Calvert Cliffs Nuclear Power Plant

1650 Calvert Cliffs Parkway
Lusby, Maryland 20657

CENG
a joint venture of
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CALVERT CLIFFS
NUCLEAR POWER PLANT

May 26, 2010

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Independent Spent Fuel Storage Installation Docket No. 72-8
Changes to the Emergency Response Plan and Implementing Procedures

As required by 10 CFR 50.54(q), 10 CFR Part 50 Appendix E.V, and 10 CFR 72.44(f), changes to the Emergency Response Plan Implementing Procedures are enclosed. These changes do not decrease the effectiveness of the Emergency Response Plan.

Should you have questions regarding this matter, please contact Mr. Douglas E. Lauver at (410) 495-5219 or Mr. Michael J. Fick at (410) 495-5216.

Very truly yours,

Michael J. Fick

Michael J. Fick
Director - Emergency Preparedness

MJF/RDW/bjd

Enclosures: ERPIP-600, Revision 00301

cc: S. J. Collins, NRC
Resident Inspector, NRC
V. Ordaz, NRC (ISFSI, Spent Fuel Project Office)

(Without Enclosures)
D. V. Pickett, NRC
S. Gray, DNR

A X45
NMSS07

NRR
NMSS

CALVERT CLIFFS NUCLEAR POWER PLANT
TECHNICAL PROCEDURE

EMERGENCY RESPONSE PLAN
IMPLEMENTATION PROCEDURES

ERPIP-600

SEVERE ACCIDENT MANAGEMENT

REVISION 3

Safety Related __√__ **Non-Safety Related** ____

REFERRAL USE

Periodically refer to procedure during use.

APPROVAL AUTHORITY T. Trepanier

EFFECTIVE DATE 05/12/2010

RECORD OF REVISIONS AND CHANGES

Rev.	Chg.	Summary of Revision and Changes
3	0	Added information and procedure flow diagram steps in response to February 25, 2005 NRC guidance on developing mitigating strategies to respond to loss of large areas of the plant. Converted bases to PDU numbering scheme.
	01	Changed "Site Emergency" to "Site Area Emergency" throughout the procedure. Step 3.2.B – Updated Performance Reference – CNG-PR-3.01-1000 Step 9.0.A – Updated Performance Reference – CNG-PR-3.01-1000 Attachment 1 – Updated Attachment Reference PCR-09-05673/CA-2009-004003

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1.0 PURPOSE

This procedure provides emergency response instructions to Reactor Engineer, Technical Support Center Analyst, and Operations Analyst during the following events:

- Site Area Emergency
- General Emergency

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2.0 APPLICABILITY/SCOPE

2.1 Applicability

This procedure applies to the conduct of the Reactor Engineer, Technical Support Center Analyst, and the Operations Analyst.

Performance of this procedure is in the order of Activation (Subsection 6.1), Operation (Subsection 6.2), and Deactivation (Subsection 6.3).

2.2 Responsibilities

A. The Reactor Engineer, TSC Analyst and the Ops Analyst shall:

1. Respond to a severe accident in accordance with the 600 series ERPIPs.

3.0 REFERENCES AND DEFINITIONS

3.1 Developmental References

A. NUREG 0654, Criteria for Preparation and Evaluation of Radiological Emergency response Plans and Preparedness in Support of Nuclear Power Plants

B. 10 CFR 50.47, Emergency Plans

C. 10 CFR 50 Appendix E to Part 50, Emergency Planning and Preparedness for Production and Utilization Facilities

D. Calvert Cliffs Nuclear Power Plant Emergency Response Plan

E. PR-1-101, Preparation and Control of Calvert Cliffs Technical Procedures

F. PR-1-103, Use of Procedures

G. Technical Procedures Writer's Manual

3.2 Performance References

A. Calvert Cliffs Nuclear Power Plant Emergency Response Plan

B. CNG-PR-3.01-1000, Records Management

C. ERPIP-601, Severe Accident Management Initial Diagnosis

D. ERPIP-602, Severe Accident Management Verification of Diagnosis

E. ERPIP-603, Candidate High Level Actions BD/CC

F. ERPIP-604, Candidate High Level Actions BD/CH

G. ERPIP-605, Candidate High Level Actions BD/I

H. ERPIP-606, Candidate High Level Actions BD/B

I. ERPIP-607, Candidate High Level Actions EX/CC

J. ERPIP-608, Candidate High Level Actions EX/CH

K. ERPIP-609, Candidate High Level Actions EX/I

L. ERPIP-610, Candidate High Level Actions EX/B

M. ERPIP-611, Severe Accident Management Restorative Actions

N. ERPIP-612, Candidate High Level Actions SFP Fuel Uncovered

O. ERPIP-613, Candidate High Level Actions Large Area Loss

P. ERPIP-3.0, Immediate Actions

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3.3 Definitions

A. **Anti-core Melt Safety Functions**

The Anti-core Melt Safety Functions are Reactivity Control, RCS Pressure and Inventory Control, and Core and RCS Heat Removal. The primary objective of these safety functions is to prevent core damage.

