NOTES:

1. THESE EQUATIONS REPRESENT THE WORST CASES FROM PUAGG TABLE 5-2 AND MARK I CONTAINMENT PROGRAM LOAD DEFINITION REPORT NEDO-21888,SECTION 3, TABLE 3.0-3, FIGURES 3.0-1, -2, -3, -4, AND -5.

2. ALL DYNAMIC ANCHOR POINT MOVEMENTS ARE INCLUDED IN EQUATIONS 9, 10, AND 11. FATIQUE ANALYSIS REQUIREMENTS WILL BE SATISFIED BY DEMONSTRATION OF COMPLIANCE WITH ASME CODE SECTION III NC 3600, EQUATIONS 9, 10, AND 11.

3. THE PUAGG (REFERENCE 13) PERMITS THE PIPING STRESS ALLOWABLES, PIPING DAMPING VALUES, AND PIPING SUPPORT ALLOWABLES TO MEET THE REQUIREMENTS OF SERVICE LEVEL C. THIS DOES NOT APPLY TO ACTIVE COMPONENTS.

4. THE PUAGG (REFERENCE 13) PERMITS THE PIPING STRESS ALLOWABLES, PIPING DAMPING VALUES, AND PIPING SUPPORT ALLOWABLES TO MEET THE REQUIREMENTS OF SERVICE LEVEL D. THIS DOES NOT APPLY TO ACTIVE COMPONENTS.

5. A STRESS RANGE EVALUATION MUST BE PERFORMED FOR ALL THERMAL CYCLIC CONDITIONS AND ALL DYNAMIC DISPLACEMENT CYCLIC CONDITIONS THAT ARE QUALIFIED BY CODE EQUATIONS 10 OR 11.

TENNESSEE VALLEY AUTHORITY

Browns Ferry Nuclear Plant - Radiological Emergency Plan

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	14	Rev. 19			
	15	Rev. 19			
	16	Rev. 19			

3-17-83
(date)

Robert L. Craig, M.D.
Medical Director
Tennessee Valley Authority
320 Edney Building
Chattanooga, Tennessee 37401

Dear Dr. Craig:

RADIOLOGICAL EMERGENCY PLAN FOR TVA Browns Ferry NUCLEAR PLANT

This is to certify that Suburban Ambulance (name of ambulance service) will respond and provide ambulance transportation for Browns Ferry Nuclear Plant at the request of TVA. Our service is available 24 hours a day for transportation of patients, including those who may have been exposed to or may be contaminated with radioactive material. We have 3 (number) fully equipped ambulances which are staffed by personnel trained and certified as Emergency Medical Technicians. We are located at 1011 5th Ave. S.E. (address), Decatur (city), Alabama (State), which is approximately 10 minutes response time from the plant. We may be reached by emergency telephone number 205-355-3544 (area code and number).

Sincerely,

Bill Slaughter Manager
(name and title)

SUBURBAN AMBULANCE
(name of ambulance service)

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MAR 31 1983
NRC

*Revision

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT IMPLEMENTING PROCEDURES DOCUMENT

LIST OF EFFECTIVE PAGES

This List of Effective Pages must be retained with the Browns Ferry Nuclear Plant Implementing Procedures Documents.

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*Filed in plant site manuals only.

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Tennessee Valley Authority
Browns Ferry Nuclear Plant

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STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION AUG 28 1984

Standard Practice/
Instruction Number IP-2 Unit 1,2,3 Pages Affected 1, 2

Title NOTIFICATION OF UNUSUAL EVENT

STANDARD PRACTICE CHANGE

Does this standard practice reference technical specifications or Regulatory Guide 1.33? If yes, PORC review is required prior to issuance. Yes ___ No ___

Is this standard practice listed on Attachment 3 of Standard Practice BF 1.2? If yes, PORC review is required prior to issuance. Yes ___ No ___

Was this change made to meet an NRC commitment? Yes ___ No ___
(If yes, refer to BF-2.3 for proper identification of the change.)

Does this revision implement a source document? If yes, attach form BF-4.
Due date of form BF-4 is Yes ___ No ___

PERMANENT INSTRUCTION CHANGE

Is this change in response to an LER; IE bulletin, NRC inspection report, Management/Supervisor inspection, OQAB audit, etc? If yes, specify document under reason for revision. Yes ___ No ✓

Change in procedural detail of FSAR or other licensing document? Yes ___ No ✓
New instruction? Yes ___ No ✓ Intent change to instruction? Yes ___ No ✓
(If yes to any of these questions, a USQD is required.)

Is this a workplan-initiated change? Yes ___ (Workplan No. ___) No ✓

Was this change made to meet an NRC commitment? Yes ___ No ✓
(If yes, refer to BF-2.3 for proper identification of the change.)

Fire Protection System involved?
Yes ___ No ✓

na / Fire Protection Engineer / Date

If yes, Fire Protection Engineer signature is required.

Security System involved?
Yes ___ No ✓

/ Public Safety Supervisor / Date

If yes, Public Safety Supervisor signature is required.

E. H. Kennaday / 9/20/84 / 815
Submitted by / Date / Phone Number

Reviewed by
(See BF-2.14 for Standard Practices)

E. H. Kennaday for TEC / 9/21/84
Responsible Section Supv. / Date

Quality Assurance program requirements have been properly included.
(For standard practices only.)

na / Quality Engineering Supv. / Date

The requirements herein are consistent with safe, efficient plant operation.

J. R. Pitt / 9-21-84
PORC Chairman / Date

J. R. Pitt / 9-21-84
Plant Manager / Date

Admin. Svcs. Verification of Document Accuracy & Disk Update 840921-10
Total Number of Pages in Procedure: 5
Job No. & Initials

Retention Period: Lifetime Responsibility: Document Control Supervisor
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STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION (cont'd)

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01/19/84	1,2	
04/17/84	1,2	
09/21/84	1,2	Telephone number change due to new telephone system activation.

*Addendum

CAUSE: _____

NOTIFICATION OF UNUSUAL EVENT

1.0 PURPOSE

1.1 Provide for timely notification of appropriate individuals and organizations of a NOTIFICATION OF UNUSUAL EVENT.

1.2 Provide for periodic reanalysis to determine whether the NOTIFICATION OF UNUSUAL EVENT should be cancelled, continued, or upgraded to a more serious classification.

Date _____ INITIATED		Date_____ CANCELLED	
INIT.	TIME	INIT.	TIME
_____	_____	_____	_____

2.0 INSTRUCTIONS

2.1 * Shift Engineer notify Operations Duty Specialist 7-200 or 8-0200) within 5 minutes of declaration of NOTIFICATION OF UNUSUAL EVENT.

Give the following:

a. Your name.

b. Browns Ferry Nuclear Plant

c. NOTIFICATION OF UNUSUAL EVENT

d. Time incident declared.

e. Brief description of incident.

f. Plant condition (whether stable or deteriorating.

g. Reactor (did/did not) shut down at (time).

h. Unusual release of radioactivity (yes, no, or not known).

i. If radiation release: (a) Ground Level, (b) Elevated - Airborne, (c) Waterborne, (d) Other.

j. Release rate if unusual release from Tables 1 and 2 of IP-3. Release rate _____ uCi/sec.

k. Direction wind is coming from _____ (degrees) and speed _____ (miles/hour). (Use 9lm info, if available.)

l. No protective action recommended.

m. Any emergency actions underway onsite.

n. Any offsite support that has been requested.

*Revision

INITIATED Init.	Time	CANCELLED Init.	Time		
____	____	____	____	2.2	Operations Duty Specialist will return call to ve authenticity.
				2.3	Shift Engineer will notify the following of the event:
____	____	____	____		a. Other Shift Engineer (when assigned):
____	____	____	____		b. STA (Code Call 544)
____	____	____	____	*	c. Operations Section Supervisor — R. Hunkapiller, 2214/2205, 355-5667
					OR
				*	Operations Supervisor — Tommy Jordan, Muscle Shoals, 2205/2214, 383-5868
					OR
____	____	____	____	*	Operations Supervisor — A. Burnette, 2430/2429, 766-1929
____	____	____	____	*	d. Plant Manager — G. T. Jones, Decatur, 2212/2221, 350-7444
					OR
				*	Plant Superintendent — J. E. Swindell, Decatur, 2221/2212, 355-7277
					OR
				*	Plant Superintendent — J. R. Pittman, 2221/2212, 355-0230
____	____	____	____	* * * *	e. Public Information Officer — Mike Harris, Athens, 2413, (205)233-1125
____	____	____	____	2.4 NRC/C	Shift Engineer will notify the NRC of NOTIFICATION OF UNUSUAL EVENT by red phone. Give a brief description. Maintain an open line upon request by NRC.

* Revision

APR 17 1984

INITIATED Init.	Time	CANCELLED Init.	Time		
____	____	____	____	2.2	Operations Duty Specialist will return call to verify authenticity.
				2.3	Shift Engineer will notify the following of the event:
____	____	____	____		a. Other Shift Engineer. (When assigned)
____	____	____	____		b. STA (Code Call 544)
____	____	____	____		c. Operations Section Supervisor — R. Hunkapiller, 214/205, 355-5667
					OR
					Operations Supervisor — Tommy Jordan, Muscle Shoals, 205/214, 383-5868
					OR
____	____	____	____		Operations Supervisor — A. Burnette, 430/429, 766-1929
____	____	____	____	*	d. Plant Manager — G. T. Jones, Decatur, 212/221, 350-7444
					OR
				*	Plant Superintendent — J. E. Swindell, Decatur, 221/212, 355-7277
					OR
				*	Plant Superintendent — J. R. Pittman, 221/212, 355-0230
____	____	____	____	*	e. Public Information Officer — Frank Cason, Decatur, 413, 355-3520 (Decatur Inn)
____	____	____	____	* 2.4 NRC/C	Shift Engineer will notify the NRC of NOTIFICATION OF UNUSUAL EVENT by red phone. Give a brief description. Maintain an open line upon request by NRC.

* Revision

FEB 04 1983

2.5 At least every two hours, or more frequently, if conditions warrant, the Shift Engineer will reevaluate the event using IP-1. The Shift Engineer on the unaffected unit(s) will (if assigned) handle additional communications.

* a. If the situation no longer exist, inform the personnel notified in step 2.1 thru 2.4.

b. If the condition warrants upgrading to a higher classification, initiate the appropriate procedure.

*Revision

Tennessee Valley Authority
Browns Ferry Nuclear Plant

*Page 1 of 2
Form BF-5
BF 1.2, 2.1, & 2.3

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION AUG 28 1984

Standard Practice/
Instruction Number TP-3 Unit 1,2,3 Pages 1,2 Affected

Title ALERT

STANDARD PRACTICE CHANGE

Does this standard practice reference technical specifications or Regulatory Guide 1.33? If yes, PORC review is required prior to issuance. Yes ___ No ___

Is this standard practice listed on Attachment 3 of Standard Practice BF 1.2? If yes, PORC review is required prior to issuance. Yes ___ No ___

Was this change made to meet an NRC commitment? Yes ___ No ___
(If yes, refer to BF-2.3 for proper identification of the change.)

Does this revision implement a source document? If yes, attach form BF-4.
Due date of form BF-4 is Yes ___ No ___

PERMANENT INSTRUCTION CHANGE

Is this change in response to an LER, IE bulletin, NRC inspection report, Management/Supervisor inspection, OQAB audit, etc? If yes, specify document under reason for revision. Yes ___ No ✓

Change in procedural detail of FSAR or other licensing document? Yes ___ No ✓
New instruction? Yes ___ No ✓ Intent change to instruction? Yes ___ No ✓
(If yes to any of these questions, a USQD is required.)

Is this a workplan-initiated change? Yes ___ (Workplan No. ___) No ✓

Was this change made to meet an NRC commitment? Yes ___ No ✓
(If yes, refer to BF-2.3 for proper identification of the change.)

Fire Protection System involved?
Yes ___ No ✓

NA / ___
Fire Protection Engineer Date

If yes, Fire Protection Engineer signature is required.

Security System involved?
Yes ___ No ✓

NA / ___
Public Safety Supervisor Date

If yes, Public Safety Supervisor signature is required.

E. H. Rhodes / 9/20/84 / 815
Submitted by Date Phone Number

Reviewed by
(See BF-2.14 for Standard Practices)

E. H. Rhodes for NA / 9/21/84
Responsible Section Supv. Date

Quality Assurance program requirements have been properly included.
(For standard practices only.)

NA / ___
Quality Engineering Supv. Date

The requirements herein are consistent with safe, efficient plant operation.

J. R. Calhoun / 9-21-84
PORC Chairman Date

J. R. Calhoun / 9-21-84
Plant Manager Date

Admin. Svcs. Verification of Document Accuracy & Disk Update 840921-09
Total Number of Pages in Procedure: 7
Job No. & Initials

Retention Period: Lifetime Responsibility: Document Control Supervisor
*Revision

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION (cont'd)

REVISION LOG

IP-3

APPROVAL DATE	PAGES AFFECTED	REASON FOR REVISION
10/12/83	2;1 of Table 1;1 of Table 2	
01/19/84	1,2	
03/20/84	1,2; add 3	
04/17/84	1,2,3	
09/21/84	1,2	Telephone number change due to new telephone system activation.

*Addendum

CAUSE: _____

_____

_____

ALERT

Date ____ Date ____
INITIATED CANCELLED
Init. Time Init. Time

____ ____ ____ ____

1.0 Purpose

1.1 Provide for timely notification of appropriate individuals and organizations of an ALERT.

1.2 Provide for periodic reanalysis to determine whether the ALERT should be cancelled, continued, or upgraded to a more serious classification.

2.0 INSTRUCTIONS

* 2.1 Shift Engineer notify Operations Duty Specialist (7-200 * or 8-0200) within 5 minutes of declaration of ALERT.

Give the following:

a. Your name.

b. Browns Ferry Nuclear Plant.

c. ALERT.

d. Time incident declared.

e. Brief description of incident.

f. Plant condition (whether stable or deteriorating).

g. Reactor (did/did not) shut down at (time).

h. Unusual release of radioactivity (yes, no, or not known).

i. If a radiation release:
   a. Ground level - airborne.
   b. Elevated airborne.
   c. Waterborne.
   d. Other.

j. If yes, calculate release rate(s) in _____ uCi/sec from Tables 1 and 2. Release rate _____ uCi/sec.

k. Direction wind is coming from ____ (degrees) and speed _____ (miles/hour). (Use 91m info, if available).

l. No protective action recommended.

m. Any emergency actions underway onsite.

n. Any offsite support that has been requested.

*Revision

INITIATED Init.	Time	CANCELLED Init.	Time		
____	____	____	____	2.2	Operations Duty Specialist will return call to verify authenticity.
____	____	____	____	2.3	Shift Engineer will evaluate conditions. If required, initiate area (by public address) or total plant (by siren) evacuation. Refer to IP-8.
				2.4	Shift Engineer's clerk will:
____	____	____	____		a. Notify other Shift Engineer (when assigned) of ALERT.
____	____	____	____		b. Notify STA (Code Call 544) of the ALERT.
____	____	____	____	*	c. Notify Chem Lab Supervisor (PAX 2367/2368) of ALERT. Direct them to activate IP-25.
____	____	____	____	*	d. Notify HP Shift Supervisor (PAX 2300) of ALERT. Direct them to activate IP-14.
____	____	____	____	*	e. Notify Public Safety Supervisor (PAX 2273) of ALERT. Direct them to activate IP-11 (Control Rooms only) and IP-7.
____	____	____	____	*	f. Verify Power Stores manned (PAX 2217/2104). If not manned, contact B. H. Weeks (757-3379) or Ruddie P[illegible] (233-0039) and request manning.
____	____	____	____	2.5	Shift Engineer's clerk will:
					a. Initiate IP-6.
____	____	____	____	2.6	Shift Engineer will notify NRC of ALERT by red phone. Give brief description. Maintain an open line upon request by NRC.
		NRC/C			
					NOTE: NRC may send a response team to the site.
____	____	____	____	2.7	Time permitting, the Shift Engineer will implement operation of the TSC (IP-20), to include activation of Dimension telephones and placing required desks in hall in front of TSC.

*Revision

2.8 At least every two hours, or more frequently if conditions warrant, the Shift Engineer/Site Emergency Director will reevaluate the event using IP-1.

a. If the situation no longer exists or should be downgraded, inform all personnel previously notified.

b. If the condition warrants upgrading to a higher classification, initiate the appropriate procedure.

2.9 Refer to Table 1 for a quick estimate of maximum offsite dose for a stack release, and Table 2 for a quick estimate of the site boundary dose for building release.

2.10 If necessary to deviate from license conditions (Technical Specifications and/or plant instructions) to protect public health and safety, refer to Standard Practice BF 12.22.

*Revision

Tennessee Valley Authority
Browns Ferry Nuclear Plant

Form BF-5
BF 1.2, 2.1, & 2.3

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION AUG 28 1984

Standard Practice/
Instruction Number IP-4 Unit 0 Pages Affected 2

Title SITE AREA EMERGENCY

STANDARD PRACTICE CHANGE

Does this standard practice reference technical specifications or Regulatory Guide 1.33? If yes, PORC review is required prior to issuance. Yes ___ No ___

Is this standard practice listed on Attachment 3 of Standard Practice BF 1.2? If yes, PORC review is required prior to issuance. Yes ___ No ___

Was this change made to meet an NRC commitment? Yes ___ No ___
(If yes, refer to BF-2.3 for proper identification of the change.)

Does this revision implement a source document? If yes, attach form BF-4.
Due date of form BF-4 is Yes ___ No ___

PERMANENT INSTRUCTION CHANGE

Is this change in response to an LER, IE bulletin, NRC inspection report, Management/Supervisor inspection, OQAB audit, etc? If yes, specify document under reason for revision. Yes ___ No X

Change in procedural detail of FSAR or other licensing document? Yes ___ No X
New instruction? Yes ___ No X Intent change to instruction? Yes ___ No X
(If yes to any of these questions, a USQD is required.)

Is this a workplan-initiated change? Yes ___ (Workplan No. ___) No X

Was this change made to meet an NRC commitment? Yes ___ No X
(If yes, refer to BF-2.3 for proper identification of the change.)

Fire Protection System involved?
Yes ___ No X

na / ___
Fire Protection Engineer Date

If yes, Fire Protection Engineer signature is required.

