

# **UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION**

**Title:** BRIEFING ON STATUS OF PILGRIM

**Location:** ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND

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**RETURN TO SECRETARIAT RECORDS**

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BECO Corrections

TYPOGRAPHICAL ERRORS IN JUNE 9, 1988 TRANSCRIPT

PAGE	LINE	CHANGES	
		Transcript	Correction
6	8	<u>SALP</u>	<u>self-</u>
7	2	<u>SALP</u>	<u>self-</u>
10	6	<u>SALP</u>	<u>self-</u>
10	12	<u>SALP</u>	<u>self-</u>
10	19	<u>SALP</u>	<u>self-</u>
11	21	Wagner	Wagner
11	23	Gregg	Grigg
12	15	<u>SALP</u>	<u>self-</u>
12	17	<u>R. power</u> protection	<u>R fire</u> protection
16	25	Gas Cool	Gas Cooled
18	15	we ar	we are
18	20	moral	morale
22	16	<u>[The prepared state-</u> <u>ment of recommen-</u> <u>dations with</u>	_____ with
27	25	to <u>take</u> staff a	to staff a
29	8	MR. <u>ANDERSON</u>	MR. <u>BIRD</u>
38	5	<u>Ralph</u>	<u>Ron</u>
38	6	is that <u>their</u>	is that <u>they're</u>
38	14	moving <u>alone</u>	moving <u>along</u>
51	18	<u>findings weren't</u> consistent	<u>findings were</u> consistent
53	4	<u>self-</u>	<u>SALP</u>

DISCLAIMER

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON STATUS OF PILGRIM

6 \*\*\*

7 PUBLIC MEETING

8 \*\*\*

9 Nuclear Regulatory Commission  
10 One White Flint North  
11 Rockville, Maryland

12  
13 Thursday, June 9, 1988

14  
15 The Commission met in opensession, pursuant to  
16 notice, at 10:00 o'clock, a.m., the Honorable LANDO W. ZECH,  
17 Chairman of the Commission, presiding.

18 COMMISSIONERS PRESENT:

19 LANDO W. ZECH, Chairman of the Commission  
20 THOMAS M. ROBERTS, Member of the Commission  
21 KENNETH CARR, Member of the Commission  
22 KENNETH ROGERS, Member of the Commission

23

24

25

1        STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2

3                S. CHILK

4                W. PARLER

5                S. SWEENEY

6                R. BIRD

7                K. HIGHFILL

8                R. ANDERSON

9                R. VARLEY

10               G. TAYLOR

11               T. MURLEY

12               B. RUSSELL

13               S. COLLINS

14               B. BOGER

15

16        AUDIENCE SPEAKERS

17

18               E. HOWARD

19

20

21

22

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## P R O C E E D I N G S

[10:00 a.m.]

CHAIRMAN ZECH: Good morning, ladies and gentlemen.

This morning, the Pilgrim Nuclear Power Station officials will discuss the situation at the Pilgrim power plant. The plant was shut down by the Boston Edison Company on April 12, 1986 due to a series of hardware problems. The Nuclear Regulatory Commission Region I subsequently issued a confirmatory action letter confirming Boston Edison Company's intent to keep the plant shut down until certain management deficiencies had been corrected.

Since that time the plant has remained shut down as corrective actions have been and are being undertaken. The purpose of today's meeting is for Boston Edison Company and the NRC staff to brief the Commission concerning the status of the Pilgrim Nuclear Power Station and the actions being taken to determine the state of readiness for restart of operation at the Pilgrim plant.

Today's meeting is for information only. There will be no votes scheduled today. The Commission will meet again at a later date with the Pilgrim officials to consider a restart decision for the Pilgrim plant. That date has not been set at this time.

I understand that copies of slides are available as you enter the room today. Do any of my fellow Commissioners

1 have any opening comments to make?

2 COMMISSIONER ROGERS: Yes, Mr. Chairman, I would. I  
3 think it's very important to remind ourselves and the public  
4 that there are steps and matters which the Commission as an  
5 agency must take and carefully examine before rendering a  
6 decision which is ultimately made and formalized by a vote by  
7 individual Commissioners.

8 The presentation today by the licensee and by NRC  
9 Staff to the Commission is a progress report. It's one very  
10 important element in a careful process that establishes the  
11 record which the Commissioners will examine before coming to a  
12 decision. Firsthand visits by individual Commissioners to the  
13 licensee site are also of value but by themselves are not  
14 definitive.

15 I've recently visited the Pilgrim site and have seen  
16 for my first time the condition of the plant and the persons  
17 who are in positions of responsibility there. While I was  
18 favorably impressed by what I saw and heard in that visit, my  
19 own judgment on the issue of restart has not yet been made and  
20 will be based on all pertinent information relating to the  
21 safety of the plant including the results of full briefing by  
22 the licensee and NRC staff experts.

23 I will have to be satisfied that public health and  
24 safety will be protected before I will vote to approve restart  
25 of the Pilgrim nuclear plant. I'm confident that my fellow

1 Commissioners will approach their decision-making from a  
2 similar point of view.

3 CHAIRMAN ZECH: Thank you very much. Any other  
4 comments? If not, Mr. Sweeney, welcome, and you may proceed.

5 MR. SWEENEY: Thank you, sir, and good morning. My  
6 name is Stephen J. Sweeney. I have been CEO of Boston Edison  
7 since 1984 and Chairman of the Board since 1986. I joined  
8 Boston Edison Company thirty-four and a half years ago  
9 beginning as a test man in our laboratory in 1953.

10 COMMISSIONER ROBERTS: You sound like a native son.

11 MR. SWEENEY: I am. I welcome this opportunity to  
12 express my continuing commitment and that of our Board of  
13 Directors to provide the support and resources to ensure that  
14 Pilgrim Nuclear Power Station is run safely and reliably.

15 I am here today because the Board and I do believe  
16 that Pilgrim Station is well along the path to restart and  
17 successful operation. I visit the plant on an average of once  
18 a week, attending scheduled staff meetings, touring parts of  
19 the facility and meeting with senior managers. I have gone  
20 through the general employee training program for unescorted  
21 access and as a result, I have witnessed firsthand many of the  
22 physical and management changes that have taken place.

23 I've also observed the operator training on the  
24 simulator and have been thoroughly briefed on all aspects of  
25 the safety enhancement program. My professional and corporate



1 background allows me to participate at Pilgrim in more than a  
2 cursory manner. I am a Registered Professional Engineer in  
3 Massachusetts and approximately 22 years of my career at Boston  
4 Edison, my assignments were in the generating and engineering  
5 disciplines including a 4-year assignment as Vice President of  
6 Steam Electric Operations.

7 I took part in the meetings of the management  
8 oversight and assessment team during the SALP assessment and I  
9 was so impressed by the results that I intend to implement that  
10 program in our fossil generation and T&D areas of the company.  
11 In addition to hearing from Ralph Bird at the monthly board  
12 meetings, the Board's nuclear operations review committee and  
13 members of our executive committee toured the plant on April  
14 12, 1988.

15 They observed operator training on the simulator and  
16 met with key plant managers. Their observations were reported  
17 to the full Board at our April meeting. Now before Ralph  
18 begins his formal presentation, I want to reaffirm that we are  
19 committed to achieving continually rising standards of  
20 excellence in all aspects of Pilgrim's operation. Thank you  
21 sir.

22 CHAIRMAN ZECH: Thank you very much. You may  
23 proceed.

24 MR. BIRD: Good morning. We are here to give you a  
25 status report on our progress towards restart for the Pilgrim

1 Nuclear Power Station which has been shutdown since April,  
2 1986. The SALP assessment report on readiness for restart  
3 which was recently submitted contains more detailed information  
4 that is the basis for our conclusions.

5 I'm Ralph Bird, the Senior Vice President, Nuclear.  
6 I joined Boston Edison on January 1, 1987. I spent two months  
7 in an intensive training program on the Pilgrim Plant before  
8 assuming my responsibilities at the end of February, 1987.

9 Since then I have spent most of my time at the plant  
10 in order to be closer to the people and their problems. Some  
11 of my background may be of interest to you. I'm a U.S. Naval  
12 Academy graduate. I retired in 1984 as a rear admiral after  
13 spending most of my career in nuclear submarines. All of my  
14 assignments in the Navy included responsibility for leadership  
15 and management which helped to prepare me for my present job.  
16 My experience also includes training, safety evaluations and  
17 personnel and material support.

