



Entergy

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~~MA 020100430~~

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Pilgrim Station
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January 3, 2006

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket No. 50-293
License No. DPR-35

Emergency Plan Changes to the Minimum Staffing Requirements for the
Emergency Response Organization (ERO)

LETTER NUMBER: 2.05.086

Dear Sir or Madam:

Pursuant to 10 CFR 50.54(q), Entergy Nuclear Operations, Inc. (Entergy) requests approval of the enclosed change to the Pilgrim Nuclear Station (PNPS) Emergency Plan.

The proposed change is being submitted in accordance with 10 CFR 50.4. The change has been evaluated in accordance with 10 CFR 50.54(q) and it has been determined that the change does not decrease the effectiveness of the approved Emergency Plan. The basis for this determination is provided in the enclosure. However, since this proposed change involves a revision to the "on-shift" staff as currently defined in Table B-1 of the Emergency Plan, it was concluded that the NRC should review and approve the change prior to implementation.

Entergy requests approval of the proposed change by September 29, 2006. Once approved, the revision will be implemented within 90 days.

There are no commitments contained in this letter.

If you have any questions or require additional information, please contact me at (508) 830-8403.

Sincerely,

Bryan Ford
Licensing Manager

FM/dm

Enclosure: Evaluation of Change to PNPS Emergency Plan, (5 pages)

Attachments: PNPS Emergency Plan, Table B-1 Mark-up (1 page)

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Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station

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ENCLOSURE to Letter 2.05.086

Evaluation of Change to PNPS Emergency Plan

Subject: Changes to Table B-1: Minimum Staffing Requirements for the PNPS ERO

- 1. DESCRIPTION**
- 2. PROPOSED CHANGES**
- 3. BACKGROUND**
- 4. TECHNICAL ANALYSIS**
- 5. PRECEDENTS**
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Evaluation of Change to PNPS Emergency Plan

1. Description

This letter is a request to revise the Pilgrim Nuclear Power Station (PNPS) Emergency Plan (EP). The proposed change will revise Table B-1, "Minimum Staffing Requirements for the PNPS ERO" for the "on-shift" Radiation Protection (RP) Technicians currently assigned to support the Operations Accident Assessment Support Functional Area. This change is consistent with the minimum staffing requirements defined in Table B-1 of NUREG-0654/FEMA-REP-1 Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

Attachment 1 provides a mark-up of the proposed change.

2. Proposed Changes

The following changes to Table B-1 are proposed as part of this Emergency Plan revision request.

Operations Accident Assessment Support Functional Area:

The number of "on-shift" RP Technicians listed as required to support the Onsite and In-plant Surveys task will be changed from two (2) RP Technicians to one (1) RP Technician.

The title of the Radio Chemistry Technician position for the "on-shift" responder performing the Chemistry / Radiochemistry task will be revised to read "RP / Radio Chem Technician."

Protective Actions (In Plant) Functional Area

The note (***) associated with the "on-shift" RP Technician will be revised from "Task shared with RP Technicians assigned to in plant surveys" to "May be provided by shift personnel assigned other functions."

3. Background

The Emergency Plan describes the Emergency Preparedness Program for the station. The philosophy that guides the development and maintenance of this program is the protection of the health and safety of the general public in communities around the station and the personnel who work at the plant.

The Emergency Plan outlines the basis for response actions that would be implemented in an emergency. The plan is not intended to be used as a procedure. Detailed Emergency Plan Implementing Procedures are maintained and used to guide those responsible to implement the plan.

The plan documents the methods by which the Emergency Preparedness Program meets the criteria set forth in 10 CFR 50, Section 47(b) and Appendix E.

The plan was formatted in a manner similar to NUREG-0654, FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness Support of Nuclear Power Plants."

Section B of the plan describes the Site Emergency Organization, key positions and associated responsibilities. It also outlines the staffing requirements, which define initial emergency response actions and provisions for timely augmentation of "on-shift" personnel. Table B-1 defines the "on-shift" complement and their emergency duties. Members of the "on-shift" organization are trained on their responsibilities and duties in the event of an emergency, and are capable of performing these response actions in an Unusual Event, and the initial actions of higher classifications.

In this submittal, Entergy is providing the technical analyses performed to justify the proposed Table B-1 revisions identified above.

4. Technical Analysis

This change involves the realignment of the "on-shift" radiological and radiochemistry functional tasks identified in Table B-1 of the Emergency Plan. Table B-1 of the Emergency Plan currently identifies that two (2) Radiation Protection (RP) Technicians and one (1) Chemistry / Radio Chemistry Technician will make-up the "on-shift" staff complement to perform the functional tasks assigned to Operations Accident Assessment Support. However, both the original and current NRC regulatory guidance detailed in NUREG-0654, Table B-1 (Reference 1) identifies that the minimum "on-shift" organization should consist of one (1) Health Physics Technician and one (1) Radio Chemistry Technician. The regulatory expectation is that these "on-shift" individuals are trained and proficient in task performance.