Security System involved?
Yes ___ No X

na / ___
Public Safety Supervisor Date

If yes, Public Safety Supervisor signature is required.

R. T. Smith RTS Jr. / 10-10-84 / 3697
Submitted by Date Phone Number

Reviewed by
(See BF-2.14 for Standard Practices)

[signature] / 10/15/84
Responsible Section Supv. Date

Quality Assurance program requirements have been properly included.
(For standard practices only.)

na / ___
Quality Engineering Supv. Date

The requirements herein are consistent with safe, efficient plant operation.

[signature] / 10/19/84
PORC Chairman Date

[signature] / 10/19/84
Plant Manager Date

Admin. Svcs. Verification of Document Accuracy & Disk Update 841010-05 EC
Total Number of Pages in Procedure: 7 Job No. & Initials

Retention Period: Lifetime Responsibility: Document Control Supervisor
*Revision.

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION (cont'd)

REVISION LOG

IP-4

APPROVAL DATE	PAGES AFFECTED	REASON FOR REVISION
10/12/83	2, 1 of Table 1; 1 of Table 2	
01/19/84	1,2,3	
03/20/84	3	
04/17/84	2	
09/21/84	1,2	Telephone number change due to new telephone system activation.
OCT 19 1984	2	Due to reorganization

*Addendum

CAUSE: _____

SITE EMERGENCY EMERGENCY

Date _____ Date _____

INITIATED CANCELLED
Init. Time Init. Time

_____ _____ _____ _____

1.0 Purpose

1.1 Provide for timely notification of appropriate individuals and organizations of a SITE AREA EMERGENCY.

1.2 Provide for periodic reanalysis of the situation to determine whether the SITE AREA EMERGENCY should be cancelled, continued, or upgraded to a more serious classification.

2.0 Instructions

* 2.1 Shift Engineer notify Operations Duty Specialist (7-200 or 8-0200) within 5 minutes of declaration of SITE AREA EMERGENCY.

Give the following:

a. Your name.

b. Browns Ferry Nuclear Plant.

c. SITE AREA EMERGENCY.

d. Time incident declared.

e. Brief description of incident.

f. Plant condition (whether stable or deteriorating).

g. Reactor (did/did not) shut down at (time).

h. Unusual release of radioactivity (yes, no, or no known).

i. If a radiation release:
   a. Ground level - airborne.
   b. Elevated airborne.
   c. Waterborne.
   d. Other.

j. If yes, calculate release rate(s) in ____ uCi/sec from Tables 1 and 2. Release rate ____ uCi/sec.

*Revision

INITIATED		CANCELLED	
Init.	Time	Init.	Time

k. Direction wind is coming from _____(degrees) and speed _____ (miles/hour). (Use 91m info, if available.)

l. No protective action recommended.

m. Any emergency actions underway onsite.

n. Any offsite support that has been requested.

2.2 Operations Duty Specialist will return call to verify authenticity.

2.3 Shift Engineer will evaluate conditions. If required, initiate area (by public address) or total plant (by siren) evacuation. Refer to IP-8.

NOTE: Precautionary site evacuation should be considered.

2.4 Shift Engineer's clerk will:

a. Notify other Shift Engineer (when assigned) of SITE AREA EMERGENCY.

b. Notify STA (Code Call 544) of SITE AREA EMERGENCY.

c. Notify Chem Lab Supervisor (PAX 2367/2368 of SITE AREA EMERGENCY. Direct them to activate IP-25.

d. Notify HP Shift Supervisor (PAX 2300) of SITE AREA EMERGENCY. Direct them to activate IP-14.

e. Notify Public Safety Supervisor (PAX 2273) of SITE AREA EMERGENCY. Direct them to activiate IP-11 and IP-7.

f. Verify Power Stores manned (PAX 2217/2104). If not manned, contact B. H. Weeks (757-3379) or Ruddie Putman (233-0039) and request manning.

2.5 Shift Engineer's clerk will:

a. Initiate IP-6.

* b. Notify Jim Coffey (Dim 3675, PAX 2476, (205) 350-1313, (205) 747-1833) or Herb Abercrombie (6907 Chatt.,(615) 886-6339) of site area emergency and to report to TSC as senior advisor.

2.6 Shift Engineer will notify NRC of SITE AREA EMERGENCY by red phone. Give a brief description. Maintain an open line upon request by NRC.

NRC/C

NOTE: NRC will probably send a response team to the site.

*Revision

INITIATED		CANCELLED	
Init.	Time	Init.	Time
____	____	____	____

2.7 Time permitting, the Shift Engineer will implement operation of the TSC (IP-20), to include activation of dimension telephones and placing required desks in front of TSC.

2.8 At least every two hours, or more frequently if conditions warrant. The Shift Engineer/Site Emergenc Director will reevaluate the event using IP-1.

a. If the situation no longer exists or should be downgraded, inform all personnel previously notified.

b. If the condition warrants upgrading to a higher classification, initiate the appropriate procedure

2.9 Refer to Table 1 for a quick estimate of maximum offse dose for a stack release, and table 2 for a quick estimate of site boundary dose for building release.

* 2.10 If necessary to deviate from license conditions (Technical Specifications and/or plant instructions) to protect public health and safety, refer to Standard Practice BF 12.22.

*Revision

Tennessee Valley Authority
Browns Ferry Nuclear Plant

Form BF-5
BF 1.2, 2.1, & 2.3

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION AUG 28 1984

Standard Practice/
Instruction Number IP-5 Unit 0 Pages Affected See page 2

Title GENERAL EMERGENCY

STANDARD PRACTICE CHANGE

Does this standard practice reference technical specifications or Regulatory Guide 1.33? If yes, PORC review is required prior to issuance. Yes ___ No ___

Is this standard practice listed on Attachment 3 of Standard Practice BF 1.2? If yes, PORC review is required prior to issuance. Yes ___ No ___

Was this change made to meet an NRC commitment? Yes ___ No ___
(If yes, refer to BF-2.3 for proper identification of the change.)

Does this revision implement a source document? If yes, attach form BF-4.
Due date of form BF-4 is Yes ___ No ___

PERMANENT INSTRUCTION CHANGE

Is this change in response to an LER, IE bulletin, NRC inspection report, Management/Supervisor inspection, OQAB audit, etc? If yes, specify document under reason for revision. Yes X No ___

Change in procedural detail of FSAR or other licensing document? Yes ___ No X
New instruction? Yes ___ No X Intent change to instruction? Yes X No ___
(If yes to any of these questions, a USQD is required.)

Is this a workplan-initiated change? Yes ___ (Workplan No. ___) No X

Was this change made to meet an NRC commitment? Yes X No ___
(If yes, refer to BF-2.3 for proper identification of the change.)

Fire Protection System involved?
Yes ___ No X

NA RTS / 10-15-84
Fire Protection Engineer Date

If yes, Fire Protection Engineer signature is required.

Security System involved?
Yes ___ No X

NA RTS / 10-15-84
Public Safety Supervisor Date

If yes, Public Safety Supervisor signature is required.

R. T. Smith RTS / 10-10-84 / 3697
Submitted by Date Phone Number

Reviewed by
(See BF-2.14 for Standard Practices)

Responsible Section Supv. / 10/15/84 Date

Quality Assurance program requirements have been properly included.
(For standard practices only.)

NA RTS / 10-15-84
Quality Engineering Supv. Date

The requirements herein are consistent with safe, efficient plant operation.

PORC Chairman / 10/23/84 Date

Plant Manager / 10/25/84 Date

Admin. Svcs. Verification of Document Accuracy & Disk Update 841010-06 LC
Total Number of Pages in Procedure: 8 Job No. & Initials

Retention Period: Lifetime Responsibility: Document Control Supervisor
*Revision. –

STANDARD PRACTICE/PERMANENT INSTRUCTION CHANGE INFORMATION (cont'd)

REVISION LOG

IP-5

APPROVAL DATE	PAGES AFFECTED	REASON FOR REVISION
10/12/83	2, 1 of Table 1, 1 of Table 2	
01/19/84	1,2	
03/12/84	1,2, 1 of figure 1	
03/20/84	3 "	
04/17/84	2	
09/21/84	1,2	Telephone number change due to new telephone system activation.
OCT 23 1984	2,3; figure 1	Due to reorganization. Modify figure 1 to ensure compliance with NRC IN 83/28 and NRC IR 83/40.

*Addendum

CAUSE: _____

GENERAL EMERGENCY

Date_____ Date _____

INITIATED CANCELLED
Init. Time Init. Time

1.0 Purpose

1.1 Provide for timely notification of appropriate individuals and organizations of a GENERAL EMERGENCY.

1.2 Provide for periodic reanalysis of the situation to determine whether the GENERAL EMERGENCY should be cancelled or continued.

2.0 Instructions

_____ _____ _____ _____ 2.1 Shift Engineer notify Operations Duty Specialist (7-200 or 8-0200) within 5 minutes of declaration of GENERAL EMERGENCY.

Give the following:

a. Your name.

b. Browns Ferry Nuclear Plant.

c. GENERAL EMERGENCY.

d. Time incident declared.

e. Brief description of incident.

f. Plant condition (whether stable or deteriorating).

g. Reactor (did/did not) shut down at (time).

h. Unusual release of radioactivity (yes, no, or not known).

i. If a radiation release:
   a. Ground level - airborne.
   b. Elevated airborne.
   c. Waterborne.
   d. Other.

j. If yes, calculate release rate(s) in uCi/sec from Tables 1 and 2. Releases rate _____ uCi/sec.

k. Direction wind is coming from _____ (degrees) and speed _____ (miles per hour). (Use 91 m info, if available.)

*Revision

OCT 2 3 1984

INITIATED Init.	Time	CANCELLED Init.	Time		
					1. Recommend protective actions for the public from using logic of Figure 1.
				NRC/C Rpt 83-48	(Initial Recommendation given.) _____ Recommendation 1 _____ Recommendation 2 _____ Recommendation 3 _____ Recommendation 4
					m. Any emergency actions underway onsite.
					n. Any offsite support that has been requested.
_____	_____	_____	_____	2.2	Operations Duty Specialist will return call to verify authenticity.
_____	_____	_____	_____	2.3	Shift Engineer will evaluate conditions. If required, initiate area (by public address) or total plant (by siren) evacuation. Refer to IP-8.
					NOTE: Site evacuation is probable under these conditions.
				2.4	Shift Engineer's clerk will:
_____	_____	_____	_____		a. Notify other Shift Engineer (when assigned) of GENERAL EMERGENCY.
_____	_____	_____	_____		b. Notify STA (Code Call 544) of GENERAL EMERGENCY.
_____	_____	_____	_____		c. Notify Chem Lab Supervisor (PAX 2367/2368) of GENERAL EMERGENCY. Direct them to activate IP-25.
_____	_____	_____	_____		d. Notify HP Shift Supervisor (PAX 2300) of GENERAL EMERGENCY. Direct them to activate IP-14.
_____	_____	_____	_____		e. Notify Public Safety Supervisor (PAX 2273) of GENERAL EMERGENCY. Direct them to activate IP-11 and IP-7.
_____	_____	_____	_____		f. Verify Power Stores manned (PAX 2217/2104). If not manned, contact B. H. Weeks (757-3379) or Ruddie Putman (233-0039) and request manning.
				2.5	Shift Engineer's clerk will:
_____	_____	_____	_____		a. Initiate IP-6.
				*	* b. Notify Jim Coffey (Dim 3675, PAX 2476, (205) 350-1313, (205) 747-1833) or Herb Aberorombie (6907 Chatt., (615) 886-6339) of general emergency and to report to TSC as senior advisor.

*Revision

INITIATED Init. Time	CANCELLED Init. Time		
____	____	2.6 NRC/C Rpt 81-19	Shift Engineer will notify NRC of GENERAL EMERGENCY by red phone. Give a brief description. Maintain an open line upon request by NRC.
____	____	2.7	Time permitting, the Shift Engineer will implement operation of the TSC (IP-20), to include activation of Dimension telephones and placing required desks in hall in front of TSC.

2.8 At least every two hours, or more frequently if conditions warrant, the Shift Engineer/Site Emergency Director will reevaluate the event using IP-1.

a. If the situation no longer exists or should be downgraded, inform all personnel previously notified.

2.9 Refer to Table 1 for a quick estimate of maximum offsite does for a stack release, and Table 2 for a quick estimate of the site boundary dose for building release.

2.10 If necessary to deviate from license conditions (Technical Specifications and/or plant instructions) to protect public health and safety, refer to Standard Practice BF 12.22

*Revision for pagination

Superseded per request by utility 5-25-89

RADIOLOGICAL EMERGENCY PLAN

Transmittal Date: MAY 02 1985

This log sheet must be retained as the last page of the Division of Nuclear Power Emergency Center Implementing Procedures Document.

Reason for revision: Organization change from MSEC Director to RAM (IP-1); revised to read "time event declared" (IP-2 thru 5); add critical drawings and expand duties of the Resource Support Coordinator (IP-6).

Inserted by: _____ Date Inserted: _____

Pages to be Removed			New Pages to be Inserted		
Part	Page Number	Revision	Part	Page Number	Revision
EPL	1 of 3	16	EPL	1 of 3	17
	2 of 3	15		2 of 3	16
IP-1	Coversheet	7	IP-1	Coversheet	8
	2 of 2	7		2 of 2	8
IP-2	Coversheet	17	IP-2	Coversheet	18
	2 of 3	15		2 of 3	18
Attachment 1	1 of 3	7	Attachment 1	1 of 3	18
Attachment 2	1 of 3	7	Attachment 2	1 of 3	18
IP-3	Coversheet	20	IP-3	Coversheet	21
	2 of 3	18		2 of 3	21
Attachment 1	1 of 3	9	Attachment 1	1 of 3	21
Attachment 2	1 of 3	9	Attachment 2	1 of 3	21
IP-5	Coversheet	21	IP-5	Coversheet	22
	3 of 4	21		3 of 4	22
Attachment 1	1 of 3	10	Attachment 1	1 of 3	22
Attachment 2	1 of 3	10	Attachment 2	1 of 3	22

RADIOLOGICAL EMERGENCY PLAN
Revision Log Sheet (continued)
Manual: DNPEC-IPD
Revision Date: MAY 02 1985

Pages to be Removed			New Pages to be Inserted		
Part	Page Number	Revision	Part	Page Number	Revision
IP-6	Coversheet	13	IP-6	Coversheet	14
Attachment 1	2 of 4	13	Attachment 1	2 of 4	14
Attachment 5	1 of 1	13	Attachment 5	1 of 1	14
	N/A	N/A	Attachment 6	1 of 3	14
				2 of 3	14
				3 of 3	14

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER EMERGENCY CENTER
IMPLEMENTING PROCEDURES DOCUMENT
LIST OF EFFECTIVE PAGES

This list of effective pages must be retained with the Division of Nuclear Power Emergency Center Implementing Procedures Document.

Procedure No.	Subdivision	Page No.	Rev. No.
	List of Effective Pages	1 of 3	17
		2 of 3	16
		3 of 3	3
	Table of Contents	1 of 1	6
IP-1		Cover Sheet	8
		1 of 2	1
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TVA 64 (05-9-65)

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

TO : Holders of the Division of Nuclear Power Emergency Center Implementing Procedures Document

FROM : B. K. Marks, Supervisor, Radiological Emergency Preparedness Section, 1640 CST2-C

DATE : MAY 02 1985

SUBJECT: Division of Nuclear Power Emergency Center Implementing Procedures Document

The attached revision is for inclusion in your copy of the subject manual.

Section 10.1.5.3 of the Radiological Emergency Plan requires manual holders to acknowledge receipt of revisions. Please sign the receipt on the back of the distribution list and return to the Records/Manual Control Unit, 1570 CST2-C, within 2 weeks of transmittal date. If you have any questions, call Chuck Mull, 7718-C.

If responsibility for this manual is transferred to another individual, please note this on your acknowledgment receipt.

B K Marks

B. K. Marks

BJS:CSM
Attachments

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REP-IPD

DNPEC IP-1

OPERATIONS DUTY SPECIALIST-TRANSPORTATION ACCIDENT INVOLVING SHIPMENT OF RADIOACTIVE WASTE FROM A TVA FACILITY

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages
0	9/25/81	All
1	OCT 26 1982	1, 2
2	2/24/83	2, 3
3	APR 6 1984	Cover Sheet, 2
4	SEP 07 1984	Coversheet, 2
5	NOV 13 '84	Coversheet, 2
6	MAR 04 '85	Coversheet, 2
7	APR 02 1985	Coversheet, 2
8	APR 23 1985	Coversheet, 2

(Time/Initials)

6.2 Notify the following:

___/___ 6.2.1 If the accident occurs in either Alabama or Tennessee, notify the appropriate State agency by direct line. After hours, the Alabama phone will be answered by the Department of Public Safety. Ask the officer to contact the Radiological Health Staff by phone or pager (No. 215) and relay the accident information. Alternate telephone numbers for these agencies are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.2.2 The NUC PR Emergency Duty Officer (See the CECC Notification Board.)

___/___ 6.2.3 Notify the Shift Engineer of the plant where the shipment originated. Alternate numbers are listed in the TVA Radiological Emergency Notification Directory.