NOTE

As indicated in the Severe Accident Management Guidance, Technical Basis Report (EPRI Research Project 3051-2, Final Report, December 1992, Figure 2-1), the time between the OX and BD conditions for a severe accident can be relatively short (10 min. at TMI - 2). Once significant heatup has occurred the core will transition to BD. Therefore the BD condition is considered to start at the onset of potentially significant core damage (that is, 1200°F).

B. **Badly Damaged** (BD)

The Badly Damaged descriptor signifies the core has overheated to the point that clad ballooning has occurred and portions of the core may have melted. The core is (or was) partially or completely uncovered. The core and internal reactor structure are significantly oxidized (OX). The core may also be relocating downward within the reactor vessel. Fission products have been released from the core to the RCS.

C. **Bypassed** (B)

The Bypassed descriptor is the failure of the RCS pressure boundary such that the containment biological boundary is bypassed. Examples include an unisolable leak in the letdown isolation valves, a cracked/ruptured pipe in the auxiliary building used for safety injection recirculation, or a cracked/ruptured steam generator tube(s). Any such leak coupled with a non-isolated, uncontrolled path to the environment represents a bypassed condition. The difference between containment conditions of Bypassed and Impaired (defined below) is that in the Impaired condition there is a direct leakage path to the environment from the containment, whereas in the Bypassed condition there is an indirect leakage path to the environment from the RCS that does not directly affect the containment integrity.

D. **Calculational Aid**

(Also Calc Aid(s)), relatively short calculations which use available parameters to evaluate a plant condition. The Calc Aids assist the TSC in reaching a decision on the actions to be taken to mitigate the event.

E. **Candidate High Level Action (CHLA) [B1168]**

Actions which are evaluated by the Technical Support Center (TSC) in ERPIPs 603-613, SAM CHLAs, for mitigating the damage of a severe accident to the reactor plant. When the TSC has concluded an action should be implemented, the TSC makes a recommendadtions to to implement the action.

3.3 Definitions (Continued)

F. **Closed and Cooled** (CC)

Containment isolation is complete and the current containment temperature, pressure, and/or combustible gas concentration do not pose a threat to containment integrity. Closed means either physically closed or capable of being closed. For example, if the containment is purposely being vented it can still be considered CC.

NOTE

It is possible the containment may be challenged while in the **Impaired** or **Bypassed** condition. This would represent a combined containment condition (that is, **Challenged/Impaired** or **Challenged/Bypassed**. These states are not defined or provided with separate matrix locations. The existing CHLAs and associated Initiation Criteria for the **Impaired** and **Bypassed** conditions adequately deal with these conditions.

G. **Challenged** (CH)

Containment isolation is complete but containment integrity is, or could be, challenged by combustible gas concentration, over-pressurization, or sustained high temperature. The following are examples of mechanisms which could result in a challenge to the containment:

- The burning of combustible gases in the containment (hydrogen and/or carbon monoxide).
- Insufficient containment heat removal.
- Dynamic interaction between the core debris and water.
- Non-condensable gas generation from the concrete/corium reaction.
- Steam overpressure.

H. **Concurrent Actions**

Actions which should be considered for implementation in conjunction with a particular CHLA. Concurrent Actions are not required to be performed.

I. **Controlled Venting**

Intentional venting of the containment to reduce containment pressure/temperature. Controlled venting can be secured when desired, and it is not considered an impaired situation. If the plant is unable to secure venting once established, this is uncontrolled venting. If Uncontrolled Venting is in progress, the containment is considered Impaired.

3.3 Definitions (Continued)

J. **Data Table**

(ERPIP-601, Attachment 2) is used for recording the parameters to be used in evaluating the plant damage condition in ERPIP-601, Severe Accident Management Initial Diagnosis, and ERPIP-602, Severe Accident Management Verification of Diagnosis.

K. **Desirable**

The TSC considers, based on plant conditions, whether or not a particular CHLA should be implemented.

L. **Direct Containment Heating**

The condition where the core debris is forcefully ejected from the reactor vessel due to the high RCS pressure and is finely fragmented, allowing a significant portion of the sensible heat in the debris to be transferred directly to the containment atmosphere.

M. **Entry Conditions, SAM ERPIPs**

The recommended entry condition is the declaration of a Site Area Emergency or General Emergency.

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N. **Ex-vessel** (EX)

The descriptor Ex-vessel indicates significant quantities of the core debris have accumulated outside the reactor vessel boundary through a break in that boundary.

O. **Flowchart, Containment**

ERPIP-601, Attachment 4, Containment Flowchart.

P. **Flowchart, RCS**

ERPIP-601, Attachment 3, RCS Flowchart.

Q. **Flowchart, SFP**

ERPIP-601, Attachment 5, SFP Flowchart **[B1199]**

R. **Flowchart, Large Area**

ERPIP-601, Attachment 6, Large Area Flowchart **[B1168]**

3.3 Definitions (Continued)

S. **Impaired** (I)

Indicates the containment is breached, yet the containment could still play a substantial role in mitigating the release of fission products. Examples of such a state are either the containment pressure boundary has failed (for example, the containment Personnel Airlock liner has torn) or the containment isolation function cannot be completed. It is assumed the operating staff is doing everything possible to ensure every containment penetration is isolated and will continue in these actions throughout the severe accident. A containment isolation function that is not yet complete can be considered a failure of the containment pressure boundary, since the staff has not isolated the particular function in question. However, a containment isolation path which is being used in performance of a CHLA (for example, venting) is not considered Impaired since this is a deliberate action.