18 Some related assignments included commanding officer  
19 of a nuclear submarine, senior member of the Pacific Fleet  
20 Nuclear Propulsion Examining Board, and chief of staff of the  
21 Pacific Submarine Force. After leaving the Navy and before  
22 joining Boston Edison I was a consultant at several nuclear  
23 power plants and I worked for Westinghouse as a consultant and  
24 also as an employee.

25 When I joined Boston Edison, Mr. Sweeney and the

1 Board of Directors made it very clear to me that I had their  
2 complete support. That support continues and they closely  
3 follow our progress. My experience in the Navy, my  
4 observations of commercial nuclear power --

5 CHAIRMAN ZECH: Excuse me, do you report directly to  
6 the Board?

7 MR. BIRD: I report directly to the Chairman and CEO,  
8 to Steve Sweeney personally.

9 CHAIRMAN ZECH: To the Chairman and CEO which means  
10 that not only as Chairman but as the Board itself, you're the  
11 Chairman of the Board?

12 MR. SWEENEY: That's right. And I'm also CEO.

13 CHAIRMAN ZECH: So essentially you report to the  
14 Chairman of the Board and the Board members then, of course,  
15 are part of your senior management group, if you will.

16 MR. BIRD: Yes, as you mentioned --

17 CHAIRMAN ZECH: But you have direct access to the  
18 Chairman and to the Board?

19 MR. BIRD: Not only direct access, but he visits the  
20 plant at least once a week, and I talk to him on the phone.

21 CHAIRMAN ZECH: No, I understand that, but I want to  
22 make sure that your line of communication is directly to the  
23 Chairman and to the Board, is that correct?

24 MR. SWEENEY: The only senior officer in the company  
25 that reports directly to my office is Ralph.

1                   CHAIRMAN ZECH: Thank you. That's what I wanted to  
2 know.

3                   MR. BIRD: To continue, my experience in the Navy and  
4 my observations of commercial nuclear power and related  
5 industry convinced me that there are three keys to success in  
6 managing a large complex organization. First, high standards.  
7 That's understood throughout the organization. Second,  
8 realistic plans for achieving those standards. And finally,  
9 third, a system of controls for measuring performance against  
10 the standards.

11                   I believe that Boston Edison's nuclear organization  
12 now meets those criteria. Although we made substantial  
13 progress, we are not completely satisfied with our current  
14 status and I really hope we never will be. I believe there is  
15 no such thing as steady-state operation. An operation that is  
16 not getting better is getting worse, and we are determined to  
17 keep on getting better.

18                   However, we are satisfied that we are on the path to  
19 success and that we will soon be ready to request approval to  
20 restart. The two major areas requiring further work are  
21 maintenance staffing and procedures and post-work and  
22 surveillance testing which we expect to complete this summer in  
23 parallel with the ongoing NRC assessment of our readiness to  
24 restart.

25                   When I arrived at Boston Edison my immediate task was

1 to assess the strengths of the organization and determine the  
2 areas that needed improvement. The next step was to assign  
3 priorities and direct our attention and resources accordingly.  
4 We have continually reassessed our situation, adjusting  
5 resources and refining the process which resulted in filing of  
6 the SALP assessment of the readiness for restart report which  
7 we recently submitted.

8 We evaluated management practices at Pilgrim, and we  
9 presented our conclusions to the NRC at a public meeting in  
10 September 1987. We determined plans and actions necessary for  
11 restart and in July 1987 issued our restart plan which was the  
12 basis for what has gone on since including our SALP assessment.

13 We conducted in-depth assessments of maintenance and  
14 radiological controls and implemented improvement actions plans  
15 covering both restart-related and longer-term actions. We  
16 conducted investigations and critiques of specific events at  
17 Pilgrim and identified actions to prevent recurrence.

18 All of these assessments are the building blocks  
19 which support our recent SALP assessment report. It is Boston  
20 Edison's intention and resolve to continue the self-assessment  
21 progress at Pilgrim and to drive this initiative down and  
22 across the entire nuclear organization and to make it part of  
23 our continuing everyday operation.

24 This morning some of the key line managers and I will  
25 describe the corrective actions taken since the plant was

1 shutdown and the status of our efforts to achieve continually  
2 rising standards of excellence.

3 The long-term management organization has been  
4 defined and almost all key positions have been filled. All of  
5 the key managers, section head and above, are Boston Edison  
6 employees. The senior management team includes about a dozen  
7 new people who brought with them over 250 man-years of  
8 successful nuclear power experience as well as some outstanding  
9 Pilgrim veterans.

10 They are all strong individuals who have high  
11 standards. They work well together, and they have quickly  
12 become an effective team. We've taken action to strengthen  
13 management by adding people who are among the very best in  
14 their field. There are new managers in emergency preparedness,  
15 in security, in radiological protection, operations, plant  
16 support, special projects, and quality assurance.

17 Shortly you will meet the new station director, Ken  
18 Highfill, and the new plant manager, Roy Anderson, and the new  
19 manager of emergency preparedness, Ron Varley. We have also  
20 upgraded the nuclear safety review and audit committee, which  
21 is the senior safety committee and brought in Bill Wagner to be  
22 the chairman. Other new outside members of this important  
23 group are Murray Miles, Henry Stone, and Jack Gregg who are  
24 widely recognized experts in their fields.

25 In addition to the new members of the Pilgrim team,

1 we have maintained continuity of work force in management  
2 through retention of most of the long-term Boston Edison  
3 employees.

4 [Slide.]

5 The condition of the plant has improved dramatically  
6 since the beginning of the outage in 1986 and the rate of  
7 improvement has accelerated through 1987 and 1988.

8 The plant has refueled, we have successfully  
9 completed the hydrostatic and the integrated leak rate tests.  
10 The major modification work has been completed and we are now  
11 doing testing, surveillances and continuing maintenance. Any  
12 work that is required as a result of testing is being scheduled  
13 and is being performed by our resources on site.

14 The details of the very extensive work being done  
15 during this period are in our SALP assessment report but some  
16 of the major projects of the outage include items such as  
17 completion of the appendix R, power protection modifications,  
18 security system upgrades, installation of a plant-specific  
19 simulator for training the operators, overhaul of the turbine  
20 generator, refurbishment of plant systems including the main  
21 steam isolation valves and the residual heat removal pumps and  
22 refurbishment of the core spray pumps and decontamination of  
23 the process buildings so that virtually all of the accessible  
24 areas can now be entered without protective clothing or  
25 breathing apparatus.

1 [Slide.]

2 We set an objective to have 90 percent of the plant  
3 decontaminated, radiologically clean, which is virtually all of  
4 the accessible area, and we met that goal.

5 Certainly one of the most significant projects has  
6 been the safety enhancement program which includes both  
7 equipment modifications and procedure improvements. We have  
8 dedicated significant resources to this program which exceeds  
9 the current NRC requirements and therefore is not a  
10 prerequisite for restart.

11 [Slide.]

12 Our program, which emphasizes prevention of core  
13 damage, was a Boston Edison initiative in response to the draft  
14 severe accident containment policy for boiling water reactors  
15 which the NRC staff presented to the industry in June of 1986.  
16 We have kept the NRC staff informed of our plans and the bases  
17 for our decisions in this area.

18 [Slide.]

19 The safety enhancement program modifications are now  
20 virtually complete with the exception of the direct torus vent,  
21 which is on hold pending final resolution of the NRC staff  
22 position on containment venting and the second diesel-driven  
23 fire pump which is installed but which will be -- installation  
24 will be complete after restart.

25 We proceeded to implement new emergency operating



1 procedures based on revision four of the boiling water reactor  
2 guidelines because they are technically superior to the earlier  
3 versions. This major initiative has been a well-coordinated  
4 effort by our nuclear engineering operations and training  
5 departments, who used our new plant simulator extensively in  
6 their work.

7 [Slide.]

8 We are very proud of our achievements in this program  
9 because we have significantly improved our capability to  
10 respond effectively to off-normal events in a safe and reliable  
11 manner. We also focused our attention on aggressively  
12 upgrading those areas that had been rated category three in the  
13 early 1987 systematic assessment of licensee performance, the  
14 SALP report. We don't believe that any of these areas should  
15 continue to be rated category three.

16 I'll briefly summarize our actions in each of these  
17 areas and I do have the appropriate managers here today to  
18 respond to any specific questions that you may have.

