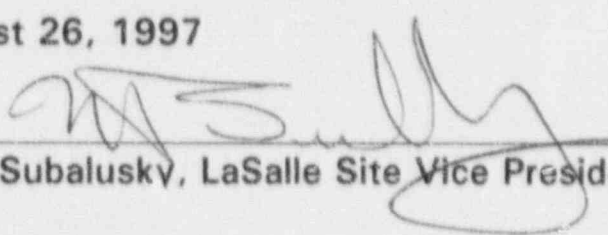


**LaSalle County Station  
Unit 1/Unit 2 Restart Plan**

Revision 1a

Issued: August 26, 1997

Approved:

  
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## 1.0 Background

On July 2, 1996, the Nuclear Regulatory Commission (NRC) issued a Confirmatory Action Letter (CAL) regarding potential blockage on non-essential service water strainers. On September 20, 1996, ComEd shut down LaSalle Station, Unit 2 for planned Refueling Outage L2RO7. On September 22, 1996, ComEd shut down LaSalle Unit 1 to repair the Number 4 Turbine Control Valve 4TCV (forced outage L1F35). While these activities were occurring, the NRC was performing a Service Water System Operational Performance Inspection. The NRC inspection, which was completed September 24, 1996, identified, among other things, an operability concern with the Unit 1 Residual Heat Removal (RHR) Service Water heat exchanger. Subsequently, Unit 1 was placed in cold shutdown on September 26, 1996. ComEd placed Unit 1 in cold shutdown pending resolution of the RHR issue.

After the shutdown, ComEd determined that neither unit should restart prior to resolution of hardware-related issues (materiel condition), human performance, corrective action process, and engineering support and design deficiency issues identified by ComEd and the NRC. The NRC issued an April 14, 1997 supplemental CAL which documented ComEd's agreement to do the following:

- ComEd would develop a restart plan for LaSalle County Station to address corrective actions for the performance deficiencies referenced in the NRC's inspection reports and CALs, ComEd's Independent Self Assessment Team (ISAT), and LaSalle's own assessments and transmit that plan to the NRC for formal docketing. ComEd was to establish quantitative and qualitative criteria for assessing and monitoring the effectiveness of its corrective actions for each area identified in the restart plan. The plan also was to discuss how issues that would not be completed prior to restart would be identified and assessed to demonstrate why restart was acceptable with the action not yet completed.
- ComEd would keep the NRC updated on the projected startup date for the lead unit to facilitate advance planning by the NRC for special inspections that it will conduct prior to restart to evaluate operational readiness.
- ComEd would meet with the NRC approximately monthly to discuss restart plan implementation results and the extent to which evaluation criteria for corrective action effectiveness have been met.
- ComEd would meet with the NRC once its high intensity training program for licensed operators has been completed and discuss the results of the training initiative and the process/indicators used by LaSalle to evaluate the ability of its licensed operators to start up and operate LaSalle.
- LaSalle would meet with the NRC once ComEd has concluded that one LaSalle unit is ready for restart.

## 1.1 Plan Purpose

The above-described ComEd activities and agreements with the NRC are an intricate part of LaSalle's Restart Plan and its associated methodology. In that light, the purpose of the LaSalle County Station Unit 1/Unit 2 Restart Plan is to summarize the actions and controls that will be implemented by ComEd to ensure that supplemental LaSalle CAL issues, as well as any issues deemed necessary for restart, are satisfied and auditable.

ComEd is dedicated to continuous performance improvement. As such, LaSalle restart effort is divided into three primary phases, each providing a different contribution to safe and reliable, event-free operation.

### 1.1.A Restart Plan (Phase I)

Phase I of the restart effort encompasses this Restart Plan and those activities necessary to support initial plant operation. The Restart Plan integrates key site activities associated with the restart of LaSalle County Station Units 1 and 2 and provides a communication and management tool to achieve specific restart goals. Although focused on restart, the Restart Plan also briefly discusses anticipated LaSalle activities to ensure that performance levels reached to support restart do not deteriorate during plant operation.

### 1.1.B Post-Restart (Phase II)

Activities, deficiencies, and issues identified during the shutdown period, which will not be completed prior to restart, will be addressed as part of Phases II and III. Phase II of LaSalle's performance improvement initiatives includes those activities that are not necessary to facilitate restart but are important to maintaining a continuous performance improvement trend.

The LaSalle Upgraded 1996 Operational Plan was being implemented when the LaSalle Units 1 and 2 were shut down for L1F35 and L2R07, respectively. It was producing significant positive results in several safety performance areas at the time of LaSalle Unit 1 and 2 shutdowns. Using this plan as a foundation, LaSalle will develop, subsequent to restart, its 1998 Operational Plan. Implementation of this plan constitutes Phase II of LaSalle's post-restart performance improvement initiatives. The 1998 Operations Plan will address short-term actions (within approximately one year of restart) that are essential for maintaining safe and economically competitive performance at the Station.

### **1.1.C Operational Business Plans (Phase III)**

Phase III focuses on long-term improvements for the Nuclear Operations Division (NOD) and LaSalle. In addition to site-specific restart activities, ComEd's Corporate organization is implementing the 1997/98 NOD Business Plan, which describes ComEd's long-term performance vision as a successful participant in a competitive electric utility industry. Performance benchmarks and targets are established in the three key performance areas of Safety, Production, and Cost. A single focus on safety is the NOD objective for the short term (0-12 months); production and safety are the primary objectives during the medium term (12-24 months); and cost and safety are the long-term goal (2-5 years).