___/___ Notify the CECC staff, Mechanical Branch representative. (See the CECC Notification Board.)

___/___ 6.2.5 Notify the Radwaste Technical Support representative. (See the CECC Notification Board.)

___/___ 6.2.6 Notify the following (See the CECC Notification Board):

___/___ J. P. Darling
___/___ John Hutton
___/___ R. J. Kitts
___/___ B. K. Marks
___/___ E. K. Sliger

___/___ 6.2.7 *Notify the Radiological Assessment Manager. (See the CECC Notification Board.)

*Revision

REP-IPD

DNPEC - IP-2

OPERATIONS DUTY SPECIALIST
PROCEDURE FOR NOTIFICATION OF UNUSUAL EVENT

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Hufham

Date: 9/25/81

Rev. No.	Date	Revised Pages
0	9/25/81	All
1	3/10/82	2
2	OCT 26 1982	All
3	2/3/83	2
4	MAR 17 1983	All
5	JUN 03 1983	4 - 7
6	JUL 07 1983	Att. 2--p. 1
7	MAR 8 1984	Cover Sheet; Att. 1--p. 1-3; Att. 2--p. 1-3
8	MAR 29 1984	Cover Sheet, 2, 3
9	MAY 18 1984	Cover Sheet Att. 1, p. 2
10	MAY 25 1984	Cover sheet; ~~pgs. 1; 3~~
11	AUG 10 1984	Cover Sheet, p. 3
12	AUG 31 1984	Coversheet; Att 1-p. 2 & 3 Att. 2-p. 2 & 3
13	NOV 13 '84	Coversheet, 3
14	NOV 26 '84	Coversheet, 3
15	JAN 25 1985	Coversheet, 1, 2, & 3
16	MAR 04 '85	Coversheet, 3
17	APR 02 1985	Coversheet, 3
18	APR 23 1985	Coversheet, 2 Att. 1 & Att. 2

Note: When making notifications of an emergency situation, provide only the information contained on the appropriate attachment. Avoid any unnecessary explanation or elaboration of the information. Timeliness and accuracy is of the utmost importance. If additional information/explanation is required by any party, provide the name and phone number of the DNP EDO and request they contact him or patch them through to him.

(Time/Initials)

___/___ 6.1.1 Upon receiving a call from the Site Emergency Director:

1. Turn on recording equipment.
2. Receive information from the Site Emergency Director.
3. Log information on the appropriate attachment.
4. Conduct verification call to originating plant.

___/___ 6.1.2 Notify the appropriate State agency by direct line. For the initial notification, provide only the basic information as indicated on the appropriate attachment. Request that the State make a verification callback, and at that time provide them the remainder of the attachment information.

After hours, the Alabama phone will be answered by the Department of Public Safety. Provide the officer with the basic information as indicated on attachment 1. Request that he contact the Radiological Health Staff and have them call the ODS for additional information. Provide the remainder of the attachment 1 information when the call is returned.

Alternate telephone numbers for these agencies are listed in the TVA Radiological Emergency Notification Directory.

Note: Notification to the State shall be made as soon as possible such that in all cases it is made within five minutes from when call is first received from the plant. Under this emergency classification, the ODS is the "primary contact" with the State and is relieved of this function only if the CECC is activated.

___/___ 6.1.3 Notify the CECC EDO. He will specify whether to notify the MSEC Director. (See the CECC Notification Board.)

___/___ 6.1.4 *Notify the Radiological Assessment Manager if specified by the EDO.
(See the CECC Notification Board.)

*Revision

Attachment 1

BROWNS FERRY/BELLEFONTE NUCLEAR PLANTS

OPERATIONS DUTY SPECIALIST INCIDENT FORM

Turn on recording equipment _____

Date _____ Time _____ Initials _____

Call verified _____ Site Emergency Director _____

NOTIFICATION TO STATE OF ALABAMA/TVA EMERGENCY CENTER

My name is _____, TVA, Operations Duty Specialist.

The _____ Browns Ferry _____ Bellefonte Nuclear Plant, Unit ____,

declared a: _____ Notification of Unusual Event _____ Alert

_____ Site Area Emergency _____ General Emergency

*at _____ CST (time event declared) on _____ (date).

(Initially, provide the above information. Request State Radiological Health Staff duty officer to call you back for detailed information.)

Brief description of the incident is: _____

The plant condition is: _____ Stable _____ Deteriorating

The reactor (did/did not) shut down at _____ CST on _____ (date)

*Revision

Attachment 2

SEQUOYAH/WATTS BAR NUCLEAR PLANTS

OPERATIONS DUTY SPECIALIST INCIDENT FORM

Turn on recording equipment _____

Date _____ Time _____ Initials _____

Call verified _____ Site Emergency Director _____

NOTIFICATION TO STATE OF TENNESSEE/TVA EMERGENCY CENTER

My name is _____, TVA, Operations Duty Specialist.

The _____ Sequoyah _____ Watts Bar Nuclear Plant, Unit _____,

declared a: _____ Notification of Unusual Event _____ Alert

_____ Site Area Emergency _____ General Emergency

*at _____ CST (time event declared) on _____ (date).

(Initially, provide the above information. Request State duty officer to call you back for detailed information.)

Brief description of the incident is: _____

*Revision

REP-IPD

DNPEC - IP-3

OPERATIONS DUTY SPECIALIST
PROCEDURE FOR ALERT AND SITE AREA EMERGENCY

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Gilligan

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All	3	2/3/83	2
1	3/10/82	2, 3	4	2/24/83	3
2	OCT 26 1982	All	5	MAR 17 1983	All

Rev. No.	Date	Revised Pages
6	JUN 03 1983	All
7	JUL 07 1983	3
8	SEP 16 1983	2-4, Attachment 3--1-2
9	MAR 8 1984	Cover Sheet; Att. 1--p. 1-3; Att. 2--p. 1-3
10	MAR 29 1984	Cover Sheet, 1-3, delete Att. 3
11	APR 6 1984	Cover Sheet, 1
12	MAY 18 1984	Cover Sheet; Att. 1, p. 2
13	MAY 25 1984	Cover Sheet; pg. 3
14	AUG 10 1984	Cover Sheet; pg. 3
15	AUG 31 1984	Coversheet; Att. 1-p. 2 & 3; Att. 2-p. 2 & 3

(OVER)

REP-IPD

DNPEC - IP-3

Rev. No.	Date	Revised Pages
16	NOV 1 3 '84	Coversheet, 3
17	NOV 2 6 '84	Coversheet, 3
18	JAN 25 1985	Coversheet, 1, 2 & 3
19	MAR 0 4 '85	Coversheet, 3
20	APR 02 1985	Coversheet, 3
21	APR 23 1985	Coversheet, 2, Att. 1 & Att. 2

Note: When making notifications of an emergency situation, provide only the information contained on the appropriate attachment. Avoid any unnecessary explanation, interpretation, or elaboration of the information. Timeliness and accuracy is of the utmost importance.

(Time/Initials)

____/_____ 6.1.1 Upon receiving a call from the Site Emergency Director:

1. Turn on recording equipment.
2. Receive information from the Site Emergency Director.
3. Log information on the appropriate attachment.
4. Conduct verification call to originating plant.

____/_____ 6.1.2 Notify the appropriate State agency by direct line. For the initial notification, provide only the basic information as indicated on the appropriate attachment. Request that the State make a verification callback, and at that time provide them the remainder of the attachment information.

After hours, the Alabama phone will be answered by the Department of Public Safety. Provide the officer with the basic information as indicated on attachment 1. Request that he contact the Radiological Health Staff and have them call the ODS for additional information. Provide the remainder of the attachment 1 information when the call is returned.

Alternate telephone numbers for these agencies are listed in the TVA Radiological Emergency Notification Directory.

Note: Notification to the State shall be made as soon as possible such that in all cases it is made within five minutes from when call is first received from the plant. Under this emergency classification, the ODS is the "primary contact" with the State. The ODS is relieved of this function by the CECC State Communicator once the CECC is staffed.

____/_____ 6.1.3 Notify the CECC EDO. (See the CECC Notification Board.)

____/_____ 6.1.4 *Notify the Radiological Assessment Manager. (See the CECC Notification Board.)

*Revision

Attachment 2

SEQUOYAH/WATTS BAR NUCLEAR PLANTS

OPERATIONS DUTY SPECIALIST INCIDENT FORM

Turn on recording equipment _____

Date _____ Time _____ Initials _____

Call verified _____ Site Emergency Director _____

NOTIFICATION TO STATE OF TENNESSEE/TVA EMERGENCY CENTER

My name is _____, TVA, Operations Duty Specialist.

The _____ Sequoyah _____ Watts Bar Nuclear Plant, Unit _____,

declared a: _____ Notification of Unusual Event _____ Alert

_____ Site Area Emergency _____ General Emergency

at _____ CST (time of incident) on _____ (date).

(Initially, provide the above information. Request State duty officer to call you back for detailed information.)

Brief description of the incident is: _____

*Revision

REP-IPD

DNPEC - IP-5
OPERATIONS DUTY SPECIALIST
PROCEDURE FOR GENERAL EMERGENCY

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Hayes

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All	3	2/3/83	2
1	3/10/82	2, 3	4	2/24/83	3
2	OCT 26 1982	All	5	MAR 17 1983	All

Rev. No.	Date	Revised Pages
6	JUN 03 1983	All
7	JUN 07 1983	Att. 2, p. 1
8	JUL 07 1983	3
9	SEP 16 1983	2-4, Attachment 3--1-3
10	MAR 8 1984	Cover Sheet; p. 2 & 3; Att. 1--p. 1-3; Att. 2--p. 1-3
11	MAR 29 1984	Cover Sheet; 2-4; Att. 2--p. 3; delete Att. 3
12	MAY 14 1984	Cover sheet, 3
13	MAY 18 1984	Cover Sheet; Att. 1, p. 2
14	MAY 25 1984	Cover sheet; 3
15	AUG 10 1984	Cover Sheet; pg. 3
16	AUG 31 1984	Coversheet; Att. 1-p. 2 & 3; Att. 2-p. 2 & 3

(OVER)

REP-IPD

DNPEC - IP-5

Rev. No.	Date	Revised Pages
17	NOV 1 3 '84	Coversheet, 3
18	NOV 2 6 '84	Coversheet, 3, 4
19	JAN 25 1985	Coversheet, 1 & 3
20	MAR 0 4 '85	Coversheet, 3
21	APR 0 2 1985	Coversheet, 3

(Time/Initials)

____/____ 6.1.3 Notify the appropriate local Civil Defense Agencies. (See the TVA Radiological Emergency Notification Directory.)

Give the following message. "This is the TVA Operations Duty Specialist. We have a General Emergency existing at _____ nuclear plant. Please activate your emergency organization. You will receive further instructions from the appropriate State agency."

Ensure the Attachment 1 or 2 recommended protective action given by the shift engineer is relayed to the contact.

Local Civil Defense agencies (Provide appropriate message and recommendation.)

BFNP

____/____ Limestone Co.
____/____ Morgan Co.
____/____ Lawrence Co.
____/____ Lauderdale Co.

SQNP

____/____ Hamilton Co.
____/____ Bradley Co.

WBNP

____/____ Meigs Co.
____/____ Rhea Co.
____/____ McMinn Co.

____/____ 6.1.4 Notify the CECC EDO. (See the CECC Notification Board.)

____/____ 6.1.5 Notify the MSEC Director and have him activate the MSEC. (Contact the Muscle Shoals operator and have he/she page.)

6.1.6 Notify the following and have them report to the center. (See the CECC Notification Board.)

____/____ CECC Director: J. P. Darling
____/____ John Hutton
____/____ R. J. Kitts
____/____ B. K. Marks
____/____ *E. K. Sliger
____/____ Plant Assessment Manager
____/____ Management Services (Request he provide clerical support for the CECC)

____/____ Mechanical Branch
____/____ Electrical and Instrument and Controls Branch
____/____ Fuels Branch
____/____ Plant Communicator
____/____ Assessment Team Leader (BWR - Browns Ferry, PWR - Sequoyah or Watts Bar)

____/____ Plant Radiological Communicator

*Revision

Attachment 1

BROWNS FERRY/BELLEFONTE NUCLEAR PLANTS

OPERATIONS DUTY SPECIALIST INCIDENT FORM

Turn on recording equipment _____

Date _____ Time _____ Initials _____

Call verified _____ Site Emergency Director _____

NOTIFICATION TO STATE OF ALABAMA/TVA EMERGENCY CENTER

My name is _____, TVA, Operations Duty Specialist.

The _____ Browns Ferry _____ Bellefonte Nuclear Plant, Unit ____,

declared a: _____ Notification of Unusual Event _____ Alert

_____ Site Area Emergency _____ General Emergency

at _____ CST (time of incident) on _____ (date).

(Initially, provide the above information. Request State Radiological Health Staff duty officer to call you back for detailed information.)

Brief description of the incident is: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

The plant condition is: _____ Stable _____ Deteriorating

The reactor (did/did not) shut down at _____ CST on _____ (date)

*Revision

Attachment 2

SEQUOYAH/WATTS BAR NUCLEAR PLANTS

OPERATIONS DUTY SPECIALIST INCIDENT FORM

Turn on recording equipment _____

Date _____ Time _____ Initials _____

Call verified _____ Site Emergency Director _____

NOTIFICATION TO STATE OF TENNESSEE/TVA EMERGENCY CENTER

My name is _____, TVA, Operations Duty Specialist.

The _____ Sequoyah _____ Watts Bar Nuclear Plant, Unit _____,

declared a: _____ Notification of Unusual Event _____ Alert

_____ Site Area Emergency _____ General Emergency

at _____ CST (time of incident) on _____ (date).

(Initially, provide the above information. Request State duty officer to call you back for detailed information.)

Brief description of the incident is: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

*Revision

REP-IPD

DNPEC - IP-6

CECC Plant Assessment Staff Procedure for Alert, Site Area Emergency, and General Emergency

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages
0	9/25/81	All
1	3/10/82	2, 3, 4
2	OCT 26 1982	All
3	MAR 24 1983	All
4	JUN 03 1983	All
5	JUL 07 1983	3, Att. 1--p.2,4; Att. 5--p. 1
6	NOV 09 1983	2, 3, 4, 5; Att. 1--p.1-6; Att. 3--p.1; Att. 4--p.1 Att. 5--Deleted
7	MAR 14 1984	Cover sheet; 3; Att. 1, pp. 1-2, 4-5; Att. 2, p. 1; Att. 3, p. 1; Att. 4 deleted.
8	MAR 29 1984	Cover Sheet, 1, 2
9	MAY 14 1984	Cover Sheet; Att. 1, p.5; Att. 3, p. 1.
10	MAY 25 1984	Cover sheet; pg. 2
11	AUG 31 1984	All
12	OCT 10 1984	Coversheet; Att. 1, pp. 3, 4, 5, & 6; Att. 6, p. 1
13	JAN 25 1985	All

1.3.5 Maintains communications with other NUC PR technical staff representatives to keep them briefed on the emergency conditions and coordinates obtaining support from them as necessary.

1.3.6 Assists the Plant Assessment Coordinator in other communications needs as necessary.

1.4 Plant Assessment Team - Provides periodic evaluation of plant status information and protective action recommendations (when applicable) to the Plant Assessment Manager. Serves as a technical reference.

The assessment team shall be made up of the following: team leader, engineers, SROs, STAs, nuclear fuels engineers (core damage assessment), etc. (two minimum). Exact makeup of the team will be determined by the team leader.

Duties

1.4.1 The assessment team leader will be activated automatically. He is responsible for activating the remainder of the required team members.

1.4.2 The assessment team shall provide a periodic evaluation of the situation and input back to the site and the CECC as appropriate via the Plant Assessment Coordinator.

1.4.3 The assessment team shall evaluate all previous telecopied information and discuss the key plant events with the Plant Communicator, EDO, or Plant Assessment Manager to ensure they have received all the information necessary to begin an evaluation of plant conditions. Attachment 3 provides a methodology to be used as guidance in providing a recommended protective action for the public to the CECC Director.

1.4.4 The assessment team will draw on their knowledge of FSAR, EOIs, owners' group work, analytical basis for accident analyses, and communications between the TSC and plant communicator in evaluating the assessments provided by the site (attachment 4) in terms of current and long-range plant conditions and in applying their evaluation to the protective action logic diagram (attachment 3). Attachment 5 provides a list of reference material/ equipment which is maintained in the Plant Assessment Team area. A TSC communicator shall be available to answer all the assessment team's questions at all times. The overall accident assessment serves to inform the Plant Assessment Manager of the general plant status. It also enables the Plant Assessment Manager to communicate with the CECC Director in planning offsite

dtd 7/11/85

superseded per rev. 0 to 57-259

CENTRAL EMERGENCY CONTROL CENTER PROCEDURES

*Revision
***Addendum

TENNESSEE VALLEY AUTHORITY
CENTRAL EMERGENCY CONTROL CENTER IMPLEMENTING PROCEDURES DOCUMENT
LIST OF EFFECTIVE PAGES

This list of effective pages must be retained with the Central Emergency Control Center Implementing Procedures Document.

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		4 of 4	4
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REP-IPD

CECC - IP-1

CECC-TRANSPORTATION ACCIDENT INVOLVING A SHIPMENT OF RADIOACTIVE WASTE FROM A TVA FACILITY

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Thomas

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All	3	MAY 25 1984	Cover Sheet; 1
1	OCT 26 1982	All	4	OCT 04 1984	Coversheet; pp 1 & 2
2	APR 6 1984	Cover Sheet, 1-2			

The last page of this procedure is Number 2.

CECC - TRANSPORTATION

ACCIDENT INVOLVING A SHIPMENT OF RADIOACTIVE WASTE FROM A TVA FACILITY

1.0 PURPOSE

This procedure is designed to direct the CECC Director in implementing TVA's response to a transportation accident involving a shipment of radioactive waste from a TVA facility. It is also designed to direct the appropriate notifications outside TVA.

2.0 SCOPE

This procedure covers anticipated actions of the CECC Director following the notification of a transportation accident involving a shipment of radioactive waste from a TVA facility.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

In the event of a transportation accident involving a shipment of TVA's radioactive waste, the Operations Duty Specialist (ODS) notifies the Emergency Duty Officer (EDO) and the CECC Director. The EDO is responsible for establishing initial operation of the CECC.

The CECC Director shall be responsible for notifying the Nuclear Regulatory Commission (NRC), Department of Transportation (DOT), ***appropriate State authorities, American Nuclear Insurers (liability insurance carrier), and Department of Energy (DOE) (information only). The CECC Director, after consultation with the Muscle Shoals Emergency Center (MSEC) Director and the Reactor Engineering Branch representative and others, as necessary, decides whether conditions warrant the activation of the CECC staff and the dispatch of a TVA response team to the accident site.

***Addendum

6.0 PROCEDURE REQUIREMENTS

6.1 Receive "Transportation Emergency Checklist" information from the ODS.

6.2 Notify the following:

(Time/Initials)

___/___ 6.2.1 Power Information Duty Officer. (See the DNP Notification Board.)

___/___ 6.2.2 NRC - Office of Inspection and Enforcement (Atlanta). (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.2.3 DOT (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.2.4 State Authorities (State where accident has occurred.) (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.2.5 DOE (for information only) (See the TVA Radiological Emergency Notification Directory.)

