BEFORE THE
U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of	:	
	:	
PHILADELPHIA ELECTRIC COMPANY	:	Docket Nos. 50-277,
	:	50-278
(Peach Bottom Atomic Power Station Units 2 and 3)	:	
	:	

COMMONWEALTH OF PENNSYLVANIA'S PETITION TO INTERVENE, REQUEST FOR HEARING AND COMMENTS OPPOSING NO SIGNIFICANT HAZARDS CONSIDERATION

The Commonwealth of Pennsylvania, under 10 C.F.R. § 2.714, petitions to intervene in the proceeding concerning the proposed license amendments to the Facility Operating License. The Commonwealth also requests a hearing under that section, under 10 C.F.R. § 2.105 and 10 C.F.R. § 50.91 and under 42 U.S.C. § 2239, concerning the proposed amendments to the Facility Operating License of Philadelphia Electric Company ("PECO") for its Peach Bottom Atomic Power Station ("Peach Bottom"). Finally, the Commonwealth submits comments opposing the Proposed No Significant Hazards Consideration Determination.

The Commonwealth opposes any action by the Nuclear Regulatory Commission ("the Commission") authorizing restart of Peach Bottom before a full hearing is held on any license amendments, any organizational plans and any event or condition leading to the March 31, 1987 shutdown order.

I. Background

The Commonwealth sketched much of the background for its hearing request in its Petition for Hearing, dated December 2, 1987, a copy of which is attached. This petition incorporates the statements in that petition and further relates the following.

The Commonwealth of Pennsylvania ("the Commonwealth") is a state whose duty is to protect the health and welfare of its citizens and the environment. Through its Department of Environmental Resources it has frequently become involved in proceedings before the Commission involving the regulation of nuclear power plants within the state.

Throughout this decade, operations at Peach Bottom have consistently failed to meet full safety standards. The Commission's annual Systematic Analyses of Licensee Performance (SALP) have given Peach Bottom poor performance ratings for the past several years, giving the plant one of the poorest compliance records in the entire northeast. The plant has received a significant sum of civil penalty assessments, and the safety violations prompting these penalties have been increasingly serious. The safety violations include a computer failure that required manual adjustment of control rods, drug and alcohol abuse by employees, "excessive hours...under trying conditions" for employees including inadequate breaks or mealtimes, and disciplinary action taken by the plant management against an employee who expressed concern about plant safety.

Despite the significant documentation of poor management, and the civil penalties against Peach Bottom, PECO made little or no effort to

identify or solve the problems endemic to Peach Bottom. The problems at Peach Bottom continued including incidents of operators in the control room sleeping on duty. These incidents triggered the Commission to order PECO to suspend operation of the plant on March 31, 1987.

The Shutdown Order noted not just that various control room staff slept or were inattentive to their duty over a period of at least five months but that management at the shift supervisor and shift superintendent level knew of or condoned this behavior and that superior plant management also knew or should have known of this activity. The history of PECO's failures led the Regional Director to three conclusions: one, that PECO showed a complacent attitude toward procedural compliance; two, that Peach Bottom lacked a quality assurance program to identify conditions adverse to safety; and three, that Peach Bottom possessed an ineffective management which failed to take timely action to correct problems, failed to disseminate management goals and policies, failed to communicate with different departments and divisions, and tended to focus on compliance rather than acknowledging and correcting root causes of problems. The Shutdown Order stated: "I have determined that continued operations of the facility is an immediate threat to the public health and safety. Therefore, I have determined that the public health, safety and interest requires that the Licensee should proceed to place or maintain its units in a cold shutdown." Shutdown Order, at 5 (emphasis supplied).

The shutdown order required PECO to provide the Commission with a detailed and comprehensive plan and a schedule for its accomplishment to assure that Peach Bottom would be operated safely. After PECO submitted its first such attempt, the Commission responded that this plan did not address "a fundamental concern regarding the past inability of Philadelphia Electric Company (PECO) to self-identify problems, and implement timely and effective corrective actions." October 8, 1987 Letter from Commission Region I Administrator to PECO.

On November 10, 1987, a federal grand jury issued an indictment which alleged that several employees at Peach Bottom distributed illegal drugs to other employees at Peach Bottom.

On November 19, 1987, PECO submitted an application for amendment to its Facility Operating License concerning reorganization of the plant and corporate management structure ("the tech specs"). The changes in the tech specs involved changes in the chain-of-command, establishment of a Corporate Vice President at Peach Bottom, and establishment of a Senior Vice President responsible only for nuclear operations.