19 The new security manager has a 28-year record of  
20 success in law enforcement and in the nuclear industry. In  
21 security we have increased Boston Edison's supervision of the  
22 contract personnel. We have upgraded physical security  
23 systems. We revised procedures, and we've expanded training to  
24 deal with previously recurring problems.

25 The improvements are obvious and there have been no

1 security violations issued during Don Long's tenure as security  
2 manager. Like security, fire protection is now a separate  
3 organization with an experienced manager, Fred Wozniak.  
4 Staffing has been increased. Fire brigade training has been  
5 significantly improved. The improvements are very clear and  
6 have been documented in recent NRC inspections.

7           The new manager of the radiological section, Jeff  
8 Jens, has made the changes to produce a very quick turnaround  
9 in that important area. Staffing has been increased for health  
10 physics technicians. Edison employees are replacing the  
11 contractors and new positions of a chief radiological scientist  
12 and an independent radiological assessor have been created and  
13 both of those report to me.

14           Revised training, plant decontamination, new work  
15 practices and new attitudes at the station led to the  
16 unconditional lifting of the Commission's 1984 radiological  
17 order modifying the Pilgrim license. In the area of  
18 surveillances, we are upgrading our surveillance tracking  
19 system, we are reviewing it to be sure it's accurate and we're  
20 revising procedures to make them easier to follow.

21           Jim Seery, who is the Technical Section Manager, is  
22 being assisted by a new systems engineering division and  
23 improvements have been made to ensure that surveillances will  
24 be performed on schedule. Assurance of quality is an issue  
25 that goes beyond the quality assurance department.

1                   It requires and has received strong management  
2                   attention. There is now close, frequent attention to quality  
3                   issues at many levels of the organization including my weekly  
4                   meetings with senior managers and with Frank Famulari, who is  
5                   the new Quality Assurance Manager and who now reports directly  
6                   to me. This ensures proper attention and prompt action on  
7                   quality-related concerns.

8                   I would now like to ask the Station Director, Ken  
9                   Highfill, to continue with this status report.

10                  MR. HIGHFILL: Thank you, Ralph. Good morning,  
11                  gentlemen. I'm Ken Highfill. I joined Boston Edison in late  
12                  1987 as the Pilgrim Station Director. I'm a 1955 graduate of  
13                  the U.S. Naval Academy. I retired from the Navy in 1977 as a  
14                  captain after 22 years of service which included three new  
15                  construction billets. One of those was as officer in charge of  
16                  construction testing and acceptance of S-5G natural circulation  
17                  reactor.

18                  I spent four years as commanding officer of a nuclear  
19                  submarine, and by that time I had qualified to operate six  
20                  different types of nuclear power plants. I subsequently spent  
21                  two years as senior instructor for perspective commanding  
22                  officers. The core PCO school subjects were tactics, material  
23                  condition and leadership. On leaving the Navy, I joined San  
24                  Diego Gas and Electric Company as supervisor of nuclear  
25                  operations and later, as the first general manager of Gas Cool

1 Reactor Associates.

2 In 1980, I founded a successful management consulting  
3 firm which provides assistance in nuclear power plant training,  
4 maintenance and operations to the utility industry. In the  
5 past eight years, I have visited about 35 nuclear plants  
6 nationwide and thus have an understanding of industry, INPO and  
7 NRC standards. I noted some items common to the better plants  
8 including quality, timeliness, ownership and pride.

9 Knowing this, Ralph asked me to apply that experience  
10 at Pilgrim Station. When I arrived, most of the plant  
11 modification work had been completed. It was clear that we not  
12 only needed to get the remaining work done, but that it should  
13 be done as much as possible by Boston Edison people. That is  
14 what we are doing.

15 The result is work that the individual can be proud  
16 of. Collectively, employees at Pilgrim can be proud of where  
17 they work and at what they do and one can see the improvements  
18 in morale. We are meeting our goals to complete work, improve  
19 housekeeping and preservation, reduce contractors, increase  
20 Boston Edison staffing and to do quality work. We are  
21 generally meeting our schedule and visitors are commenting very  
22 favorably upon plant condition, worker attitudes and our sense  
23 of pride.

24 A few graphics will help illustrate this progress.

25 [Slide.]

1           In July, 1987, there were a total of 1,820 contract  
2 personnel working for the nuclear organization. Today there  
3 are 435 including the guard force, which will continue to be  
4 contracted under Boston Edison's supervision at a year-end  
5 level of about 160 people. We intend to be below 250 total  
6 contractors by that time.

7           We have achieved this reduction in manpower while  
8 removing most of the temporary plant modifications and while  
9 driving the Bechtel contracted work packages to zero. We have  
10 instituted new management practices in security and completed  
11 physical improvements to the security system, such that we can  
12 eliminate guard posts as compensatory measures.

13           [Slide.]

14           We are doing the bulk of our own programmatic and  
15 administrative work. At the same time, we are moving  
16 aggressively to do better on planning work and improving  
17 productivity so we can reduce overtime. Pilgrim should be a  
18 pleasant place to work and that means that people should be  
19 working a 40-50 hour week most of the time. This enhances the  
20 productivity, alertness and moral.

21           [Slide.]

22           This graph shows that we have reduced overtime and  
23 are controlling its use while overall manpower is ramping down.  
24 We are meeting our goal of filling approved vacancies in the  
25 nuclear organization ahead of schedule. We have not

1       compromised our standards.

2               Although our work planning capability is not yet  
3       where we want it and this is still restricting productivity  
4       somewhat, we are nonetheless seeing improving quality in many  
5       of the indicators we use.

6               CHAIRMAN ZECH: Excuse me, before you go on. I had a  
7       question on the operator overtime.

8               MR. HIGHFIELD: Yes, sir.

9               CHAIRMAN ZECH: Is operator overtime presently being  
10      maintained within the technical specification limits?

11              MR. HIGHFIELD: Yes, sir, well under it.

12              CHAIRMAN ZECH: All right, good. As you move along  
13      and as you well know and as the business of the operators  
14      becomes more intense, I would caution you to watch very  
15      closely, the overtime of your operators so that you're not over  
16      committing them and asking them to do too much as you approach  
17      the operational phase.

18              MR. BIRD: We are very sensitive to that and we have  
19      a system to track it very carefully to make sure that we don't  
20      place excessive demands. Also, we have, as we may mention here  
21      later today, we have two classes of operators go through the  
22      license training and take the exam.

23              They have conditional licenses now -- they need 20  
24      hours of power, but we had 100 percent pass rate on those exams  
25      and we have 16 operators that we didn't have before.

1           CHAIRMAN ZECH: All right. How many total operators  
2 do you have?

3           MR. BIRD: The total number --

4           MR. ANDERSON: 22 reactor operators and we have 12  
5 watch standing senior reactor operators. We also have many  
6 management people who are qualified.

7           CHAIRMAN ZECH: How about reactor operators? SROs,  
8 NROs, can you break those down?

9           MR. HIGHFIELD: 22 and 12.

10          CHAIRMAN ZECH: 22 senior operators?

11          MR. ANDERSON: We have 22 watch standing. We have 22  
12 ROs and we have 12 watch standing SROs. We have management --

13          CHAIRMAN ZECH: On shift?

14          MR. ANDERSON: Yes, sir, that are available. We have  
15 management personnel that can fill SRO billets and maintain  
16 current qualifications.

17          CHAIRMAN ZECH: How many shifts do you have?

18          MR. ANDERSON: We are going to run a four-shift  
19 operation and as we get to the 20 percent point where we can  
20 release the licenses, we'll go to a five-shift operation. That  
21 will be post-restart test program. We made that decision  
22 consciously to have extra SROs on watch during the initial  
23 startup and test program.

24          MR. BIRD: Actually, we could have manned a six-shift  
25 rotation by using some of the SRO licenses as ROs, but it

1       seemed to me to make more sense to go to a four-shift rotation.

2               Then I'll have extra operators assigned as assistants  
3       to the watch engineer assistant to the supervisor and will have  
4       in the senior most knowledgeable position will actually have  
5       double coverage during the power ascension test program. We  
6       thought it was a good investment.

7               CHAIRMAN ZECH: You eventually plan to go to five  
8       shifts, you say?

9               MR. BIRD: We'll go to six.

10              CHAIRMAN ZECH: Eventually six.

11              MR. BIRD: We expect that to be fairly soon after we  
12       complete the power ascension test program.