T. **Initiation Criteria**

Specific plant parameters/conditions provided as a basis for further consideration of whether to implement a CHLA. The initiation criteria do not mandate a CHLA be implemented. Meeting one or more of these criteria only starts the CHLA consideration process. The Initiation Criteria must be considered along with the Purpose, Objectives, Cautions, and Benefits in reaching a decision. The initiation criteria are, in general, precise, whereas the remaining considerations are more judgmental.

U. **Large Area**

One or more areas of the plant referenced in ERPIP-3.0, Attachment 25, Large Area Losses. **[B1168]**

V. **Matrix Location**

ERPIP-601, Attachment 5, SFP Flowchart.

W. **Plant Damage Condition**

The combination of the RCS damage condition and the containment damage condition. The plant damage condition is usually expressed as a series of letters. For example, BD/CH identifies an RCS condition in which the core is Badly Damaged and the containment is Challenged. Acronyms such as these are used throughout the SAM ERPIPs as a shorthand method to identify the combined damage state of the plant. (See also **Matrix Location**.)

3.3 Definitions (Continued)

X. **Selected Technical Issues**

Technical discussions on a particular action or effect as it pertains to the SAM ERPIPS process. Each Selected Technical Issue provides information which the TSC should consider in deciding actions to be taken in mitigating the event. For example, one of the Selected Technical Issues discusses Creep Rupture. It provides such information as a description of the mechanism, of what situations may cause it to occur, and contains technical information to use in judging if creep has occurred. They provide additional technical information which is useful in the accident management assessment and decision making process.

Y. **Severe Accident**

An event outside the design basis which results in catastrophic fuel rod failure, core degradation and fission product releases to the reactor vessel, containment, or the environment. For SAM ERPIP purposes, a Severe Accident is considered to have occurred when Core Exit Thermocouple (CET) temperatures exceed 1200°F or irradiated fuel in the SFP is uncovered or a Large Area of the plant is lost due to fire or other disaster. **[B1199] [B1168]**

Z. **Termination/Throttling Criteria**

These are the specific plant parameters/ conditions provided as a basis for considering whether to terminate or throttle a CHLA. The criteria do not mandate a CHLA be terminated or throttled. Meeting one or more of these criteria only starts the consideration process. The applicable Cautions, Benefits, Overall Objectives, etc. should also be considered in reaching a decision. The termination and throttling criteria are, in general, precise, whereas the remaining considerations are more judgmental.

4.0 PREREQUISITES

4.1 Training and Qualification

Personnel performing this procedure shall be qualified on the tasks or activities contained in this procedure.

4.2 Initial Conditions

Performance of the actions in the order they are presented in Subsection 6.2, Operation is not mandatory provided Subsection 6.1, Activation has been accomplished.

4.3 Documentation and Support

Forms needed to implement this procedure are contained as attachments to this procedure. Forms may be computer generated or revised without requiring a change or revision to this procedure, providing the intent is not changed, and the required information is not deleted from the existing form.

5.0 PRECAUTIONS

Declared pregnant women and minors are not authorized to perform emergency functions.

6.0 PERFORMANCE

6.1 Activation

A. Discussion

1. The Severe Accident Management ERPIPs (SAM ERPIPs) provide guidance on the mitigation of a severe accident once the Emergency Operating Procedures are no longer sufficient to control the event. SAM ERPIPs shall be implemented upon declaration of a Site Area Emergency or General Emergency.

2. SAM ERPIPs use a multiphase process illustrated by Attachment 1, Overview.

   - ERPIP-601, SAM Initial Diagnosis, pertinent plant data is collected and used to make an initial diagnosis of the Plant Damage Condition.
   - ERPIP-602, SAM Verification of Diagnosis, verifies the initial diagnosis using parametric data collected in ERPIP-601.
   - ERPIPs-603-610, 612 and 613, Candidate High Level Actions begins the implementation and assessment of Candidate High Level Actions, if a diagnosis of both RCS and Containment damage conditions was reached in ERPIP-601 and/or ERPIP-602 or SFP fuel is uncovered or a large area of the plant is lost due to fire or other disaster. **[B1199] [B1168]**
   - ERPIP-611, SAM Restorative Actions, consists of restorative actions which would be implemented if a diagnosis of the Plant Damage Condition was not reached or if the overall objectives of the CHLAs were not being met.

   Data taking and diagnosis (per ERPIP-601 and/or ERPIP-602) are continuous throughout the process in order to monitor any changes in the plant damage condition so the applicable set of CHLAs can be implemented.

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6.1 Activation (Continued)

B. Overview of the SAM ERPIPs:

1. ERPIP-601 - SAM Initial Diagnosis:

One of the most important features of the SAM ERPIPs is the ability to explicitly diagnose the condition of the plant during a severe accident. This diagnosis allows the TSC to make recommendations to the Control Room based on the knowledge of how the accident has evolved and what the current status of the plant is at any time.