***

___/___ 6.2.6 American Nuclear Insurers (liability insurance carrier) (See the TVA Radiological Emergency Notification Directory, Insurance Support Directory.) Activate the Fire Protection Section Representative (DNP Notification Board) to provide follow-up reports/notifications to ANI during the event and at the conclusion of the event.

___/___ 6.3 Determine whether key CECC staff should be activated. If it is necessary to activate the key staff, notify the ODS.

___/___ 6.4 Consult with the MSEC Director and the Reactor Engineering Branch representative to determine whether a TVA response team should be dispatched to the accident site. If the response team is dispatched, the MSEC Director is responsible for designating the response team members and arranging transportation.

***Addendum

REP-IPD

CECC - IP-2

DNP EMERGENCY DUTY OFFICER/CECC DIRECTOR/DNPEC DIRECTOR NOTIFICATION OF UNUSUAL EVENT

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Dalhaus

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All	3	2/14/83	2, 3, 4
1	2/18/82	2			
2	OCT 26 1982	All			

The last page of this procedure is Number 4.

NUC PR EMERGENCY DUTY OFFICER/CECC DIRECTOR/DNPEC DIRECTOR *

NOTIFICATION OF UNUSUAL EVENT

1.0 PURPOSE

This procedure is designed to direct the Division of Nuclear Power (NUC PR) Emergency Duty Officer (EDO) in * assuming the responsibilities for the positions of Central Emergency Control Center (CECC) Director and Division of Nuclear Power Emergency Center (DNPEC) Director during an emergency in order to ensure consistent, accurate, and timely response in the event of an accident.

2.0 SCOPE

This procedure covers anticipated requirements of the CECC Director and DNPEC Director during a Notification of Unusual Event. This procedure does not cover additional actions that may be required under more severe classifications.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

5.1 Upon notification by the Operations Duty Specialist (ODS) that an emergency condition exists, the EDO * is responsible for establishing initial operation of the CECC and the DNPEC. The EDO may elect to remain at home or at his office to make the required notifications if the incident has already terminated or will be terminated within the length of time it would take for him to arrive at the Emergency Control Center. The EDO, at any time, may request the CECC * and/or the DNPEC Director to report to the Chattanooga emergency centers. However, if the plant is capable of adequately rectifying the condition which initiated the emergency, and plant safety systems are * not in jeopardy, then the EDO may retain responsibility * for the position of CECC and DNPEC Directors. Should the situation degrade into an Alert or greater, the EDO notifies the CECC and DNPEC Directors to immediately* report to the CECC and DNPEC.

*Revision

(Time/Initials)

6.0 PROCEDURE REQUIREMENTS

___/___ 6.1 Notify the ODS immediately upon arrival at the CECC/DNPEC.

___/___ 6.2 Notify the Manager of Power Information Duty Officer. (See the DNP Notification Board.)

___/___ 6.3 Contact the Site Emergency Director and obtain a current status report.

The principal means of contacting the plant emergency organizations is by use of the direct line in the DNPEC.

Alternatives to the direct line are listed in the TVA Radiological Emergency Notification Directory.

6.4 Notify the following for information only: (See the DNP Notification Board.)

___/___ 6.4.1 H. J. Green

___/___ 6.4.2 H. L. Abercrombie

___/___ 6.4.3 Hugh Parris

___/___ 6.4.4 J. A. Coffey

___/___ 6.5 *Notify the NSRS Duty Engineer. (Contact the Knoxville TVA operator, identify yourself, and provide your telephone number. Request the operator to page the NSRS Duty Officer and to have him return your call.)

___/___ 6.6 ***Notify the Power Nuclear Safety Staff Duty Officer. (See the DNP Notification Board).

___/___ *6.7 Notify the appropriate Department of Energy (DOE) Operations Office regarding the existence of an emergency condition at a TVA facility if their assistance will be required. (See the TVA Radiological Emergency Notification Directory.)

*6.8 Periodic Updating of TVA and Other Emergency Organizations/Personnel

***Addendum
*Revision

*6.8.1 Obtain an update on plant status from the Site Emergency Director or DNPEC Director approximately every hour (or as often as provided by the Site Emergency Director or DNPEC Director if more frequent than once per hour).

*6.8.2 Maintain periodic contact with other organizations that have been notified.

*6.8.3 Provide the personnel contacted as permanent CECC Director and DNPEC Director with periodic updates of the accident.

*6.9 Actions to be Taken Should the Accident Degrade Into a More Serious Condition

*6.9.1 Notification

*6.9.1.1 Notify the appropriate State agency as to the nature of the degraded condition.

*6.9.1.2 Contact the CECC Director and inform him that he should report to the CECC. Review the new emergency situation with the CECC Director.

*6.9.1.3 Contact the DNPEC Director and inform him that he should report to the DNPEC. Review the new emergency situation with the DNPEC Director.

*6.9.1.4 Contact the MSEC Director and review the new emergency situation. If radioactive releases are occurring at the plant, request estimated dose rates.

*6.9.2 Assessment

*6.9.2.1 Should the emergency degrade to an Alert, Site Area Emergency, or General Emergency, continue to obtain periodic updates of conditions from the Site Emergency or DNPEC Director.

*6.9.2.2 Establish contact with the MSEC Director immediately after determining plant status, review the status with him, and include the data he can supply regarding offsite doses and environmental sampling to other organizations as appropriate.

*6.9.2.3 Request support from outside organizations as needed to cope with the emergency.

*6.9.3 Relief of Duties as CECC or DNPEC Director

*Revision

*6.9.3.1 The EDO turns over the responsibilities of CECC and DNPEC Director upon the arrival of the permanent CECC and DNPEC Directors.

*6.9.3.2 The EDO will brief the permanent CECC and DNPEC Directors on events which may have developed during their travel.

*6.10 Actions to be Taken When the Accident Terminates

*6.10.1 Should the accident be of a nature such that it is terminated almost immediately after it is declared, inform all parties that the notification is for information purposes only and the incident has already been terminated.

*6.10.2 Upon notification of the termination of a Notification of Unusual Event, the EDO is responsible for notifying all parties and individuals informed of the emergency in sections 6.3 through 6.6 of this procedure.

*6.10.3 The EDO makes himself available for review of the accident events at the convenience of TVA management.

*Revision

REP-IPD

CECC - IP-3

CECC

ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages
0	9/25/81	All
1	2/18/82	2
2	OCT 26 1982	All
3	MAR 17 1983	All
4	JUL 07 1983	Att. 1--p. 1
5	JUL 25 1983	pp. 1 - 11
6	NOV 09 1983	1-7; Att. 6--p.1-4
7	MAR 14 1984	Cover Sheet; 2,3; changed Att. 2 to 2A; added Att. 2B; Att. 3A--p. 1-2; Att. 5--p. 1-2.
8	MAR 29 1984	Cover Sheet; 1, 2; Att. 1--p. 1
9	MAY 25 1984	Cover Sheet; 1; Att.1--p.1
10	JUN 05 1984	Coversheet; Att.4--p.1-3
11	AUG 10 1984	Coversheet, Att 1 P. 1
12	AUG 31 1984	Coversheet, page 6, Att. 2B
13	NOV 13 '84	Coversheet, Att. 1
14	JAN 24 1985	All
15	MAR 01 1985	Coversheet, Att. 1
16	APR 01 1985	Coversheet, Att. 1

CENTRAL EMERGENCY CONTROL CENTER
ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY

1.0 PURPOSE

This procedure is designed to direct the CECC Director and staff to ensure consistent, accurate, and timely response to the events of an accident. This procedure further serves to identify the necessary information to provide for prompt, accurate, public protective action recommendations to appropriate State authorities.

2.0 SCOPE

This procedure covers anticipated requirements of the CECC Director and staff during an emergency classification of Alert, Site Area Emergency, or General Emergency.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

CECC - Central Emergency Control Center
EDO - Emergency Duty Officer
KEC - Knoxville Emergency Center
ODS - Operations Duty Specialist
NCO - Nuclear Central Office
NSMC - Nearsite Media Center
NRC - Nuclear Regulatory Commission
TSC - Technical Support Center

5.0 RESPONSIBILITIES

5.1 Upon notification by the TVA Operations Duty Specialist (ODS) that an emergency condition exists, the Emergency Duty Officer (EDO) is responsible for establishing initial operation of the CECC. The ODS is responsible for contacting the CECC staff and having them report to the CECC. The CECC Director has general responsibility for verification of notification and overall accident assessment during an emergency condition.

5.2 To assist the CECC Director in carrying out the responsibilities of the Director's position, a CECC staff is available. An assignment of positions and duties of this staff is described in attachment 4.

6.0 PROCEDURE REQUIREMENTS

6.1 Notifications

6.1.1 Upon reporting to the CECC, the Director will verify that communications have been established with the State and that the nature of the accident has been reviewed with them.

6.1.2 The CECC Director shall ensure that notification of the event is made to all those listed on the Notification Check Sheet (attachment 1) as appropriate. Priority is noted on the attachment.

6.1.3 The CECC Director shall ensure that those listed on attachment 1 are kept briefed periodically, as appropriate, on the progression of events and in particular when the accident classification is either upgraded or downgraded.

6.1.4 Upon termination of the emergency, the CECC Director shall ensure that all attachment 1 notifications are made as appropriate.

6.2 Accident Assessment

6.2.1 The CECC Director is responsible for directing TVA's overall response to the emergency.

6.2.2 The CECC Director shall ensure that all information required by State authorities to perform their assessment function and carry out necessary protective actions is being provided to them in a timely and accurate manner (see attachment 6).

6.2.3 The CECC Director is responsible for making appropriate public protective action recommendations to State authorities. Attachment 2 provides an overview of the necessary information required by the CECC Director to make appropriate protective action recommendations. Attachment 3 provides a logic diagram to assist the CECC Director in making protective action recommendations to the State.

6.2.4 The CECC Director shall schedule periodic briefings (at a minimum, hourly) with the Plant Assessment and Radiological Assessment Managers, Power Information Manager, and others as necessary to review all appropriate information as identified in attachments 2 and 3.

6.2.5 The CECC Director shall ensure that the accident information collected is posted appropriately on the status boards. The information on the status boards must be kept current for the benefit of the CECC Director and staff.

6.2.6 The CECC Director shall ensure that a chronology of key offsite activities is being kept and distributed to other emergency centers as appropriate. This responsibility is assigned to the State Communicator.

6.2.7 The CECC Director shall ensure that appropriate offsite assessment information is transmitted to the site (attachment 8).

6.2.8 The CECC Director shall utilize the Plant Assessment and Radiological Assessment Managers and staff to continuously review the onsite and offsite accident information. These reviews should attempt to identify trends in key information (attachments 2 and 3) and emphasize display and analysis of data for predictive purposes. Assessments in these areas shall be updated, at a minimum, on an hourly basis and all TVA and State personnel briefed appropriately.

6.2.9 The CECC Director shall ensure that any discrepancies between TVA and State information/assessment are resolved and clarified appropriately.

6.2.10 Potential Release Evaluation

6.2.10.1 A potential release evaluation may be performed at any time by the KEC to assess the impact of plant conditions on the environment. This evaluation is based on the present or projected plant conditions.

6.2.10.2 The Plant Assessment and Radiological Assessment Managers shall determine the need for a potential release and associated dose evaluation based on a potential change in plant conditions. The need for such an evaluation shall be based on the continuing assessments being made by the CECC staff and the information obtained from trending key plant and offsite parameters.

6.2.10.3 If this evaluation is needed, the KEC will perform the necessary calculation to predict the potential release. The Plant Assessment Staff shall also provide the KEC with the assumptions and postulated plant status that should be considered when performing the calculation.

6.2.10.4 The KEC will calculate the predicted release and provide it to the Radiological Assessment Staff who will calculate an associated offsite dose. The results of the dose assessment will then be provided to the Radiological Assessment Manager and CECC Director.

6.3 General Operation

6.3.1 Physical Security Requirements for CECC

The CECC Director has responsibility for physical security of the CECC and ODS work area. The CECC Director or his representative will inform the Public Safety Officer (stationed at the entryway to the CECC) if visitors requesting admittance to the emergency center should be allowed to enter. Permanent members of the ODS and CECC staffs will have identification badges.

6.3.2 Power Information Liaison

The CECC Director will coordinate with the Plant Assessment Manager the selection of one person to serve as a technical advisor to the Power Information Manager in the CECC. The person will be responsible for providing a nontechnical interpretation of the event for the CECC Information Office staff.

If the NSMC is to be staffed, the CECC Director will coordinate with the Plant Assessment and Radiological Assessment Managers the selection of two people to serve as technical advisors to the TVA spokesperson located there. One will serve as a Radiological Health Advisor and the other as a Plant Operations Advisor. These people will be responsible for assisting the TVA spokesperson in interpreting the approved press releases and events taking place.

6.3.3 Discussion with Other TVA Organizations

The CECC Director will discuss the efforts being taken by TVA to mitigate the consequences of an accident with representatives of other TVA organizations as needed. Representatives are identified for the Division of Medical Services, Division of Water Resources, the Nuclear Licensing Staff, Division of Quality Assurance, and the Office of the General Counsel. These representatives may report to the CECC if necessary or desirable. Notification information is provided in the TVA Radiological Emergency Notification Directory.

6.3.4 CECC Briefings

The CECC Director shall conduct periodic briefings for the entire CECC staff to update the emergency situation for them.

6.3.5 State Advisors

For a classification of SITE AREA EMERGENCY OR GENERAL EMERGENCY, the CECC Director will coordinate with the Plant Assessment Manager the selection of two people to serve as technical advisors to the State Emergency Operations Center. The CECC Director will authorize travel to the State Emergency Operations Center for the purpose of providing technical information, advice, and interpretation to state personnel. Those personnel will set up a 12-hour shift rotation upon arrival to provide 24-hour coverage for the State. The CECC Director may provide additional personnel as needed.

Primary duties of the State advisors are as follows:

A. Technical explanations and clarification on plant status.

B. Assist the State by keeping them informed of available TVA resources.

C. Assist the State in describing/clarifying TVA's response to the emergency, understanding TVA's emergency organization, key TVA staff positions, etc.

6.3.6 Senior Corporate Support at the Site

The Site Director will serve as the Senior Corporate representative onsite. He will advise the Site Emergency Director on TVA policy matters and act as an additional interface with NRC and others as necessary. He also serves as a direct interface with the CECC Director.

6.3.7 Relief of Duties

Should the accident be expected to last for an extended period, the CECC Director originates a schedule for relief. The duties of CECC Director should only pass to individuals identified as alternates for the CECC Director's position. However, for a short period of time, the CECC Director may delegate the authority of CECC Director to a member of the CECC staff until an alternate CECC Director can arrive. The CECC Director also directs his staff and the CECC representatives to prepare a schedule for their relief to ensure the necessary staff and representatives of the CECC are available for the duration of the emergency. The CECC Director gives the Management Services representative a copy of the schedule, and he notifies the individuals of the time they are to report.

6.3.8 Coordination of Recovery Efforts

Appropriate recovery efforts shall be initiated upon termination of the emergency. The CECC Director is responsible for assessing and coordinating the recovery efforts for response to an emergency in accordance with the general guidelines provided in the Radiological Emergency Plan. The CECC Director will inform each emergency center when the emergency is terminated and the recovery phase begins. As judgement and events determine, additional resources outside of TVA may be required to mitigate the consequences of an emergency. The CECC Director contacts these offsite agencies as needed. Some of the groups from whom support can be obtained include: NRC, DOE (Oak Ridge), DOE (Savannah River), INPO, MAELU, NSSS vendors, and other nuclear utilities.

6.3.9 Termination of the Emergency

Upon termination of the emergency, the CECC Director and staff will make themselves available for review of the accident.

Attachment 1
Notification Check Sheet

1. Power Information Duty Officer (CECC)
2. Public Safety (If physical security of the facility is required)(REND)
3. J. P. Darling
4. John Hutton
5. R. J. Kitts
6. B. K. Marks
*7. E. K. Sliger
*8. Manager, Office of Power and Engineering
*9. NSRS Duty Engineer[1],[2]
*10. Power Nuclear Safety Staff (CECC)[1]
*11. NSSS Vendor (REND)[1]
*12. INPO (REND)[1]
*13. DOE (REND)[1]
*14. South Central Bell (REND)[1]
*15. Appropriate insurance carrier per Attachment 9. (REND)[1]

NOTE: CECC--Indicates appropriate contact and number are located on the CECC Notification Board.

REND--Indicates appropriate contact and number are located in the TVA Radiological Emergency Notification Directory.