13              COMMISSIONER CARR: But you still have only the eight  
14       unrestricted ROs and you're waiting for the hot ops for the  
15       rest of them?

16              MR. BIRD: Correct.

17              CHAIRMAN ZECH: Do you have a technical advisor, a  
18       shift technical advisor on each shift too?

19              MR. BIRD: Yes, sir.

20              CHAIRMAN ZECH: All right. Thank you.

21              MR. HIGHFIELD: I was about to address the quality  
22       improvements that we've made.

23              [Slide.]

24              Despite the fact that we have on three occasions  
25       lowered the threshold for issuing radiological occurrence



1 reports, the method by which we document and effect corrective  
2 actions for minor radiological problems, the number of those  
3 events has dropped and so has the severity of the RORs.

4 [Slide.]

5 In addition, we have eliminated our backlog and we  
6 deal with such events in a timely manner -- usually under one  
7 week. This has driven the active file to single digits. QA  
8 non-conformance reports are also being kept to single digits  
9 and only two are presently outstanding on plant installed  
10 equipment. These should be cleared this month.

11 Additionally, we have had only one overdue quality  
12 assurance deficiency report in the past three and a half  
13 months, and that was cleared up in four days.

14 We are also aggressively addressing quality assurance

15

16 [The prepared statement of recommendations with timeliness and  
17 thoroughness of response being the keynotes.

18 [Slide.]

19 Our recent self assessment clearly identifies the  
20 issues remaining before restart. The major one in my judgment,  
21 is the need to upgrade our work control process. That effort  
22 is now underway.

23 In summary, quality, timeliness, ownership and pride  
24 are evident in the way we're doing business. I'm proud to be  
25 part of the Pilgrim Station team and so are my people. With

1 our present team and the recent track record, I'm confident  
2 that we will be ready for restart when we next address the  
3 Commission.

4 Roy Anderson, the Plant Manager, will now discuss our  
5 efforts to upgrade various aspects of the organization and to  
6 improve the material condition and work control processes.  
7 Thank you.

8 COMMISSIONER CARR: Before we go on, how about  
9 running over that quality assurance recommendation for me  
10 again. I don't understand what those are.

11 MR. HIGHFIELD: Our Quality Assurance Department,  
12 besides issuing NCRs or Non-Conformance Reports and efficiency  
13 reports, when they do an audit and they do them frequently in a  
14 variety of areas, they will make recommendations for upgrades.  
15 Albeit the thing that they observed was not a deficient  
16 condition.

17 We have a very highly trained QA department. They're  
18 all engineers. We get recommendations from them for  
19 improvements and as you can see from the graph, there was a  
20 considerable backlog of those. We are addressing those in much  
21 more timely manner now. We are required to respond to them as  
22 to whether or not we will institute the recommendation and if  
23 so, when and what will be the institution of it.

24 If we say we will not institute it, then we need a  
25 very good reason.

1 COMMISSIONER CARR: Now, are those 17 approved for  
2 implementation or are they under review or how many of those --

3  
4           MR. HIGHFIELD: Those are all under review. Those  
5       are 5 from 1987 audits and 12 from 1988 audits that have not  
6       been answered.

7 MR. CARR: That means you haven't decided yet whether  
8 to implement them or not?

9 MR. HIGHFIELD: Correct, sir. I believe that as we  
10 sit here today, the 5 from '87, in fact, have been done -- I  
11 mean, have been addressed. I'm not quite sure that they were  
12 supposed to be addressed this last week. We would have now,  
13 about 12 of these outstanding.

14 COMMISSIONER CARR: I'm trying to get some feel for  
15 what kind of man hours we're talking about if you decide to do  
16 those kinds of things. Are they major jobs, or relocate the  
17 gauge glass or what? I want a feel for that kind of thing.

18 MR. HIGHFIELD: All right, sir, they can have a whole  
19 broad spectrum. They may be something such as the program that  
20 you have for well, maintenance of say, one of your maintenance  
21 instructions may be difficult to understand and you need to  
22 modify the instruction. On the other hand, they may be some  
23 very small kind of a thing. They are generally programmatic in  
24 nature, as opposed to physical in nature.

25 COMMISSIONER CARR: All right, thank you.

1           MR. ANDERSON: I'm Roy Anderson. I came to Pilgrim  
2 in May of last year as a Vice President of Quadrex Energy  
3 Services Corporation, joining Edison as the planning and outage  
4 manager in December of 1987, to complete the major outage  
5 projects.

6           When the major outage projects were completed in  
7 early 1988, I became the Plant Manager. I have a Bachelor of  
8 Science Degree in Marine Nuclear Engineering, as well as a  
9 Masters of Business Administration Degree. I have over 17 years  
10 of nuclear experience in power plant operations, including  
11 plant startup, upgrade programs and reactor site overhauls and  
12 construction projects.

13           I am qualified to operate three different reactors  
14 and have done two tours as plant manager for the General  
15 Electric Company.

16           CHAIRMAN ZECH: You came to the Pilgrim, when?

17           MR. ANDERSON: I came to Pilgrim as a consultant in  
18 May of last year and joined Boston Edison Company in December  
19 of 1987.

20           CHAIRMAN ZECH: Thank you.

21           MR. ANDERSON: As Ralph Bird described earlier in the  
22 presentation, a key component of successful management is a  
23 system for measuring progress. We have decided to track  
24 certain key indicators which are important because one, the  
25 indicators contribute to safe and reliable operation of the

1 power plant; two, the indicators are good overall guides to  
2 operation and; three, in some cases, they have been areas of  
3 concern for Pilgrim in past years.

4 I will discuss four of those areas which are  
5 important in achieving safe, reliable continued operations --  
6 maintenance, the plant decontamination, radiation exposure  
7 control and operations preparedness.

8 [Slide.]

9 MR. ANDERSON: We have worked off a mountain of  
10 maintenance requests. We intend to stay ahead of the workload.  
11 Today, we prioritize maintenance requests of plan and control  
12 work more effectively. Using INPO guidelines we focused on  
13 power block MR's. When we met the INPO goal of 500, which is  
14 the industry average, we raised our sights and toughened our  
15 Pilgrim goal. As you can see, we are hovering near our new  
16 goal of 400. Despite many recent improvements in maintenance  
17 practices, our self-assessment disclosed that our work control  
18 process is a hindrance to continuing our plant material  
19 condition improvement.

20 We have resolved to correct that prior to requesting  
21 the NRC inspection. That effort is well underway. When this  
22 outage began, only about 45 percent of the spaces in the  
23 process buildings were accessible without protective clothing.  
24 The entrance to some areas required self-contained breathing  
25 apparatus. We made a commitment that before restart, 90

1 percent of virtually accessible areas would be decontaminated.

2 We are there, 90 percent clean, and we intend to keep  
3 it that way. We think that a cleaner plant promotes safety and  
4 quality. Inspections are more frequent and more thorough when  
5 operators do not have to dress out in protective clothing to  
6 enter the area. Beyond these benefits however, we are always  
7 vitally interested in reducing total worker exposure.

8 [Slide.]"

9 ALARA is our policy. As low as reasonably  
10 achievable. We are pursuing it aggressively. We are  
11 communicating its importance through training and making sure  
12 that every employee knows that individual exposure is an  
13 individual responsibility. We originally set our exposure  
14 budget for the INPO guideline and as the graph shows, we have  
15 been living well within our budget. The industry average has  
16 decreased, but we are, in fact, in well below that mark.

17 We are in the process of establishing a new and much  
18 tougher goal based on our performance thus far in 1988.  
19 Finally I would like to discuss the readiness of our Operations  
20 Department for restart.

21 Since last summer, two successive classes of reactors  
22 operators and senior reactor operators have taken their NRC  
23 exams with a 100 percent pass rate. The new licenses are  
24 currently limited but once we have power, they will be able to  
25 meet those conditions and then we'll be able to take staff a

1 six-shift rotation to permit scheduling for future operator  
2 classes that will ensure we will always have enough operators  
3 in training to compensate for attrition. During restart, we  
4 have planned for a four-shift rotation. This permits an extra  
5 senior reactor operator to be assigned to each shift and allows  
6 the most efficient use of experienced operators.

7 The operators look better. They are now in uniform  
8 and certainly sound better. Training in formal communications  
9 has been effective and is showing clearly beneficial results in  
10 improved control and a higher level of professionalism. All  
11 four crews have completed training on the revised emergency  
12 operating procedures. Our operators have been observed as part  
13 of our self-assessment, by INPO and by the NRC's EOP  
14 inspection. Every assessing team has concluded that they are  
15 well-trained and prepared to operate the plant safely and  
16 reliably.