NUREG-0654, Table B-1 specifies one (1) Radiochemistry qualified individual to perform the "on-shift" Chemistry / Radiochemistry work and one (1) HP technician-qualified individual for in-plant surveys. The NUREG also specifies two (2) HP technician-qualified individuals for access control, HP coverage, personnel monitoring and dosimetry, but noted that these latter functions could be provided by shift personnel assigned other functions.

In the past station administrative controls prevented chemistry personnel from performing HP functions and visa-versa. As a result, it was necessary to assign three individuals to each shift, two (2) HP qualified individuals and one (1) Radiochemistry qualified individual, to fulfill the above listed requirements.

The administrative restriction relative to sharing chemistry and radiation protection work has been removed and the requested change to Table B-1 reflects this administrative realignment such that it is now possible to perform the above listed "on-shift" functions with two (2) properly trained (qualified) technicians.

The Table B-1 revision will ensure that at least two (2) qualified individuals are "on-shift" to perform all expected RP and radiochemistry work. This change will be implemented either by maintaining an "on-shift" staff consisting of one qualified (1) RP Technician and one (1) other individual that is qualified to perform both radiation protection and radiochemistry support tasks or by using the current staff which consists of two (2) qualified RP technicians and one (1) qualified Radiochemistry technician. This change is consistent with NRC regulatory guidance for minimum "on-shift" radiation protection and radiological/radiochemistry staffing as specified in Table B-1 of NUREG-0654. This change will not degrade the effectiveness of the

existing Emergency Plan or the associated implementing procedures because an adequate number of qualified individuals will be available "on-shift" to perform required radiation protection and radio-chemistry support tasks.

Subsequent to development and implementation of the initial Emergency Plan, the "on-shift" radiochemistry support task workload has been significantly reduced resulting from the changes to the Post Accident Sampling System (PASS) as defined in License Amendment No. 204 (issued November 14, 2003, reference 4). Based on this amendment, the Emergency Plan was updated to eliminate numerous PASS sampling requirements that previously supported emergency response decision-making during the initial accident phase. This greatly reduces the task burden for performing radiochemistry tasks prior to arrival of the "60 minute" Radio Chemistry Technician.

PNPS has reviewed the existing emergency actions required during the first 60 minutes and ensured that all required radiation protection and radiochemistry tasks can be completed using the two (2), individuals that are assigned to the shift. The individual assigned to fill the RP / Radio Chemistry Technician function will as a minimum be qualified to perform radiochemistry tasks, and may also be cross trained to perform RP tasks. If the assigned RP / Radio Chemistry Technician is not qualified to perform RP tasks, then an additional RP technician will be assigned to the shift.

The potential elimination of one (1) of two (2) "on-shift" RP Technicians from the Ops Accident Assessment Support Functional Area will be compensated by ensuring that one of the two individuals assigned to "on-shift" staff is trained to perform required RP and radiochemistry tasks. This ensures that at least two (2) qualified individuals remain "on-shift" to perform all RP and Radiochemistry work. This revised "on-shift" complement meets the minimum "on-shift" radiological and radiochemistry staffing specified in Table B-1 of NUREG-0654 and does not reduce the number of individuals that are available and qualified to perform required radiation protection support tasks.

A footnote contained in NUREG-0654, Table B-1 under the Protective Actions (in-plant) Functional Area for the "on-shift" Health Physics (HP) Technicians, identifies that coverage "may be provided by shift personnel assigned other functions." Table B-1 to the Emergency Plan will adopt this wording to ensure consistency with the NUREG and to remove unnecessary detail. This change will not adversely impact the plan because the number of "on-shift" individuals qualified to perform radiation protection tasks to support the Protective Action (in-plant) Functional Area has not changed.

Table B-1 staff augmentation levels for the 30 minute and 60 minute Radiation Protection Technician response and the 60 minute Radio Chemistry Technician response are not being revised and continue to be consistent with Table B-1 of NUREG-0654. A review of required radiation protection monitoring tasks that are required after 30 and 60 minutes reveals that elimination of one "on-shift" RP Technician will not negatively impact the ability to perform the required workload.

In summary, the proposed changes were reviewed against the NRC regulations of 10 CFR 50.47(b)(1), 10 CFR 50.47(b)(2) and 10 CFR 50, App. E, IV, A. "Organization" and regulatory guidance of NUREG-0654/FEMA-REP-1, to ensure that the effectiveness of the Emergency Plan and implementing procedures are not compromised or degraded. It was determined that:

- "on-shift" responsibilities for emergency response continue to be unambiguously defined;
- adequate staffing to provide initial accident response in key functional areas continues to be maintained;
- timely augmentation of response capabilities is available; and
- interfaces among various onsite response activities and offsite support and response activities remain specified.