### **1.2 Restart Plan Scope**

While the Restart Plan applies to Units 1 and 2, the initial restart focus is on LaSalle County Station Unit 1. Because both units share personnel, resources, and processes, improvements made to support Unit 1 restart this Restart Plan also will support the restart of Unit 2. The LaSalle County Station Unit 2 refueling outage (L2R07) continues in parallel with the Unit 1 restart effort. Unit 2 resources are focused on maintaining safe shutdown and the completion of other plant activities that do not impact the Unit 1 restart critical path.

## **2.0 Roles and Responsibilities**

It is ComEd's policy that all LaSalle managers and supervisors ultimately are responsible for ensuring that the station is ready for restart. Nevertheless, there are restart-related roles and responsibilities, that augment routine duties, that warrant specific attention in this plan. In that light, the following discussion summarizes primary roles and responsibilities of key management personnel involved in ensuring restart readiness.

### **2.1 Site Vice President**

The Site Vice President has overall responsibility for LaSalle Station, and as a result, is accountable for successful implementation of the Restart Plan. In addition to ensuring that the Restart Plan provides a sound methodology for demonstrating restart readiness, he also is responsible and accountable for ensuring that LaSalle restart efforts are consistent with ComEd Corporate initiatives.



The Site Vice President is responsible for recommending restart of the LaSalle units to the Chief Nuclear Officer. The Site Vice President will make this recommendation based the advice of the Plant General Manager, the Plant Manager, the Restart Manager, and the Site Quality Verification Manager, whether LaSalle is ready for restart. Once a determination has been made that restart is appropriate, the Site Vice President will meet with the NRC to provide ComEd's basis for determining that restart readiness criteria have been satisfied.

## **2.2 Plant General Manager**

The Plant General Manager is responsible and accountable for day-to-day management of the LaSalle Restart Plan. His efforts are coordinated with those of the Site Vice President. The Plant General Manager actively participates in establishing performance expectations and ensuring that those expectations are satisfied prior to restart. The Plant General Manager also is responsible and accountable for monitoring plan implementation, recommending to the Site Vice President when adjustments to the Plan are appropriate, and notifying the Site Vice President when he believes (and explaining the basis why he believes) the plant is ready for restart.

## **2.3 Plant Manager**

The Plant Manager is responsible and accountable for ensuring that plant restart activities are performed satisfactorily. In this capacity, the Plant Manager is responsible for coordinating plant restart activity performance with the Plant General Manager to promptly identify and address necessary mid-course Restart Plan modifications.

## **2.4 Restart Manager**

The Restart Manager is responsible and accountable for the implementation of Restart Action Plans, including their overall management and implementation. In this capacity, the Restart Manager routinely briefs the Plant General Manager on Restart Plan implementation status and is accountable for ensuring that implementation difficulties are addressed in a timely manner. The Restart Manager coordinates Restart Action Plan Sponsor activities to ensure consistency. In addition, the Restart Manager is responsible and accountable for ensuring that the LaSalle workforce understands Restart Plan requirements to the degree necessary to ensure their effective implementation.

## **2.5 Restart Action Plan Sponsors**

Restart Action Plan Sponsors are responsible and accountable to the Restart Manager for ensuring that assigned Action Plans satisfy the underlying strategies. Restart Action Plan Sponsors oversee day-to-day implementation of their respective Restart Action Plan and coordinate the efforts of individual Action Item owners. They also are responsible for ensuring that Restart Action Plan closeout packages are auditable and adequately address Restart Action Plan objectives.

## **2.6 Restart Issue Review Committee**

The Restart Issue Review Committee (RIRC) is a management team composed of the General Plant Manager, Restart Manager, Outage Manager, and the Engineering Manager. This Committee has primary responsibility for determining whether issues/items/activities satisfy restart issue criteria (see Section 3.1.A). Also, instances are anticipated where it will be appropriate to complete an activity prior to restart even though that activity does not satisfy the restart criteria. These types of special circumstances must be approved by the RIRC. The RIRC also is responsible for determining whether other activities necessary to support restart (e.g., self-assessments, program revisions, process revisions) have been satisfactorily implemented to support restart. When it is determined by the Restart Manager that all Restart Action Plans have been satisfactorily closed out, the RIRC will determine whether the plant is ready for restart and provide its recommendation to the Site Vice President.

## **3.0 Restart Program and Required Actions**

### **3.1 Restart Program Overview**

The LaSalle Restart Program consists of the actions set forth in two documents: (1) the Restart Plan, and (2) the Restart Project Management Program document. This document -- the Restart Plan -- provides an overall picture of how restart issues are identified, resolved, and approved at LaSalle Station. The Restart Project Management Program document explains in greater detail how these activities are accomplished, through complementary programs and activities, to provide the highest level of confidence that the units will be returned to reliable full power operation in a controlled manner. The overall process is presented as a flow chart in Figure 1 with the major elements described below.

The Restart Program consists of the following four key attributes:

- Restart Issue Identification and Screening
- Work Completion
- Restart and Operational Readiness Evaluation
- Restart and Power Ascension.

