

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-293/82-09

Docket No. 50-293

License No. DPR-35 Priority - Category C

Licensee: Boston Edison Company (BECO)

800 Boylston Street

Boston Massachusetts 02199

Facility Name: Pilgrim Nuclear Power Station

Inspection at: PNPS, Plymouth, Massachusetts

Inspection conducted: March 2-4, 1982

Inspector: C. A. Sakenas
C. A. Sakenas, Team Leader, EPS, RI

3-22-82
date signed

- G. Snyder, Chief, EP&PS Branch, RI
- I. Cohen, Inspector, EPS, RI
- R. Smith, Inspector, EPS, RI
- W. Kinney, Inspector, EPS, RI
- J. Johnson, Senior Resident Inspector, PNPS
- H. Eichenholz, Resident Inspector, PNPS
- S. Collins, Senior Resident Inspector, VYNPS
- W. Herrington, Battelle, PNL
- M. Lindell, Battelle, HARC
- D. Cooper, Battelle, Consultant

Approved by: H. W. Crocker
H. W. Crocker, Chief, Emergency
Preparedness Section, DEP&OS

3/22/82
date signed

Inspection Summary:

Inspection on March 2-4, 1982 (Report No. 50-293/82-09)

Area Inspected: Special, announced emergency preparedness inspection and observation of the licensee's annual emergency exercise. The inspection involved 207 inspection hours by a team of eleven NRC Region I and NRC contractor personnel.

Results: No items of noncompliance were identified.

DETAILS

<u>1. Persons Contacted</u>	<u>Exercise function</u>
R. Machon	Emergency Director
R. Cunningham	Emergency Preparedness Coordinator
T. Sowdon	Exercise Controller
C. Bowman	Exercise Controller
B. Nolan	Exercise Controller
W. Hoey	Exercise Controller
A. Trudeau	Radiation Emergency Team Coordinator
W. Olsen	Exercise Controller
E. Ziemianski	Emergency Communications Coordinator
C. Mathis	Asst. Emergency Director
J. Pawlak	Exercise Controller
J. MacDougall	Exercise Controller
B. Gordon	Exercise Controller

The team also observed and interviewed other licensee emergency response personnel as they performed their emergency response functions.

2. Emergency Exercise

The Pilgrim Nuclear Power Station emergency exercise was conducted on March 3, 1982 from 8:00 a.m. until 2:00 p.m.

a. Pre-exercise Activities

The NRC team of observers met with the licensee on March 2, 1982 and reviewed the nature and scope of the exercise scenario. The licensee had coordinated the exercise scenario with the Massachusetts Department of Health and Civil Defense Agency.

The scenario included an offsite radioactivity release exceeding the Environmental Protection Agency's Protective Action Guides under meteorological conditions that would require response on the part of offsite agencies. The scenario included activation of the station fire brigade as well as the support of the Plymouth Fire Company to suppress a simulated fire in the Turbine Building Truck Lock. Finally, the scenario included a simulated contaminated injury to a plant worker which caused the response of the local volunteer rescue squad and the Jordan Hospital.

Based on the above findings, this portion of the licensee's exercise program appeared to be acceptable.

b. Exercise Observation

During the conduct of the licensee's exercise, eleven NRC team members made detailed observations of the activation and augmentation of the emergency organization; establishment of the emergency response facilities; and actions of emergency response personnel during the operation of the emergency response facilities. The following activities were observed:

- (1) detection, classification, and assessment of the events making up the scenario;
- (2) direction and coordination of the emergency response;
- (3) notification of licensee personnel and offsite agencies of pertinent information;
- (4) evacuation, assembly, and accounting for licensee and contractor personnel;
- (5) assessment and projection of radiological (dose) data and consideration of protective actions;
- (6) performance of first aid and fire fighting activities;
- (7) provision of in-plant radiation protection;
- (8) performance of offsite and in-plant radiological surveys;
- (9) maintenance of site security and access control;
- (10) performance of technical support;
- (11) performance of repair and corrective actions; and
- (12) provision of information to the public.

The NRC team noted that the licensee's activation and augmentation of the emergency organization; establishment of the emergency response facilities; and actions in and use of the facilities were generally consistent with their emergency response plan and implementing procedures. However, the team did find areas for licensee improvement which are discussed below.

- (1) The Watch Engineer and Emergency Director were provided with a table listing Emergency Action Levels (EALs). This should be an approved document as it was used in event classification.
- (2) All unusual events should be announced over the station page to alert plant personnel.

- (3) Silver zeolite cartridges used in portable air samplers are much too small for the holder and significant leakage can occur.
- (4) Notifications to offsite agencies should include an indication about whether the control room or Emergency Operation Facility is called for verification.
- (5) Space in the Technical Support Center was inadequate for the number of individuals assigned to the area.
- (6) Communications between emergency response facilities would be improved by the addition of headsets and/or speaker phones.
- (7) Recovery was not exercised to the extent needed to test emergency plan implementation of this phase.
- (8) Radiological data was not clearly presented in the media center and could have led to confusion.
- (9) The audibility of announcements given on the public address system in some plant areas was inadequate.
- (10) Contamination control in handling the simulated worker injury was not adequately performed.
- (11) A more suitable procedure for station evacuation should be evaluated so as to limit worker exposure and the spread of contamination.
- (12) Offsite monitoring teams collected only two samples; too few to provide adequate assurance that dose estimates based on release data were accurate.

c. Post Exercise Critique

The NRC team attended the licensee's post-exercise critique on March 4, 1982, during which key licensee exercise participants discussed their reactions to the exercise. The observers/controllers presented their observations. The participants highlighted areas for improvement which the licensee indicated would be evaluated and appropriate corrective action taken.

3. Exit Meeting and NRC Critique

Following the licensee's post-exercise critique, the NRC team met and compared their findings with those of the licensee. It was determined that neither the licensee nor the NRC observers had identified items which exhibited a potential for significant degradation of emergency response. However, some areas for improvement were identified in addition to those identified by the licensee.

The NRC team then met with the licensee representatives listed in Section 1 of this report (on March 4, 1982). The team leader summarized the purpose, scope and findings of the NRC inspection. The team leader also informed the licensee that their performance in the exercise demonstrated that they could implement their Emergency Plan and Emergency Plan Implementing Procedures in a manner which would adequately protect the health and safety of the public. However, there were areas where improvement should be made, and the improvement items previously described in section 2.b were discussed. (Some of these items had already been identified by the licensee and discussed in the licensee's post-exercise critique.)

Licensee management acknowledged the findings and indicated that evaluation and resolution of the identified improvement items would begin immediately.