17 CHAIRMAN ZECH: Do you have a college degree program?

18 MR. BIRD: We have a limited college degree program  
19 which is in place for one group of people, and we are in the  
20 process of expanding that for operators. We think we can have  
21 it in place sometime before the middle of 1989. We have made  
22 the contact with the university and have arranged credit for  
23 various on-the-job performance.

24 CHAIRMAN ZECH: Good. I know you've got -- it's a  
25 very busy period for you now but I appreciate the fact that you

1 have intentions of putting a program like that in place.

2 MR. BIRD: I think it's a very good program. It's  
3 the right thing to do.

4 CHAIRMAN ZECH: I agree, and I encourage you to  
5 continue that initiative.

6 MR. BIRD: Thank you.

7 CHAIRMAN ZECH: All right. Thank you.

8 MR. ANDERSON: To continue, last December, the NRC  
9 evaluated an exercise of the onsite emergency plan and issued a  
10 finding of "adequate to protect the public health and safety,"  
11 but some public attention has been focused on the offsite  
12 emergency plans which are the responsibility of the  
13 Commonwealth of Massachusetts.

14 Federal standards for offsite radiological response  
15 plans do place a financial burden on the surrounding  
16 communities. We have therefore made a major commitment to  
17 assist and support the Commonwealth and the towns in upgrading  
18 their plans. The new draft plans are now clearly better than  
19 the offsite plans have ever been.

20 I'd like to now ask Ron Varley to discuss briefly the  
21 offsite emergency plan.

22 MR. VARLEY: Good morning.

23 CHAIRMAN ZECH: Good morning.

24 MR. VARLEY: I came to Pilgrim Station from Toledo  
25 Edison in June of 1987 with 17 years combined Navy nuclear



1 experience and industry experience, ten of them in emergency  
2 preparedness. My priority since arriving at Pilgrim has been  
3 the development of improved relationships with the authorities  
4 that are responsible for offsite planning and to work with them  
5 to provide them with the necessary types of support to assist  
6 them in their efforts to upgrade their programs.

7 As Ralph stated, we recognize that the effort  
8 required to maintain an emergency preparedness program for  
9 Pilgrim Station requires greater resources than the local  
10 communities could muster. Accordingly, we've made commitments  
11 to provide the necessary resources to the five towns within our  
12 emergency planning zone and the two reception center  
13 communities that support the EPZ.

14 [Slide.]

15 We currently have signed letters of agreement with  
16 all of the involved communities accepting our support. Those  
17 resources include a large staff of professional planners that  
18 work on a daily basis with Commonwealth and the communities to  
19 ensure that the upgraded offsite emergency preparedness program  
20 will meet or exceed all applicable regulatory requirements and  
21 address the legitimate issues of local concern.

22 We are also providing funding for a full-time civil  
23 defense staff position in each of the communities for the  
24 operating life of the plant. We're providing funding to  
25 upgrade emergency operation centers in each of the seven

1 communities, including renovation of their existing buildings  
2 and supplying them with all the necessary emergency response  
3 equipment.

4 Finally, we're providing compensation to all of the  
5 offsite emergency workers for the time that they spend in  
6 emergency response training. My staff continues to work  
7 closely with the offsite officials and those agencies who have  
8 a responsibility for emergency preparedness so that we can  
9 continue to build on substantial progress that we've made to  
10 date.

11 MR. BIRD: Thank you, Ron. Based on our completed  
12 self-assessment of readiness for restart, which includes  
13 independent reviews that have been performed, we have concluded  
14 that upon completion of the actions identified in the self-  
15 assessment report and in the restart plan, that Pilgrim will be  
16 ready for safe and reliable restart and continued operation.

17 This conclusion is the result of a rigorous process  
18 which was supervised by a management oversight and assessment  
19 team which I chaired. Also on the team are the vice president  
20 of nuclear engineering, the station director, the special  
21 projects director, the managers of the nuclear engineering and  
22 quality assurance departments and my two very experienced staff  
23 assistants.

24 The team used many sources of information to conduct  
25 the reviews. We personally spent many hours in plant and

1 system walkdowns. We interviewed extensively the line managers  
2 who have the direct responsibility for performing work. We  
3 evaluated reports and documentation. We observed operators on  
4 the simulator and we reviewed independent performance  
5 evaluations to reach our conclusions.

6 Our conclusions included the following. The self-  
7 assessment confirmed the validity of the restart plan which we  
8 submitted last July. We identified some limited areas which do  
9 show significant improvement, but which require completion of  
10 specific well-defined actions for restart. There is improved  
11 performance in all areas that were rated as category three in  
12 the early 1987 SALP. The peer evaluation process which we put  
13 in place and the quality assurance surveillance monitoring  
14 program are valuable tools in improving our performance.

15 The essential elements of the long-term organization  
16 have been implemented. Substantial nuclear management  
17 experience and expertise have been added to the organization in  
18 key positions and the bases for self-assessment which we  
19 described in our restart plan last July have been substantially  
20 met.

21 To summarize, we have come a long way. We have an  
22 effective management team with talent and experience, that can  
23 match any in the industry. We have done a thorough review. We  
24 have identified a few things left to do this summer. We will  
25 be back when they are done and when Steve Sweeney and the

1 Boston Edison Board of Directors have authorized me to seek  
2 your approval to restart the Pilgrim Nuclear Power Station.  
3 Thank you.

4 CHAIRMAN ZECH: Thank you very much. Does that  
5 conclude, Mr. Sweeney, your presentation?

6 MR. SWEENEY: Yes it does, sir.

7 CHAIRMAN ZECH: All right. Thank you very much.  
8 Questions my fellow commissioners? Mr. Roberts?

9 COMMISSIONER ROBERTS: No.

10 COMMISSIONER CARR: I've got one comment that I was -  
11 - I last visited up there I was a little concerned by your test  
12 program for restart. Could you expand on that a little bit on  
13 what you're going to do to test and make sure all of those  
14 systems, the one's both you've worked and the ones you haven't  
15 worked are in place?

16 MR. BIRD: Testing was done for the repairs. We are  
17 going back through the nuclear engineering department and  
18 reviewing all of the maintenance, all of the modifications that  
19 were done, looking at the specific tests that were done to see  
20 if there is anything else that should be done.

21 More importantly in the power ascension and test  
22 program, we have tests that are designed to check the hardware  
23 problems that originally caused the shutdown to be sure that  
24 the repairs were effective as well as to check out dynamically  
25 all of the systems and especially those that were modified or

1 repaired.

2 We -- to summarize, we did have a test program, we're  
3 going back and reviewing it one more time to see if there's  
4 anything additional that we should do and we have a dynamic  
5 test program during the power ascension phase.

6 COMMISSIONER CARR: But it is a systems test program?  
7 You will test systems that were worked as well as ones that  
8 weren't worked?

9 MR. BIRD: Yes. Of course, we're redoing a lot of  
10 surveillance tests too to reset the clock on those. So between  
11 the surveillance tests, the logic system function tests, the  
12 individual equipment tests and then -- of course many of the  
13 systems have already been run. Anything that we can run we  
14 have run. For example, we brought in -- we rented a temporary  
15 boiler similar to the shore steam that the Navy uses in  
16 shipyards and we checked out the major steam-driven pumps a  
17 long time ago and we did find some minor repairs and we saved  
18 some time in the critical path during the restart and power  
19 ascension process by doing this.

20 But we've run condensate, RHR, HPCI, RCIC, everything  
21 that can possibly be run has been and is continuing to be run.  
22 Anything that can be in an operational mode is operating.

23 COMMISSIONER CARR: I understand.

24 CHAIRMAN ZECH: Thank you. Commissioner Rogers?

25 COMMISSIONER ROGERS: Yes. What's is the status of

1 your own study, ESF actuation status?

2 MR. BIRD: We have done a thorough review and we're -  
3 - because we identified that we had more of those than we would  
4 like. Roy, would you tell us where we stand on th corrective  
5 actions as a result of that review?