Each activity is described below.

### **3.1.1 Restart Issue Identification and Screening**

Plant Identification Findings (PIFs) (e.g., arising from the Action Request (AR) process and Nuclear Tracking System (NTS) issues), the Employee Concerns Program, Procedure Change Requests (PCRs), Work Requests (WRs), self-assessments and programmatic review findings, and routine Corrective Action Program (CAP) issues will be screened utilizing restart criteria. A master punch list documents these issues. The Restart Manager maintains the master punch list.

#### **Restart Issue Identification Criteria**

- **Resolves** a nuclear safety or operability issue.
- **Eliminates or mitigates** a predictable component failure, deficiency, condition, or operator work-around that could result in an operational failure, entry into an LCO, or could challenge performance of system functions important to safe and reliable operation.
- **Resolves** a deficiency or condition that could result in a failure, or the inability to satisfy a required surveillance test during the current outage or during the subsequent operating cycle.
- **Resolves** identified procedural deficiencies that:
  - - a. affect the adequacy or validity of required surveillances, or
    - b. have resulted in repetitive work-around situations, or
    - c. challenge the ability of a system to perform functions important to safe and reliable operation.
- **Restores** degraded critical components, or corrects conditions that could result in a plant transient, unscheduled load reduction, or shutdown.
- **Resolves** conditions that have resulted in repetitive equipment failures.



- **Resolves** licensing or design basis discrepancies in safety-related or other Technical Specification-required equipment and/or resolves substantive licensing and design basis documentation discrepancies. (Documentation deficiencies that have no safety impact may be completed as Phase II action items with appropriate justification, provided that the actions are formally scheduled and tracked to completion.)
- **Eliminates** conditions that may create a potential excessive personnel radiation exposure, an unplanned radioactivity release to the environment, or a discharge of effluent in excess of regulatory limits.
- **Reduces** cumulative deficiencies, backlogs, or conditions that, in the aggregate, could have a significant negative impact on nuclear or personnel safety, operability, or reliable plant operation. (Not applicable to individual work items.)
- **Required** to address organizational, training, programmatic, or process deficiencies that have a reasonable probability of affecting safe and reliable plant operation.

Occasionally, issues may satisfy the above restart criteria that may not be necessary from a safety perspective to be completed prior to restart. Under these circumstances, the Restart Project Management Program document provides a process for removal of an issue from the restart list. Any removal from the list must be approved by the RIRC.

Restart issues generally have evolved from two sources -- the System Functional Performance Review (SFPR) Program and LaSalle self-assessments. The SFPR is an action plan developed at the direction of LaSalle Senior Management in November 1996, and completed in July 1997.

The SFPR provides confidence that systems important to safe and reliable operation will perform consistent with the LaSalle design basis. For those areas where a level of confidence was not initially present, an additional objective of the SFPR program is to identify and initiate appropriate corrective actions to restore confidence that the system will perform consistent with the LaSalle design basis. Generally speaking, the SFPR responds to issues raised in LaSalle's March 28, 1997, 10 C.F.R. 50.54(f) response to the NRC.

Forty-two systems have been reviewed under the SFPR using the screening criteria set forth in the SFPR Program Document. An overview flow chart of the SFPR is provided in Attachment A to this Plan.

Once an issue is identified through the SFPR process, applicable corrective actions generally are classified either as an Engineering Request (ER), a Design Change Request (DCR), or a Work Request (WR). Although many of these ERs, DCRs, and WRs already are preliminarily classified as "restart," LaSalle will be applying the restart criteria set forth in this document -- the Restart Plan -- to identify the final list of restart issues to be presented to the RIRC to determine whether they should be completed prior to restart. As previously noted, issues may be removed from the restart list after implementing processes described in the Restart Project Management Program document and approval by the RIRC.

Other potential restart work items are being identified from several sources including the following:

- internal and external assessments;
- review of backlogs (*e.g.*, maintenance, engineering, operations, corrective action program PIFs);
- system readiness reviews, commitments review; and
- personnel and plant performance trends.

Issues raised through these programs also will be screened to determine restart status and will be presented to the RIRC as appropriate. In addition, comprehensive evaluations are being conducted to define any additional work that must be completed prior to unit restart. The resulting work scope includes significant actions relating to personnel, processes, and plant equipment to correct identified deficiencies and improve operational safety performance. Many of these actions are defined in the Restart Action Plans and are summarized in Section 3.2.

### **3.1.2 Work Completion**

Work required for unit restart is completed under the direction of line management using existing plant processes and procedures for execution and control of work. Implementation schedules are established and managed by the Outage Management Organization for plant hardware-oriented activities and major non-hardware activities. Summary level actions to drive successful completion of restart work items is provided in the Plant Materiel Condition and Outage Completion Action Plan. Work completion is documented consistent with plant process and procedural requirements with oversight for effective job completion provided by line management and oversight organizations.

### 3.1.3 Restart and Operational Readiness Evaluation

#### 3.1.3.1 Restart Issue Closeout

Each Restart Action Plan Owner is responsible for ensuring that adequate, auditable information is maintained to support the restart of each Action Plan item. The following closeout process applies to Action Plans and other significant issues designated and approved by the RIRC for restart. All other issues, e.g., routine plant activities, will be closed using normal station processes.

