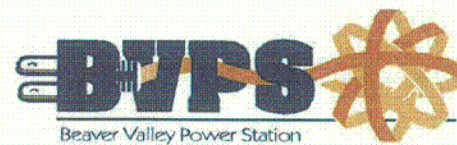


Regulatory Conference

Alert and Notification System - May 15, 2002



Desired Outcomes - Lew Myers

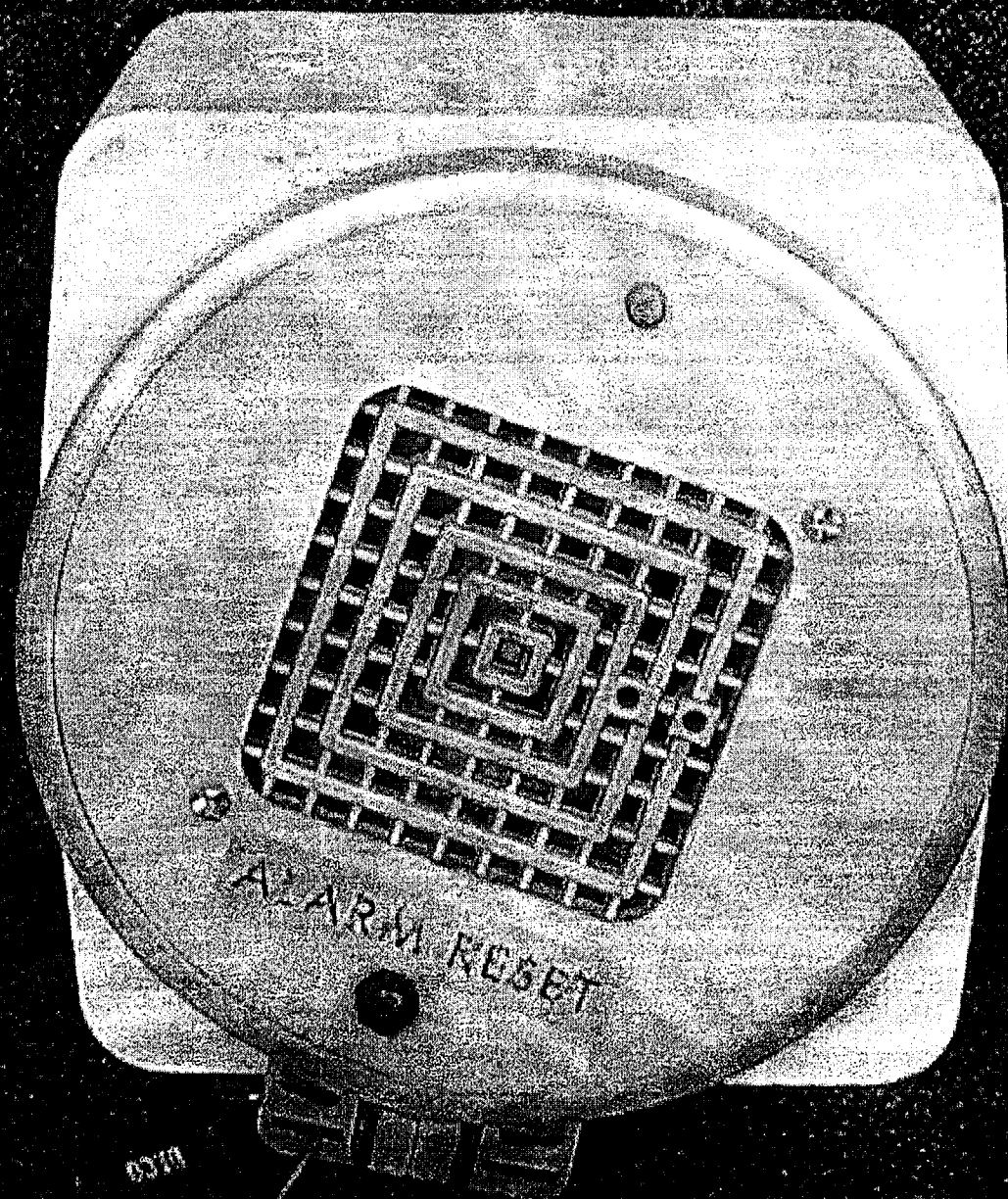
- Present the Facts and History Associated with the Alert Notification System (ANS)
- Share Information Relevant to the Safety Significance of the Issue
- Demonstrate that our Alert Notification System met Functionality Requirements
- Provide you with our Analysis and Prompt Corrective Actions