On November 25, 1987, PECO submitted a more detailed reorganization plan entitled the "Plan for Restart of Peach Bottom Atomic Power Station, Section I, Corporate Action" ("Plan"). The plan identified four root causes for the declining performance at Peach Bottom. Those causes were the following: '1) There was a lack of adequate personal leadership and management skills on the part of senior management at the plant. 2) The Company failed to initiate

timely licensed operator replacement training programs. 3) The station culture, which had its roots in fossil and pre-TMI operations, had not adapted to changing nuclear requirements. 4) Corporate management failed to recognize the developing severity of the problems at Peach Bottom and thus, did not take sufficient corrective actions." Plan, Section 1.0, at 2.

Despite identifying four root causes of its problems, the Plan's responses only addressed the fourth root cause, that of corporate management. It proposed to reorganize certain corporate structure and management systems to strengthen PECO's ability to assess itself.

On December 2, 1987, the Commonwealth petitioned the Commission for a hearing to consider the safety problems and contemplated license amendments before any resumption of nuclear power operations at Peach Bottom be authorized. The petition listed 10 C.F.R. § 2.206 as the basis for the request for a hearing.

On December 23, 1987, the Commission published a temporary waiver of compliance, permitting PECO to implement the corporate and plant station organization restructuring immediately without formal Commission approval. 52 Fed. Reg. 48589 (Dec. 23, 1987). On that same day, the Commission also published an Individual Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing. 52 Fed. Reg. 48593, (Dec. 23, 1987). The Commission stated in its notice that the changes set forth in the proposed tech specs met the standards for no significant hazards

consideration contained in 10 C.F.R. § 50.92 for the following reasons: a) the organizational changes which shortened and strengthened the chain-of-command and provided corporate on-site presence did not increase the probability or consequence of a previously evaluated accident; b) no plant designs were being changed, and c) the increased control and oversight reduced the margin of safety. The notice invited comments on the proposed finding of no significant hazards by January 22, 1988.

On January 15, 1988, the Commission in a letter to the Commonwealth, rejected the Commonwealth's petition for a hearing concerning restart of Peach Bottom. The Commission stated that the Commonwealth petition was untimely, presumably on the assumption that the Commonwealth was challenging the shutdown order. Instead, however, the Commonwealth agreed with the shutdown order and wished only to request a hearing to adjudicate the adequacy of Peach Bottom's proposed responses to the order before restart. Ironically, the letter invited the Commonwealth to submit a request for action petition under 10 C.F.R. § 2.206 despite the fact that the Commonwealth submitted its petition under that very section.

II. Petition to Intervene.

The Commonwealth petitions to intervene as a party in this licensing proceeding. Section 2239 of Title 42 U.S.C. provides that the Commission shall admit any requesting person "whose interest may be affected" by a license amendment as a party to the license

amendment proceeding. Section 2.714 of 10 C.F.R. implements this statutory requirement. Because the Commonwealth's interests may be affected by the results of this licensing proceeding, the Commonwealth hereby petition to intervene as of right.

As parens patria, the Commonwealth's interests include protecting the health, safety and property of every person within its boundaries. Because, as we discuss more fully below, the proposed license amendments represent PECO's response to the "immediate threat to the public health and safety" caused by PECO's management failures, the affect on Pennsylvania's public health and safety will turn on the adequacy of the proposed changes. If those changes are inadequate, they will affect the Commonwealth's interests, and the possibility that they may be inadequate satisfies the statutory requirement for intervention.

In addition, the Commonwealth specifically challenges the proposed amendments as inadequate to assure that the unsafe conditions at Peach Bottom have been and will remain eliminated. The Commonwealth opposes the amendments as presently worded because they would create the appearance of improvement without legally binding PECO to the specific enforceable changes necessary to insure safety at Peach Bottom.

The tech specs are inadequate first because they do not contain even the substantive changes contained in the Plan. See, e.g., Plan, § 3.3.1 "Expansion of Nuclear QA Programmatic Activities". Civil penalties are available remedies only for violations of the license or

for violations of a specific order. 42 U.S.C. § 2282, 10 C.F.R. § 2.205. By placing the vast majority of its responses only in the implementation plan, PECO therefore avoids the possibility of civil penalties and other sanctions for violations of the plan. But PECO has consistently failed to follow through on remedy proposals. For example, the Commission issued Generic Letter 83-28 in response to an accident at the Salem Nuclear Power Plant. PECO, in its response to Generic Letter 83-28, committed to implement a program to upgrade and maintain vendor technical manuals. Yet, the Commission's SALP of September 8, 1987 indicates that PECO had failed to live up to its commitments. Such a failure to bind PECO to its proposed changes through the threat of civil penalties is inappropriate in light of PECO's repeated failure to follow through on previous remedy proposals.