The proposed changes ensure that the Emergency Plan meets the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50. However, since this proposed change involves a reduction of existing "on-shift" staffing levels and realignment of functional tasks as currently committed in Table B-1 of the Emergency Plan, it has been concluded that the proposed change will require NRC review and approval prior to implementation.

6. Precedents

This proposed Table B-1 revision reflects Emergency Plan staffing changes similar to those previously approved by the NRC for R.E. Ginna (Approved July 24, 2003 – TAC No. MB7240) and Waterford 3 (Approved September 30, 2002 – TAC No. MB1462). This proposed revision is not identical to those requests due to differences in the Emergency Plans at each site and the exact approach each licensee took to amend their Emergency Plans. However, the overall intent of the requests is believed to be the same with very similar justifications.

Furthermore, the Emergency Plan change and the evaluation documented in this submittal are consistent with the regulatory criteria used to judge the acceptability of previously approved Emergency Plans.

7. References

1. NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants", dated November 1980.
2. 10 CFR 50.47(b)(1) and 10 CFR 50.47(b)(2)
3. 10 CFR 50, Appendix E, IV, A. "Organization"
4. USNRC Letter Number 1.03.128, "Pilgrim Nuclear Power Station – Issuance of Amendment No. 204 Re: Elimination of Requirements for Post Accident Sampling System (TAC No. MB8138)", dated November 14, 2003

Attachment 1 to 2.05.086

**Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Plant**

Proposed Revision to the Emergency Plan

**Table B-1 Minimum Staffing Table
(1 total page)**

B-1

PNPS EMERGENCY PLAN

Table B-1: Minimum Staffing Requirements for the PNPS ERO ⁽¹⁾

Functional Area	Major Task	Position Title	Response
Plant Operations	Plant Stabilization	Shift Manager	On Shift#
Assessment of Operational Aspects	Accident Mitigation	Control Room Supervisor	On Shift#
		Lic. Nuc. Plant Operator (2) Unlic. Nuc. Plant Operator (2)	On Shift# On Shift#
Emergency Direction	Emergency Classification	Shift Manager	On Shift#
Emergency Control	PAFs	Control Room Supervisor	On Shift#
		Emergency Director Emergency Plant Ops Supv	60 min. 60 min.
Notification and Communications	Notification of PNPS, Local, Commonwealth, and Federal personnel and Maintain Communications	Engineer (Shift Control Rm)*	On Shift#
		Emergency Comm Supv Communications Staff (2)	30 min. 60 min.
Rad Accident Assessment	EOF Direction	Emergency Offsite Manager	60 min.
Ops Accident Assessment Support	Offsite Dose Assessment	Offsite Radiological Supv	30 min.
	Offsite Surveys	RMT Member (2)	30 min.
		RMT Member (2)	60 min.
	Onsite and In-plant Surveys	RP Technician (2) RP Technician (2) RP Technician (2)	On Shift# 30 min. 60 min.
Chemistry / Radiochemistry	Radio Chem. Technician Radio Chem. Technician	On Shift# 60 min.	
Plant System Engineering	TSC / OSC Direction	Emergency Plant Manager	60 min.
Repair and Corrective Actions	Technical Support	Engineer (Shift Control Rm)*	On Shift#
		Engineer (Reactor) Engineer (Mechanical) Engineer (Electrical)	30 min. 60 min. 60 min.
	Equipment Repairs	Nuclear Maint. Technician	30 min.
Protective Actions (In Plant)	Radiation Protection, Access Control, RP Coverage, Personnel Monitoring, and Dosimetry	Nuclear Maint. Technician	60 min.
		Nuc. Plant Reactor Operator	On Shift#
		Nuc. Plant Reactor Operator Nuclear Maint. (Electrical)(2) Nuclear Maint. (Electrical) Nuclear Control Technician(2)	60 min. 30 min. 60 min. 30 min.
	Fire fighting	Fire Brigade* Plymouth Fire Dept.	On Shift# On Call
	Rescue Ops and First Aid	EMP**** Ambulance Service	On Shift# On Call
		Security	Security Force**

On Shift - A person is said to be on shift when, during normal or authorized overtime hours, that person is within the PNPS owner controlled areas or on the connecting roads between them with Station Management approval.

* Position staffed in accordance with technical specifications.

... Position staffed in accordance with technical specifications and station procedures.

... Task shared with RP Technicians assigned to in-plant surveys.

**** (EMP) Emergency Medical Personnel: individuals qualified as EMPs, RNs, First Responders, and Paramedics.

NOTE: Response times are based on optimum travel conditions.

(1) This table B-1 is incorporated into the Emergency Plan in accordance with USNRC Generic Letter 82-33 dated 12/17/82.

May be provided by shift personnel assigned other functions

B-8

Revision 29

Request due to 50.521 f
Justification for changes
evaluate separate for license

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0502 =>
Pre Submitted
conference call
PM