



*Appendix F*  
***Screening Walkdown Plan***

# Contents

| <u>Section</u>                            | <u>Page</u> |
|---|-------------|
| F.1 Introduction.....                     | F-1         |
| F.2 Organization and Approach of SRT..... | F-1         |
| F.3 Degree of Inspection.....             | F-2         |
| F.4 Walkdown Logistics.....               | F-3         |
| F.5 Screening Walkdown Completion.....    | F-4         |

# Appendix F

## Screening Walkdown Plan

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### F.1 INTRODUCTION

This appendix describes an approach which can be used to perform the screening evaluation of the safe shutdown equipment during the plant walkdown. This approach is based on the experience gained in performing the SQUG trial plant reviews. This appendix covers: (1) the organization and approach which can be used by the Seismic Review Team (SRT), (2) the degree of inspection to be performed, (3) walkdown logistics, and (4) screening walkdown completion.

### F.2 ORGANIZATION AND APPROACH OF SRT

The number of individuals in each Seismic Review Team (SRT) should be minimized to permit ready access to inspect equipment and facilitate movement. In addition to the two Seismic Capability Engineers, a systems or operations engineer may also be involved in the walkdown as needed by the SRT to provide information on how a system or an item of equipment operates to accomplish its safe shutdown function. Health physics and security personnel may also accompany the SRT as the need arises.

Each group of individuals walking down the plant should collectively have:

1. An understanding of the plant layout and location of the various system and equipment scheduled to be evaluated during that walkdown period;
2. An understanding of the scope and objectives of the walkdown including the methodology and procedures;
3. An understanding of the seismic verification guidelines including inspection techniques and evaluation criteria; and
4. An understanding of the operational aspects of the plant and the importance of the various plant systems and equipment.

SRT decisions concerning equipment seismic adequacy should be made on the spot, if possible, and the walkdown should proceed at a pace consistent with this objective. Decisions to verify the seismic adequacy of equipment should be unanimous among the Seismic Capability Engineers. Concerns which do not permit seismic verification during the screening walkdown should be documented and left for further review to either eliminate the equipment as a required part of the safe shutdown system (i.e., select a different train or set of equipment) or identify it as an outlier for further evaluation (as described in Section 5). During the walkdown, many items of equipment may have verification results that are unknown. The SRT should decide what information or additional action is required to resolve the issue and inform the appropriate support staff personnel so that, if possible, the issue may be resolved during the later part of the walkdown.

If several Seismic Review Teams are used to conduct the screening verification and walkdown, then a means for coordinating the activities of the various teams should be used to ensure that all the equipment and activities of the evaluation are covered. This coordinating function could be performed by a single individual or by a committee of individuals from the various SRTs.

### **F.3 DEGREE OF INSPECTION**

All of the equipment on the seismic review safe shutdown equipment list (SSEL) should be reviewed. Exceptions to this may occur (e.g., equipment in very high radiation areas or otherwise inaccessible locations), and each exception should be justified by the SRT. The level or scope of evaluation may vary depending upon the experience and judgment of the SRT.

The number of equipment items that are classified as outliers, and require further evaluation, usually depends on the original design and construction of the plant, existing available documentation, current maintenance practice, and the degree of expertise of the SRTs.

## F.4 WALKDOWN LOGISTICS

The SQUG trial plant walkdowns were conducted over a two-week period using several SRTs. The following procedure was used to facilitate these walkdowns.

A three-to-four hour kick-off meeting was scheduled for the beginning of the plant walkdown. This meeting provided a briefing on the objectives of the walkdown, the organization of the walkdown groups, the planning for the walkdown, and the breakdown of the total list of equipment for which each group was responsible. Radiation training (including whole body counts and issuance of personnel dosimetry) and plant access requirements (obtaining security badges) for the SRT members were done prior to this kick-off meeting. After this kick-off meeting, the SRTs commenced with the plant walkdown.

A daily morning meeting was held in which the SRT reviewed the equipment included in that day's walkdown. Anchorage drawings were also made available and reviewed by the SRT. The walkdown was conducted in morning and afternoon sessions. A meeting was also held during the lunch break to discuss problem areas and the approaches used by other SRTs.

The afternoon session began after lunch and lasted until dinner time. At the option of the utility and the SRTs, it may be desirable to conduct the walkdown outside of normal working hours. In any case, it is not recommended that the walkdown "day" exceed a total of about 10 hours.

A short meeting was also held at the end of each day to discuss the day's walkdown, request information as required from the appropriate support staff personnel, certify the completed SVDSs, review information retrieved by the support staff so that previously started evaluations could be completed, and organize the next day's activities. Any unknowns were reconciled as soon as possible after the item of equipment had been inspected. The memory of the SRT for the particular equipment verification was clearer, and the number of unknown equipment items did not mount up during the course of the walkdown.

When performing the walkdown, the SRT had the appropriate tools to collect and record data. These tools included a clip board (e.g., for SVDS and SEWS), a ten foot long tape measure capable of measuring to 1/16 inch, pencils or pens, and a flashlight. The SRT may wish to use some form of carrying pack to allow hands to be free for climbing ladders, going through crawl spaces, etc.

Other tools may be included depending on the preference of the SRT. For example, a compact camera (subject to plant policy) can be useful to record visual findings (each picture frame should have a designation and be fully described.) A small audio cassette recorder can be used to record the subject of each picture frame and general notes about the walkdown. More elaborate visual records can be obtained by using a video recorder. However, video equipment is usually cumbersome and expensive, and has not been used extensively in past plant walkdowns. It should also be understood that the use of personal equipment is typically at the individual's own risk. If equipment is contaminated or broken, there is often no compensation by the plant.

The SRT should be aware that there is usually a need for hard hats, safety glasses, hearing protection, and sometimes safety shoes. SRT members should consider wearing light cotton clothing since temperatures inside operating nuclear stations, regardless of the time of year, are usually 75° to 90°F with high humidity. These conditions can lead to extreme personnel discomfort, especially when protective clothing is required for walkdowns in contaminated and high radiation areas.

## **F.5 SCREENING WALKDOWN COMPLETION**

At the completion of the Screening Verification and Walkdown, all identified safe shutdown equipment included in the walkdown should be classified as being either verified or an outlier. The SVDS should be completed, checked for accuracy, and certified for each item of equipment. The outlier sheets (OSVS) should be completed for each item of equipment identified as an outlier. Work sheets (SEWS), if used, should also be checked so that the information noted (judgments, description, and calculations) can be reasonably followed by a reviewer. At the

completion of the Screening Verification and Walkdown, the SRT should inform the utility management about the walkdown results in detail.