

Docket No. 50-346

License No. NPF-3

Serial No. 1-448

July 18, 1984



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Mr. C. Norelius, Director
Division of Engineering & Technical Programs
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Norelius:

This letter is to provide you with the current status of Toledo Edison's comprehensive corrective action program in the maintenance area. This program resulted from items of non-compliance identified in Inspection Report 50-346/83-01 (Log No. 1-747).

Additionally, in your April 18, 1984 Inspection Report 50-346/84-04 (Log No. 1-947), you requested Toledo Edison describe the interim measures we have taken or plan to take to improve our maintenance program. Subsequent to issuance of Inspection Report 84-04, Toledo Edison presented, on April 27, 1984, an update of the Performance Enhancement Program which included the interim measures being taken to improve our maintenance program.

The attachment provides additional information on the actions Toledo Edison is taking to improve the maintenance area.

Very truly yours,

R P Crouse

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cc: DB-1 NRC Resident Inspector

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In the area of maintenance control, TED originally identified seventeen (17) areas of improvement (action plans) to the NRC in our comprehensive corrective action plan. These items were detailed in our letter of April 29, 1983 (Serial 1-352) and updated on January 23, 1984 (Serial 1-400).

In October 1983, the Assistant Station Superintendent - Outage Management assumed the responsibility of the Maintenance Engineer on an interim basis. The Assistant Station Superintendent had six years experience as Maintenance Engineer prior to his five years as Assistant Station Superintendent with responsibilities for Maintenance and other sections. With the change in personnel, the actions for improving performance were expanded in scope to include those activities addressed in our letter of April 29, 1983. These actions included efforts to identify and resolve underlying root cause issues contributing to the identified problems in the maintenance area.

The number of areas were initially limited to ensure effective utilization of the available resources to the timely improvement of quality of the maintenance area. Areas identified for improvement of productivity and cost effectiveness were deferred until significant improvement in maintenance quality has been achieved or initiated. Twelve areas were identified for initial efforts for improvements and has been increased to thirteen with the addition of an action plan on Materials Planning and Coordination.

We recognized a need to improve communications. This has been one of our biggest areas of emphasis and encompassed many things. A clearly defined philosophy has been developed and is being communicated throughout the department from the Maintenance Engineer. This philosophy emphasizes quality and the following action plans are designed to assist in attaining that goal.

I. ORGANIZATIONAL REVIEW

The Maintenance Engineer has reassigned several reporting relationships involving staff and contractors to relieve himself of direct involvement in specific activities which have been delegated to other maintenance personnel. In conjunction with the revised reporting relationships, routine administrative responsibilities have been delegated to personnel reporting directly to the Maintenance Engineer. Meetings were held with the Lead Engineers and Supervisors to discuss topics such as individual plans for the future, performance strengths of subordinates, department strengths and weaknesses, problems and expectations from their supervisor.

The results of the organizational review and assessment identified a mismatch of individual responsibility and workload assignment.

Actions taken to correct this mismatch included:

1. A reorganization which resulted in the Maintenance Supervisors responsibility for shop foremen and work forces reporting directly to the Maintenance Engineer. This provides a more direct communication path and relieves the Lead Engineers from the responsibility for utilization and productivity of shop personnel, disciplinary responsibilities, etc.
2. Eleven additional staff personnel have been added to the Maintenance Management Team. These plus 4 additional staff positions which remain to be filled will increase the maintenance technical and administrative staff significantly. In addition, 2 permanent positions have been authorized in our outage management organization. These positions will alleviate the need to temporarily reassign full time maintenance personnel to do outage planning. This allows for reduction of the individual's workloads which has resulted in reduced overtime and individual stress levels. It also provides additional opportunity for staff training.
3. Efforts are continuing to fill the Lead Electrical and Lead I&C Engineer positions. Effective July 1, 1984 our Outage Management Supervisor was promoted to fill the Maintenance Engineer position. Due to the close working relationship between Outage Management and Maintenance in preparation for and execution of our 1984 Refueling Outage, a gradual transition is planned in the Maintenance Engineer position. The new engineer will assume full Maintenance Engineer responsibilities at the end of the refueling outage.
4. Administrative responsibilities for Facility Change Requests have been reassigned to the Facility Modifications Department. This further reduces the workload on the Maintenance Engineering Technical staff.
5. Responsibility for managing and administering contracted labor efforts have been reassigned to the Facility Modification Department. This reduces the administrative and supervisory workload of the Maintenance Supervisors and Maintenance Foreman.

Additional organizational changes and responsibility assignments may result from the implementation of the MBO Program and further assessments of the Maintenance Section's functions.