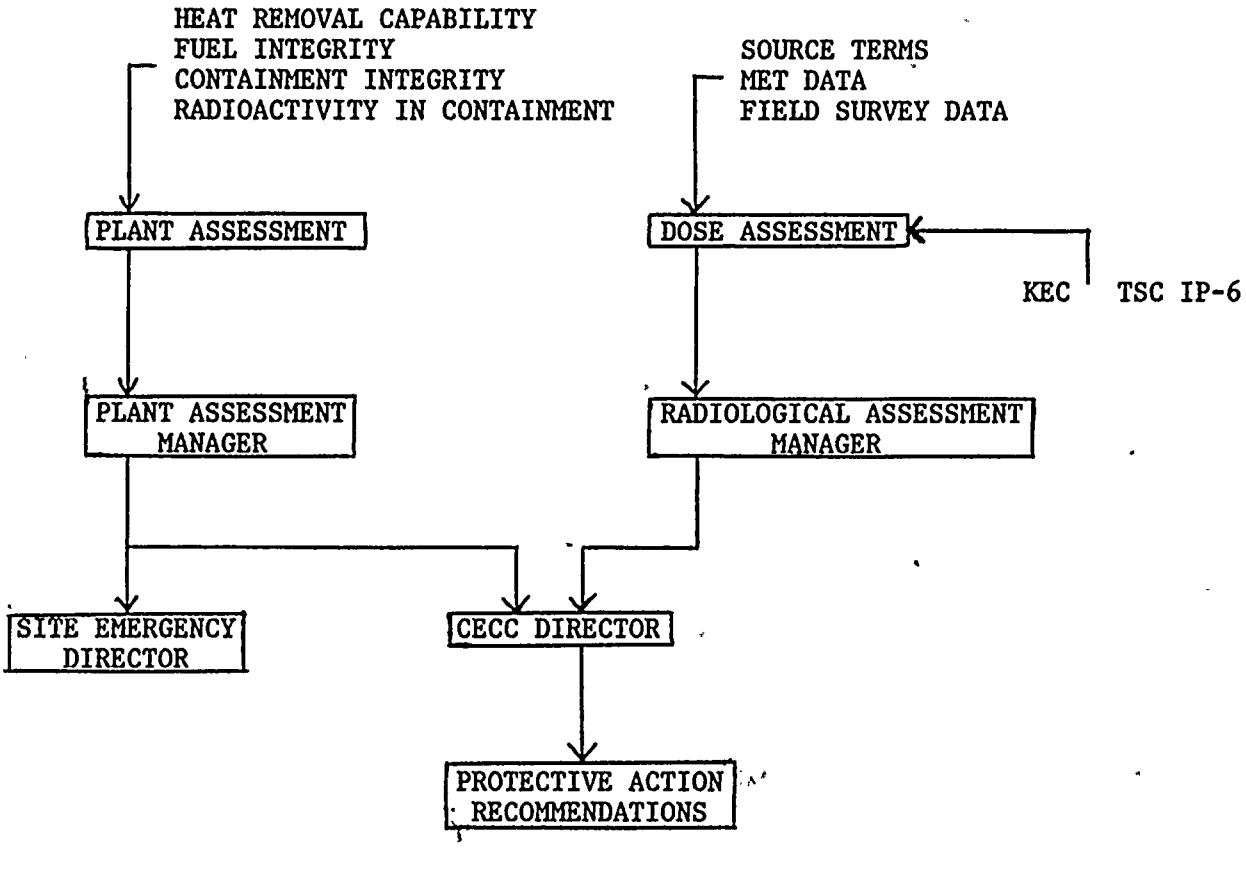
[1]Response to the emergency takes top priority. These notifications shall be made when there is time and staff to do so.

[2]Contact the Knoxville TVA operator, identify yourself, and provide telephone number. Request that the operator page the NSRS duty officer and have him return your call.

*Revision

Attachment 2

INPUT FOR
CECC ACCIDENT ASSESSMENT



General Revision

REP-IPD

CECC - IP-4

CECC
SITE EMERGENCY

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Brigham

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			
1	2/18/82	2, 3, 4			

THIS PROCEDURE WAS DELETED EFFECTIVE OCTOBER 1982

The last page of this procedure is Number _____.

CECC

SITE EMERGENCY

1.0 PURPOSE

This procedure is designed to direct the Central Emergency Control Center (CECC) Director and staff to ensure consistent, accurate, and timely response to the events of an accident.

2.0 SCOPE

This procedure covers anticipated requirements of the CECC Director during an emergency classification of Site Emergency. This procedure does not address actions of the CECC Director during a Notification of Unusual Event, Alert, or General Emergency.

3.0 REFERENCES

Radiological Emergency Plan

4.0 ABBREVIATIONS AND DEFINITIONS

None

5.0 RESPONSIBILITIES

5.1 Upon notification by the TVA Operations Duty Specialist that an emergency condition exists, the Division of Nuclear Power Emergency Duty Officer (Emergency Duty Officer) is responsible for establishing initial operation of the CECC. The Emergency Duty Officer is relieved by the designated CECC Director upon arrival. The CECC Director has general responsiblity for verification of notification and assessment during an emergency condition.

5.2 To assist the CECC Director in carrying out the responsibilities of the Director's position, a CECC staff is available.

6.0 PROCEDURE REQUIREMENTS

NOTE: The Emergency Duty Officer will follow this procedure until relieved by the permanent CECC Director. The permanent CECC Director debriefs the Emergency Duty Officer and continues with the procedure where the Emergency Duty Officer left off.

___/___ 6.1 Notify the Power Information Duty Officer (See the DNP Notification Board).

___/___ 6.2 Notify Nuclear Security (See the DNP Notification Board).

___/___ 6.3 Discuss the current status of the emergency with the DNPEC Director as soon as possible.

___/___ 6.4 Establish communication with the MSECC and review the nature of the accident. The primary means of communication with the MSECC is a dedicated ring-down line from the CECC.

Alternate numbers are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.5 Establish communication with the appropriate State agencies by direct ring-down line and review the nature of the accident.

Alternate phone numbers for these agencies are listed in the TVA Radiological Emergency Notification Directory.

6.6 Confirm notification of the KECC and review the status of the accident by contacting the KECC by direct ring-down line. Alternate numbers are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.7 Notify the NSRS Duty Engineer (See the DNP Notification Board).

___/___ 6.8 Notify the following for information only (See the DNP Notification Board).

6.8.1 H. J. Green

6.8.2 E. F. Thomas

6.8.3 Hugh Parris

6.8.4 J. A. Coffey *

___/___ 6.9 Notify the NSSS Vendor (See the TVA Radiological Emergency Notification Directory)

Browns Ferry - General Electric
Sequoyah, Watts Bar - Westinghouse

___/___ 6.10 Notify INPO (See the TVA Radiological Emergency Notification Directory).

6.11 Notify the appropriate DOE Operations Office regarding the existence of an emergency condition at a TVA facility. (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.12 Initiate notification of the Insurance Underwriters by calling the Division of Purchasing (See the TVA Radiological Emergency Notification Directory).

___/___ 6.13 Notify South Central Bell. (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.14 The CECC Director will coordinate with the DNPEC Director the selection of one person to serve as a technical advisor to the Power Information Officer. This person will be responsible for providing a non-technical interpretation of the event for the Information Office.

___/___ 6.15.1 For a classification of site emergency or general emergency the CECC Director will coordinate with the DNPEC Director the selection of two people to serve as technical advisors to the State Emergency Operations Center. The CECC Director will authorize travel to the State Emergency Operations Center for the purpose of providing technical information, advice, and interpretation to state personnel. Those personnel will set up a 12 hour shift rotation upon arrival to provide 24 hour coverage for the state. The CECC Director may provide additional personnel as needed. *

___/___ 6.15.2 The CECC Director will dispatch a senior management representative to the site to act as Senior Advisor to the Site Emergency Director. This individual will advise the Site Emergency Director on TVA policy matters and act as an additional interface with the NRC as necessary. He will in no way control events or operations at the site. If 24 hour operation is necessary, two people should be sent. * * * * * * * * *

6.16 <u>Periodic Updating of State, Federal, Industry, and TVA Emergency Operations/Personnel</u>

6.16.1 Obtain an update on plant status from the DNPEC Director approximately every hour (or as often as provided if more frequent than once per hour).

6.16.2 After obtaining a status update from the SE Director or DNPEC Director, contact the MSECC Director and obtain the status of environmental monitoring, dose calculations, and health physics coverage. Provide the MSECC and KECC Director with the information supplied by the site.

6.16.3 Notify the MSECC and KECC after each update received from the plant. This should be done even if there is little or no significant change in the accident status.

6.16.4 Maintain periodic contact with other organizations as listed in sections 6.4 through 6.13.

6.17 Assessment of Accident Data During an Emergency

6.17.1 Continuous Review of Accident Progression--The CECC Director will designate a member of the CECC staff to review the accident information. The review should attempt to identify trends in plant release rate if any, and trends in offsite dose rates. The review should incorporate the use of graphs for extrapolation where possible. The review should emphasize display and analysis of data for predictive purposes.

6.17.2 Maintenance of CECC Status Board--The CECC Director will designate a member of the CECC staff to post the accident information collected on a status board. An erasable marker board is provided in the CECC for this purpose. The information on the status board must be kept current for the benefit of the CECC Director and staff.

6.17.3 CECC Director Discussion with CECC Representatives from Key TVA Groups--The CECC Director discusses the efforts being taken by TVA to mitigate the consequences of an accident with the CECC representatives of TVA organizations as needed. Representatives are identified for the Divisions of Occupational Health and Safety, Medical Services, Division of Water Resources, and the Office of the General Counsel (Law). These representatives may report to the CECC if necessary or desirable. Notification information is provided in the TVA Radiological Emergency Notification Directory.

6.18 Physical Security Requirements for the Chattanooga Emergency Center

The CECC Director has responsiblity for physical security of the CECC, DNPEC, and Operations Duty specialist work area. The CECC Director or his representative will inform the Public Safety Officer stationed at the entry way to the CECC if visitors requesting admittance to the emergency center should be allowed to enter. Permament members of the Operations Duty Specialist, CECC, and DNPEC staffs will have identification badges.

6.19 General Coordination of Recovery Efforts by the CECC Director

The CECC Director is responsible for assessing and coordinating the recovery efforts for response to an emergency. The CECC Director will inform each emergency center when the emergency is terminated and the recovery phase begins. As judgement and events determine, additional resources outside of TVA may be required to mitigate the consequences of an emergency. The CECC Director contacts these offsite agencies as needed. Some of the groups from whom support can be obtained include: NRC, DOE (Oak Ridge), DOE (Savannah River), INPO, MAELU, NSSS vendors, and other nuclear utilities.

6.20 Relief of Duties as CECC Director

Should the accident be expected to last for an extended period, the CECC Director originates a schedule for relief. The duties of CECC Director should only be passed on to individuals identified as alternates for the CECC Director's position. However, for short periods of time, the CECC Director may delegate the authority of CECC Director to a member of the key CECC staff until an alternate CECC Director can arrive. The CECC Director also directs his staff and the CECC representatives to prepare a schedule for their relief to ensure the necessary staff and representatives of the CECC are available for the duration of the emergency. The CECC Director gives the DNPEC Administrative Coordinator a copy of the schedule and he notifies the individuals of the time they are to report.

6.21 Actions to be Taken When the Accident Terminates

6.21.1 Upon notification of the termination of the emergency, the CECC Director has the responsibility of notifying all parties informed in section 6.1 through 6.13 of this procedure.

6.21.2 Initiate recovery effort under the general guidelines of the REP, Section 11.

6.21.3 The CECC Director will make himself available for review of the accident.

6.22 Actions to be Taken Should the Accident Classification be Upgraded or Downgraded

6.22.1 If the accident classification is upgraded to a General Emergency, notify all parties informed in sections 6.1 through 6.13.

6.22.2 If the accident classification is downgraded to Notification of Unusual Event, notify all parties informed in sections 6.1 through 6.13.

REP-IPD

CECC - IP-5

CECC
GENERAL EMERGENCY

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			
1	2/18/82	2, 3, 4			

THIS PROCEDURE WAS DELETED EFFECTIVE OCTOBER 1982

The last page of this procedure is Number _____.

CECC

GENERAL EMERGENCY

1.0 PURPOSE

This procedure is designed to direct the Central Emergency Control Center (CECC) Director and staff to ensure consistent, accurate, and timely response to the events of an accident.

2.0 SCOPE

This procedure covers anticipated requirements of the CECC Director during an emergency classification of General Emergency. This procedure does not address actions of the CECC Director during a Notification of Unusual Event, Alert, or Site Emergency.

3.0 REFERENCES

Radiological Emergency Plan

4.0 ABBREVIATIONS AND DEFINITIONS

None

5.0 RESPONSIBILITIES

5.1 Upon notification by the TVA Operations Duty Specialist that an emergency condition exists, the Division of Nuclear Power Emergency Duty Officer (Emergency Duty Officer) is responsible for establishing initial operation of the CECC. The Emergency Duty Officer is relieved by the designated CECC Director upon arrival. The CECC Director has general responsiblity for verification of notification and assessment during an emergency condition.

5.2 To assist the CECC Director in carrying out the responsibilities of the Director's position, a CECC staff is available.

6.0 PROCEDURE REQUIREMENTS

NOTE: The Emergency Duty Officer will follow this procedure until relieved by the permanent CECC Director. The permanent CECC Director debriefs the Emergency Duty Officer and continues with the procedure where the Emergency Duty Officer left off.

___/___ 6.1 Notify the Power Information Duty Officer (See the DNP Notification Board).

___/___ 6.2 Notify Nuclear Security (See the DNP Notification Board).

___/___ 6.3 Discuss the current status of the emergency with the DNPEC Director as soon as possible.

___/___ 6.4 Establish communication with the MSECC and review the nature of the accident. The primary means of communication with the MSECC is a dedicated ring-down line from the CECC.

Alternate numbers are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.5 Establish communication with the appropriate State agencies by direct ring-down line and review the nature of the accident.

Alternate phone numbers for these agencies are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.6 Confirm notification of the KECC and review the status of the accident by contacting the KECC by direct ring-down line. Alternate numbers are listed in the TVA Radiological Emergency Notification Directory.

___/___ 6.7 Notify the NSRS Duty Engineer (See the DNP Notification Board).

___/___ 6.8 Notify the following for information only (See the DNP Notification Board).

6.8.1 H. J. Green

6.8.2 E. F. Thomas

6.8.3 Hugh Parris

6.8.4 J. A. Coffey *

___/___ 6.9 Notify the NSSS Vendor (See the TVA Radiological Emergency Notification Directory)

Browns Ferry - General Electric
Sequoyah, Watts Bar - Westinghouse

___/___ 6.10 Notify INPO (See the TVA Radiological Emergency Notification Directory).

6.11 Notify the appropriate DOE Operations Office regarding the existence of an emergency condition at a TVA facility. (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.12 Initiate notification of the Insurance Underwriters by calling the Division of Purchasing (See the TVA Radiological Emergency Notification Directory).

___/___ 6.13 Notify South Central Bell. (See the TVA Radiological Emergency Notification Directory.)

___/___ 6.14 The CECC Director will coordinate with the DNPEC Director the selection of one person to serve as a technical advisor to the Power Information Officer. This person will be responsible for providing a non-technical interpretation of the event for the Information Office.

___/___ 6.15.1 For a classification of site emergency or general emergency the CECC Director will coordinate with the DNPEC Director the selection of two people to serve as technical advisors to the State Emergency Operations Center. The CECC Director will authorize travel to the State Emergency Operations Center for the purpose of providing technical information, advice, and interpretation to state personnel. Those personnel will set up a 12 hour shift rotation upon arrival to provide 24 hour coverage for the state. The CECC Director may provide additional personnel as needed. *

6.15.2 The CECC Director will dispatch a senior management representative to the site to act as Senior Advisor to the Site Emergency Director. This individual will advise the Site Emergency Director on TVA policy matters and act as an additional interface with the NRC as necessary. He will in no way control events or operations at the site. If 24 hour operation is necessary, two people should be sent. * * * * * * * *

6.16 <u>Periodic Updating of State, Federal, Industry, and TVA Emergency Operations/Personnel</u>

6.16.1 Obtain an update on plant status from the DNPEC Director approximately every hour (or as often as provided if more frequent than once per hour).

6.16.2 After obtaining a status update from the SE Director or DNPEC Director, contact the MSECC Director and obtain the status of environmental monitoring, dose calculations, and health physics coverage. Provide the MSECC and KECC Director with the information supplied by the site.

6.16.3 Notify the MSECC and KECC after each update received from the plant. This should be done even if there is little or no significant change in the accident status.

6.16.4 Maintain periodic contact with other organizations as listed in sections 6.4 through 6.13.

6.17 Assessment of Accident Data During an Emergency

6.17.1 Continuous Review of Accident Progression--The CECC Director will designate a member of the CECC staff to review the accident information. The review should attempt to identify trends in plant release rate if any, and trends in offsite dose rates. The review should incorporate the use of graphs for extrapolation where possible. The review should emphasize display and analysis of data for predictive purposes.

6.17.2 Maintenance of CECC Status Board--The CECC Director will designate a member of the CECC staff to post the accident information collected on a status board. An erasable marker board is provided in the CECC for this purpose. The information on the status boards must be kept current for the benefit of the CECC Director and staff.

6.17.3 CECC Director Discussion with CECC Representatives from Key TVA Groups--The CECC Director discusses the efforts being taken by TVA to mitigate the consequences of an accident with the CECC representatives of TVA organizations as needed. Representatives are identified for the Divisions of Occupational Health and Safety, Medical Services, Division of Water Resources, and the Office of the General Counsel (Law). These representatives may report to the CECC if necessary or desirable. Notification information is provided in the TVA Radiological Emergency Notification Directory.

6.18 Physical Security Requirements for the Chattanooga Emergency Center

The CECC Director has responsiblity for physical security of the CECC, DNPEC, and Operations Duty specialist work area. The CECC Director or his representative will inform the Public Safety Officer stationed at the entry way to the CECC if visitors requesting admittance to the emergency center should be allowed to enter. Permament members of the Operations Duty Specialist, CECC, and DNPEC staffs will have identification badges.

6.19 General Coordination of Recovery Efforts by the CECC Director

The CECC Director is responsible for assessing and coordinating the recovery efforts for response to an emergency. The CECC Director will inform each emergency center when the emergency is terminated and the recovery phase begins. As judgement and events determine, additional resources outside of TVA may be required to mitigate the consequences of an emergency. The CECC Director contacts these offsite agencies as needed. Some of the groups from whom support can be obtained include: NRC, DOE (Oak Ridge), DOE (Savannah River), INPO, MAELU, NSSS vendors, and other nuclear utilities.

6.20 Relief of Duties as CECC Director

Should the accident be expected to last for an extended period, the CECC Director originates a schedule for relief. The duties of CECC Director should only be passed on to individuals identified as alternates for the CECC Director's position. However, for short periods of time, the CECC Director may delegate the authority of CECC Director to a member of the key CECC staff until an alternate CECC Director can arrive. The CECC Director also directs his staff and the CECC representatives to prepare a schedule for their relief to ensure the necessary staff and representatives of the CECC are available for the duration of the emergency. The CECC Director gives the DNPEC Administrative Coordinator a copy of the schedule and he notifies the individuals of the time they are to report.

6.21 Actions to be Taken When the Accident Terminates

6.21.1 Upon notification of the termination of the emergency, the CECC Director has the responsibility of notifying all parties informed in section 6.1 through 6.13 of this procedure.

6.21.2 Initiate recovery effort under the general guidelines of the REP, Section 11.

6.21.3 The CECC Director will make himself available for review of the accident.

6.22 Actions to be Taken Should the Accident Classification be Upgraded or Downgraded

6.22.1 If the accident classification is downgraded to Notification of Unusual Event, Alert, or Site Emergency, notify all parties informed in sections 6.1 through 6.13.

