

# CORRECTIVE ACTION

CR Number:

**02-02202**

**NOP-LP-2001-05**

**CR Category:** ST ( R ) Effectiveness Review  
ST ( R ) Effectiveness Review  
**Action Type:** ( R ) Effectiveness Review  
( R ) Effectiveness Review  
**Schedule Type:** ( A ) Normal Work Management  
( A ) Normal Work Management

**CA Number:**

12

12

**Resp Org:**

0050

**Corrective Action Type:** ( ER )  
**Cause Code:** ( H01 ) Resource mgmt

**Description:**

**R** Perform effectiveness review in accordance with the requirements of the BV Condition Report Reference Guide.

**I**  
**G**

**I**  
**N**

**A**

**T**

**O**

<b>Completed By:</b> CRPA,	<b>Organization:</b> 0069	<b>Date:</b> 8/23/2002	<b>Phone:</b> 5226	<b>Attachments:</b> Yes No
<b>If a Refueling Outage is required, Enter the Refueling Outage number:</b>	N/A	<b>Other Tracking #</b> N/A	<b>Corrective Action Due Date:</b> 2/19/2003	
<b>Approval: (Enter Name and Sign)</b> CRPA,		<b>Section:</b> 0050	<b>Date:</b> 8/23/2002	

**ACC-  
EPT**

**QUAL-  
ITY**

**I**

**Response:**

**M** Effectiveness Review for CR 02-02202 per Corrective Action 02-02202-12.

**P**

This Effectiveness Review has been conducted by Monitoring Implementations of Corrective Actions, a methodology described in the Beaver Valley Condition Report Reference Guide.

**L**

**E**

**M**

The response to the Root Cause Analysis Report generated eleven (11) Corrective Actions. An additional nine (9) Corrective Actions were written. One (1) new Corrective Action was written based on this review, for a total of 21 Corrective Actions.

**E**

**N**

**T**

The new Corrective Action (CA 02-02202-21) was written to track the FEMA response to a BVPS Report (CA 02-02202-14).

**T**

**I**

**N**

**G**

A review of the actions associated with this Condition Report find that the actions are effective as implemented.

**O**

**R**

Due to the limited access to the equipment associated with the PHADs, BVPS separation from DQE (who maintain the PHADs), and the age of the PHAD system, it was decided to upgrade the pole mounted portion of the siren system and request approval to discontinue use of the PHAD system as a part of the BVPS "Alert and Notification System".

Upon deciding to upgrade the system, the "Supplement to the Beaver Valley Power Station Emergency Warning Notification System Design Report" was developed.

The BVPS ANS was modified by adding seven (7) additional sirens and replacing three (3) original sirens with a siren rated at a higher sound level output. Six of the new sirens and the 3 replacement sirens are located in Beaver County, PA, in areas that were serviced by PHADs to provide required alert signal. The seventh new siren was located in St. Clair Township, Ohio, to provide additional coverage in an area that experienced considerable growth.

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Once the upgrade to the system was completed, testing of the additional sirens was conducted. FEMA (Federal Emergency Management Agency) had their SME (Subject Matter Expert) at BVPS observing the testing. Actual sound level readings were taken during the test by teams that consisted of one FENOC employee and one Amateur Radio Operator from Beaver and Hancock Counties. The test results were included in the "Supplement to the Beaver Valley Power Station Emergency Warning Notification System Design Report" and forwarded to FEMA.

FEMA's response "Technical Review of the Beaver Valley Nuclear Power Station (BVPS) Proposed Modification of the Alert and Notification System (ANS) to Replace Personal Home Alerting Devices (PHAD Horns) with Sirens" stated (page 3 & 4 of the report) "... thus, the ANS modifications ... meets the applicable guidance of FEMA-REP-10 for the areas that the new sirens cover. Acceptance of this proposed ANS change is based on the following assumptions...". Three assumptions were then stated.

#1 was met by removing a tree south of siren 146. In addition, EP-7 was revised to visually check for tree growth during siren maintenance.

#2 was met by revising EP-7, to include siren maintenance and testing for the new sirens. The revision also addresses refresher training for the siren system service crews.

#3 was addressed during the BVPS 2002 Annual Siren Test. Additional field measurements were taken in areas of concern. Results of the test was provided to FEMA, "Beaver Valley Power Station ANS Modification Project Summary of Siren Sound Level Testing October 22, 2002" (EP letter number NPD3MEP: 0196), (CA 02-02202-14).

The response from FEMA has not yet been received (CA 02-02202-21). However, BVPS has committed to installing 2 new sirens to address the areas of concern (CA 02-02202-20). The process  
**Corrective Action Implementation Date:** 2/18/2003  
of obtaining and installing the new sirens has already started. Approval and funding has been provided

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**Signature indicates Corrective Action complete:**  
**Completed By:** PALETTA, S  
**Signature indicates verification for SCAQ CRs:**  
**Verified By:**  
**Enter Name and Sign:**  
**Implementing Organization Approval:** VICINIE, S

**Date:** 2/18/2003

**Date:**

**Date:** 2/19/2003

**Comments:**

Q V  
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A R  
L I  
I F  
T I  
I Approval:

**Date:**

by the BVPS Project Review Committee. Paperwork for purchasing the 2 new sirens has started (BVPS Purchase Requisition 3129152) and the vendor contacted. The new sirens are expected to be installed and operating by late 2nd quarter this year.

The three (3) County Emergency Directors associated with BVPS (Beaver, Hancock & Columbiana) are aware of the ANS modifications and are comfortable with the changes.

A BVPS E-Plan change has been submitted to the NRC (Regulatory Affairs letter number L-02-102) requesting approval to remove the PHADs from the BVPS Emergency Plan (CA 02-02195-8).

The Root Cause Report (CA 02-02202-9) and the original Alert and Notification System (ANS) Basis Document (CA 02-02202-11) as well as the Supplement to the ANS Report, submitted to FEMA in May 2002, were reviewed with the BVPS EP Staff. Interviews with EP Staff members concerning these CAs, have indicated a more sound understanding of the criteria for a public ANS, and the necessity for documentation.

In addition, the BVPS EP Staff completed Human Performance Training Session taught by site Human Performance Group during the May to July 2002 time frame, (CA 02-02202-8). Since then there have been no CRs concerning the EP Staff tagged by the Management Review Board (MRB) as Human Performance issues.

In conclusion, once the 2 additional sirens are installed and operable, the actions identified in the CAs have had their intended impact and no additional action is required.