6 MR. ANDERSON: Well, the preliminary review has been  
7 completed and its on my desk to review right now. What I'm  
8 looking for are those things that I can positively do  
9 different. Not counseling or instruction, but why. What made  
10 it difficult for the maintenance operator to do his job. Why  
11 was his procedure not easy to use. We are doing that right  
12 now. Part of that is also rewriting our maintenance request  
13 processes. Many of these things came in as a result of  
14 maintenance, either how it was planned, how it was reviewed or  
15 how it was performed and so I believe that --

16 MR. BIRD: This was really one of the elements in our  
17 self-assessment that caused us to decide to accelerate the  
18 correction or the improvement I should say of the work control  
19 process. We had evaluated some time ago that that's something  
20 that should be improved and we had originally thought we would  
21 do it after restart, after looking at the ESF actuations and  
22 some other indicators, we decided that the time is now.

23 And that's what we're doing. Work control process  
24 will help and of course, if you go back and reanalyze each  
25 particular case of ESP actuations, we will find ways to modify

1 the procedure, to modify the way the operators goes about  
2 taking the readings to reduce the probability of a mistake.

3 It really is -- has to be a detailed case-by-case  
4 evaluation as well as looking for the broader work control  
5 processes. We're doing both.

6 COMMISSIONER ROGERS: Thank you. Could you just  
7 clarify a little bit more on what the delay is on this direct  
8 torus venting decision? I'm not quite clear on where the hold  
9 point is on that. I see that you've cited that the NRC has  
10 approved the -- I think that's what you said -- the revision  
11 four of the BWR owner's guidelines. I thought that was  
12 possibly a delay but where is the hold-up and --

13 MR. BIRD: I'd like to ask Ed Howard who is our vice  
14 president of engineering to respond.

15 COMMISSIONER ROGERS: I realize it's not a condition  
16 for restart but it is an issue that's out there of considerable  
17 public interest.

18 MR. BIRD: It's also a question that the NRC staff is  
19 reviewing according to our understanding, but Ed can you  
20 elaborate?

21 COMMISSIONER ROGERS: Would you come to the  
22 microphone over here at the podium and identify yourself to the  
23 reporter?

24 MR. HOWARD: Good morning. I'm Edward Howard, vice  
25 president of nuclear engineering. The emergency operating

1 procedures have been implemented to the revision for emergency  
2 procedure guidelines. Those guidelines have been approved  
3 through the owner's group activities and independently reviewed  
4 by General Electric and approved by them.

5 They are currently -- the guidelines themselves are  
6 currently under review by the staff. It's my understanding  
7 that's -- the safety evaluation on that is well along. I'm  
8 sure the staff could --

9 COMMISSIONER CARR: We will ask the staff to comment  
10 when they come up too but, thank you.

11 MR. HOWARD: The staff has reviewed our EOP  
12 implementation but has conditioned that on the -- in the event  
13 -- they're reviewing -- the generic review of the guidelines  
14 identified some change in the guidelines then we would have to  
15 go back and update our emergency operating procedures to  
16 reflect those.

17 COMMISSIONER CARR: That is the -- that's the reason  
18 you're holding on this now? Is that it?

19 MR. HOWARD: Yes. We are taking a very conservative  
20 approach towards that item and are planning on implementing  
21 direct torus vent system after the staff has completed that  
22 generic review and we can see their -- results of their safety  
23 evaluation.

24 COMMISSIONER ROGERS: Just one further question. Are  
25 there any further developments on the state of the Commonwealth



1 of Massachusetts' position with respect to acceptance of  
2 emergency plans? Any further changes in that since I visited  
3 the plant a month and a half ago, whatever it was?

4 MR. BIRD: We see progress being made. Would you  
5 like to comment on that Ralph?

6 MR. VARLEY: Well, the state's position is that their  
7 working with us to develop the best possible emergency plan and  
8 we're continuing to support the Commonwealth and the towns in  
9 that effort. Progress continues to be made in the development  
10 of very detailed implementing procedures that removes a lot of  
11 the reliance on ad hoc capabilities that existed in the past.  
12 Defining more specifically the resources such as where  
13 transportation providers are going to provide transportation  
14 and things like that. The process is moving alone. We've  
15 started training some of the emergency workers. Draft town  
16 plans have been forwarded on to FEMA for their review and  
17 comment and their comments are being incorporated into the  
18 community's plans so the process is moving along fairly well.

19 COMMISSIONER ROGERS: Thank you.

20 CHAIRMAN ZECH: When I visited the plant about a year  
21 ago now I believe, I know one thing we discussed was management  
22 involvement and I have now modified that term -- call it  
23 leadership involvement because I think it has more a  
24 connotation of people rather than just resources.

25 I think we talked about discipline and attention to

1 detail and formality and the things that looked like should be  
2 emphasized at the Pilgrim Plant. Follow-up procedures. I'll  
3 say Mr. Sweeney, it's obvious that you brought in a number of  
4 new senior managers. I know Mr. Bird was there when I visited  
5 your plant. He had just been there a short time. You brought  
6 in others since then.

7 I think that the initiatives in that regard have been  
8 certainly proper ones but I do think it's important that an  
9 effort continue as regards involvement of leadership in order  
10 to permeate down through your whole organization that cultural  
11 commitment if you will to excellence, reliability and to  
12 competent performance across the board. That's the leadership  
13 challenge to get that through your organization. You've told  
14 us some things this morning that you've done specifically that  
15 certainly would appear to be commendable and in the right  
16 direction. But the challenge is a leadership challenge and  
17 it's yours, Mr. Sweeney and the rest of your team here to make  
18 sure that those changes that you want to put in that you're  
19 telling us about, actually get executed.

20 Of course, the proof is in the results of how things  
21 go, and so we'll be watching that very closely, but I just  
22 emphasize the importance of attention to detail, formality,  
23 following the procedures and a commitment to a very serious  
24 attitude towards safety and toward following the technical  
25 specifications, teamwork, and a strong commitment to training.

1 Many of the things you told us would lead us to believe that  
2 your training program is a good one.

3 On the other hand, training is extremely important.  
4 It's a leadership challenge there to continue that. So I think  
5 that's important that leadership remain involved, and you  
6 accept the challenge to get those policies permeated through  
7 the whole organization.

8 The plant's been shutdown for over two years, and as  
9 I mentioned earlier, as you approach now moving into the more  
10 operational stage, I think it's awfully important to recognize  
11 that in many ways, it's kind of like a new construction plant.  
12 You're shifting from construction or repairs in your case,  
13 significant modifications, significant work, but you're  
14 shifting towards an operational phase that is very different  
15 from the -- than the shutdown phase.

16 You do have experienced people, obviously, in the  
17 senior management positions, and I would challenge them to call  
18 on their experience to make sure that the supervisors as well  
19 as the reactor operators, the maintenance people, the testing  
20 people, the surveillance people and all really do shift to the  
21 operational mode and recognize that as they accept the systems  
22 for their responsibility that they will be thinking operational  
23 rather than thinking in a shutdown condition.

24 It's a very important mentality to get into, and my  
25 experience has been that it doesn't come necessarily naturally.

1 You don't just turn a switch and go from shutdown to  
2 operational phase. It's a -- it's an attitude, it's a  
3 mentality shift that you've got to believe that that plant is  
4 about to come alive. It becomes something that is living, and  
5 you just can't walk away from it, and so all of your people  
6 should, I would hope, be thinking about the -- that shift from  
7 a shutdown phase to an operational phase, and it's something  
8 that challenges leadership. I hope you'll be mindful of that.  
9 I guess the only thing that I would like to say finally before  
10 we call the Staff up is that you still have a ways to go, as  
11 you well know.

12 It's going to take our staff time to review your --  
13 the work that you've done and to assess and evaluate the  
14 progress that's been made, and so I want -- and I'm going to  
15 tell the staff when they get here, but what I want to tell you  
16 while you're still here is that my charge to them is going to  
17 be to take the time they need to make sure it's done right,  
18 just like you're doing.

19 So we need time, too. Our people need time, and so I  
20 hope that you will be reasonable in your expectations. We're  
21 not going to authorize you to start up -- if we authorize you  
22 to start up -- without being confident that the staff has had  
23 the time they need to -- the regional people, the headquarters  
24 people, whoever on the staff who is particularly responsible  
25 for that and especially the regional administrator, Mr. Bill

1 Russell -- we want to make sure that they have the time they  
2 need to do the job that has to be done.

3 So I just want to emphasize that to you. That's  
4 going to be our role. When you're done, that doesn't  
5 necessarily mean that we're done. We need the time to  
6 properly, fully, thoroughly, carefully, and with confidence  
7 evaluate and assess the work that's been done.