REP-IPD/EC-IPD Cover Page

REP-IPD

CECC - IP-6

DIVISION OF PURCHASING
RADIOLOGICAL EMERGENCY PROCEDURE

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			

The last page of this procedure is Number 2.

DIVISION OF PURCHASING RADIOLOGICAL EMERGENCY PROCEDURE

1.0 PURPOSE

This procedure is designed to give direction to Division of Purchasing personnel during a TVA radiological emergency or drill, in order to ensure consistent, accurate, and timely response to the events of a real or simulated accident.

2.0 SCOPE

This procedure covers anticipated requirements of the Division of Purchasing during emergency conditions. This procedure does not cover additional actions to be taken prior and subsequent to an emergency or drill.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

5.1 In the event of a TVA radiological emergency or drill, the CECC Director is responsible for establishing the operations of the CECC. Upon arrival at the CECC and assessment of the situation, the CECC Director notifies the Division of Purchasing, if necessary.

6.0 PROCEDURE REQUIREMENTS

6.1 Upon assuming his responsibilities, the CECC Director notifies one of the Division of Purchasing Director's Office personnel listed in the TVA Radiological Emergency Notification Directory.

6,2 Upon notification by the CECC Director, the personnel contacted in 6.1 notifies the applicable Division of Purchasing branch chiefs, if required, for appropriate actions.

6.3 All branch chiefs involved are responsible for contacting their respective section supervisors and/or purchasing agents as appropriate. Accordingly, all branch chiefs maintain a list of home telephone numbers of essential personnel in their branch in the event of an emergency.

6.4 Periodic status reports are given through the Division of Purchasing Director's Office to the CECC Director or his staff.

6.5 If it becomes necessary, Division of Purchasing personnel may be required at the CECC to augment necessary coordination and communications.

6.6 The Division of Purchasing representative also acts as the TVA contact with the insurance underwriters. As this contact, the Division of Purchasing representative will contact the insurance underwriters and keep them advised on the status of the emergency.

REP-IPD/EC-IPD Cover Page

REP-IPD

CECC - IP-7

DIVISION OF MEDICAL SERVICES

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			

The last page of this procedure is Number 4.

DIVISION OF MEDICAL SERVICES

1.0 PURPOSE

This procedure is designed to provide Medical Services consultation to the CECC Director and coordinate additional medical support for the affected TVA facility as needed.

2.0 SCOPE

This procedure outlines Medical Services representative activities upon activation of the CECC staff during a TVA nuclear emergency.

3.0 REFERENCES

3.1 Radiological Emergency Plan and IPD.

4.0 ABBREVIATIONS AND DEFINITIONS

4.1 MED SV CECC Rep

The Division of Medical Services representative who serves on the CECC staff.

4.2 Area Medical Chief

The physician who supervises all clinical (patient care) services in TVA facilities within a specified geographical area. This will also refer to designated alternates when the Area Medical Chief is unavailable.

4.3 Area Chief Nurse

The nurse who supervises nursing services and nursing personnel in a specified geographical area. This will also refer to designated alternates when the Area Chief Nurse is unavailable.

4.4 Medical Director

The Director of TVA's Division of Medical Services.

5.0 RESPONSIBILITIES AND DUTIES

5.1 Medical Services CECC Representatives

5.1.1 Outline of Duties

5.1.1.1 Acts as consultant to the CECC Director concerning:

1. treatment of radiation injuries among the workforce;
2. proposed recommendations regarding protective measures for the public;
3. occupational health matters, including employee health status.

5.1.1.2 Monitor changing emergency situation by briefings from the CECC Director and other sources of reliable information.

5.1.1.3 Predict potential needs for additional medical support at the affected facility.

5.1.1.4 Convey current emergency status and projected medical support needs to the appropriate Area Medical Chief.

5.1.1.5 Receive status reports from Area Medical Chief or facility health station regarding medical response capability and projected needs.

5.1.1.6 Inventory resources available from other Medical Services areas and outside sources, e.g., REAC/TS.

5.1.2 Action Sequence and Documentation Guidelines

5.1.2.1 Receives notice of emergency from CECC director.

5.1.2.2 Get briefing of situation and instructions for participation.

5.1.2.3 Standby or report to CECC as requested.

5.1.2.4 Start time log of events, contacts, notifications, actions, etc.

5.1.2.5 Alert appropriate Area Medical Chief and instruct him to take appropriate action as outlined in 5.2

5.1.2.6 Alert the Medical Director.

5.1.2.7 Contact alternate MED SV CECC representatives, alert them, and establish a tentative duty/relief schedule.

5.1.2.8 Confirm communication channels, alert and request standby for possible assistance to:

1. Area Medical Chiefs

2. REAC/TS

3. other resources as deemed necessary

5.1.2.9 Obtain from the Area Medical Chief, proposed duty rosters and shift coverage for the affected facility.

5.1.2.10 Keep proposed staffing schedules for reference, briefing and adjustment in response to assessment of potential needs by CECC Director.

5.2 Area Medical Chief

5.2.1 Initiate and maintain time log of all notifications, actions, and other pertinent events.

5.2.2 Inventory, alert, schedule or coordinate TVA-MED SV staff to provide coverage for onsite and area medical support facilities.

5.2.3 Coordinate and provide other medical support for onsite and area medical facilities as deemed necessary.

5.2.4 Provide professional supervision for medical assessment, treatment, consultation and referral.

5.2.5 Arrange for additional consultation, referral, or medical followup as necessary.

5.2.6 Determine from health station staff and other sources, a specific summary of all patients by name, extent of injury, radiological exposure and contamination, treatment, disposition and current location.

5.2.7 Coordinate and exchange pertinent evaluation, treatment, and disposition information with health physics staff.

5.2.8 Coordinate collection of all records and reports on radiologic exposure or contamination of TVA personnel.

5.2.9 Provide MED SV CECC representative with proposed scheduling rosters for onsite and area medical facilities.

5.2.10 Notify Medical Director and MED SV CECC representative of injury, illness, or radiological exposure and contamination to onsite personnel.

5.2.11 Notify Medical Director and MED SV CECC representative promptly and periodically on status of items 5.2.2, 5.2.6, and 5.2.9 above.

5.3 Area Chief Nurse

5.3.1 Assist the Area Medical Chief in alerting, scheduling, and providing nursing services as requested.

6.0 Arrangements for Additional Medical Support

The Division of Medical Services provides additional medical supplies and equipment, and nurse and physician coverage onsite, upon request and after consultation with the Medical Director and the MED SV CECC representative.

REP-IPD

CECC - IP-8

OFFICE OF THE GENERAL COUNSEL
REP PROCEDURES

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			
1	OCT 26 1982	All			

The last page of this procedure is Number 2.

OFFICE OF THE GENERAL COUNSEL

REP PROCEDURES

1.0 PURPOSE

These procedures are designed to establish a line of responsibility within the Office of the General Counsel (OGC) to assure that requests for legal assistance during an emergency are appropriately handled in a timely manner. *

2.0 SCOPE

These procedures cover the assignment of OGC attorneys during emergency conditions. The procedures do not cover assignments that may be made prior or subsequent to an emergency or drill. *

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

CECC - Central Emergency Control Center.

KEC - Knoxville Emergency Center. *

OGC - Office of the General Counsel.

5.0 RESPONSIBILITIES

5.1 Upon notification by the CECC Director that an emergency condition exists, the OGC representative to the CECC is responsible for making himself available to receive requests for legal assistance from the CECC Director or the KEC Director. The OGC representative will provide requested legal advice or coordinate the provision of such advice by OGC, as appropriate. *

6.1 The OGC representative, as designated in the TVA Radiological Emergency Notification Directory, will advise the CECC Director of a telephone number at which he or she can be reached during the emergency, and during the course of the emergency will provide legal assistance as requested consistent with OGC procedures. The CECC Director will attempt to contact an OGC representative by calling

*Revision

those designated in the TVA Radiological Emergency Notification Directory in the order listed. The first person contacted shall act as the OGC representative until responsibility is transferred to another OGC representative or until the end of the emergency. The first three OGC representatives on the list are considered the primary OGC representatives. Other OGC representatives will attempt to contact a primary OGC representative to transfer responsibility for OGC representation.

Entire Page Revised

REP-IPD

CECC - IP- 9

INFORMATION OFFICE OPERATING PROCEDURES FOR ABNORMAL OCCURRENCES AT NUCLEAR POWER PLANTS

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

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PROCEDURE DELETED JULY 1983					

REP-IPD/EC-IPD Cover Page

REP-IPD

CECC - IP-10

EMERGENCY FINANCIAL SUPPORT PROCEDURES

Prepared By: W. E. Webb, Jr.

Approved By: J. W. Hayhurst

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			

The last page of this procedure is Number 4.

EMERGENCY FINANCIAL SUPPORT PROCEDURES

1.0 PURPOSE

These procedures are designed to direct Division of finance employees to insure that financial support is provided during a radiological emergency.

2.0 SCOPE

These procedures apply to all financial reporting and payment activities during the period of the emergency.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

4.1 Payroll Office - The local office responsible for reporting employee's time and delivering employee paychecks.

4.2 Emergency Coordinator - The Division of Finance employees designated to coordinate all financial support to other TVA organizations during a radiological emergency.

4.3 Emergency Agent Officer - A TVA employee authorized by the TVA Treasurer to receive or disburse TVA funds during a radiological emergency.

4.4 Advance Payment of Earnings - A monetary amount payable to an employee in advance of the date on which the employee would otherwise be entitled to be paid.

4.5 Special Allowance - An additional allowance payment to offset the direct added expenses incident to a radiological emergency.

5.0 RESPONSIBILITIES

5.1 Upon notification of an emergency, the Comptroller is responsible for implementing the emergency financial support procedures.

6.0 PROCEDURE REQUIREMENTS

6.1 Initial Notification

The Comptroller notifies the Division of Finance Emergency Coordinator after official notification of an emergency is received.

6.2 Division of Finance Emergency Coordinator

The Division of Finance Emergency Coordinator stands by in case financial services are needed at the emergency site or immediate vicinity. The Emergency Coordinator activates emergency agent officers at the Division of Finance location nearest the emergency location.

6.3 ADVANCE PAYMENTS

The Emergency Coordinator may authorize advance payments of earnings when, in the opinion of the Emergency Agent Officer, payment is required to help an employee defray immediate expenses incident to an emergency.

6.3.1 Rate of Advance Payments

Advance payment is based on the rate of pay to which the employee was entitled immediately prior to notification of the emergency.

6.3.2 Amount of Advance Payment

The amount of advance payment is the monetary amount covering a period not to exceed 30 days or a lesser number of days as determined appropriate by the Emergency Coordinator.

6.3.3.1 Computation of Advance Payment

For full-time and regular part-time employees, the amount of advance is computed on the basis of the number of regularly scheduled workdays that will occur during the period covered by the advance.

6.3.3.2 To Whom Paid

The advance payments may be paid to the employee, an adult dependent, or a designated representative. When these payments are made to other than the employee, prior written authorization may have been given by the employee.

6.3.4 When Paid

The advance payment may be made at any time after notification of an emergency.

6.3.5 Recovery

After an employee's account is reviewed and it is found that the employee is indebted for any part of the advance payment, recovery of the payment will be made. Repayment may be made either in full or in partial payments as agreed upon between the payroll officer and the employee.

6.3.6 Waiver of Recovery

Recovery of an advance payment is not required when it is determined that the recovery would be against equity and good conscience or against the public interest.

6.4 SPECIAL PAYMENTS

Special allowances may be paid to offset any direct added expenses which are incurred as a result of an emergency. Such allowances may be paid by authorized agent officers.

6.4.1 Travel Expenses

Travel expenses and per diem is paid in accordance with TVA travel regulations.

6.4.2 Subsistence Expenses

Subsistence payments are made when considered necessary in the opinion of the Division of Finance.

6.4.3 Other Expenses

The Emergency Coordinator is authorized to make payments for other expenses considered necessary to insure that financial support is provided during the period of emergency. Such payments are made by agent officer checks to employees or to commercial establishments for materials, supplies, or other expenses necessary to support TVA emergency procedures.

6.5 REPORTING

The Emergency Coordinator takes steps necessary to see that all payments are adequately supported, considering the circumstances.

6.5.1 Payroll Time Reporting

During the emergency, normal reporting of employees' time worked is made if practicable. The Emergency Coordinator

activates necessary procedures depending upon the circumstances. These procedures are coordinated with the local payroll office if the payroll office is still active.

6.5.2 Final Accounting

When the emergency condition ceases, the Emergency Coordinator initiates a final accounting for all payments made.

6.5.3 Financial Records

The Emergency Coordinator takes necessary steps to protect all financial and accounting records and cash at the emergency location.

REP-IPD

CECC - IP-11

CECC TRAINING REQUIREMENTS

Prepared By: B. K. Marks

Approved By: _____

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			
1	OCT 26 1982	All			

The last page of this procedure is Number 3.

CECC TRAINING REQUIREMENTS

1.0 PURPOSE

This procedure specifies the training provided to the Director, technical assistants, and representatives of the CECC.

2.0 SCOPE

This procedure covers the training of the CECC members, defines the responsibility for providing the training and documentation, and provides for periodic retraining.

3.0 REFERENCES

Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

5.1 The Division of Nuclear Power Radiological Emergency Preparedness Section is responsible for training the CECC Director and technical assistants. Training documentation will be retained in the Radiological Emergency Preparedness Section files. Lesson plans will be prepared by the Radiological Emergency Preparedness Section. *

6.0 PROCEDURE REQUIREMENTS

6.1 Training Lessons

The lesson plans for specific training will be prepared by the Radiological Emergency Preparedness Section. *

6.2 Training Records

Records of individual training will be maintained on Form TVA 1453 and retained in the Radiological Emergency Preparedness Section files. *

6.3 Specific Training Requirements

*Revision

6.3.1 CECC Director and Emergency Duty Officer

The CECC Director, his alternates, and the Emergency Duty Officers will attend a training class annually to ensure appropriate coordination and response of the CECC.

The training will cover the following subjects:

1. TVA Radiological Emergency Plan Familiarization
2. Facility Familiarization
3. Communication System Familiarization
4. Implementing Procedure Review
5. Protective Action Options
6. Coordination of TVA Support
7. Interagency Coordination (State, Federal, and Vendor)
8. Example Scenarios (including transportation)

6.3.2 CECC Technical Assistants

The CECC technical assistants will attend a training class annually to ensure appropriate coordination and response of the CECC.

The training will cover the following subjects:

1. TVA Radiological Emergency Plan Familiarization
2. Facility Familiarization
3. Communication System Familiarization
4. Implementing Procedure Review

6.4 Revisions to the REP or REP-IPD

Each approved revision to the REP or REP-IPD containing other than editorial or plan administration-type changes is routed, by the Radiological Emergency Parparedness Section, to each individual assigned a responsibility in the CECC. Each individual is responsible for verifying he has read and understands the revision by signing and returning the cover letter attached to the change. *

*Revision

6.5 Training Drills

Training drills are conducted periodically to ensure appropriate components of the CECC are thoroughly tested and proven effective. On-the-spot corrections are made of participants as necessary. Records of these training drills are maintained in the Radiological Emergency Preparedness Section files. *

*Revision

REP-IPD

CECC - IP- 12

CECC/DNPEC SECURITY

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: 9/25/81

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	9/25/81	All			
1	OCT 26 1982	1, 4, 5			

The last page of this procedure is Number 6.

CECC/DNPEC SECURITY

1.0 PURPOSE

This procedure defines CECC/DNPEC security requirements and specific instructions for TVA Public Safety Officers when the CECC/DNPEC is activated.

2.0 SCOPE

This procedure covers the actions required to establish and maintain access control at the CECC/DNPEC complex.

3.0 REFERENCES

TVA Radiological Emergency Plan.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

5.1 The Radiological Emergency Preparedness Section is responsible for * ensuring that each TVA employee having a function inside the CECC/DNPEC complex has an identification card with the designation "CHATT.-RADIOLOGICAL EMERGENCY TEAM." These identification cards will be maintained in the CECC.

5.2 The Chattanooga TVA Public Safety Office is responsible for general access control within the Chestnut Street Tower II office building and for establishing restricted access control for the CECC/DNPEC area.

6.0 PROCEDURE REQUIREMENTS

6.1 Notification

The Chattanooga TVA Public Safety Office will be notified by the CECC Director whenever the CECC/DNPEC is activated.

6.2 Security Requirements

6.2.1 When notified that the CECC/DNPEC has been activated, the Chattanooga TVA Public Safety Office will immediately assign two TVA Public Safety Officers to establish a post immediately outside the CECC/DNPEC (room 140, Chestnut Street Tower II - see attachment 1).

*Revision

6.2.2 Upon arrival at the CECC/DNPEC, the Public Safety Officers shall establish and maintain access control in accordance with CECC/DNPEC Security Instruction given in attachment 2.

6.2.3 Public Safety Officers assigned to the CECC/DNPEC shall report to the CECC Director or, in his absence, the DNPEC Director. Should both directors be absent, he should report to the senior REP staff member on duty.

6.2.4 Upon arrival at the CECC/DNPEC, Radiological Emergency Team members will be issued identification cards with the designation "CHATT.-RADIOLOGICAL EMERGENCY TEAM." These members are authorized unlimited access to the CECC/DNPEC.

6.2.5 All other personnel requesting access to the CECC/DNPEC must be authorized by one of the following CECC/DNPEC staff personnel: CECC Director, REP staff, DNPEC Director, Plant Communicator.

6.2.6 A roster of CECC/DNPEC access shall be maintained by the TVA Public Safety Officers. See attachment 3.

Attachment 2

CECC/DNPEC SECURITY INSTRUCTIONS

Duty Scope

A TVA Public Safety Officer shall establish a post immediately outside the CECC/DNPEC to control access to the area during a radiological emergency or drill.

Materials and Equipment Required

Sign-in log and pen
Watch
Table and chair (may be borrowed from the CECC/DNPEC area)
CECC/DNPEC Emergency Team identification cards
Visitor identification cards

Instructions

1. When notified that the CECC/DNPEC is to be activated, immediately report to the CECC Director, room 140, Chestnut Street Tower II.

