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NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
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December 1, 1989

Docket Nos. 50-213
50-245
50-336
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SYFR 33983
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Re: Draft Regulatory Guide DG-1001

U.S. Nuclear Regulatory Commission
Regulatory Publications Branch
Division of Freedom of Information
and Publications Services
Office of Administration
Washington, D.C. 20555

Haddam Neck Plant
Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3
Comments on Draft Regulatory Guide DG-1001

On August 1, 1989, the NRC Staff issued Draft Regulatory Guide DG-1001, "Maintenance Programs for Nuclear Power Plants," for public review and comment. The public comment period for submittal of comments to the NRC Staff expires December 1, 1989. The purpose of this letter is to provide comments to the NRC on the draft Regulatory Guide on behalf of Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO). CYAPCO and NNECO remain committed to the goal of achieving and maintaining improved reliability and safety at our nuclear power stations through an effective maintenance program. CYAPCO and NNECO have maintained a continuing extensive effort to analyze maintenance issues and to develop overall guidelines that identify the essential elements needed in our maintenance programs. Utilizing our maintenance expertise, and working with NUMARC, INPO, EPRI, and others, we believe we have been able to focus our emphasis on specific areas of need and maintain effective and continually improving maintenance programs.

In support of the above, CYAPCO and NNECO are providing specific comments on the 5 topics identified by the NRC in the draft Regulatory Guide. These comments are provided in Attachment 1. Further, we endorse the comments being filed by NUMARC on the draft Regulatory Guide.

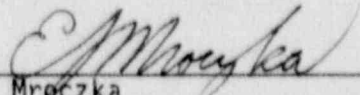
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We trust you will find these comments valuable in establishing a final regulatory position on maintenance programs, and we remain available to discuss this matter with you at your convenience.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY



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Senior Vice President

cc: W. T. Russell, Region I Administrator
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Attachment 1

Comments on Draft Regulatory Guide DG-1001

December 1989

Comments on Draft Regulatory Guide DG-1001

General Comments

The goal of a nuclear generating station is to safely produce reasonably priced electricity for customers. Public protection is assured by a three-fold defense in depth; containment, mitigation and challenge (BOP caused reactor trips) reduction. Containment and mitigation are the top priorities and are the subject of NRC regulation and industry code. With respect to the BOP, the draft regulatory guide and the proposed maintenance rule will be a very expensive and redundant program to formally address. Indeed, BOP related maintenance affecting plant safety has been addressed, e.g. turbine missile analysis. Adding more regulation in this area will strain even further the goal of reasonably priced electricity without any significant increase in safety. It appears that little benefit can be achieved by the promulgation of a maintenance rule.

Our basic impression of the regulatory guide is that it is not specific enough, or focused enough to be of much use without endorsing specific minimum standards set by NUMARC or INPO. Almost anyone could interpret that they satisfied the recommendations with this guide or vice versa; an NRC inspector could interpret that a given plant did not satisfy the recommendations of the guide.

Specific Comments on the Five Specified Questions

Question 1

What level of detail should be included in the regulatory guide?

Response

Ideally, sufficient detail should be provided to formulate programs that will be immune to a different interpretation by each NRC inspector that comes along. Motherhood statements are of limited practical value, since they are open to widely varying interpretations. The regulatory guide should reference industry standards that are in turn implemented on a plant specific basis.

For example, the statement, "the use of the Nuclear Plant Reliability Data System (NPRDS) is encouraged" is not specific enough and can be subjectively interpreted in a variety of ways. Measuring the degree of compliance needs to be factored into the specific wording of the regulatory guide. It would be preferable for the Regulatory Guide to clearly state that it is the utility's responsibility to have an effective program, whereas the NRC's responsibility is limited to assuring compliance to certain industry standards.

Question 2

Is the scope of systems, structures, and components covered by the regulatory guide appropriate?

Response

It is much too broad. The guide should concentrate only on the systems within the traditional purview of the NRC, i.e., safety related systems. With a smaller scope, and specific reference to industry standards, the guide may be more effective.

Question 3

What criteria could be used to determine that a maintenance program is fully effective and additional improvement is not essential from a safety standpoint?

Response

We believe that if a unit's capacity factor over several years is high accompanied with low forced outage rates, and the unit's safety system unavailability record is continually better than a minimum threshold level specified by NUMARC or INPO, then the unit's maintenance program is effective.

We developed what we refer to as the Production Maintenance Management System (PMMS). The PMMS is a maintenance management concept with the primary objective of minimizing the cost of producing and ensuring the availability of electrical power from our generating stations. PMMS was developed and uniformly implemented at all major nuclear, fossil, hydro, and internal combustion plants owned or operated by Northeast Utilities. PMMS required the development of systems and subsystems to document, control, monitor, store, and retrieve on demand production maintenance related information. The magnitude of this effort coupled with the desired manipulation capabilities of the associated systems and components requires the use of automated techniques and the availability of computerized support systems. Our intention was to use an automated system to help the plants more effectively manage their preventive and corrective maintenance programs. Ultimately, this led to the development of the two maintenance-related performance indicators that we currently use, namely Preventive Maintenance/Corrective Maintenance (PM/CM) ratio and Corrective Maintenance (CM) backlog, to determine the effectiveness of our program.

Other relevant measures of maintenance effectiveness include the number of maintenance rework items, and the number of post maintenance testing failures.

Question 4

Is it appropriate to use quantitative goals, which are described in Regulatory Position 3 of the draft regulatory guide, directed toward achieving a satisfactory level of performance in plant maintenance programs consistent with the level achieved by the top performing U.S. plants of similar design?

Response

Some goals are appropriate, but they must be carefully structured so that they do not detract people from focusing on the important issues. Quantitative INPO goals have been established for overall unit performance. We do not

believe the regulatory guide should specify how goals should be established and what focus they should have. If the guide encourages the proper emphasis on improving maintenance, the goals will be a natural fallout of good management practices.

Question 5

What quantitative measures would be appropriate for such goals? Should they be at the plant level, component level, or some combination thereof?

Response

Goals and quantitative measures should be plant specific. They should not be a part of the regulatory guide. There are many variations within the utility industry regarding maintenance organization, staffing, procedures, and other factors which make universal goals and measures infeasible. In addition, a plant needing major maintenance improvements will require significantly different goals from a plant that needs virtually no improvement.