Agenda - Lew Myers

- Introduction - Lew Myers
- Chronology - Sue Vicinie
- Significance Perspective - Larry Freeland
- Cause Analysis - Jim Lash
- Corrective Actions - Jim Lash
- Summary - Lew Myers

Introduction

- NRC preliminary YELLOW finding of failure to meet the requirements of 10 CFR Part 50.47(b)(5)
- Failure to maintain the design function of the Alert and Notification System (ANS)



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Chronology-Susan Vicinie

- Purpose:
Achieve a Common Understanding of the
History Related to Beaver Valley Power
Station (BVPS) Alert Notification System

Chronology

- February 1983, Performed Independent Study of the ANS
- March 1984, BVPS Submitted Design Report
- December 1985, FEMA Issued Independent Quality Assurance Verification Report that Concluded the ANS Conformed to Regulations
- January 1986, NRC informs BVPS that ANS Requirements have been met

Chronology

- 1986 - 2000 Conducted Annual Siren Tests
- March 1998, BVPS Identified PHAD Maintenance & Testing Procedures Did Not Exist
- December 1999, Agreement with Duquesne Light Company to maintain the PHADs
- May 2001, Revised Emergency Preparedness Administrative Procedure
- August 2001, NRC Identified PHAD Maintenance & Testing Deficiencies

Chronology

- October 2001, Performed Annual Siren Test Using Revised Procedure
- October 2001, NRC Requested FEMA to Determine if PHADs are Integral to ANS
- October 2001, Established Plan to Replace PHAD Coverage with Sirens
- February 2002, FEMA Responds to NRC that PHADs are Integral to ANS
- March 2002, NRC Notified BVPS of Preliminary YELLOW Finding

Chronology

- April 22, 2002, Conducted As-Found Test of Existing Siren Coverage in a Sampling of PHAD Locations
- April 2002, Installed Additional Sirens to Enhance Coverage
- May 2-3, 2002, Tested Enhanced System with FEMA Subject Matter Expert
- May 13, 2002, Submitted Supplement to Design Report to FEMA