Closeout documentation for each Action Plan issue will contain the following information:

- A. Summary:
  - Describe the restart issue, summarize why the subsequent actions achieve the desired objective and resolve the associated issue(s), and confirm that such actions satisfy the applicable performance measures/standards.
- B. Closeout Actions:
  - Describe actions taken to close out each Action Plan
  - Explain why actions envelope the "extent of condition"
- C. Results:
  - Discuss demonstrated performance improvements (in general)
  - Apply performance measure(s)/standard(s) and describe measurable indications of performance improvement (use performance indicator results, etc.)
- D. Follow-up Actions:
  - Identify actions to ensure continued improvement
  - List actions carried-over into Phase II, Phase III (include discussion of associated tracking mechanism)
- E. Attachments:
  - Index of documents
  - Action Plan
  - Supporting documentation (e.g., inspections, walkdowns, surveys, procedure changes, cover pages of documents and applicable pages).
  - Approval signatures

### 3.1.3.2 Self-Assessments

Self-assessments by each organization are an element of Action Plan 3.1. At a minimum, whether or not specifically included in Action Plan 3.1, each Department will perform a self-assessment of its performance, gauge the safety significance of outstanding issues at restart, and provide a "plan" for continued performance improvement to the General Plant Manager before he/she recommends to the Site Vice President that LaSalle is ready for restart. These self-assessments will:

- ensure that there are effective communications between LaSalle management and staff to assure that important issues are well-understood, facilitate teamwork, and instill a continued sense of ownership of issues and results;
- ensure that significant performance or other emergent issues have been identified and formally documented, issue owners have been assigned responsibility and accountability for tracking closure to completion; and
- define a path for continued performance improvement through linkage of self-assessment results to long-term performance objectives (in Phase II and III activities).

Self-assessment results will be reviewed by the RIRC to ensure satisfaction of the above-discussed expectations.

### 3.1.3.3 Programmatic Readiness Reviews

Programmatic Readiness Review (PRR) areas have been selected based on previously identified CAL and self-assessment issues. These reviews, which may utilize the results of self-assessments and other restart readiness activities, shall be provided to the RIRC prior to its consideration of restart readiness, for the following areas:

- Material Condition
- Human Performance
- Corrective Action Process
- Engineering Support
- Design Deficiencies



Programmatic Readiness Review subjects will have an assigned "owner" who will be responsible for either ensuring that pre-existing activities, when completed, will provide adequate assessment information or initiating additional actions which demonstrate why the programmatic area has been satisfactorily addressed to facilitate restart. The Readiness Review reports prepared by the "owner" will provide, at a minimum, a discussion on:

- definition of the issue;
- integrated activities that address the issue;
- the basis on which it is concluded that the issue has been satisfactorily addressed; and,
- anticipated Phase II and Phase III actions.

Additional input regarding restart readiness, personnel, and work processes will be obtained from the Plant Operating Review Committee (PORC), independent oversight organizations such as the Safety Review Board (SRB), Site Quality Verification (SQV), and from other inputs at the discretion of the Site Vice President. The end result of the above activities will be a presentation to the RIRC and its recommendation to the Plant General Manager that the unit is ready for restart. The Plant General Manager, after being satisfied with restart readiness will recommend unit restart to the Site Vice President.

### **3.2 Restart Action Plans**

Seven Restart Action Plans evolved from the various reviews described above. Several of the plans change or upgrade site-wide programs and processes and, therefore, are applicable to both Units 1 and 2. As previously explained, the Restart Manager is responsible for the development and maintenance of individual Restart Action Plans, including revisions to the Action Plans and verification that restart commitments set forth in the Action Plans are closed-out as specified by the Restart Project Management Program. Corporate management and regulatory groups interface with the Restart Manager, thereby ensuring effective, accurate, and consistent communication of restart methodology and progress. In addition, the Restart Manager tracks and trends Restart Program Performance Indicators.

The Restart Action Plans implement the following seven improvement strategies:

- Safe Plant Operation
- Human Performance
- Plant Materiel Condition
- Effective Engineering Support
- Corrective Action and Self-Assessment
- Training
- Process Improvement

As such, the Restart Action Plans are consistent with the longer-term site performance improvement focus established in the LaSalle Upgraded 1996 Operational Plan and contained in the 1998 Operational Plan (Phase III). They also encompass actions necessary to achieve safe, reliable, and event-free restart in the near-term.

The primary purpose and content of the Restart Action Plans are summarized below. Copies of the current Restart Action Plan (which include a list of applicable performance measures/standards, constituent action steps, completion dates, and responsible sponsors/action item owners) are included in Attachment B. A matrix cross-referencing each of the Restart Action Plans to the major issues in set forth in the NRC's Confirmatory Action Letter is provided in Attachment C. Finally, a chart listing the targeted restart performance standard in each of the seven areas of restart planning is provided in Attachment D.

### **3.2.1 Safe Plant Operation**

Restart Action Plan No. 1 implements the Safe Plant Operation strategy. The fundamental objective of this plan strategy is to establish a strong focus on operational safety and to become an Operations-driven organization. It is necessary to achieve this objective both to achieve safe plant restart and ascension to 100 percent power, as well as to sustain operational safety on an ongoing basis thereafter.