II. MANAGEMENT BY OBJECTIVES (MBO) PROGRAM

The effort to implement an MBO Program at the Section Head level has been underway since early 1983. The Acting Maintenance Engineer has been involved as Assistant Station Superintendent in the Section

Head MBO effort, and is proceeding with implementation of the MBO Program in the Maintenance Section.

After January 1, 1984, some MBO sessions were held with the three shop supervisors together and the lead engineers together. This enabled each of them to draw on the experiences of the others and also improved MBO process time. The Lead Maintenance Support Engineer has held initial group meetings to begin MBO implementation with his staff.

The Maintenance Engineer had initial kickoff meetings during early April with the Mechanical, I&C and Electrical staffs and the kickoff meeting for all Foremen was held on May 22. Kickoff meetings are scheduled in July with all shop and maintenance staff personnel. These initial sessions will be full one-day meetings held away from the work site. They will be made up of groups of 15-20 from the same shops, so common goals and objectives can be initiated.

These sessions are designed to acquaint everyone with the MBO process and to establish a base from which a comprehensive program can be implemented. The Maintenance Planning Supervisor has begun MBO with the Maintenance Planning Staff. Sessions were held on June 13th, 18th, and the 25th. Additional dates will be scheduled in order to complete MBO for the entire group.

Results of MBO efforts to date indicate an improved understanding of job responsibilities and their relationship to achieving acceptable performance. The process assures that all responsibilities necessary for quality maintenance are assigned and fulfilled. The process clarified many misconceptions about job responsibilities and performance standards and it also identified areas for which it was felt there was no responsibility or accountability.

III. MAJOR REVISION OF AD 1844.00, MAINTENANCE

AD 1844.00 - Revision 11 was approved and initial training completed by April 1, 1984. One make up session was held later in April for those people who were unable to attend the initial training. Response from those attending training was positive and several constructive comments were received.

This procedure describes the controls for the administration of the Davis-Besse Station Maintenance Program. Since initial development, there have been changes in the systems used for control of the programs such as the Davis-Besse Maintenance Management System (DBMMS) and changes in other activities which affect the maintenance program, such as Facility Change Request (FCR) control - AD 1845.00, records management, procurement, materials control, etc. A thorough analysis of the maintenance program and how it relates to the

support activities and functions from other sections in the Station and Departments in the Company, was completed to assure that the revision to AD 1844.00 properly identified the interfaces with the other Departments and administrative control procedures to insure an effective maintenance administrative procedure.

Another revision to this procedure to incorporate refinements should be approved in the next few weeks.

IV. DAVIS-BESSE MAINTENANCE MANAGEMENT SYSTEM (DBMMS) IMPLEMENTATION

This has been and continues to be another major effort, very similar to item III. It has many interfaces and requires significant analysis to assure effective implementation and utilization of the DBMMS system as a tool for not only Maintenance but the Station. Designated personnel and an action plan are required.

The DBMMS has been essentially implemented, and it is reasonable to assume that an assessment of its adequacy can be performed at the end of 1984. During 1984, considerable effort will be expended in debugging the system, training and data collection. A number of potential system enhancements have been identified at this time. These and other enhancements must be evaluated and a determination made as to their benefit.

V. DEFINITION OF THE ROLE OF THE MAINTENANCE PLANNING GROUP

This effort is being addressed basically thru the MEO process, and will further evolve with the completion of action Items III and IV. There have been several clarifications already developed as a result of the organizational review and these clarifications are being established and disseminated early in the MBO process. The roles and functions of the Maintenance Planning Group fall into two major areas: 1) very closely related to DBMMS; 2) the other relating more closely to effective maintenance planning versus the scheduling and control process of DBMMS. The planning function has already been expanded to include Materials Planning and coordination and will be further defined relative to the coordination of maintenance planning for outage and non-outage work.

Now that MBO has been completed with the Maintenance Planning Supervisor, he will be developing various action plans to define and refine the role of the Maintenance Planning Group.

Meetings are being held with Maintenance Section and other personnel to more clearly define the role of the Maintenance Planning Group. The role of the group is now changing from the major effort of DBMMS

development to facilitators in the use of DBMMS and an expanded role in maintenance planning and scheduling.

VI. EVALUATE AND CORRECT DEFICIENCIES IN QUALITY CIRCLES

With the concurrence of the Quality Circles (QC) Steering Committee, the Maintenance Engineer has met with the Quality Circles Team and has initiated a more timely response to QC presentations. January 11, 1984 QC recommendations were formally responded to at the January 19, 1984 QC meeting. At this meeting, the Maintenance Engineer also initiated greater QC member involvement and participation in follow up for resolution and implementation of the QC recommendations. Initial response by the QC members indicates these two actions will be a major factor in correcting observed weaknesses in the program.