The specific failure of the tech specs are many. As one example, the tech specs include in an organization chart an independent safety evaluation group. Despite the fundamental importance of this organization, the tech specs are devoid of any mention of the group's function, responsibilities, or personnel qualifications.

In addition, the organizational chart indicates that the group reports through the plant hierarchy. Neither the tech specs nor the organizational chart contain any independent access of the group to corporate hierarchy. Nothing in the tech specs gives the group any authority to by-pass intermediate-level management. The management structure thus provides no promise that any mismanagement at the plant

would ever be reported by the group to PECO hierarchy. In contrast, the tech specs of GPUN's Three Mile Island Nuclear Power Station contain such specific provisions. Three Mile Island Nuclear Station, Unit 2, Recover Technical Specifications, § 6.5.4.

For another example, the tech specs contain no provisions that would limit the working hours for plant employees. Since the main symptom of plant mismanagement at Peach Bottom was security personnel and control room operator somnambulism, it logically follows that the license should prevent conditions that leave the workforce exhausted. Yet nothing restricts workhours, breaktime, or use of overtime. In contrast, the license for Susquehanna Unit I, Tech Spec. § 6.2.2(f) contains work limitations. See also Generic Letter No. 82-12 "Nuclear Power Plant Staff Working Hours," 47 Fed. Reg. 7352 (June 15, 1982) (proposing work hour limitations on power plants).

Another root cause of the low morale at Peach Bottom was the diversion of energy and talent from the plant to PECO's power plant in Limerick. PECO has apparently replenished the workforce at Peach Bottom to a significant degree with outside consultants, but that, of course, provides no guarantee of proper staffing on a long term basis. In addition, the tech specs give the Commission no authority to oversee any transfer of personnel that may occur in the future. Absent such authority, nothing prevents PECO from repeating its prior action in its effort to obtain license approval for Limerick.

As a final example, the tech specs are deficient in their minimum qualifications for personnel. The minimum qualifications for facility

staff do not include current ANSI/ANS standards (see ANSI/ANS 3.1, 1978). The off-site management positions contain no qualification requirements at all.

These deficiencies are striking in light of PECO's history of mismanagement. Acceptance of these proposed amendments unchanged has the possible effect of exposing Pennsylvanians to undue risks of harm. The Commonwealth therefore seeks to intervene to explore the need for these and other additional provisions in an analysis of the adequacy of the proposed amendments.

III. Request for Hearing.

In addition to requesting intervention, the Commonwealth also requests a hearing pursuant to 10 C.F.R. § 2.714.

Under Section 189 of the Atomic Energy Act, 42 U.S.C. § 2239(a)(1), any person whose interests may be affected by a license amendment proceeding has the right to a hearing. As the Court of Appeals for the District of Columbia Circuit held in Union of Concerned Scientists v. N.R.C., 735 F.2d 1437 (D.C. Cir. 1984), this hearing must encompass all material factors bearing on the licensing decision raised by the requester. The material factors in this proceeding, as this Commission explored in its Notice, include the analysis of the root causes of Peach Bottom's difficulties and the appropriateness of each of the proposed responses. Furthermore, the Commission considered the information submitted in the Implementation Plan as "supplementary to the licensee's application for amendment."

52 Fed. Reg. at 48590. Because PECO has submitted the implementation plan to buttress the adequacy of its licensing amendments, the adequacy of the implementation plan and the ability and commitment of PECO to implement it are also material factors in the analysis of the proposed license amendments.

Here, the Commonwealth's interests may be affected by the proceeding in that inadequate license amendments could expose its citizens to undue risk of a nuclear accident. The adequacy of the proposed changes, the analysis of the root causes of Peach Bottom's difficulties and the ability and commitment of PECO to implement its management plan are all material factors bearing on the licensing decision. The Commonwealth therefore has a right to a hearing to explore these issues.

Even apart from the Commonwealth's right to a hearing, the Commonwealth believes that the Commission should embrace the idea of formal hearings to insure safe operation of PECO prior to restart. Aside from the problems discovered by the Commission in its enforcement actions, the scope of public knowledge of the entire problem has thus far been limited by PECO's own analysis of itself. There has been no thorough investigation into PECO's commitment to improving its performance and self-assessment systems. There has been no probe into the knowledge of those elevated in PECO's corporate hierarchy concerning management and compliance breakdown. There has been no testing of PECO's version of the root causes of the safety problems at Peach Bottom. The granting of a hearing would, by making

discovery and cross-examination available to the Commonwealth, help the Commission in carrying out its duties to protect public health and safety.