8 Are there any other comments before we close?

9 COMMISSIONER CARR: I need to make one.

10 CHAIRMAN ZECH: Commissioner Carr.

11 COMMISSIONER CARR: When I was up there, I mentioned  
12 to you that you had a bunch of all-stars gathered together, and  
13 the challenge was to make them into a team. It looks like  
14 you're working in that direction. Now my concern has shifted  
15 to: are you just going for the big game or are you going to be  
16 there for the next season?

17 Are you going to be able to hold those people and  
18 keep them around awhile? And you're going to have a challenge  
19 there, Mr. Sweeney.

20 MR. SWEENEY: That was a concern of mine and the  
21 Board; however, we have -- at the last Board meeting and at the  
22 upcoming Board meeting -- we are setting in place a program  
23 that will cause us to be comforted by the retention of the team  
24 that is there. That's all I can say at this point, but that is  
25 something that we do recognize and that we will take care of.

1 With regard to your last comment, as we have quite  
2 appropriately taken our time then to do what we have done and  
3 do it right, we would expect no less from you, because I do  
4 believe that my interest and your interest are the same.

5 We want a safe and reliable power plant, and when  
6 we're ready, we will feel that -- and then, of course, you must  
7 do yours, and we would expect no less from you than we've done  
8 ourselves.

9 CHAIRMAN ZECH: That's exactly right, and I  
10 appreciate that. I appreciate your -- I appreciate that  
11 comment because that's exactly what we intend to do.

12 Anything else before we call the staff up?

13 [No response.]

14 Thank you very much. We appreciate it.

15 CHAIRMAN ZECH: Mr. Taylor, you may proceed.

16 MR. TAYLOR: Good morning, sir. The staff  
17 presentation today will be given by Tom Murley and Bill Russell  
18 in two parts, and at the close I would like to add a few words  
19 to the staff's presentation.

20 Tom, I'll turn to you first.

21 CHAIRMAN ZECH: Fine. You may begin. Thank you.

22 MR. MURLEY: Thank you, Mr. Chairman. We have  
23 discussed Pilgrim with the Commission on several occasions over  
24 the past few years.

25 Today is, as you mentioned, a status briefing only.

1 We have a lot of work ahead of us this summer before we're  
2 ready to conclude that the plant and the plant staff are ready  
3 to resume operations.

4 The plant was shut down 26 months ago. The immediate  
5 reason for the shut-down was equipment failures, but there was  
6 a background of more widespread problems that were long  
7 standing and they ran deep in the organization.

8 It took about a year after the shut-down for Boston  
9 Edison to analyze their situation and take positive steps to  
10 begin turning things around.

11 We believe that Ralph Bird has made some major  
12 improvements. You've heard some of those today. Brought in a  
13 lot of new staff, fresh ideas.

14 In addition, which is particularly impressive, is the  
15 physical improvements to the plant. There were times, I think  
16 it's been only within the last year or so, that we've been able  
17 to go down into some of the corner rooms without getting any  
18 special-dressed equipment and so forth.

19 They're continuing on that guideline and that can  
20 only improve operations and management. Those people can walk  
21 around in their street clothes and look at various parts of the  
22 plant.

23 They have a solid management organization in place  
24 and a comprehensive restart plan. I think what deserves  
25 particular mention is the safety enhancement program that

1 Boston Edison has voluntarily undertook.

2 It is not required for restart, but nonetheless, they  
3 have implemented a number of safety improvements and I think in  
4 many regards they are industry leaders.

5 For example, they have moved ahead with improved  
6 emergency operating procedures. We are close to approving, if  
7 we haven't already, the provision four, and we're doing generic  
8 reviews which I understand should be done in perhaps a month or  
9 two.

10 They've added a third diesel generator in the plant.  
11 They've added fire water crosstie to the RHR system so that, in  
12 fact, one can use city water with some slight modifications,  
13 and with well documented procedures and training, they can use  
14 the fire water system for --

15 CHAIRMAN ZECH: Was the diesel engine completely  
16 additional to what may be required?

17 MR. MURLEY: Yes. They saw the station blackout to  
18 rule coming and they also knew there were other good sensible  
19 reasons for doing it.

20 They could operate the plant with two. But they've  
21 decided to add three and --

22 CHAIRMAN ZECH: Is it safety -- is it safety --  
23 conditioned for safety?

24 MR. MURLEY: It's not completely safety grade, but it  
25 can be used in an emergency and they've got procedures for it.



1           CHAIRMAN ZECH: Well, I certainly think that's a  
2 commendable initiative.

3           MR. MURLEY: Yes.

4           CHAIRMAN ZECH: Extra power is something that I think  
5 we all think about, ever have any kind of a serious incident.  
6 That's one of the things I think about first and I think that's  
7 a very commendable initiative to take. Certainly if I were a  
8 utility executive, I'd feel more comfortable doing it and I'm  
9 sure that utility feels the same way.

10          MR. MURLEY: Yes. Another initiative in this safety  
11 enhancement program that Commissioner Rogers asked about, was a  
12 direct torus vent.

13          They, on their own initiative last summer, made some  
14 design modifications. We, at the time, asked them a number of  
15 questions about how the vent would be designed, how it would be  
16 used, and it also got caught up in the generic review that  
17 we're doing of venting in general for Mark I's, but also just  
18 the general topic of venting.

19          So we have asked Boston Edison and the BWR owners  
20 group a number of questions that pertain to the downside of  
21 venting as well as the benefits.

22          These questions are not easy to answer. We're now  
23 getting answers to them from the owners group and from Boston  
24 Edison.

25          The direct torus vent is not required for restart,

1 but I believe that they, if I understood their answer to your  
2 question, they were waiting to see how we come down in our  
3 generic requirements which are scheduled to come to you this  
4 fall.

5 We'll give you a status briefing on the Mark I's  
6 probably in a month or two. But if that's the case, then we'll  
7 review them when they come in for our approval.

8 If they were to ask now for our approval, we would  
9 review them now. But I understand why they might want to wait  
10 to see how we come down in generic recommendations.

11 Last year, I switch now to emergency preparedness,  
12 last year, FEMA conducted a review of the off-site emergency  
13 preparedness plans of Pilgrim and they notified us of a number  
14 of significant deficiencies in those plans.

15 And even before that, even before the FEMA report,  
16 the Commonwealth of Massachusetts itself had written to NRC  
17 expressing concerns about deficiencies in the state plans.

18 We have told Boston Edison that these deficiencies  
19 must be addressed. We will give particular attention to  
20 improvements in the plans for schools and day care centers for  
21 transportation dependent populations, and the plans for special  
22 needs population.

23 Boston Edison is working with the state and local  
24 authorities to upgrade these plans. We are following their  
25 progress.

1           They seem to be making steady progress along these  
2       lines and we will work with FEMA to evaluate the plans. As you  
3       know, public interest is very high in the communities around  
4       the Pilgrim plant.

5           The NRC staff has held many public meetings in the  
6       Plymouth area. Probably more than any other plant, at least in  
7       the last few years, that I'm aware of.

8           We do have a number of 2206 petitions which are still  
9       under review by the staff. Moving to our restart criteria, we  
10      have discussed with the company that there are three major  
11      categories where we expect improvements to be made.

12          You've heard discussions of each of those today. The  
13      organization and management. We expect there are stable and  
14      effective management and staff at Pilgrim.

15          And I think, Commissioner Carr, we would echo your  
16      concern about the stability that this team, which is good,  
17      appears to be there and it appears to -- we want to make sure,  
18      satisfy ourselves, that they're going to make lasting changes  
19      at the site.

20          The condition of the plant is the second major area  
21      and here we have a number of technical issues in the plant  
22      design that we have to review.

23          We want to see demonstrated improvement in the SALP  
24      areas, fire protection, radiological controls, security,  
25      surveillance, and we also want to see improvements in the

1 maintenance program.

2 I think Bill Russell will talk a little bit more  
3 about that. Finally, we want to satisfy ourselves that  
4 improvements have been made in the emergency preparedness area.

5 With that, I'll turn to Bill Russell and he'll  
6 continue.

7 CHAIRMAN ZECH: Thank you. You may proceed.

8 MR. RUSSELL: I'd like to start by first identifying  
9 a part of the process that the staff is using for the review of  
10 Pilgrim which is unique.

11 We have formed a restart assessment panel which is a  
12 joint panel made up of senior members from both the region and  
13 NRR.