As a result of the last meeting the QC Steering Committee has reviewed all previous proposals to assure that all formal QC recommendations have been responded to.

Results of a survey of Quality Circle members indicated that the major factor affecting Quality Circle performance was untimely response to Quality Circle recommendations. Most recent involvement of the Maintenance Engineer who has initiated greater quality circle involvement in implementation of their recommendations has improved the morale in the existing Quality Circle. The Quality Circle Steering Committee is planning training for establishing additional Quality Circles. The Quality Circle Program is presently progressing very well and, we anticipate expanding the Quality Circle Program to include new circles. We are planning to conduct orientation sessions and leader selections for the prospective circles in August. Activities will be suspended during the fall months due to the 1984 Refueling Outage. Leader training, member training and meetings will resume in January, 1985.

VII. EVALUATE THE PREVENTIVE MAINTENANCE PROGRAM

Evaluation of the Preventive Maintenance Program has been factored into the MBO Program. It involves identifying the responsibilities for the Preventive Maintenance Program in the functions of the various individuals in Maintenance. It also ties into the implementation of DBMMS because part of the program includes the scheduling of preventive maintenance, generation of work orders, etc. The desire has been to make the Preventive Maintenance Program part of the overall maintenance program and include the responsibilities for assessment and analysis of preventive maintenance activities and the responsibilities for the various system cognizant individuals. We also will define the responsibilities for periodic review of the

nature and scope of the individual preventive maintenance work order activities. The spare parts and materials considerations for preventive maintenance work will be included in the program.

A meeting was held on December 9, 1983 to evaluate the objectives of our Preventive Maintenance Program. At this meeting it was agreed to change the method of scheduling Preventive Maintenance work. The criteria for this method were discussed at various Maintenance Staff meetings. Special emphasis was given to determining: 1) criteria to convert to the combination method; and 2) potential problem analysis during the conversion process.

The first phase of the evaluation of the Preventive Maintenance Program has been completed. The review and conversion of some preventive maintenance to fixed interval scheduling has reduced the backlog of incomplete preventive maintenance work orders and has eliminated an unnecessary administrative burden generated when all preventive maintenance was scheduled on a fixed anniversary basis. Another benefit of the review was the elimination of over 100 unnecessary activities from the Preventive Maintenance Program. Additional refinements will be made in the routine review of the scope and frequency of the preventive maintenance work in the program.

VIII. COMMITMENT MANAGEMENT

The tracking of commitments has become an inherent part of the Maintenance management effort. A system has been designed for each individual to be able to status his individual commitments as well as the other activities for which he is responsible. We needed to get away from the concept that we need a specific individual to track activities and remind others when they are late. The system does this for us. We needed to get the attention given at the level at which we expect the work to be done to satisfy the commitment.

With the change in Maintenance Engineers, October 19, 1983, a complete review of all existing maintenance activities took place. The Administrative Coordinator is assisting the Maintenance Engineer, as necessary for completion of all action items.

A commitment tracking system has been established for the entire station organization and is being utilized by the Maintenance Staff. This system has proven effective as a management tool for scheduling resources for completion of commitment items. It has also resulted in a net reduction of the outstanding commitments for which the Maintenance Section is responsible. Our Performance Enhancement Program will be making broad based recommendations in the area of Commitment Management and we will effect any changes in our present system to support these recommendations.

IX. EVALUATE AD 1835.00, PLANT CLEANLINESS INSPECTION PROGRAM

AD 1835.00 (Plant Cleanliness Inspection Program) was implemented on June 23, 1983. The effectiveness of this procedure during its first three months was not up to our original expectations. Several departments charged with conducting and documenting monthly plant cleanliness tours did not do so during the refueling outage. Our Chemistry & Health Physics Department did conduct the monthly inspections in their areas. The Assistant Superintendent Operations evaluated the procedure effectiveness based on these limited reports and modified the procedure to correct deficiencies. The Station Superintendent in his October 31, 1983 staff meeting advised all departments to begin performing their inspections as outlined in the procedure.

An inspection schedule for the Maintenance Department was developed and discussed at the Maintenance staff meetings prior to implementation. Also, a contractor was retained to bring pipe insulation up to standard.

Assignment of responsibility for plant cleanliness inspection and follow-up to a Maintenance Supervisor, and the utilization of a contractor for insulation upgrading, has resulted in marked improvement in plant cleanliness. Reestablishment of a water treatment task force will be an additional plus for plant cleanliness. Plant cleanliness is now considered a routine part of job responsibilities and continued emphasis on housekeeping at both the staff and shop level is expected to further improve plant material conditions.