Collectively, the individual action items set forth in Action Plan No. 1 are aimed, more specifically, at (1) improving operator performance; (2) reducing operator challenges; and (3) correcting processes that challenge safe plant operation. Actions to achieve these goals are identified below and outlined, in their entirety, in the actual Restart Action Plans provided in Attachment B.

#### **Improve Operator Performance (Action Plan No. 1.1)**

The primary focus here is to ensure that plant operators are fully effective in initiating a unit restart and sustaining power operation with a conservative focus on operational safety. Restart actions include:

**Monitoring Critical Operating Functions (Action Plan No. 1.1A)**

To improve Operator and Supervisor professionalism and their ability to sustain safe plant operation, monitoring criteria -- that are consistent with both performance expectations and training activities -- will be applied to specific oversight actions.

**Upgrading the Operator Work Environment (Action Plan No. 1.1B)**

The operator work environment will be physically improved at LaSalle to support operator professionalism and ownership, and to support safe, reliable plant operation (e.g., through effective communication and planning for operational activities).

**Developing and Implementing a Restart and Power Ascension Plan (Action Plan No. 1.1C)**

The normal unit startup and power ascension process will be supplemented to provide effective management oversight during restart and power ascension to ensure conservative decisions are made. A Restart and Power Ascension Plan will be developed and implemented in two phases: prior to unit restart, and during the startup and power ascension to full power.

**Reduce Operator Challenges (Action Plan No. 1.2)**

Plant operators are challenged during normal, abnormal, and emergency plant conditions at LaSalle due to a high number of operator workarounds, temporary alterations to plant systems, and distractions in the Main Control Room. The goal of Action Plan No. 1.2. is to reduce these challenges so that Station personnel can effectively operate and maintain the plant under all conditions. Specific restart actions to achieve this goal include the following:

**Operator Workarounds (Action Plan No. 1.2A)**

Through the actions specified in this Action Plan, LaSalle will reduce the number of operator workarounds that require compensatory actions by operators in the normal course of their daily activities.

**Temporary Alterations (Action Plan No. 1.2B)**

Implementation of this Action Plan will ensure a reduction in the number of temporary alterations to plant systems that may unnecessarily challenge plant operators during normal, abnormal, and emergency conditions.

#### Main Control Room Distractions (Action Plan No. 1.2C)

Prior to restart, LaSalle will reduce the number of distractions in the Main Control Room so that plant operators are not unnecessarily challenged during normal, abnormal, and emergency conditions.

#### Correct Processes that Challenge Safe Plant Operation (Action Plan No. 1.3)

Weaknesses in plant labeling impact the ability of Station personnel to effectively operate and maintain the plant, and have contributed to many out-of-service errors at LaSalle. Human performance, process, and procedure problems are the primary root causes of such errors. For example, poor-quality procedures challenge the ability of plant operators to implement expectations regarding procedure use and compliance. In addition, operating procedures require revision to reflect plant configuration and to satisfy testing requirements. In response, this Action Plan implements a series of actions, including:

##### Upgrading Plant Labeling (Action Plan No. 1.3A)

Actions set forth in this Action Plan will upgrade labeling of plant equipment to minimize the potential for out-of-service and personnel errors.

##### Improving the Equipment Out-of-Service Program (Action Plan No. 1.3B)

Utilizing self-assessments to identify problems, LaSalle will implement corrective actions that define expectations regarding error reduction in the out-of-service program.

##### Reviewing and Revising Operating Procedures (Action Plan No. 1.3C)

Based on the results of procedure reviews specified in the Action Plan, operating procedures will be revised, as necessary, to implement safe unit restart and power operation.

### **3.2.2 Human Performance**

Restart Action Plan No. 2 implements the Human Performance strategy. This Action Plan consists of one Action Plan item -- Action Plan No. 2.1. Its overall objective is to achieve a near-term, step-change improvement in human performance at the Station to support safe plant restart and continued operation. This Action Plan strives to improve human interactions by focusing on improving communications, teamwork, and supervisory follow-up, and engaging the entire workforce in identifying and resolving barriers to good human performance. In



general, the course of action set forth in this Action Plan proceeds along the following path: (1) establish clear expectations; (2) communicate them to the workforce; (3) coach and mentor personnel during performance of their job activities; (4) continually monitor site human performance; and (5) overcome barriers to improved human performance on an ongoing basis.

Through this Action Plan, LaSalle seeks to ensure that human performance improvements are realized along with plant materiel condition and process improvements. Only by doing so will improved operational safety performance be sustained into the future.

### **3.2.3 Plant Materiel Condition**

Restart Action Plan No. 3 is focused on plant materiel condition. Its fundamental objective is to implement effective outage management oversight to ensure that planned outage activities are effectively implemented, brought to closure, and result in significant materiel condition improvement at the Station. This objective will be achieved through implementation of a Unit 1 and Unit 2 Outage Plan, and a Maintenance Backlog Review Plan.

#### **Unit 1 Outage Plan (Action Plan No. 3.1)**

A detailed outage implementation plan ensures that required Unit 1 outage work is defined and that Station resources are properly aligned to support safe completion of work items. Through this Action Plan, LaSalle will develop and implement a Unit 1 Outage Plan that identifies, organizes, and directs the completion of plant work necessary to improve the plant's materiel condition and thereby provide a high level of confidence in safe unit startup and power operation.