In ERPIP-601, data from the plant is collected and two flowcharts are solved (for RCS condition and for containment condition) that can place the accident into the Plant Condition Matrix. This matrix uses a 2 X 4 array composed of two RCS damage states and four containment states. The two RCS states are Badly Damaged (BD) and ex-vessel (EX). (The RCS condition can also be diagnosed as being "Not In A Severe Accident.") The four containment states are Closed and Cooled (CC), Challenged (CH), Impaired (I), and Bypassed (B). Two severe accident conditions also exist for the Spent Fuel Pool: fuel uncovered and a large area of the plant lost due to fire or other disaster. **[B1199] [B1168]**

Although ERPIP-601 is considered to be a first order quantitative solution that can quickly process available plant data and reach an initial diagnosis, it is sufficiently robust in many instances (particularly on second and subsequent passes) to yield a solution that requires no further verification.

6.1 Activation (Continued)

2. ERPIP-602 - SAM Verification of Diagnosis:

ERPIP-602 is the detailed, more qualitative verification of the diagnosis. The only time this is not the case is when ERPIP-601 is not able to reach a diagnosis with the required degree of certainty. When this occurs, ERPIP-602 becomes both the diagnostic phase and the verification phase of the process.

When ERPIP-601 has been completed, one of the options available to the TSC is to proceed to ERPIP-602 to verify the ERPIP-601 diagnosis (the TSC may skip ERPIP-602 and immediately begin implementing the selected ERPIP CHLAs). ERPIP-602 uses an RCS Condition Verification Table and a Containment Condition Verification Table to qualitatively verify ERPIP-601 information using additional plant data and trending information. If ERPIP-602 reaches a different conclusion than ERPIP-601 (or if ERPIP-601 information is not available) then the ERPIP-602 determination is considered to be final. If ERPIP-602 is not able to reach a definitive conclusion, then other paths within the SAM ERPIPs are available. If ERPIP-602 reaches a successful conclusion, then the chosen RCS designate and the chosen containment designate are coupled to yield one of the eight SAM ERPIPS matrix locations.

3. ERPIPs 603-610 and 612 -613 - SAM Candidate High Level Actions (CHLAs) **[B1199] [B1168]**

If a successful diagnosis of the accident is reached (either from ERPIP-601 or ERPIP-602), then the TSC uses ERPIPs 603-610 and 612-613 to recommend actions to the Control Room and to concurrently assess the effects of those actions on the overall plant condition. ERPIPs 603-610 and 612-613 involve the analysis and potential recommendation of up to sixteen CHLAs for each of the matrix locations as a means for mitigating the severe accident. For any CHLA, the available information in ERPIPs 603-610 and 612-613 include such topics as initiation criteria, termination criteria, pros, cons, equipment required, etc. ERPIPs 603-610 and 612-613 also utilize certain calculational aids results to assist in determining whether a given action (or set of actions) is desirable. Based on the outcome of ERPIP-603-610 and 612-613 strategies, the TSC may take any of a number of avenues within the SAM ERPIPs including a move to the final location within the SAM ERPIPs process known as "SAM Restorative Actions." **[B1199] [B1168]**

6.1 Activation (Continued)

4. ERPIP-611 - SAM Restorative Actions

   If insufficient information exists to confidently diagnose the matrix location that applies to the severe accident in progress, then the TSC relies instead on ERPIP-611, SAM Restorative Actions. This alternate path is considered to be the preferred path of the SAM ERPIPs process if the TSC is awaiting the restoration of sufficient equipment or instrumentation to facilitate a reliable diagnosis on the plant condition matrix. ERPIP-611 allows the TSC to exercise virtually unlimited degrees of freedom to facilitate saving the next intact biological barrier. The ERPIP also allows the TSC to exit back to the plant condition matrix once a reliable diagnosis can be reached.

5. ERPIP 600 Series Attachments and Appendices

ERPIP No.	Title
600	Att. 1 - CHLA Evaluation Worksheet
601	Att. 1 - Instructional Flowchart
	Att. 2 - Data Table
	Att. 3 - RCS Flowchart
	Att. 4 – CNMNT Flowchart
	Att. 5 – SFP Flowchart **[B1199]**
	Att. 6 – Plant damage Condition Matrix Locator
	App. A – IPE/IPEEE Insights
	App. B – Picoammeter Hookup

ERPIP No.	Title
611	Att. 1 - Alternate Water Sources
	Att. 2 – Electrical Power Supplies
	Att. 3 – Overriding Interlocks/Trips
	Att. 4 – Alternate Instrumentation
	Att. 5 – Calculation Aids

6.2 Operation

A. Use of SAM ERPIP.

1. The SAM ERPIPs shall be implemented on declaration of a Site Area Emergency or General Emergency. However, they may be implemented at any time when an event is not being adequately mitigated by the Emergency Operating Procedures. 00301

2. Each step is part of the overall process that should be used to develop mitigating strategies. The process is very repetitive, and these ERPIPs may be used for hours under slow moving conditions. Therefore, a detailed reading through successive iterations is not required.