X. REVISION OF AD 1844.08, JOB OBSERVATION

AD 1844.08 (Job Observation) was implemented on June 28, 1983. Approximately 20 job observation assignment sheets had been initiated. In early October, a temporary modification to the procedure was made to clarify some minor details. With the change in Maintenance Engineer on October 19, 1983, the final determination of follow-up responsibility was not certain.

A detailed organizational review was conducted and the job observation philosophy and forms have been included in AD 1844.00, Maintenance. AD 1844.08, Job Observation, will be retained as an active procedure for a period of approximately a year to assure effective transition to utilization of AD 1844.00 Job Observation actions.

XI. WATER TREATMENT TASK FORCE

A Water Treatment Task Force was reestablished with a formal charter and objectives in April.

The Environmental Monitoring Supervisor was selected to chair the Task Force. The charter and objectives are as follows.

CHARTER

The Task Force shall be comprised of five to seven members designated by the Assistant Station Superintendent - Operations. The Task Force Chairman shall also be designated by the Assistant Station Superintendent - Operations. For the first six months of existence, the Task Force shall meet as determined by the Chairman and commit no less than eight hours per month to the Task Force work, not necessarily all in meetings. Monthly reports on Task Force activities shall be submitted by the Chairman to the Assistant Station Superintendent - Operations. The Task Force objectives shall be to improve plant equipment material conditions and operation to an acceptable level (as defined by the Task Force) and to insure that maintenance and modification work including preventive maintenance programs are in place to maintain equipment material condition.

OBJECTIVES

- Identify problems in Water Treatment material condition and operation.
- Identify root causes of problems utilizing the Kepner-Tregoe decision making process.
- Recommend resolutions to problems to the Assistant Station Superintendent - Operations.
- Develop action plans for problem resolution and submit to Assistant Station Superintendent - Operations.
- Following action plan approval by the Assistant Station Superintendent - Operations, monitor action plan implementation to assure effective and timely completion.

A number of task force meetings have been conducted. Thus far the members, using Kepner-Tregoe problem analysis techniques, have identified and prioritized a list of concerns in the water treatment area. These concerns have been grouped into major categories of Management Controls; Instrument and Control; pumps, piping and tanks; physical environment; and water quality.

XII. TRAINING IN SHOPS AND FOR THE STAFF

This area still requires a lot of attention and clearer definition of the objectives and responsibilities of the various individuals. We want to more clearly define who has the lead responsibility for developing and administering programs. In the shop training, we want to make sure that the apprenticeship programs are being effectively administered and providing effective training in developing journeymen. We also will be assuring that there is a program for continued training for all journeymen. The definition of responsibilities between the maintenance staff and the Training Department for the continual training program also needs to be defined and assigned. The training for the shop personnel also must include administrative and supervisory functions we expect the Group Leaders to perform. Shop training needs to have increased emphasis and possibly some special training sessions for building team work. Training for the Staff will address all training needs for personnel from the entry level positions up to the lead positions. When we have an effective MBO Program, training becomes an integral part of that effort and can be addressed on an individual basis utilizing the in-house and special training programs that are available.

The Maintenance Engineer has responsibility for identifying training needs for Maintenance Staff personnel and the development of a long range training program. Contained in this training program will be the identification of qualifications required for the various maintenance staff activities. Mechanical maintenance has participated in the training diagnostic performed by Nuclear Training Department and the other shops will also be included in the diagnostic performed by the Nuclear Training Department.

XIII. MATERIALS PLANNING AND COORDINATION

Efforts in this area are not as fruitful and the results are not as expedient as we could reasonably expect. There are numerous areas of activities that appear to be uncoordinated or improperly tied together. These efforts by nature need to involve Materials Management, the onsite Procurement and Stores Group, as well as Maintenance. The Bill of Material (BOM) process has provided some improvements in the procurement phase of materials management, however, at the implementation level, significant improvements can be made to support productivity enhancements for the Maintenance staff and the shop personnel. This total effort is broad enough that it cannot be encompassed in the MBO program with the Maintenance Section. Objectives in this area are to implement a process which eliminates lost time, both in schedule and in manpower, awaiting materials at the job level (implementation phase). The process must start with the identification of the material needs. They must have a more direct and simpler

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communication path for serving the material needs when materials are available in the warehouse or on a shelf of a local supplier. We must have a system for initiating, tracking, expediting the process of purchasing non-stock items, and those items not available through the Blanket P.O. utilization.

Activity in this area requires the joint efforts of the Nuclear and Administrative Services Missions. The Material Control Operations Supervisor will be serving as the lead in this area, and he will be striving to identify and resolve the issues in Material Management.