Significance Perspective

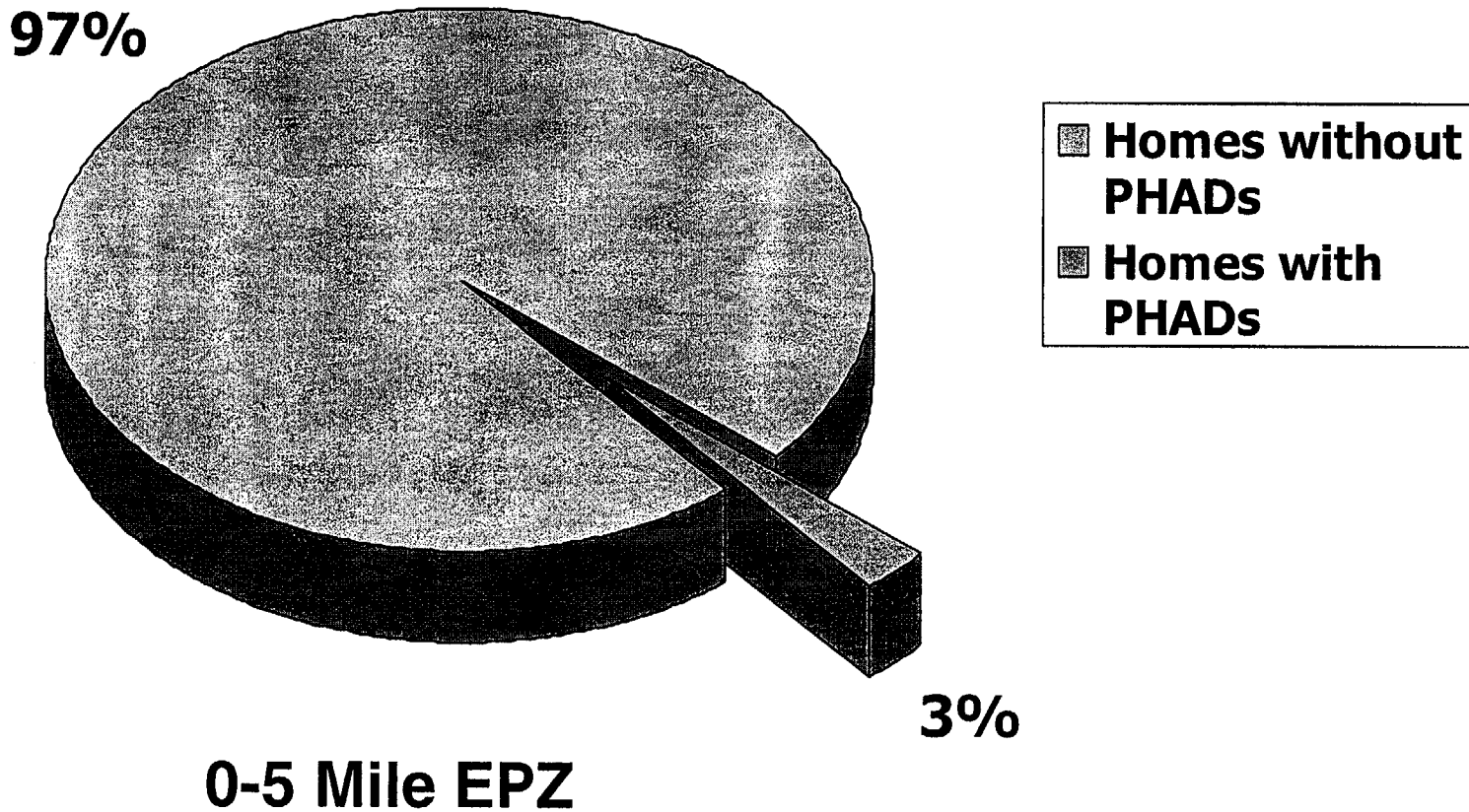
Larry Freeland

- Key Points:
 - Our Original ANS Included PHADs Which Deteriorated Over Time
 - Consequence is Minor Based on New Information and Additional Testing

Significance Perspective

- Population Estimate of the Beaver Valley 10 Mile (total) EPZ is 126,500
- Population Estimate of the Beaver Valley 5 Mile (total) EPZ is 16,000 or 4,000 Homes
- PHADs served < 3% of the 0-5 mile EPZ
- PHADs served < 4% of the 10 mile EPZ

Estimated ANS Population Distribution



Significance Perspective

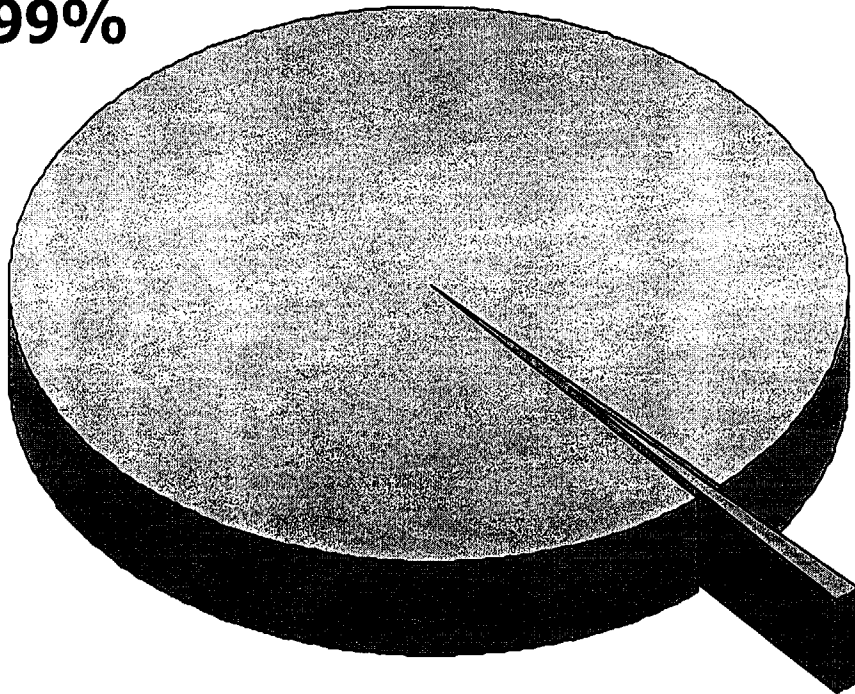
- Recent “As-Found” Siren Testing Data
 - 12 Locations Near PHAD clusters within 0-5 EPZ
 - 9 Locations had acceptable audible results
 - 3 Locations had unacceptable results
 - Siren audibility criteria met in ~ 75% of tested PHAD locations