3. Once the SAM ERPIPs are implemented, they shall be used in conjunction with the EOPs and other approved procedures to mitigate the accident. The Control Room should consult the TSC prior to taking any actions which may directly affect the core, RCS, Containment, SFP or Large Area once it has been determined the plant is in a Severe Accident. **[B1199] [B1168]**

4. A suggested method of using the SAM ERPIPs is as follows:

   a) In the Technical Support Center (TSC), Technical Support Center Director **ASSIGNS** a Reactor Engineer to take data and determine Plant Damage Condition using ERPIP-601 and 602.

   b) Technical Support Center Director **ASSIGNS** TSC Analyst and Operations Analyst to review ERPIP-601 Appendices and ERPIP-611 Attachments to determine any mitigating actions which may help avert a severe accident.

   c) If in a Severe Accident, Reactor Engineer **RECOMMENDS** verification (ERPIP-602), if desired, or appropriate Plant Damage Condition mitigating procedure (ERPIP-603-613). **[B1199] [B1168]**

   d) Once appropriate Plant Damage Condition mitigating procedure (ERPIP-603-613) is implemented, Technical Support Center Director **MAKES ASSIGNMENTS** as follows: **[B1199] [B1168]**

      - One Reactor Engineer continues to take data and determine Plant Damage Condition.
      - Two Reactor Engineers review Objectives of chosen ERPIP and review/analyze/make recommendations for CHLAs.
      - TSC Analyst and Operations Analyst review ERPIP-611 Attachments and other plant reference materials to determine any mitigating actions.

   e) Reactor Engineer **COMPLETES** CHLA Evaluation Worksheet for Technical Support Center Director review and Plant General Manager approval.

6.2 Operation (Continued)

f) Technical Support Center Director **FORWARDS** worksheets to Control Room for implementation after approval.

g) Plant General Manager **INFORMS** Superintendent-Nuclear Operations and Site Area Emergency Coordinator of recommendations.

h) Control Room **ASSESSES** and **IMPLEMENTS** TSC recommendations.

5. Instructions for use of ERPIP-601 through 613 are in flowchart form for ease of use. **[B1199] [B1168]**

6.3 Deactivation

A. **WHEN** event is termination, **THEN FORWARD** completed records to the Technical Support Center Director.

7.0 POST PERFORMANCE ACTIVITIES

None

8.0 BASES

[B1199] NRC Letter, Samuel J. Collins to Charles Cruse, Issuance of Orders for Interim Safeguards and Security Compensatory Measures for Calvert Cliffs Nuclear Power Plants Unit 1 and 2, February 25, 2002 (ICM order B.5.b)

[B1168] NRC Letter, R. W. Borchardt for J. E. Dyer to Holders of Licenses for Operating Power Reactors as listed in enclosure 1, NRC Staff Guidance for Use in Achieving Satisfactory Compliance with February 25, 2002, Order Section B.5.b, February 25, 2005

9.0 RECORDS

Records generated by this procedure may be permanent, non-permanent, or lifetime radiological records depending on the circumstances under which they are generated. Records shall be captured and controlled as follows:

A. During an actual event as described in the purpose statement of this procedure, records shall be considered **permanent** records and submitted to the Emergency Preparedness Unit for final disposition according to CNG-PR-3.01-1000, Records Management.

- CHLA Evaluation Worksheets

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9.0 PRECAUTIONS (Continued)

B. During an actual event as described in the purpose statement of this procedure, dosimetry records, that is, any dose-related record including access history records, are considered **radiological lifetime records** and are to be handled and maintained according to standard practices and unit procedures.

None

C. During a drill or exercise, records generated shall be considered **non-permanent** records and submitted to the Emergency Preparedness Unit for evaluation.

- CHLA Evaluation Worksheets

ATTACHMENT 1, OVERVIEW [B1199] [B1168]

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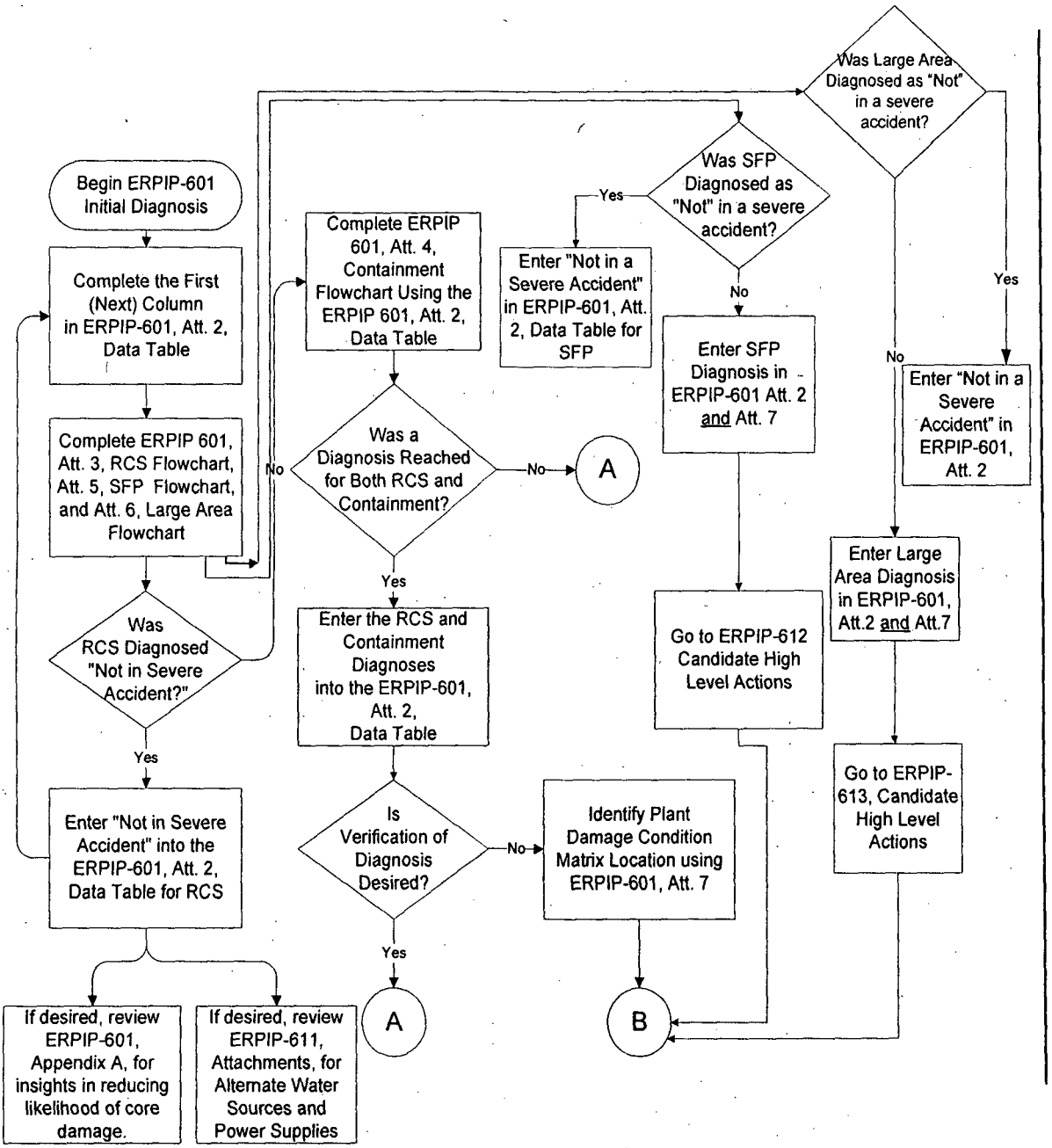