#### **Unit 2 Outage Plan (Action Plan No. 3.2)**

Although the initial focus of the Restart Action Plan No. 3 is Unit 1, work activities will also continue on Unit 2 to support L2R07 as resources are available. Thus, LaSalle will develop and implement a Unit 2 Outage Plan to satisfy the same objectives addressed by the Unit 1 Outage Plan (*i.e.*, improved materiel condition, and safe startup and power ascension).

#### **Maintenance Backlog Review Plan (Action Plan No. 3.3)**

As part of this Action Plan, LaSalle will complete a review of the Nuclear Work Request (NWR) corrective action backlog to determine what corrective tasks must be completed prior to startup. This provides an additional means of ensuring that the plant's materiel condition is adequate to support safe startup and power operation.

### **3.2.4 Effective Engineering Support**

Restart Action Plan No. 4 implements the Engineering Support strategy. Its overall objective of this plan is to conduct programmatic assessments and upgrade Engineering capabilities at the Station to ensure that plant problems are identified, and those required to be completed prior to restart are effectively resolved to support safe, reliable, and event-free restart and power operation. Two specific Action Plans have been developed to achieve this objective and implement the underlying strategy.

#### **Engineering Capability (Action Plan No. 4.1)**

Engineering work products must consistently meet standards and expectations to effectively support plant operation and maintenance activities. They also must consistently include sufficient technical bases to ensure that the plant design basis is maintained on an ongoing basis. To improve the technical capabilities, judgment, and work quality of Engineering, the Action Plan upgrades Engineering capabilities through the addition experienced personnel, provides for additional training of existing personnel, and implements organizational and programmatic changes to ensure that work products meet applicable quality standards.

#### **Plant Operational Readiness (Action Plan No. 4.2)**

The operational readiness of plant systems must be confirmed, in part, by addressing configuration discrepancies, open design evaluations, and degraded materiel conditions. This Action Plan implements a system functional performance review and other focused assessments of plant systems to define the scope of work necessary to be completed prior to unit restart. These actions will provide the necessary level of confidence that systems are capable of operating reliably and in accordance with design bases requirements.

### **3.2.5 Corrective Action and Self-Assessment**

Restart Action Plan No. 5 focuses on Corrective Action and Self-Assessment. Its underlying strategy is to conduct programmatic assessments and implement Corrective Action Program improvements so that plant problems are effectively identified and, those required to be completed prior to restart, resolved to ensure safe, reliable, event-free startup and power operation. Its three constituent Action

Plans, identified below, seek to achieve these objectives primarily by improving self-assessment capabilities and Corrective Action Program implementation.

**Corrective Action Program and Assessment (Action Plan No. 5.1)**

Corrective Action Program implementation must ensure that problem identification, potential negative trends, and root cause determinations are consistently effective in identifying the cause(s) of problems. In addition, corrective actions must be consistently assessed to determine whether they effectively resolve Station problems. This Action Plan delineates actions to improve the Corrective Action Program, primarily in the areas of problem identification, root cause determination, corrective action screening, and post-corrective action review.

**Site Quality Verification (SQV) Effectiveness (Action Plan No. 5.2)**

Action items set forth in this plan focus on improving SQV's ability to diagnose Nuclear Safety and Quality concerns and effectively communicate such issues to line management for resolution prior to external identification of self-revealing events.

**Departmental Self-Assessments and Effectiveness (Action Plan No. 5.3)**

Departmental self-assessments must identify potential problems prior to their actual occurrence. This Action Plan specifies actions to improve departmental self-assessments so that they identify potential problems early in their developmental stages, thus allowing time for implementation of corrective actions.

**3.2.6 Training**

Restart Action Plan No. 6 implements the restart training strategy (Action Plan No. 6.1). Its primary purpose is to focus on personal development and improve individuals' skills at the Station. Operational safety and correcting equipment maintenance issues right the first time are its areas of emphasis. In particular, the Action Plan provides for Operator Startup Training. It recognizes that plant operators must uniformly possess the knowledge and skills necessary to meet and exceed Stations operational excellence standards. As such, the Action Plan implements an operator training program.



### 3.2.7 Process Improvement

Restart Action Plan No. 7 implements the Process Improvement Strategy (Action Plan No. 7.1). Its overall objective is to evaluate current processes and to identify those which prevent work from being accomplished in a safe and efficient manner. For example, a key focus area of this Action Plan will initially be aimed at improving and streamlining the procedure process.

### 4.0 System Readiness Reviews

System Readiness Reviews will be performed by relevant System Engineers to ensure that:

- All safety-significant issues, individually or in the aggregate, have been adequately addressed by restart activities.
- Systems that have been placed in lay-up during the current outage have been made operationally ready.
- Technical Specification surveillances that were due during the shutdown and which must be performed within 60 days of restart and require plant shutdown have been performed.
- All necessary system components are operable.

System Readiness Review results will be provided to the RIRC to support its restart readiness review.

### 5.0 Independent Restart Readiness Assessment

As previously discussed, when the Site Vice President concludes that the plant is ready for restart, he will request authorization for restart from the Chief Nuclear Officer. At this time, the Chief Nuclear Officer may commission an independent assessment of the units' readiness for restart, and upon satisfactory resolution of independent assessment issues, grant final authorization for restart to the Site Vice President.