2. If occupied for other uses, clear conference room 130.

3. Lock doors 1, 2, and 3 (see attachment 1).

4. Set up the Sign-in Station in the hallway outside door 1.

5. Obtain the CECC/DNPEC Emergency Team identification cards from the CECC cabinet (Operations Duty Specialist (ODS) has key). *

6. Date and number the first sheet of the Sign-in Log and request all TVA CECC/DNPEC personnel already working in the area to sign the log. Issue each emergency team member their identification card. All visitors must leave the area unless authorized to remain by the CECC Director, REP staff, DNPEC Director, or Plant Communicator.

7. CECC/DNPEC Emergency Team personnel (as identified by TVA photograph identification cards designated "CHATT.-RADIOLOGICAL EMERGENCY TEAM") are authorized unlimited access to the CECC/DNPEC.

8. All other personnel requesting access to the CECC/DNPEC must be authorized by one of the following CECC/DNPEC staff members:

   CECC Director
   REP staff
   DNPEC Director
   Plant Communicator

*Revision

9. Each person entering the CECC/DNPEC area must sign the log before entering.

10. Each person leaving the CECC/DNPEC area must surrender their identification card or visitor badge and note the time on the sign-in roster.

11. Since it is not prudent for TVA to issue identification badges to all personnel within TVA and situations may arise in which other TVA, Federal, State, local, or private organizations may be required in the CECC/DNPEC complex for an extended period, an access list of the personnel, signed by the CECC Director, will be provided to the Public Safety Officer as necessary. Personnel on the access list will be issued a visitor's badge upon presenting appropriate personal identification.

12. Should the emergency situation be of a nature that significant response from the Nuclear Regulatory Commission (NRC) is expected, * additional secure office areas may be required. The CECC Director will direct the Public Safety Officers to secure the area labeled "Additional Office Area" on attachment 1, unlock door 2, and lock the door leading from the "Additional Office Area" to the stairwell. The area will then become part of the restricted area and subject to the same access control as the CECC/DNPEC area.

*Revision

CECC-IPD

IP-13

INCLEMENT WEATHER PROCEDURE

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: OCT 26 1982

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	OCT 26 1982	All			
1	FEB 6 1984	1, 3			

The last page of this procedure is number 3.

INCLEMENT WEATHER PROCEDURE

1.0 PURPOSE

To provide a pickup service for key emergency personnel who may be stranded because of inclement weather and to provide lodging *and meals as necessary.

2.0 SCOPE

This procedure provides instructions for the Public Safety Service (PSS) and the Division of Nuclear Power (NUC PR), Management Services Staff (MSS), to implement the inclement weather plan.

3.0 REFERENCES

None.

4.0 ABBREVIATIONS AND DEFINITIONS

None.

5.0 RESPONSIBILITIES

The CECC Director is responsible for initiating the inclement weather plan by notifying the PSS Area Chief and the MSS supervisor. The PSS Area Chief is responsible for providing a pickup service for key emergency center personnel during the period of inclement weather. The MSS supervisor is responsible for reserving a block of rooms at a local hotel/motel for use by key individuals.

6.0 PROCEDURE REQUIREMENTS

6.1 The Radiological Emergency Preparedness Section shall advise the CECC Director as soon as possible of impending inclement weather conditions, i.e., snow, sleet, or ice, in the immediate area.

6.2 The CECC Director or his representative shall contact the PSS Area Chief, the MSS supervisor, and the Operations Duty Specialist (ODS) and request that the inclement weather plan be implemented.

6.3 Public Safety Service

6.3.1 The PSS Area Chief will notify the transportation services garage and reserve two 4-wheel drive vehicles. If 4-wheel drive vehicles are not available, two cars supplied with tire chains will be reserved.

*Revision

6.3.2 The PSS Area Chief will assign two PSS officers to drive the vehicles.

6.3.3 The PSS officers will be authorized to drive the vehicles to their residences for official business only. They will be responsible for having the tire chains installed if the weather deteriorates where they would be required.

6.3.4 The PSS officers may remain on standby status until relieved by another officer or until the inclement weather plan has been canceled. Standby status means the officer will remain where he can be reached by phone.

6.3.5 Expenses incurred for operation of the vehicles and extra pay for the PSS officers for actual work performed will be paid by NUC PR.

6.3.6 The CECC Director shall provide the PSS Area Chief area maps and addresses of key individuals that might need a ride to the emergency center.

6.3.7 The ODS will call the PSS officers and inform them of individuals requiring transportation and their location during an emergency situation.

6.3.8 When notified, the PSS officers will pick up the emergency personnel and transport them to the CECC.

6.3.9 Upon arrival at the CECC, the PSS officers will remain until released by the CECC Director or dispatched by the ODS to pick up additional personnel.

6.3.10 The CECC Director or his representative will contact the PSS Area Chief and cancel the inclement weather plan when the vehicles are no longer required.

6.3.11 The PSS Area Chief will return the vehicles to the transportation garage and the PSS officers will be returned to regular duties.

6.4 ODS

6.4.1 The ODS should notify PSS at extension 3408 and give the PSS dispatcher the name of the person to be picked up, his location, and a phone number where the person can be reached, if possible. These arrangements should be made only as time permits. Prompt notification of emergency personnel remains as the first priority.

6.4.2 Only members of the CECC/DNPEC staff who are stranded or are unable to respond to a nuclear plant emergency because of the weather will be picked up. All other personnel requesting this service must be specifically authorized by the CECC Director.

6.5 Management Services Staff

6.5.1 The MSS shall make reservations for six rooms (double) at a *hotel/motel within walking distance of the CECC and provide meals as necessary.

6.5.2 The CECC Director shall authorize key personnel to occupy these rooms if the individual feels it is necessary. Key personnel are those individuals who must be immediately available should an emergency occur.

*Revision

REP-IPD

CECC - IP-14

TVA BOARD AND GENERAL MANAGER NOTIFICATION PROCEDURE FOR ALL CLASSES OF RADIOLOGICAL EMERGENCIES

Prepared By: W. E. Webb, Jr.

Approved By: [signature]

Date: OCT 26 1982

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	OCT 26 1982	All			

The last page of this procedure is Number 2.

TVA BOARD AND GENERAL MANAGER NOTIFICATION PROCEDURE FOR ALL CLASSES OF RADIOLOGICAL EMERGENCIES

1.0 PURPOSE

This purpose is designed to provide the necessary communication link within TVA for high-level government officials at the Federal and State levels during radiological emergencies. It also provides for the Board and General Manager interface with the radiological emergency organization. This procedures is not intended to cover radiological emergencies resulting from national emergencies or acts of war which require implementation of the TVA Emergency Preparedness Plan.

2.0 SCOPE

This procedure designates a spokesperson for the TVA Board and provides guidance on his specific responsibilities during radiological emergency conditions. It also provides specific expected locations and notification procedures for the Board spokesperson.

3.0 REFERENCES

None.

4.0 ABBREVIATIONS AND DEFINITIONS

Board spokesperson - Used to refer to the TVA Board spokesperson or his designated alternate.

CECC - Central Emergency Control Center.

KEC - Knoxville Emergency Center.

5.0 RESPONSIBILITIES

In the event of a serious radiological emergency involving TVA facilities, the TVA radiological emergency response organization is responsible for overall management of the emergency response, for keeping the Board spokesperson or his designated alternate (hereinafter referred to as "Board spokesperson") informed of plant and environmental conditions, and, when the time permits, for consulting with them on major decisions. Communications with high-level government officials (e.g., President, Governors, NRC Commissioner) on the status of the emergency will be conducted as necessary by the Board spokesperson during the emergency.

6.0 PROCEDURE REQUIREMENTS

6.1 Initial notification of the General Manager and the Board will be made by the Director of Information or his representative. Notification of the Board spokesperson shall be in accordance with the order specified in the Radiological Emergency Notification Directory.

6.2 The following persons, in the order listed, are designated to speak for TVA in communications with high-level government officials relative to radiological emergency matters.

1. C. H. Dean, Jr.
2. S. David Freeman
3. Richard M. Freeman
4. William F. Willis
5. H. G. Parris
6. CECC Director

The Board spokesperson is specified to be the first person listed who is present in the vicinity of Knoxville or Chattanooga. That person shall be responsible as Board spokesperson until such time as the Chairman, or a higher alternate relieves him.

When notified, the Board spokesperson will ensure that all other alternates are informed that he is acting as Board spokesperson and that all appropriate calls are referred to his number.

6.3 When notified of an emergency situation, the Board spokesperson acts as follows for the specific emergency categories:

Notification of Unusual Event - The Board spokesperson is kept informed of the situation by the Director of Information. No further action is required at this point.

Alert - The Board spokesperson may choose to remain where he is or go to the KEC. If outside the KEC, the Director of Information or his representative will keep him informed of the situation. If at the KEC, the Board spokesperson will be kept apprised of the situation through the updates from the KEC Director and through periodic situation assessments by CECC, Division of Nuclear Power (NUC PR) and Division of Occupational Health and Safety (OH & S) representatives. Updates in all cases will take place hourly and when significant changes occur.

Site and General Emergencies - The Board spokesperson will relocate to the CECC in Chattanooga.

While at the CECC, the Board spokesperson will receive briefings on plant conditions from the CECC NUC PR representative, and on offsite environmental conditions from the CECC OH&S representative.

Communications and visits from high-level government officials will be referred to and coordinated by the Board spokesperson.

REP-IPD

CECC - IP-15

ABNORMAL EVENTS AT NUCLEAR PLANTS

Prepared by: W R Steverson
W. R. Steverson

Submitted by: C W Crawford
C. W. Crawford
Manager of Power Information

Approved by: Craven Crowell
Craven Crowell
Director of Information

Date:

Rev. No.	Date	Revised Pages
1	SEP 08 1983	All

Information Office Procedures for Abnormal Events at Nuclear Plants

INDEX

***Addendum

Information Office Procedures for Abnormal Events at Nuclear Plants

1.0 PURPOSE

These procedures are designed as guidance for Information Office personnel and support personnel during an abnormal event at a TVA nuclear plant to ensure timely and accurate release of information to the public.

2.0 SCOPE

These procedures cover anticipated requirements for the Information Office and support personnel during abnormal conditions at TVA nuclear plants and supplement the REP and IPDs of NUC PR. Because of the character of news and of media/public interest, it is impossible to include procedures for every event that might occur. In that respect, these procedures do not cover all actions that should be taken before, during, and after an incident, but rather are designed to serve as a general guideline to provide consistency to Information Office practices during an abnormal event at a TVA nuclear plant.

Much flexibility is built into these procedures. The procedures need not be followed exactly as long as the spirit and purpose are met. It is noted that media interest--not necessarily the seriousness of the event--may dictate actions by the Information Office.

3.0 REFERENCES

REP and all IPDs.

4.0 ABBREVIATIONS AND DEFINITIONS

CECC - Central Emergency Control Center (Chattanooga)

CECC Information Staff - The staff stationed in the CECC that works under the direction of the Director of Information during a nuclear event. It consists mostly of members of the Power Information Staff with support from employees of the Office of Power and NUC PR.

DNPEC - Division of Nuclear Power Emergency Center

EOC - The Emergency Operations Center for the State in which the nuclear plant is located.

FEMA - Federal Emergency Management Agency

IPD - Implementing Procedures Document

KEC - Knoxville Emergency Center

NSMC - Near-Site Media Center

News Desk - The office of the Knoxville Information Office that serves on a day-to-day basis as the primary contact point for the news media.

NUC PR - Division of Nuclear Power

NRC - Nuclear Regulatory Commission

ODS - Operations Duty Specialist

Q & A - Question and Answer

REP - Radiological Emergency Plan

5.0 RESPONSIBILITIES AND STAFFING

5.1 The overall responsibility for handling information requirements for any nuclear event rests with the Director of Information. He may use his own discretion to determine the responsibilities for individual employees and their duties described in the REP and in the procedures in this document.

5.2 The TVA Information Office has the responsibility for providing the public and the news media with timely, accurate information on the event. The appropriate State Information Office, working with TVA, has the overall responsibility for public information regarding State activities, including such items as citizen evacuation and radiation monitoring away from the plant site.

5.3 At the direction of the Director of Information, the Assistant Director of Information has overall supervisory responsibility over the information staffs involved in a nuclear event.

5.4 The Manager of Power serves as chief spokesman for TVA at media briefings. In his absence, the Deputy Manager of Power is the spokesman. In his absence, the Director of Information shall designate an appropriate spokesman.

5.5 When the CECC is activated, the Director of the CECC has overall responsibility for handling the nuclear emergency for TVA. He consults with the Director of Information on information matters, such as activation of the NSMC and appropriate times to conduct media briefings. He also has sole responsibility within the CECC for reviewing TVA news statements prepared by the CECC Information *Staff. However, if the situation dictates, the Director of *Information or the Manager of Power can approve urgent news *statements.

*Revision

5.6 The Power Information Staff, with additional support provided by the Office of Power, is responsible for monitoring the situation from the Office of Power and the CECC. The staff writes all news *statements and obtains review of the statements from the Office of Power, or when the CECC is activated, from the Director of the CECC. In addition, at the direction of the Director of Information, the Power Information Staff releases written statements to the news media and assists the Chattanooga media in covering the nuclear event.

5.7 The Knoxville Information Office is responsible for the initial notification of the General Manager, Board of Directors, the Washington Office, the district administrator in whose area the plant is located, and other top TVA officials as required. The staff is also responsible for manning the News Desk and handling media inquiries during a nuclear incident. If the NSMC is activated, the staff will provide primary staffing for it.

5.8 The Broadcast Staff acts under the direction of the Director of Information and provides appropriate services to the news media. If the NSMC is activated, the staff is in charge of setting up, manning, and monitoring all audiovisual and broadcast equipment.

5.9 The Communication Services Staff provides, at the direction of the Director of Information, information to TVA employees about the event and assists the News Desk Staff.

5.10 The Citizen Action Office Staff serves as rumor control, handling nonmedia calls from the public and relaying information provided by the News Desk.

5.11 The Manager of Nuclear Information shall be responsible for reviewing and updating these procedures. Such reviews shall be made no less than annually. He is also responsible for ensuring the needed materials are available for the staffing of the CECC Information Staff office.

5.12 The Information Office Field Spokesman for the Office of Agricultural and Chemical Development, is responsible for monitoring the situation from the MSEC, and reports to that facility if the Director of Information decides it is necessary.

5.13 The Information Office Field Spokesman for the Office of Engineering Design and Construction, is responsible for monitoring the situation from the KEC and reports to that facility if the Director of Information decides it is necessary.

5.14 The Plant Information Officer is responsible for providing information to the Power Information Staff and the Information Office as required. During the initial hours of an emergency, he reports to the plant if the plant's emergency response plan is activated. He is responsible for notifying the appropriate State agencies of any

*Revision

planned news release. At the direction of the Director of Information, he takes action to activate the NSMC and provides assistance to the local media until the News Desk Staff from Knoxville arrives on the scene. He also is responsible for ensuring the needed materials and equipment are available for the staffing of the plant NSMC and for updating emergency media kits and other emergency information material at least annually.

5.14.1 Once the NSMC is in operation and the CECC fully activated, the Plant Information Officer reports to the following location:

5.14.1.1 The Browns Ferry Information Officer reports to the Alabama EOC to serve as a liason between the Information Office and the State officials. He works under the supervision of the Director of the NSMC. In the event of an emergency at Sequoyah or Watts Bar, he may be directed to report to the Tennessee EOC in Nashville.

5.14.1.2 The Sequoyah Information Officer reports to the CECC and joins the CECC Information Staff in preparing written news statements of the event.

5.14.1.3 The Watts Bar Information Officer reports to the NSMC and assists the Director of the NSMC.

5.15 If the NSMC is fully activated, the Director of the CECC shall designate two persons to provide technical information and advice to the Manager of Power and the Director of Information. These persons shall be designated Technical Advisor--Plant Operations and Technical Advisor--Radiological Health. They shall be stationed at the NSMC.

5.16 If the CECC is activated, the CECC Director shall designate one person to serve as a technical advisor to the CECC Information Staff. That person shall ensure the timely flow of information from the CECC/DNPEC to the CECC Information Staff, advise the Information Staff writers, and be available for telephone consultations with the Manager of Power and other NSMC personnel to offer advice when requested.

5.17 Depending on the severity of the incident, the Information Office may have to provide coverage on a 24-hour basis for an extended period. The Director of Information, in consultation with the *Assistant Director of Information, will designate the specific assignments for Information Office personnel and their shifts. As a rule, during the emergency, persons will work 12-hour shifts.

5.18 Assistance from other offices and divisions will be requested as needed.

6.0 <u>PROCEDURES</u> - Occurrences that do not require activation of the NSMC.

*Revision

6.1 TVA Nuclear Information Policy is to fully inform the news media and the public as soon as possible of any unusual happenings at nuclear plants. Events that may not be included in the REP could be considered newsworthy and, therefore, fall within these procedures.

6.2 Initial Notification

6.2.1 The Plant Information Officer is kept apprised by the Plant Superintendent or his designee of any unusual happenings at the plant. In addition, NUC PR keeps the Manager of Nuclear Information and the Manager of Power Information informed on a day-to-day basis of happenings at the plant. The ODS of the Office of Power also notifies the Power Information Duty Officer of any major change in status of the plant.

6.2.2 The Plant Information Officer notifies the Manager of Nuclear Information, the Manager of Power Information, or the Power Information Duty Officer, in that order, who in turn notifies the Knoxville Information Office. The order for notifying the Knoxville Information Office is as follows:

*1. Assistant Director of Information
2. Director of Information
3. Manager of Media Relations
4. Manager of News Desk
5. Information Office Duty Officer

6.2.3 Depending on the nature of the event, those notified will decide if immediate notification of the General Manager, Board of Directors, and the news media is necessary.

6.2.4 If immediate notification of the news media is determined to be necessary, the Power Information Staff will prepare a statement that will be reviewed, if at all possible, by NUC PR and the Manager of Power. Then it will be transmitted to Knoxville for release in a manner determined appropriate by the Director of Information. If review is not possible or practical, the Manager of Power Information shall assume responsibility for approving the release for the Office of Power.

6.2.5 In the event of a radiological emergency away from the plant site, the Director of Information will designate an Information Office Staff member to go to the scene, if that is deemed necessary.