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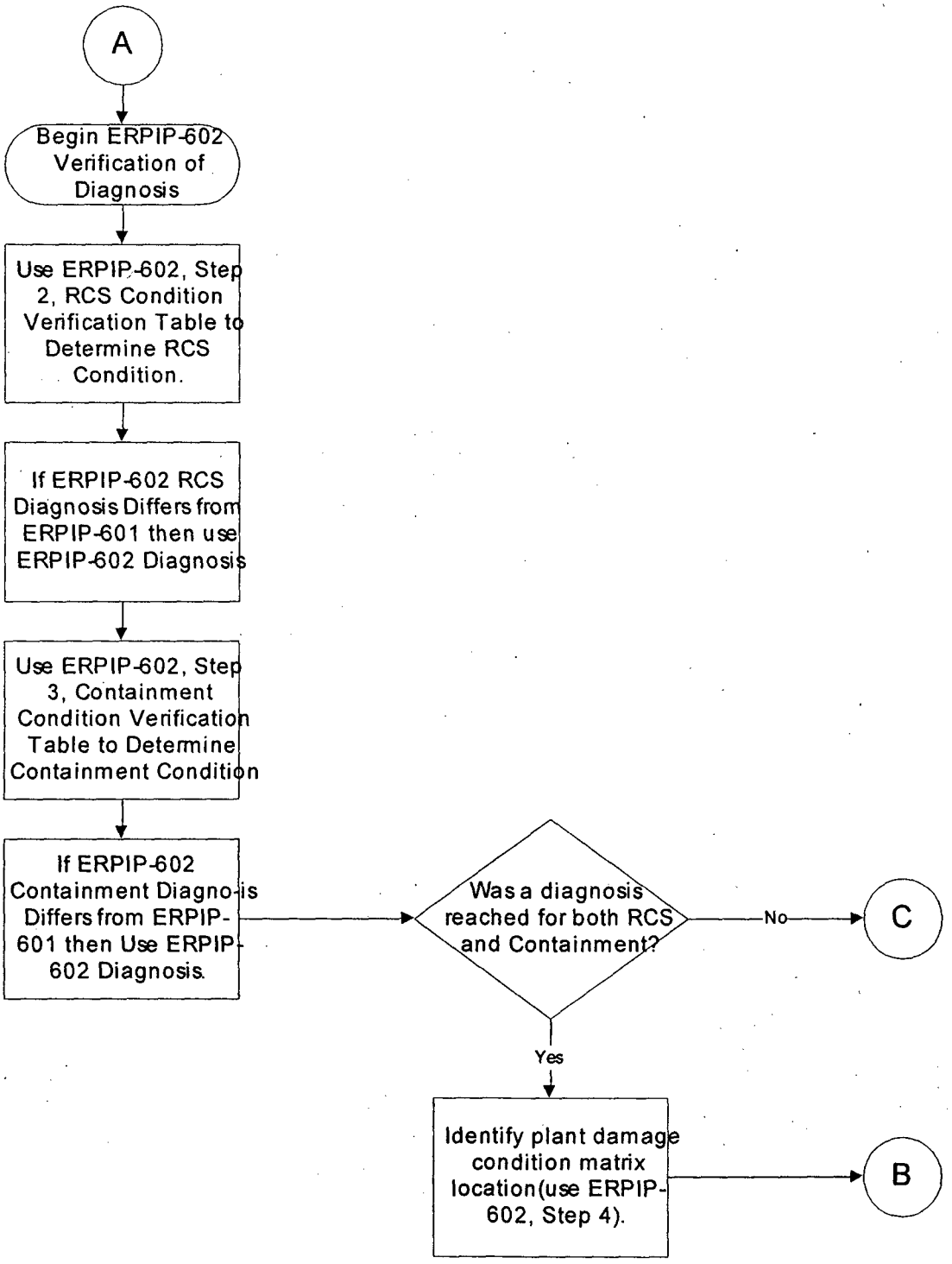