## 6.0 Site Quality Verification Assessment

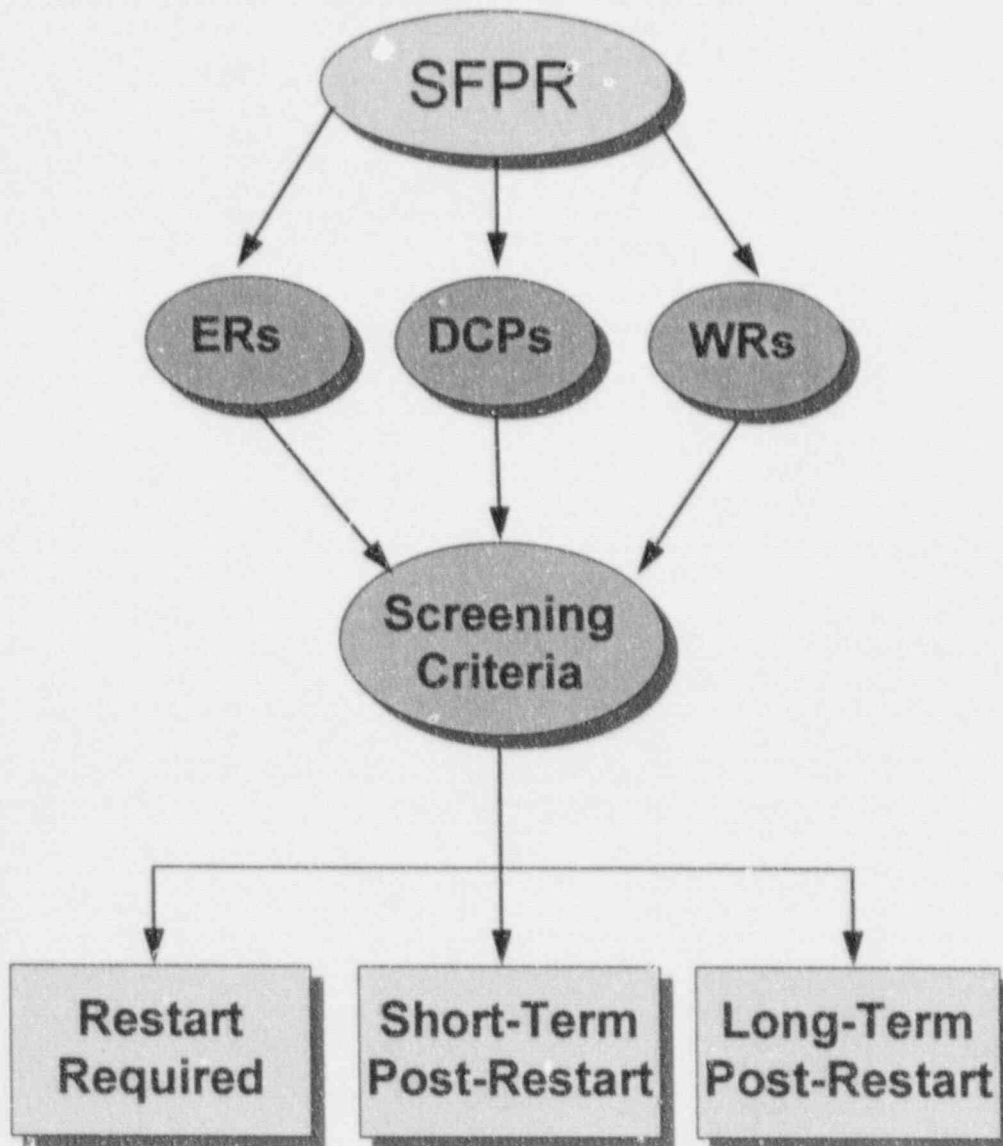
Site Quality Verification (SQV) will perform an independent assessment of restart readiness and provide the results to the Site Vice President prior to his assessment of restart readiness and recommendation to the Chief Nuclear Officer.

## 7.0 Power Ascension Plan

Concurrent with the development of final restart readiness actions is the development of a Restart and Power Ascension Plan (developed as part of the Safe Plant Operation Action Plan). This Plan ensures that plant hardware, operational and personnel are prepared to operate the plant after the current outage. The Restart and Power Ascension Plan (RPRA) transitions the plant (hardware) and personnel from shutdown to operational status. Essential steps in the RPRA will consider the results of departmental, programmatic, and system readiness results. It also will summarize key actions, milestones, management approvals and contingencies that will be implemented during the restart process.