This need to investigate corporate complicity in the failure of Peach Bottom's management is not a free-for-all fishing expedition. There is a considerable volume of evidence on commitments PECO has made concerning the very safety issues presented here to nuclear industry self-assessment groups such as the Institute for Nuclear Power Operations (INPO), the Nuclear Utility Management and Human Resource Committee (NUMARC) and others. This information, which would include field notes of the site inspection teams from INPO for the preceding three years, documentation of PECO's Commitment to NUMARC's "Commitment to Excellence" Program, the adequacy of PECO's implementation of its commitment under the Nuclear Utility Task Action Committee's Program to respond to Section 2.2.2 of Generic Letter 83-28, would place PECO's commitment to self-assessment and regulation in perspective.

IV. Comments Opposing the No Significant Hazards Finding.

The Commonwealth opposes the proposed determination of no significant hazard and submits that PECO should not be permitted to initiate the licensing amendments before hearings.

A. The Commission's proposed finding that the license amendments present no significant hazard considerations stems from a faulty

focus. Because the license amendments themselves seem an improvement over the existing license, the Commission reasons that they do not present significant new dangers under the criteria of 10 C.F.R. § 50.92. The proper focus, however, should not be on the proposed solution, i.e., the licensing amendment, but on the problem giving rise to the need for a solution. The Commission's analysis would deny the public the right to a hearing to determine the adequacy of proposed licensing changes, no matter how egregious the problems that had developed since issuance of the original license and no matter how superficial the proposed response, simply so long as the response pointed in the smallest degree in the positive direction. Such a result would make a mockery of Congress's desire that the "no significant hazard" provision not deprive "the public a meaningful right to participate in decisions regarding the commercial use of nuclear power." S. Rep. No. 97-113, 97th Cong., 1st Sess. 14, reprinted in (1982) U.S. Code Cong. & Ad. News at 3598.

The legislative history points to a focus on the problem not the proposed solution. The Conference Report stated that the "determination of 'no significant hazards consideration' should represent a judgment on the nature of the issues raised by the license amendment rather than a conclusion about the merits of those issues." House Conference Report No. 97-884, 97th Cong., 2d Sess. 37, reprinted in (1982) U.S. Code Cong. & Ad. News 3607. Here the issues raised, as discussed in the previous section, are primarily whether the proposed amendments are adequate to make operation of the plant safe in light

of PECO's problems. Because the adequacy of the proposed solutions will determine the safety of the plant, the amendment proceedings raise significant safety issues. And while the amendments proposed may be indeed sufficient to make operation of the plant safe, the decision of no significant hazards consideration should not prejudge the merits.

Indeed, as the Commission noted in the preamble to the no significant hazard regulations at 10 C.F.R. § 50.92, the Commission's concern leading to the statutory amendments allowing immediate implementation of license amendments was based on a concern for quick implementation of "routine" amendments. 48 Fed. Reg. 14864, 184866 (April 6 1983). These "routine" changes usually involve minor technical changes including incorporation of industry-approved methods of calculating containment tests, installation of new control systems to comply with industry standards, or changing numbering systems to agree with current plant conventions. See, e.g. 52 Fed. Reg. 47776-47778 (Dec. 16, 1987). Changes motivated by breakdowns in operations that lead to immediate shutdown because they present "immediate safety hazards" are hardly routine.

Finally, in promulgating the regulation, the Commission itself rejected the reasoning applied by staff here. It provided as an example of an amendment raising significant safety hazards: "A change in plant operations designed to improve safety but which, due to other facts, in fact allows plant operation with safety margins significantly reduced from those believed to have been present when

the license was issued." 51 Fed. Reg. at 7751. As this quotation indicates, the focus should be on the problem not the solution.

In this case, the Commission itself noted that the problem to which PECO is now responding represents an "immediate threat to the public health and safety." Properly focusing on the problem, not the proposed, inadequate solution, leads necessarily to the conclusion that the proposed amendments do involve "significant safety hazards considerations."

B. A focus on the specific standards established in 10 C.F.R. § 50.92 also indicates that these proposed licensing changes present significant hazards considerations. Pursuant to 10 C.F.R. § 50.92(c), "[t]he Commission may make a final determination...that a proposed amendment to an operating license...involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety." In this case, none of these three criteria are met.

1. Operation under tech spec amendments would involve a significant increase in the probability and consequences of accidents previously evaluated and would involve a significant reduction in a margin of safety.