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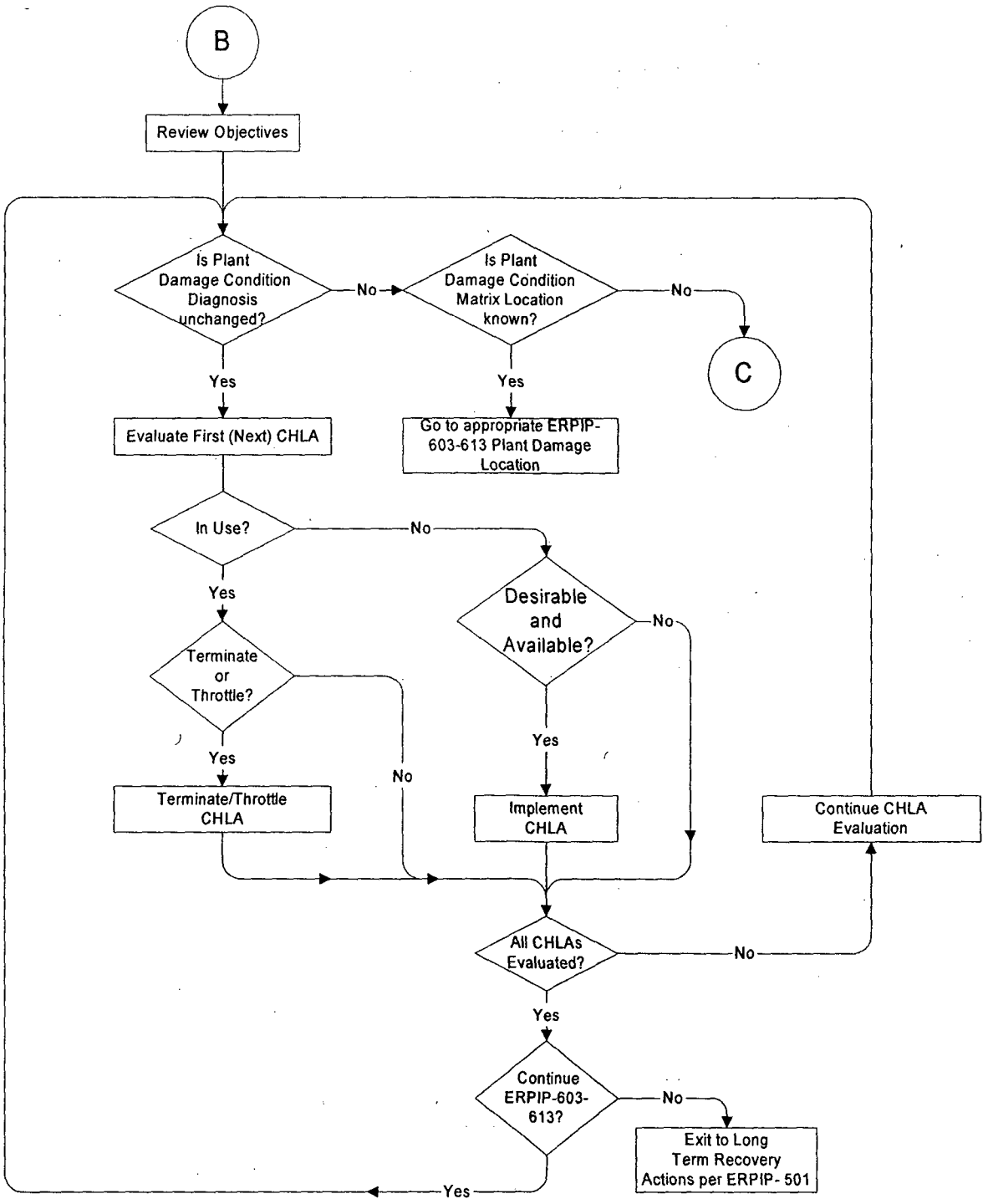