Significance Perspective

- Additional Considerations
 - Many PHADs Within Siren Coverage Contours
 - Siren Coverage Overlap
 - Testing w/FEMA Determined Design Sound Attenuation Appeared Conservative
 - Coverage beyond 70db contours meets 60 db criteria for low population areas

Testing Results Reveal an Estimate of $< 1\%$ of the Population was Potentially Affected by PHAD Deficiencies

$> 99\%$



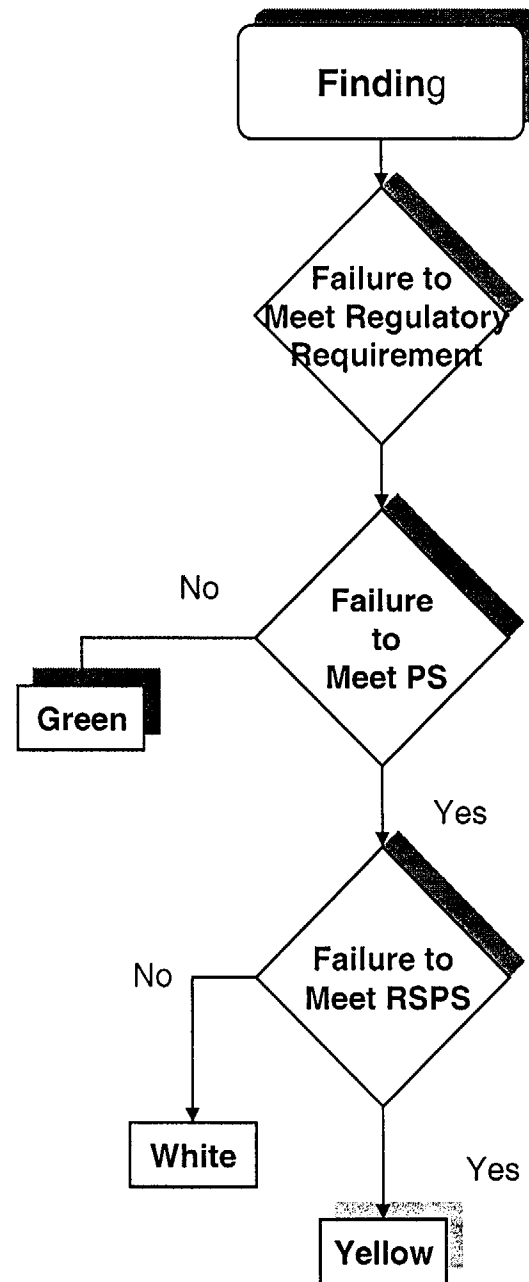
-  **Total Population**
-  **Potential Affected Population**

$< 1\%$

Significance Perspective

- Test Performance Criteria for the ANS was met without Reliance on PHADs
 - Siren availability exceeded 90% criteria
(Actual > 95% Cumulative Average)
 - Telephone survey criteria of 70%
(Actual > 85%)

Emergency Preparedness Significance Determination Process



Significance Perspective

- YELLOW - “A finding of substantial Safety Significance”
- “A finding placed in context through SDP can result in a risk significance level (color) that exceeds the actual impact on public health and safety”

Significance Perspective

Conclusion:

- PHAD Deficiencies Resulted in Original Design of ANS Not Being Fully Maintained
- Based on Recent Testing, the “Essentially 100%” Requirement for Functionality of the ANS was met and the Impact on Public Health and Safety was Very Low

Cause Analysis and Corrective Actions - Jim Lash

- Beaver Valley Senior Management Recognizes the Importance of Issue
- Initiated Highest Level Condition Report
- Used a Cross Functional Team to Perform a Root Cause Analysis and Develop Corrective Actions

Cause Analysis

- Established Root Cause:
 - A Formal Testing & Maintenance Program Was Not Implemented to Ensure Satisfactory Performance of the PHADs

Corrective Actions

- Actions to Correct:
 - Implemented Interim Measures for Assuring that the Population is Notified in the Event of an Emergency at BVPS
 - Conducted Training on the Design Basis Document with the EP Section

Corrective Actions

- Installed and Tested Additional Sirens to Eliminate the need for PHADs
- Submitted Revised Design Report that removed PHADs from the BVPS ANS
- Self-Assessment to be Performed in September 2002

Summary - Lew Myers

- We Failed to Maintain and Test the Design Function of the PHADs
- We Fixed the Problem
- Based on Siren Coverage Analysis Safety Significance is Very Low