A basic premise of nuclear power plant safety is sound management. At the time Peach Bottom received its original operating licenses in 1973-74, the Commission assumed that its management structure was sound and that sound performance would follow. Events of the past several years, of course, have altered that assumption. They have led the Commission to conclude that operation under the present license would involve not only a significant increase in the probability and consequences of an accident and not only a significant reduction in the margin of safety but an impermissible level of danger. Only if the license amendments entirely make up for these discovered shortfalls could operation under them not involve the significant increases in the probability of accident and reductions in a margin of safety.

But, as we discussed above, judgments about significant safety hazards should not represent judgments on the merits. Instead, as the Senate Report indicated, the "determination of 'no significant hazards consideration' should represent a judgment on the nature of the issued raised by the license amendment." S. Rep., supra, at 15. Similarly, the Conference Report, supra, at 37, stated that the standards should not require prejudging the merits but "should only require the staff to identify those issues and determines they involve significant health, safety or environmental considerations. These standards . . .

should ensure that the NRC staff does not resolve doubtful or borderline cases with a finding of no significant hazards consideration." Thus, the Commission's only task is to consider whether serious safety issues are involved in the license amendment process. Even if the Commission therefore believes that the proposed amendments are probably adequate, at least significant safety issues are involved, and a hearing is required prior to issuance of the license amendments.

2. Operation under tech spec amendments would involve a new or different kind of accident from any accident previously evaluated .

The second criterion in § 50.92 is also not satisfied. The accidents for which nuclear power plants are evaluated are design basis accidents. See 10 C.F.R. § 50.2 (definition of "design basis"). The tech spec amendments involve new and different kinds of accidents from those previously evaluated because evaluation of design basis accidents is premised on the existence of sound management. When management deteriorates and, in particular, when misconduct may go uncovered, new kinds of accidents become possible.

For example, design basis accident evaluations do not normally take into account reckless or intentional error by internal employees. Although a plant is designed to shut down automatically absent any human intervention should an accident arise, no plant is designed to function when the operators' ability to function is impaired due to exhaustion, controlled substances, or low morale. An operator whose judgment or ability to function is impaired by alcohol, drugs,

exhaustion, stress or hunger could very well cause an override of the built-in safety systems of a plant. A low level of employee morale, such as that shown at Peach Bottom, may also lead to intentional acts of disruption or such reckless disregard for risks as to be equivalent. See Commonwealth of Virginia v. William E. Kuykendall; Commonwealth of Virginia v. James A. Merrill, Jr., (Circuit Court of Surrey County, October 16, 1979) (tampering with nuclear power plant by plant employees). Such internal disruption is beyond the design basis of a nuclear power plant previously evaluated.

Another example is the possibility of a station blackout, where the plant loses all power. Such an accident has not been evaluated as a design basis accident because the Commission considers such an accident to be too remote. One of the reasons that such an accident is considered remote is that each plant has its own diesel emergency generators which provide power for shutting a plant down, should the outside power source become unavailable. PECO has pledged to maintain its diesel generators. However, as the September 8, 1987 SALP report demonstrates, "a number of defects in [the emergency diesel generators] support equipment were noted by the [inspection] team that left the impression that the level of [diesel generators] maintenance may be trending downward." SALP, at 24. The SALP also noted that "the licensee has been slow in updating the [diesel generator] vendor manuals, as required by Generic Letter 83-28." SALP, at 24. See also April 23, 1984 Response from PECO to NRC Generic Letter 83-28, §§ 2.1 and 2.2.2. Events at another power plant have shown that a station

blackout with a loss of both off-site and on-site power is indeed possible. See Inside NRC, Vol. 8, No. 25 (Dec. 8, 1986) at 9 (loss of outside power coincided with breakdown of Boston Edison Co.'s Pilgrim Nuclear power plant's diesel generator while other generator off-line). Obviously, then, PECO's management problems may lead to failure to maintain its diesel emergency generators and thereby create the possibility of an accident the Commission previously considered too remote for consideration.

Alcohol, drugs, stress, long work hours, lack of meal breaktime, and employee morale are all problems raised by the Commission and are all connected to the issue of corporate management. Amendments which omit management and corporate controls in light of a history showing the need for such controls create the possibility of an accident not previously evaluated.

V. CONCLUSION

For all the above reasons the Commonwealth requests that the Commission grant its petition to intervene, grant its request for a hearing to delve into the adequacy of the proposed amendments, and reject the proposed determination that operation of the plant in accordance with the amendments involves no significant hazards consideration.

Respectfully submitted,

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