VIRGINIA POWER'S REGULATORY REDUCTION PROGRAM

1996 CNS/CNA ANNUAL CONFERENCE
JUNE 9-12, 1996
FREDERICTON, NEW BRUNSWICK, CANADA

Presented by

Gary D. Miller
Senior Staff Engineer
Nuclear Licensing and Operations Support

Virginia Power

Virginia Power has two nuclear plants, North Anna and Surry Power Stations, which have two units each for a total of four nuclear units. Virginia Power's service area includes 2/3 of Virginia and 80% of the population, plus the northeast corner of North Carolina. Our nuclear generation capability is approximately 3,400 MW which represents approximately 31 % of Virginia Power's capacity.

Background

In 1992, the Nuclear Regulatory Commission (NRC), our governmental nuclear regulator, solicited comments from the nuclear industry to obtain their ideas for reducing the regulatory burden on nuclear facilities. This action was subsequent to an initiative undertaken by the Commission in response to a Presidential memorandum. The memorandum requested selected Federal agencies to review and modify regulations that would eliminate any unnecessary burden of governmental regulation and ensure that the regulated community is not subject to duplicative or inconsistent regulation. The NRC established a programmatic effort to address the reduction and elimination of regulatory requirements that are marginal to safety by implementing an ongoing periodic regulatory review and by the formation of a Regulatory Review Group and other task teams aimed at assisting licensees in identifying and eliminating requirements that are marginal to safety. Virginia Power has interfaced with the NRC's regulatory reduction task teams, as well as industry groups and other utilities, and has supported industry advocacy groups in their efforts to evaluate and comment on regulations that may be marginal to safety and would be candidates for modification or elimination.

In consideration of the "new" regulatory climate, Virginia Power developed an internal program to evaluate and assess the regulatory and self-imposed requirements to which we are currently committed and to pursue regulatory relief and/or internal programmatic changes where possible and appropriate. The goal of this program is to realize both O&M and capital cost savings as well as to promote greater productivity and efficiency through the elimination of unnecessary work activities and the reallocation of these resources to more safety significant areas. The criteria used to select requirements for this program are that public safety must be conserved and the commensurate cost savings of eliminated or reduced requirements must be significant. To accomplish our goal, we developed and implemented a program that has proven to be very successful and directly applicable to the entire nuclear industry. To date, over $22 million of one-time savings have been obtained, as well as $2.75 million in annual savings.

Virginia Power's strategy for reducing regulatory requirements marginal to safety can be summarized as follows: 1) identify regulatory requirements, 2) assess the requirements for regulatory reduction, 3) prepare and submit requests for regulatory relief, and 4) evaluate NRC and industry efforts in the regulatory reduction area.

I. Identification and Assessment

The first item was to identify the requirements to which we have committed that seem unnecessary or provide little safety benefit and evaluate them as potential regulatory reduction items.

To determine which items to consider, a four tiered approach was invoked.

> Interdepartmental Functional Reviews - Determine duplicative or unnecessary functions / activities by internal functional reviews.
>
> Licensing / Departmental Interviews - Interview each department and each station to generate list of regulatory reduction possibilities.
>
> Significant Outage Time Activities - Identify time consuming activities at the nuclear stations encountered during outages and evaluate for potential regulatory reduction.
>
> Review NRC, Other Utilities, and Industry Groups' Activities - Review the regulatory reduction efforts being pursued by other groups for applicability to our facilities.

Departmental managers performed functional reviews in their areas of responsibility to identify activities that are not cost effective or productive and do not promote safety. These reviews were used to find ways to cut O&M costs in general, and to pursue appropriate items through regulatory reduction efforts.

In addition, departmental interviews were conducted with departmental supervision and employees to brainstorm for activities that they were required to perform but for which they could see no direct benefit. The interviews were comprehensive and included eight different departments and the management at both nuclear power stations.

Station Management was also requested to identify the activities that require significant outage time for assessment to determine if any of the items were conducive to regulatory relief. Numerous items were identified for consideration, and once the potential cost beneficial licensing actions (CBLAs) had been identified, they required assessment to determine if they were suitable to pursue for regulatory relief.

We also review the efforts of the NRC, other utilities and industry advocacy groups for regulatory reduction ideas that may be applicable to our facilities. We are not hesitant to contact other licensees regarding their efforts or to request their submittals for review and use.

II. Assessment

The second item was to assess the regulatory requirements identified and prioritize them for consideration. The potential regulatory reduction items were prioritized by the following criteria:

Safety Significance - Items selected must be safety neutral.

Cost Savings - We estimate that each commitment change, Technical Specifications change exemption request or request for rulemaking requires extensive cost to both the licensee and the NRC to adequately address the issue. This expenditure is factored into the cost/benefit consideration of the regulations that are selected for exemption. Items that will save more than $100,000 over the remaining life of the plant are given the highest priority.

Regulatory Significance - To minimize controversy with the NRC staff, items with lower regulatory significance have been chosen.

Plant Specificity - We have preferred items that are site or licensee specific to submit to the NRC.

Generic Applicability - Certain items with generic applicability have been discussed with and referred to industry advocacy groups. In some selected cases, rulemaking was initiated.

Schedule - Items with near term benefit are more desirable.

The CBLAs were also selected based on type, e.g., commitment change, Technical Specification change, exemption request, and request for rulemaking. Commitment changes are generally the simplest to prepare and the easiest for the NRC to review, while requests for rulemaking are the most difficult and time-consuming.

III. Preparation of Submittals

The third item was preparation of our submittals to the NRC. After a list of prioritized items was generated, Virginia Power began more intensive review of a subset of regulatory reduction items ("focus items"). This has provided a more manageable work load for both the utility and the NRC. Once most of the current focus items are submitted to the NRC, new focus items are assigned. While these items are being developed into submittals, the NRC is reviewing those already submitted.