6.3 CECC

If the CECC is activated, the Power Information Staff will activate the CECC Information Staff and generate news statements there. Once prepared, the news statements will be reviewed and approved by the Director of the CECC, and transmitted to Knoxville for release.

*Revision

The following staffing is recommended for full activation of the CECC Information Staff (lesser levels of staffing should be made at the determination of the CECC Information Director). Staffing for each 12-hour shift is as follows:

6.3.1 CECC Information Director--Stationed in the CECC near the Director of the CECC. He has overall responsibility for public information matters in the CECC and supervises the CECC information staff. He consults with the CECC Director, the Manager of Power and the Director of Information to make sure information is released in an accurate, objective, and timely manner.

6.3.2 Supervisor--At the direction of the CECC Information Director, he oversees activities of the CECC Information Office. Works closely with the Director of the CECC and the Director of the DNPEC to monitor the accident. In consultation with the Director of the NSMC, determines when to prepare news statements and supervises and approves their writing. Obtains clearance from the Director of the CECC of all written statements. Schedules staff assignments for around-the-clock staffing. Consults with NSMC management to schedule briefings, etc.

6.3.3 Technical Advisor--Provided by NUC PR, he acts as liaison between the CECC Information Office and the CECC managers. Provides technical assistance to writers working on news statements and keeps the CECC Information Office apprised of all developments concerning the accident.

6.3.4 Writers (2)--As assigned by the CECC Information Office Supervisor, gather information from the CECC officers and the technical advisor and prepare written statements based on that information. May be called upon to perform other duties as necessary.

6.3.5 NRC-State Coordinator--Once news statements have been approved by the Director of the CECC, the NRC-State Coordinator ensures their prompt transmittal to the proper State and NRC officials for review. When questions or changes are called for, he relates that information to the writers and supervisors. He also works with the State and NRC to receive information about public information announcements *those agencies are preparing. He also provides released news *statements to the appropriate plant Technical Support Center (TSC) *for information. These duties may, if necessary, be divided among *two people.

6.3.6 Local Media Coordinator--Before activation of the NSMC, works with local news media to keep them apprised of developments at the plant and the CECC. Also serves to answer media questions about operations of the CECC once the NSMC is activated and performs other duties as necessary.

6.3.7 Q & A Editor/NSMC Coordinator--Interfaces with NSMC information officers to gather any questions raised by the media about developments that can't be answered at the NSMC and relays those questions back to the proper person. Monitors the flow and adequacy of information between the NSMC and the CECC Information Office.

6.3.8 Clerks/Secretaries--The number of clerks and secretaries needed in the CECC Information Office will be determined by the CECC Information Office Supervisor. At maximum levels they include:

6.3.8.1 Jacquard Clerks (2)--They type into a Jacquard all news releases and follow their transmittal to the proper sources.

6.3.8.2 Telecopier Clerk--Handles all telecopier transmittals from the office.

6.3.8.3 Telephone Clerk--Answers incoming telephone calls and performs other jobs as directed by the supervisor.

6.3.8.4 Q & A Clerk--Assists the Q & A Editor/NSMC Coordinator in answering questions and coordinating activities with the NSMC.

6.4 For non-REP items that are being announced to the media by the Information Office, the Plant Information Officer has initial responsibility to inform the appropriate State officials, as outlined in the letters of agreement in the appendix. If the Plant Information Officer is not available, the Manager of Nuclear Information will assume that duty; in his absence, the Manager of Power Information; and in his absence, the Power Information Staff Duty Officer. Once the CECC is activated, responsibility for keeping the State Information Officer informed shifts to the CECC Information Staff State Coordinator.

6.5 *The Assistant Director of Information or his designee on the Knoxville News Desk, has the responsibility of coordinating news releases with the NRC public affairs office until such time as the CECC is activated. Once the CECC is activated, responsibility for keeping the NRC informed shifts to the CECC Information Staff NRC Coordinator.

6.6 The News Desk shall serve as the central control center for Information Office activities. Depending on the severity of the event and the number of media calls, it will be staffed as necessary, with the determination being made by the Director of Information and the Assistant Director of Information. The News Desk shall notify at a minimum the following:

1. The TVA Board and General Manager.
2. Any senior Information Office employee not already notified.
3. The NRC public affairs office (until such time as the CECC is activated).
4. The major wire services, and media in the vicinity of the affected plant.
5. Any others deemed necessary by the Director of Information.

*Revision

6.6.1 As a general rule, the News Desk should be activated whenever an Alert or higher classification of event is declared, and when the CECC is activated. The first statement prepared by the Power Information Staff and issued by the News Desk should be brief and should be released with all possible speed. It should acknowledge that an event has occurred, and that additional information will be forthcoming.

6.7 Neither in print nor orally will Information Office personnel speculate on the cause or consequences of the incident.

6.8 Upon notification that the News Desk has been activated, the Chief of the Broadcast Staff will begin notifying his staff. The staff will begin making preparations to transport audiovisual equipment and personnel to the NSMC in the event its activation is ordered. The staff also will provide assistance to the News Desk in handling broadcast media requests.

6.9 Based on the severity of the incident, the Director of Information may order the staffing of the KEC and the MSEC. However, such staffing is not necessary for the Information Office to perform its duties. The Director of Information may also deem it necessary to request assistance from the Employee Communications Staff and from the Citizen Action Office to provide employee information and rumor control.

6.10 As calls come into the News Desk, they will be handled by News Desk personnel in the normal manner. Details will be provided from the prereleased news statements. If the caller wants additional information, efforts will be made to provide that information. The CECC Information Staff can be contacted by the News Desk for those additional details. Inquiries regarding offsite evacuation or other State matters will be referred to the appropriate State agencies.

6.11 Updated news statements shall be issued periodically as needed. At a minimum, statements should be updated at least every two hours, if only to report that "no change" has occurred since the last statement.

6.12 The nuclear plant status report tape and news line tapes should be updated by News Desk personnel each time a new statement is released. All new statements should be given to the Citizen Action Office for rumor control purposes.

6.13 Requests by the media for personal interviews or for tours of TVA facilities will be handled through the News Desk. The requests will be coordinated with the Director of the CECC and Plant Superintendent.

7.0 PROCEDURES - Occurrences that require activation of the NSMC.

7.1 The procedures listed in the previous section will continue as long as necessary. However, if the condition of the plant worsens, or if media interest becomes so intense that, in the judgment of the Director of Information, it cannot be properly handled from the News Desk, the NSMC will be ordered activated.

7.2 The NSMC for Browns Ferry Nuclear Plant is the Calhoun Community College on U.S. 31 North near Decatur; the NSMC for the Sequoyah Nuclear Plant is the downtown Chattanooga YMCA; the NSMC for the Watts Bar Nuclear Plant is the Sweetwater Quality Inn on I-75.

7.3 As a general goal, the NSMC at Sequoyah and Watts Bar should be operational no less than four hours after the Director of Information orders them activated. The Browns Ferry NSMC should be operational no less than six hours after its activation is ordered.

7.4 Prior to ordering activation of the NSMC, the Director of Information will consult with the Director of the CECC and appropriate State information officers, if feasible.

7.5 Equipment for the NSMC will be preboxed and ready for shipment. It is stored in Knoxville and Chattanooga. An inventory is listed in the appendix.

7.6 Each State affected by the accident has agreed to participate with TVA in the NSMC, as has the NRC. Once the Director of Information orders activation of the NSMC, the Information Office person who at that time is coordinating information releases with those agencies shall notify those agencies that the NSMC is being activated and invite them to dispatch personnel to staff it.

7.7 The Plant Information Officer shall notify the owners/operators of the building of the NSMC to make arrangements for its use. Contracts with the owners are included in the appendix. He shall also ensure that South Central Bell is notified to activate telephone lines to the NSMC.

7.8 The Assistant Director of Information will determine who will report to the NSMC. He will make arrangements to have all the equipment that is stored in Knoxville shipped immediately to the center. The following is a listing of the maximum expected staffing of the NSMC. It is anticipated that in all but the most severe case, less staffing will be acceptable. Staffing levels will be determined by the Assistant Director of Information, who is in charge of the NSMC.

7.8.1 *Chief Spokesman--The Manager of Power or, in his absence, the Deputy *Manager of Power or another designee. This person serves as the Chief Spokesman for TVA during all news briefings. He consults with officials in the CECC and the TVA Director of Information to coordinate all statements and provide correct information. He is available to answer specific media questions when formal briefings are not being held.

*Revision

7.8.2 Director of Information--The Director of Information has the responsibility for all information activities involving a nuclear emergency. He provides directions to both the Director of the NSMC and the CECC Information Office. He apprises the General Manager and the Board of Directors on all information matters. He consults with the Chief Spokesman before all briefings, and participates in those briefings, when necessary, with the Chief Spokesman.

7.8.3 Director of the NSMC--Is in charge of all activities at the NSMC. He supervises all Information Office personnel and support personnel assigned to the center. He chairs all staff meetings at the NSMC, and ensures that the needs of the State, NRC, and FEMA are met. He serves as the chief point of contact between the NSMC and the CECC Information Office.

7.8.4 Audiovisual Coordinator--The Chief of the Broadcast Staff or his designee. This person is responsible for ensuring the media briefing room is adequately equipped to accommodate the needs of broadcast media and the recording of all news briefings.

The Audiovisual Coordinator will see to it that an adequate number of personnel from the Broadcast Staff are available to perform the duties described.

7.8.5 Associate Director of the NSMC--Serves at the instruction of the Director of the NSMC, with primary responsibility in handling media needs and making sure proper arrangements are made for timely, comprehensive media briefings. Is in charge of building arrangements for the NSMC and coordinates activities of the TVA Broadcast Staff to meet media needs. Coordinates schedules of personnel assigned to NSMC and acts as NSMC "historian," keeping a log of all major events at the center.

7.8.6 Intergovernmental Affairs Coordinator--Serves at the instruction of the Director of the NSMC, with primary duties to coordinate NSMC operations with TEMA, NRC, and FEMA. Is responsible for ensuring that representatives from those agencies at the NSMC are kept abreast of all developments, shown copies of all written TVA news releases, and that TVA is shown copies of all written news releases of those agencies. Coordinates joint conferences of all agencies prior to formal briefings.

7.8.7 Technical Advisor--Plant Operations--Serves at the direction of the Director of the NSMC and acts as an assistant to the Chief Spokesman. In both staff conferences and formal briefings, advises the Chief Spokesman on technical matters dealing with the design and operation of the affected nuclear plant. At the direction of the Chief Spokesman and Director of Information, answers media questions dealing with technical matters. Is available for informal background briefing sessions with the media.

7.8.8 Technical Advisor--Radiological Health--Serves at the direction of the Director of the NSMC and acts as an assistant to the Chief Spokesman. In both staff conferences and formal briefings, advises the Chief Spokesman on technical matters dealing with the health and safety aspects of radiation. Works closely with State representatives to give out information on radiation releases from the plant. At the direction of the Chief Spokesman and Director of Information, answers media questions dealing with technical matters. Is available for informal background briefings with the media.

7.8.9 Information Officers (4 Positions)--Serve at the direction of the NSMC Director. Handle telephone calls from the media to the NSMC. Relay information to Knoxville and Washington. Answer questions from members of the media present. Assist in writing and distributing news releases; coordinating information with the Citizen Action Line, which will serve as the public "rumor control"; and assisting in other activities as instructed by the Director of the NSMC.

7.8.10 Q & A Coordinator--Coordinates questions from the media that cannot be answered by the information officers, technical advisors, or Chief Spokesman. Dispatches those questions to the CECC Information Office and makes sure answers are provided and distributed to the reporter.

7.8.11 Artist--Serves the Chief Spokesman and the technical advisors by providing sketches that might be needed during media briefings.

7.8.12 Logistics Coordinator--In charge of all logistics arrangements for the NSMC, including staff transportation and lodging, equipment movement and procurement, media shuttle service between the NSMC and the plant, supplying meals for all persons in the NSMC, getting cash advances for personnel who have to stay overnight, etc. Also works with the media to ensure that out-of-town reporters have adequate accommodations.

7.8.13 Receptionist--Works at the entrance to the NSMC. Registers members of the media who arrive and issues credentials. Records the telephone numbers of the reporters on printed forms so they can be located in case of an emergency. Distributes press packages.

7.8.14 Clerks-Secretaries--The number of clerks and secretaries needed at the NSMC will be determined by the Director of the NSMC. They will include:

1. One secretary to operate the Jacquard computer and printer.
2. One secretary to operate the fastfax telecopier machine.
3. One clerk to assist the Q & A Coordinator.
4. Two clerks to answer telephones, take messages, and route calls.
5. One chief clerk assigned to the Director of Information and the Director of the NSMC.

7.8.15 Transportation Coordinator--Works with Logistics Coordinator to provide media transportation to and from the plant. Also provides staff transportation as needed.

7.9 The Director of the NSMC may call upon support personnel from other TVA offices and divisions as necessary to ensure adequate staffing of the NSMC.

7.10 Throughout the activation of the NSMC, the News Desk in Knoxville will continue to be operated, as will all auxiliary operations, such as the Citizen Action Line. The Director of Information shall determine the necessary staffing levels of these operations.

7.11 The Director of Information may dispatch an Information Office representative to the plant site. That person would be stationed at or near Public Safety Service roadblocks to the plant to meet with any media that attempts to gain access to the plant area.

7.12 The NSMC Transportation Coordinator will, at the direction of the Director of the NSMC, provide van shuttle service for the media between the NSMC and the plant. Such service shall be under control of the Information Office and shall allow the media to make pictures and conduct live news spots from the plant area.

7.13 Briefings at the NSMC will be conducted whenever necessary, but at a minimum of 2 every 24 hours. State, NRC, and FEMA representatives shall participate fully in the briefings, if they so desire. News releases shall be distributed at the NSMC whenever necessary.

7.14 The NSMC shall operate for the duration of the emergency, or until it is determined by the Director of Information that media interest has waned to such an extent that operation of the center is no longer necessary. It is possible that because of continuing media interest after the emergency, the NSMC could be kept open for several days after the specific emergency has ended.

8.0 TELEPHONE LISTINGS

8.1 CECC Information Office Staff

CECC Information Director (Crawford)	751-0222[1]
CECC Information Technical Advisor	0223[1]
CECC Information Supervisor (Steverson)	0235[1]
Supervisor's Secretary	0230[1]
Writers' Desks	0233[1]
NRC Coordinator	0236[1]
State Coordinator	0231[1]
Local Media Coordinator	0209[1]

[1]These are Dimension telephone numbers and can be reached from other Dimension telephones by dialing the last three digits.

Q&A Coordinator	0224[1]
Panafax 3000 telecopier	0234[1]
Verify telecopy	0230[1]
Jacquard 105 computer	267-8222

8.2 SNP - Near-Site Media Center (Chattanooga YMCA)

Supervisor (Cadotte)	751-0280*
H. G. Parris (Lee Sheppeard)	265-0527
TVA Staff 1	265-0643
TVA Staff 2	265-0766
TVA Staff 3	265-0919
TVA Staff 4	756-8067
TVA Staff 5	756-8056
Panafax 3000 telecopier	756-8023
Verify	756-8056
Jacquard 105 computer	756-0686
TVA Broadcast 1	756-0234
TVA Broadcast 2	265-0341
NRC Staff Room	265-0454
TEMA Staff Room (Inman)	751-0279[1]
TEMA Staff 1	265-6339
TEMA Staff 2	265-6348
TEMA Staff 3	265-0053
TEMA Staff 4	265-0185

[1]These are Dimension telephone numbers and can be reached from other Dimension telephones by dialing the last three digits.

8.3 BFNP - Near-Site Media Center (Calhoun State Community College, Limestone County)

Telephone Numbers

(205) 355-8055

(205) 355-8073

(205) 355-8043

(205) 355-8046

8.4 State of Tennessee

TEMA Emergency Center, Nashville	615-741-5181
Public Information Officer (John Parrish)	1-800-262-3400
TEMA PIO Staff, Nashville	615-741-0001
TEMA Panafax Telecopier, Nashville	615-741-0002

8.5 State of Alabama

Lauderdale County Civil Defense	766-4201
Lawrence County Civil Defense	974-7641
Limestone County Civil Defense	232-2631
Morgan County Civil Defense	350-9600 Ext. 227

8.6 Other Numbers

Power Information Staff, Chattanooga	751-2864
News Desk, Knoxville	6000-K or 1-800-251-9438
NRC Public Affairs, Atlanta	404-221-4503
NRC Telecopier	404-242-4449

TVA Citizen Action Line, Knoxville	1-800-251-9242
TVA Nuclear Status Tape, Knoxville	1-800-251-9427
Nuclear Regulatory Commission, Public Affairs, Atlanta	(404) 221-4503
Federal Emergency Management Agency, Atlanta	(404) 881-2391

REP-IPD

CECC - IP-16

NUC PR EMERGENCY DUTY OFFICER PROCEDURE FOR ALERT, SITE AREA EMERGENCY, AND GENERAL EMERGENCY

Prepared by: B. K. Marks

Approved by: E. K. Silva for J. W. Hufham

Date: March 28, 1984

Rev. No.	Date	Revised Pages
0	MAR 29 1984	All
1	MAY 25 1984	Cover Sheet; pg. 2
2	NOV 13 '84	Coversheet, P. 2

6.0 PROCEDURE REQUIREMENTS

Upon the declaration of an Alert, Site Area Emergency, or General Emergency, the EDO shall perform the following:

(Initials/Time)

_____/_____ 6.1 Contact the Alternate EDO, provide the initial information, and request that he/she contact the following and request they report to the CECC. The EDO will then proceed to the CECC/DNPEC.

_____/_____ Power Information Staff Duty Officer

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_____/_____ W. E. Webb

_____/_____ B. K. Marks

_____/_____ T. E. Adkins

_____/_____ A. A. Schenck

_____/_____ H. B. Williamson

**

_____/_____ L. N. Haik

_____/_____ 6.2 The Alternate EDO will proceed to the CECC/DNPEC upon completion of the above notifications.

_____/_____ 6.3 Should the EDO be unable to contact the alternate EDO, he/she shall perform the following notifications, then proceed to the CECC/DNPEC.

_____/_____ Power Information Staff Duty Officer

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Upon arrival at the center, the EDO may solicit assistance from the ODS or others as necessary to notify the remaining staff.

**Deletion