ATTACHMENT

PROCEDURES GENERATION PACKAGE

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Procedures Generation Package (PGP) is to describe the development of emergency operating procedures (EOPs) at New York Power Authority's Indian Point Unit 3 Nuclear Power Plant. Indian Point 3 is a 3025 MW_t Westinghouse-type pressurized water reactor located in Buchanan, New York.

1.2 Scope

This document was developed in response to Supplement 1 to NUREG-0737, Item 7.2.b regarding the documentation required for EOP upgrade.

1.3 Organization

This document consists of the following five sections:

- Introduction
- Plant-Specific Technical Guidelines
- EOP Writer's Guide
- EOP Verification and Validation Program
- EOP Training Program

Each of the sections describes the approach taken by New York Power Authority as part of the overall EOP upgrade and implementation program for Indian Point 3.

2.0 PLANT-SPECIFIC TECHNICAL GUIDELINES

2.1 General

New York Power Authority will use Revision 1 of the Westinghouse Owners Group (WOG) Emergency Response Guidelines (ERGs), LP Version, and associated background documents as generic technical guidelines from which to develop Emergency Operating Procedures (EOPs) tailored to the specific operational requirements of Indian Point Unit 3.

Any revisions to the generic ERGs issued by the Owners Group will be reviewed for applicability to Indian Point Unit 3. Revisions to the plant-specific EOPs will be made as necessary using the established revision, review and approval process.

The methodology used to develop specific EOPs from the generic ERGs includes the following major items:

- Background information supplied with the generic technical guidelines.
- Identification of the plant-specific technical information.
- Use of the plant-specific technical information.
- Use of other plant Procedures
- Documentation requirements.

2.2 Description of Conversion Methodology

2.2.2.1 Use of the Background Information Supplied With Technical Guidelines

The WOG ERG background information will be used to determine the intent of the guidelines and their applicability to Indian Point Unit 3. Where applicability is verified, the generic ERG will be

converted to a plant-specific EOP that meets the intent of the source ERG. This will help ensure that the prescribed operational sequence results in the desired plant condition endpoint. Where inapplicability of a guideline is verified, technical justification of adaptation or ommission will be provided.

2.2.2.2 Identification of the Plant-Specific Technical Information

The EOP writing team will incorporate into the generic ERGs plant-specific technical information from a variety of source documents. These source documents include (but are not limited to) the following:

i) Updated FSAR
ii) Technical Specifications
iii) System Descriptions
iv) Currently approved procedures
- Plant emergency procedures (PEP)
- Off-normal operating procedures (ONOP)
- System operating procedures (SOP)
- Plant operating procedures (POP)
- Alarm response procedures (ARP)

v) Current as-built plant drawings
- Logic diagrams
- System Flow diagrams

2.2.2.3 Use of the Plant-Specific Information

Plant specific information will be used in the development of plant-specific EOPs from the generic ERGs. In general, this specific information will be used for the following:

i) to identify plant-specific equipment receiving a signal during the plant safeguards actuation;
ii) to identify component status as required in the ERGs;
iii) to identify setpoints and process parameters needed by the operator using the EOPs.

The items listed above are not meant to form an all inclusive list but generally describe the projected use of plant-specific technical information.

2.2.2.4 Use of Other Plant Procedures

Indian Point Unit 3 currently has Plant Emergency Procedures (PEPs) and Off-Normal Operating Procedures (ONOPs) to provide specific operator direction for abnormal plant operation. Some of the PEPs will be incorporated into the plant-specific EOPs; the remainder will be reclassified as ONOPs. The new EOPs will include all applicable information that is currently in the PEPs for symptoms and events covered by the generic ERGs.

2.2.2.5 Documentation Requirements

The generic WOG ERGs are to be used as a starting point for a complete upgrade of the Indian Point 3 EOPs. Any deviation from the technical guidance provided by the ERGs will be documented; the overall intent of the ERGs will be maintained in the new procedures. Part of the end product of the EOP upgrade effort will be background documentation for each step of every EOP that describes both the purpose of the step and its technical basis. This information will be a major surce document for the EOP training program, which is described elsewhere in this document.

3.0 EOP WRITER'S GUIDE

3.1 General

The EOP Writer's Guide is a document that provides specific, detailed instructions to personnel writing or revising EOPs. In addition to establishing sound writing principles, the guide promotes consistency of format, usage, and technical presentation among all EOPs and revisions, independent of the number of different EOP writers. The Writer's Guide will be revised as necessary to reflect valid feedback resulting from procedure validation, training, and operator experience. The guide is based on the following documents.

- NUREG-0899, Guidelines for the Preparation of Emergency Operating Procedures, United States Nuclear Regulatory Commission, 1982
- INPO 82-017, Emergency Operating Procedures Writing Guideline, Institute of Nuclear Power Operations, 1982.
- Writer's Guide for Emergency Response Guidelines, Westinghouse Owners Group, 1983
- AP-21.1 (Rev.5), Operating Procedure Controls, New York Power Authority, Indian Point 3, 1984.

3.2 Document Description

The Writer's Guide contains detailed information on the following major topics:

- Procedural Controls. This section contains instructions for procedure and revision numbering and identification.
- Format. This section contains instructions for page format, procedure organization, and instructional step numbering.

- Writing Instructional Steps. This section contains instructions on step length, step content, use of logic terms, component identification, level of detail, etc.

- Mechanics of Style. This section contains instruction of use of spelling, punctuation, and other usage topics.

- Action Verbs. This section lists many commonly used action verbs and their intended meanings. This will help ensure uniform use and understanding of action verbs used in the EOP's.

A complete copy of the Indian Point Unit 3 EOP Writer's Guide is included as an attachment to this submittal.

4.0 EOP VERIFICATION AND VALIDATION PROGRAM

4.1 General

Verification of the Emergency Operating Procedures will confirm that static aspects of the procedures, such as component designations, setpoints, and format, are correct in accordance with the EOP source documents, the generic ERGs, and the Indian Point 3 Writer's Guide. The verification plan is modeled after INPO Guideline 83-004, "Emergency Operating Procedures Verification Guideline."

Validation of the Emergency Operating Procedures will confirm the dynamic usability of the procedures by the operator and the operability of the procedures to meet plant responses, shift staffing, and control room equipment. The validation plan is modeled after INPO Guideline 83-006, "Emergency Operating Procedures Validation Guideline."

4.2 Verification Program Description

The verification plan includes the following:

- Correctness and completeness of plant-specific information merged with the WOG Emergency Response Guidelilnes.
- Application of human factors principles to the EOPs as delineated in the Indian Point 3 Writer's Guide.
- Compliance of resultant EOPs with the WOG ERGs from which they were developed.
- Compliance of EOPs with applicable operating, system, and administrative procedures.

4.3 Validation Program Description

The validation plan includes the following:

- Comparison of the level of information presented in the EOPs with the minimum number, qualification, training, and experience of the operating shift.

- Determination that the EOPs can be understood and followed without confusion, errors, and delays.

- Determination that a correspondence exists between the EOPs and control room/plant instrumentation and equipment.

- Determination that there is a high level of assurance that the EOPs will be effective in providing operator guidance towards the mitigation of transients and accidents.