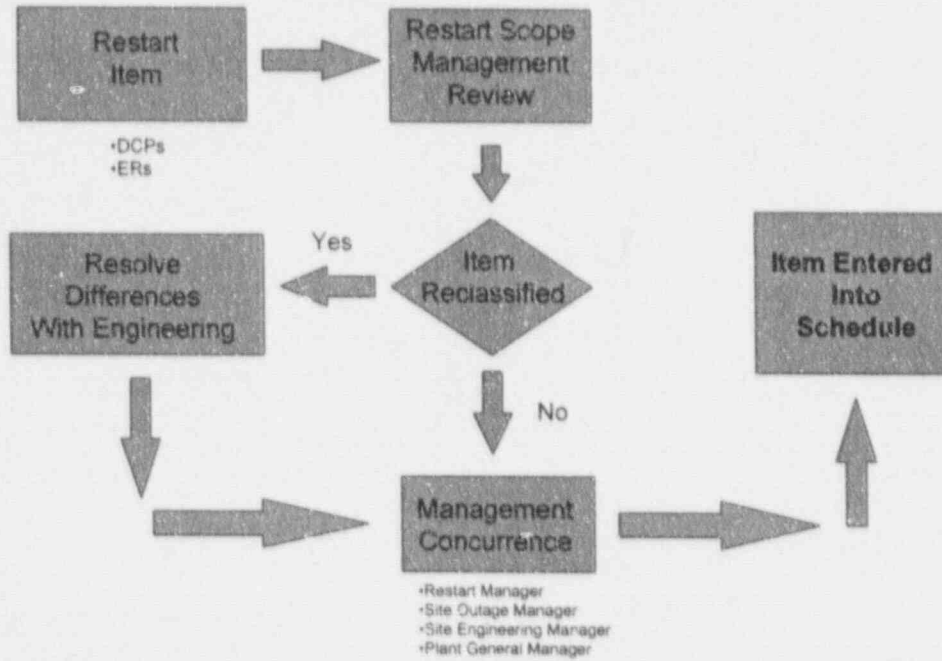
FIGURE 1

# Primary Source of Hardware Issues



## ATTACHMENT A

### Restart Issues Sorting & Scheduling Process



x:\wptdocs\corr\restart\restartx.doc

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July 1, 1997

## ATTACHMENT B

### Restart Action Plans



**ATTACHMENT C**

**Confirmatory Action Letter Matrix for Restart**

Action Plan Number	Item	CAL ISSUE					
		Material Condition	Human Performance	Corrective Action Process	Engineering Support	Design Deficiencies	Licensed Operator Training
<b>1</b>	<b>Safe Plant Operations</b>						
1.1	Improve Operator Performance						
1.1A	Monitoring Critical Operations Functions						X
1.1B	Operator Work Environment	X	X				
1.1C	Restart and Power Ascension Plan	X			X	X	
1.2	Reduce Operator Challenges						
1.2A	Operator Workarounds	X	X				
1.2B	Temporary Alterations	X					
1.2C	Main Control Room Distractions	X					
1.3	Correct Processes that Challenge Safe Plant Operation						
1.3A	Plant Labeling Program	X	X				
1.3B	Out-of-Service Program		X				
1.3C	Operating Procedures Readiness		X				X
<b>2</b>	<b>Human Performance</b>						
2.1	Human Interaction and Performance		X				
<b>3</b>	<b>Plant Materiel Condition</b>						
3.1	Unit 1 Outage Management Plan	X				X	
3.2	Unit 2 Outage Management Plan	X				X	
3.3	Maintenance Backlog Review Plan	X				X	
<b>4</b>	<b>Effective Engineering Support</b>						
4.1	Engineering Capability		X		X	X	
4.2	Plant Operational Readiness	X			X	X	

**ATTACHMENT C**

**Confirmatory Action Letter Matrix for Restart**

Action Plan Number	Item	CAL ISSUE					
		Material Condition	Human Performance	Corrective Action Process	Engineering Support	Design Deficiencies	Licensed Operator Training
<b>5</b>	<b>Corrective Action and Self Assessment</b>						
5.1	Corrective Action Program			X			
5.2	Quality Verification Effectiveness			X			
5.3	Department Self Assessment		X	X			
<b>6</b>	<b>Training</b>						
6.1	Operator Training		X				X
<b>7</b>	<b>Process Improvement</b>						
7.1	Procedures		X				

**ATTACHMENT D**

**LaSalle Readiness Measures**

Area	Restart Target
(1) Safe Plant Operation	
• Improve Operator Performance	Improving Trend In OPS Event Free Clock
• Operator Work Around	≤10 And No Significant Ones
• Outstanding Temp Alts	≤10 Greater Than 1 Refuel Outage
• Control Room Distractions	≤10 And No Significant Ones
(2) Human Performance	
• Site Human Performance	Improving Trend In Station Event Free Clock
• Out of Service Errors	≤2 Per Month
• Safety System Actuations	≤2 Per Month
• Open Significant Human Performance PIF	≤4
• Open Significant Procedures Adherence PIF	≤4
(3) Plant Material Condition	
• Outage Backlog	100% As Required for Startup
(4) Engineering Effectiveness	
• Engineering Quality	Improving Trend In Engineering Score Card
• SFPR Reviews	100% As Required for Startup
• Outstanding Engineering Requests	100% As Required for Startup
• System Readiness Review	100% As Required for Startup
• Design Changes	100% As Required for Startup
(5) Corrective Action - Self Assessment	
• CARB Rejections Rate	≤ 40%
• Significant Repeat Events	≤ 2/Month
• Significant Corrective Actions Overdue	< 15/Quarter
(6) Training	HIT Training Complete
(7) Process Improvement (Procedures)	100% Required for Startup

**NOTE:** (1) The Restart Targets are a per Unit basis.  
 (2) Significant is defined as a generic breakdown in the process.