IV. Interface with the NRC / Industry

The fourth item was to interface with the NRC and the nuclear industry for additional insight into their efforts. Virginia Power has kept NRC project managers and other NRC staff (including the NRC's Cost Beneficial Licensing Actions staff) apprised of upcoming regulatory reduction focus items and schedules, including how they are being prioritized with other licensing work. Status meetings with the NRC are held at least quarterly and more frequently when necessary. The purpose of the status meetings is to review the regulatory reduction program in concert with other regulatory significant items. No submittals have been made without the full understanding of the NRC of the issue.

Virginia Power has had several status meetings with industry advocacy groups on the regulatory reduction effort. Also, several generic items that have been identified have been referred to these groups for their consideration (e.g., graded QA pilot program, commercial grade procurement).

Many ideas have been shared with other utilities and organizations. Virginia Power has had numerous visits from other utilities and industry groups interested in our program and has provided information as requested.

Virginia Power has also made numerous presentations on our program at various NRC and industry meetings.

V. Management Support

The effectiveness of the regulatory reduction effort of Virginia Power has been positively affected by the involvement of senior management. This support has also fostered an attitude of change within the company, which is essential for every aspect of this effort. In addition, senior management has briefed the program to NRC senior management including the Commissioners.

VI. Cost Savings Impact

Our program accomplishments to date have saved the company $22 million in one-time savings and $2.75 million in future annual savings. CBLAs that have been submitted to and are presently being reviewed by the NRC will result in an additional $100,000 in one-time savings and $1.6 million in annual savings.

Cost savings realized for CBLAs approved by the NRC in 1995 are $5.2 million in one-time savings and $1.1 million in annual savings.

VII. Innovativeness

Utilities have always been subject to state and federal regulation. In the past, they have generally acquiesced to whatever requirements were imposed by the regulators be it through onsite inspector comments or general industry regulatory requirements. The mindset of utility management has previously been to implement whatever requirement was proposed to maintain harmony with the regulators. However, President Bush challenged the federal government in 1991 to review the regulations in their areas of responsibility to determine if they were really necessary. The NRC performed this review and determined certain requirements were not needed and could be eliminated as they were unnecessarily burdensome and/or were marginal to safety. The NRC temporarily implemented a CBLA staff to address regulatory reduction.

Virginia Power followed the NRC's efforts in the regulatory reduction area closely and decided to develop an internal program to reevaluate the myriad requirements to which we had previously committed. A program has been established to reevaluate the requirements from a cost benefit perspective and to determine whether the requirements are still appropriate in today's nuclear environment.

This program was implemented in an innovative fashion in that the following items were considered and incorporated:

- Involvement of all nuclear personnel - Departmental and station representatives were interviewed to obtain their ideas on which requirements in their areas were considered to be unnecessary or required an inordinate amount of resources for the benefit obtained. Each department had an opportunity to contribute ideas.

- "Advertisement" within the company - The program has been promoted by management in their individual groups as well as by senior management in company mailings and presentations. A monthly CBLA status update is also provided in the Nuclear Business Plan Goal Performance Report. Through these efforts, employees have been encouraged to develop an attitude that challenges regulatory requirements that provide questionable safety benefits. Company-wide advertisement of the program has also resulted in the receipt of ideas from groups outside the nuclear portion of the company.

- Regulatory interface - Virginia Power has met with the NRC chairman, commissioners, project managers, the Regulatory Reduction Review Group, and the CBLA staff. The NRC has been very supportive of Virginia Power's program and has endorsed our program to the industry. This interaction has strengthened our working relationship with the NRC.

- Industry interface - Virginia Power has also met with numerous utilities to discuss our program implementation. We have also supported industry groups such as NEI and EPRI and made presentations at numerous industry meetings.

- Sharing results - Virginia Power has shared our ideas with other utilities and industry groups. We have met with interested utilities to describe our program and have provided copies of our submittals to over fifteen other utilities for their use.

VIII. Productivity and Efficiency

Productivity and efficiency are direct benefits of the regulatory reduction program at Virginia Power. This program eliminates unnecessary, resource intensive activities that provide little or no safety benefit. It then allows these resources to be redirected to more safety significant areas. In this manner, resources are utilized in the most productive means possible, i.e., where there is a direct safety and operational benefit, and overall efficiency in the workplace is consequently promoted.

The commensurate cost savings from eliminating unnecessary activities allow expenditures to be more efficiently expended in areas of greatest need.

IX. Program Attributes

The outstanding attributes of Virginia Power's program are as follows:

- •Cost Savings - $22 million in one time savings and $2.75 million in annual savings to date.
- •Safety - Saved resources, in both funding and manpower, may be redirected to more safety significant areas for overall safety enhancement.
- •Long-term Viability - Cost control measures such as this program promote long-term viability for Virginia Power's nuclear stations by maintaining O&M and capital costs at competitive levels.
- •Applicability - The program is directly applicable to the entire industry.
- •Employee Morale - Elimination of unnecessary, cumbersome activities enhances job satisfaction.

X. Conclusions

In this new era of competition, downsizing, and spiraling O&M costs, efficiency and productivity are foundational to long-term viability, but not at the cost of a reduction in nuclear safety. A regulatory reduction program that relieves monetary and operational burdens on both the licensee and the regulator, without compromising safety, must be pursued. Working in concert, the nuclear industry and the regulator can strengthen industry performance through the proper allocation of limited resources to the areas of greatest safety significance. This can best be achieved by eliminating requirements that serve no safety purpose, such that both parties can appropriately focus on nuclear safety and performance excellence.