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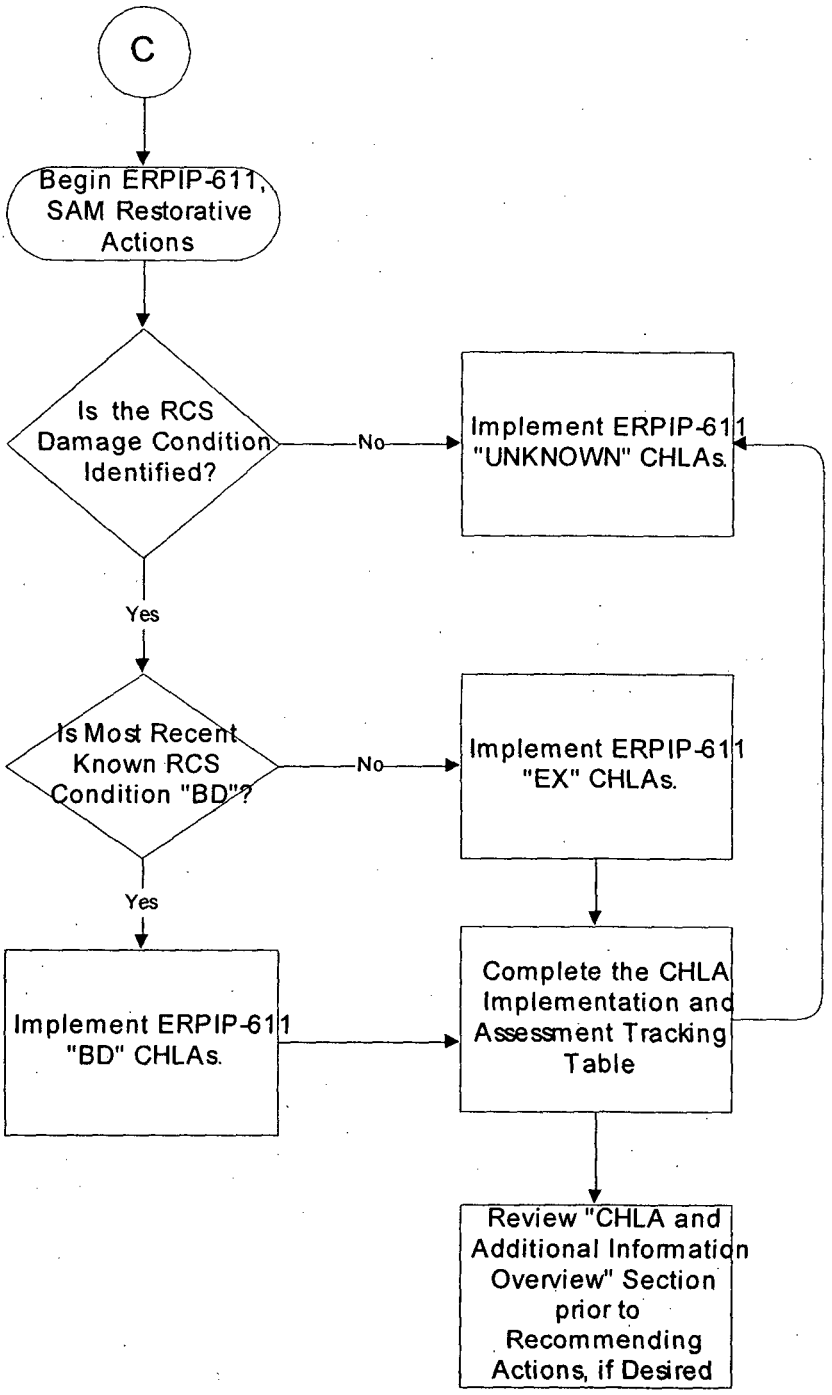

Note: If the Plant Condition changes to a reliable matri SAM diagnosis, GO TO the appropriate ERPIP-603-610

ATTACHMENT 2, CHLA EVALUATION WORKSHEET [B1199] [B1168]

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DATE: **Time:** **Affected Unit:**

Current (or last known) Condition:

For ERPIP-603-610: ☐ BD/CC ☐ BD/CH ☐ BD/I ☐ BD/B ☐ EX/CC ☐ EX/CH ☐ EX/I ☐ EX/B
For ERPIP-611: ☐ UNKNOWN ☐ BD ☐ EX

For ERPIP-612: ☐ FUEL UNCOVERED

For ERPIP-613: ☐ LARGE AREA LOSS

CHLA:

☐ INJECT INTO RCS	☐ FEED S/Gs	☐ DEPRESSURIZE RCS
☐ DEPRESSURIZE S/Gs	☐ VENT RCS	☐ VENT CNTMT
☐ OPERATE H2 RECOMBINERS	☐ OPERATE CACs	☐ RESTART RCPs
☐ FLOOD Rx CAVITY	☐ FLOOD AUX BLDG	☐ SPRAY AUX BLDG
☐ SPRAY INTO CNTMT	☐ SPRAY OUTSIDE CNTMT	☐ SUBMERGE FUEL IN SFP
☐ ALT POWER 4 KV/480 V	☐ ALT POWER 125 V DC	☐ OPERATE VENTILATION
☐ ALT WATER CORE COOLING	☐ SPRAY RAD RELEASE	☐ INSTALL SFP GATE
☐ ALT WATER SFP COOLING	☐ IMPOUND RUNOFF	☐ OPEN SFP DOORS

RECOMMENDED ACTIONS:

_____

_____

_____ Continued ☐

Contact TSC prior to terminating/throttling? YES ☐ NO ☐

SPECIAL CONSIDERATIONS/CAUTIONS (if applicable):

_____

_____ Continued ☐

EVALUATED BY: _____
Engineer/Analyst

REVIEWED BY: _____
TSC Director

AUTHORIZED BY: _____
Plant General Manager

ATTACHMENT 2, CHLA EVALUATION WORKSHEET [B1199] [B1168]

CONTINUATION WORKSHEET

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