14 Sam Collins is the Deputy Director for projects in  
15 Region 1. He is the panel Chairman and he is with me today.  
16 In addition, Bruce Boger from NRR is the Assistant Director for  
17 Region 1 projects and he is the panel Vice-Chairman.

18 We have a number of other staff members in specialty  
19 areas that participate on this panel, the purpose of which is  
20 to effectively integrate both the inspection and licensing  
21 activities and to make sure that issues are identified early  
22 and brought to senior management's attention.

23 The panel frequently briefs me and Tom Murley and  
24 there are occasions when senior managers get together and  
25 review the status of the plant.

1           This has occurred four times. In the senior  
2 management meetings, which are headed by Mr. Stello, the  
3 Executive Director, where we meet with all the regional  
4 administrators and office directors and discuss the status of  
5 plants, principally for the purpose of making a determination  
6 as to whether a particular plant deserves agency-wide attention  
7 or region-based attention.

8           In each case, the conclusion has been that Pilgrim  
9 deserves agency-wide attention and, of course, Commission  
10 attention.

11           We have on-site senior management meetings with  
12 myself, Dr. Murley, and also Mr. Taylor and the Deputy  
13 Executive Director, to review the status and ensure that the  
14 activities are managed effectively and that issues that are  
15 important are being brought forward.

16           There is a second aspect of the review process for  
17 Pilgrim which I think is somewhat unique. And that is that we  
18 have made efforts to open the staff review process while the  
19 process is going on.

20           We have solicited comments from the state, local  
21 officials, and the public regarding the restart plans  
22 themselves.

23           Once we received those comments, we went back and  
24 held meetings and addressed the comments both orally and in  
25 writing such that we could, in fact, open that process up.

1           That dialogue is continuing and I will identify some  
2           of those major steps as they relate to the technical and  
3           management issues that we will be addressing.

4           As far as future staff activities, I'd like to start  
5           first and follow-up on the comments on the maintenance  
6           inspection that we conducted at the site.

7           This was an approach where we looked at how  
8           maintenance was being performed on selected systems. We took  
9           an in-depth vertical cut through on two systems, and while  
10          there were a number of areas that were quite positive, there  
11          were some areas that gave us concern.

12          The area of control of work and control of testing  
13          following maintenance work and a number of issues which relate  
14          the ability of first line supervisors to effectively implement  
15          the programs.

16          These issues are now being addressed by the company.  
17          In fact, they were not yet complete with their own self-  
18          assessment and the findings weren't consistent with some of  
19          their own findings.

20          We believe that those issues associated with control  
21          of work must be addressed effectively prior to restart. The  
22          ESF actuations that were questioned by Mr. Rogers, we believe  
23          are in part due to work control issues and really understanding  
24          what is to be done prior to starting it.

25          Those issues clearly need to be addressed prior to

1 operation. We currently have in hand and under review with the  
2 staff the submittal of the Boston Edison Company self-  
3 assessment report, and we are also reviewing their power  
4 ascension program.

5 We believe that the self-assessment, when it is  
6 complete and the supplemental information is presented to the  
7 staff, that that review should be able to be completed within  
8 about two to three weeks of having all of the information in  
9 hand.

10 Once we have completed that and the company has  
11 indicated that they are -- our review, and the company has  
12 indicated that they are ready to restart, we will commence an  
13 in-depth integrated assessment team inspection.

14 This will involve approximately one week of  
15 preparations on-site, including interaction between staff  
16 members and the company on the details of the self-assessment.

17 Followed by two weeks of inspection that will run  
18 continuous, the first several days of which will be around the  
19 clock inspection.

20 And we will maintain that team together until we have  
21 completed a draft integrated assessment team inspection report.  
22 The planning for that inspection has been completed.

23 We've identified the areas to be inspected and we  
24 feel it's quite a good plan. We intend to take the results of  
25 that inspection and compare those results to the company's

1 self-assessment to use that as a basis for judging the  
2 effectiveness of the management team in determining what needs  
3 to be done at the facility.

4 We are also in the process of developing a self-  
5 report. The period closed for this evaluation on the 15th of  
6 May and we expect to complete that report in July, and we'll  
7 issue that report, such that we will be able to use the SALP  
8 report which will characterize the performance over the last 15  
9 months, plus the team inspection report, the review of the  
10 self-assessment and the power ascension program, as well as the  
11 other inspections that have been conducted over the last 15  
12 months, to develop a report from me to NRR which indicates the  
13 readiness of management and hardware at the facility or which  
14 indicates potentially those areas which may not be ready and  
15 which require further work.

16 To date, we have, and during this self-assessment  
17 period, expended over 7,000 hours of direct inspection effort  
18 at the plant.

19 We have a substantial additional effort that's  
20 planned. In addition, we are expecting the ACRS Subcommittee  
21 to hold a meeting on-site to review the status to the plant,  
22 along with a Full ACRS Committee meeting and the discussions  
23 we've had with the staff of the ACRS are such that they expect  
24 the ACRS review to be completed in time to provide their views  
25 to the Commission before a Commission decision.



1           We are developing plans for power ascension  
2     monitoring should the approval be given to restart the  
3     facility, which will necessarily include the monitoring at each  
4     step through power escalation.

5           We have built in a number of hold points at which  
6     time NRC approval would be required prior to going to the next  
7     plateau.

8           And finally, we feel that it's appropriate to shorten  
9     the period for the next SALP assessment following a startup  
10    period.

11          We can't be as specific on what that schedule is  
12    because it's going to be a function of how long it takes to get  
13    to a restart decision and then how long it takes to complete  
14    power ascension.

15          But we do feel it's very important to assess early in  
16    a formal way and an integrative manner, the quality of  
17    operations of the facility should a restart decision be made.

18          That concludes my comments on subsequent staff  
19    activities, with the exception, I want to assure you, Mr.  
20    Chairman and Commissioners, that before I make a recommendation  
21    on this facility, I will satisfy myself and use the inputs from  
22    the staff in the process I've just described to ensure that  
23    this facility is indeed ready, from a management and a  
24    technical standpoint, as far as hardware availability at the  
25    plant.

1                   CHAIRMAN ZECH: All right. Thank you very much.

2                   MR. TAYLOR: Mr. Chairman, I was at the Pilgrim  
3 station last week and did meet with the senior managers.

4                   I would like to stress the emphasis I placed then  
5 upon the improvements in maintenance control, because some of  
6 what Commissioner Rogers asked about is the epitome of these  
7 lack of controls in some of the safety system actuation issues.

8                   And before startup and rerunning that plant, I think  
9 it's absolutely imperative that the company do what they've  
10 indicated they will do in that area, so they don't get the  
11 challenges when they restart the plant.

12                  I must say I saw a changed Pilgrim from what I've  
13 seen a couple of years ago. It's an improved station. You've  
14 heard many of the things today that they've done to improve it.

15                  I saw the things that were outlined to you. I saw  
16 professional conduct by the operators in both the simulator and  
17 the control room.

18                  I found that they had done a very extensive overhaul  
19 in tests of some of the major safety systems and much to my  
20 pleasure completed some long standing G.E. recommended  
21 improvements in the safety systems, some of them which go back  
22 a number of years.

23                  They did a good test by bringing in steam and running  
24 some of the safety systems, and in addition to the hardware  
25 improvements, I noted a marked differences in the housekeeping

1 and general state of the plant from what I had seen at Pilgrim  
2 in the past years.

3 Although there's yet work to be done in areas such as  
4 maintenance control and some other areas mentioned by the  
5 staff, I do see an improved station.

6 That concludes the staff's presentation.

7 CHAIRMAN ZECH: Thank you very much. Questions?  
8 Commissioner Roberts?

9 COMMISSIONER ROBERTS: Bill, did I understand you  
10 said you've expended 7,000 man hours on the present SALP?

11 MR. RUSSELL: That's correct.

12 COMMISSIONER ROBERTS: What would an average SALP be  
13 if there is any such thing?

14 MR. RUSSELL: About 2,300 for a 12-month period.  
15 About 2,300 hours for a 12-month SALP.

16 MR. TAYLOR: That reflects the additional manpower.

17 MR. RUSSELL: We have staffed the Pilgrim station  
18 with an additional residence, such that we have three residents  
19 in a single unit site.

20 We have extensive support on inspections from NRR and  
21 others in headquarters and we've used a number of team  
22 inspections. It is a significant resource issue which is one  
23 of the reasons why I have deferred starting the final team  
24 inspection until such time as the company says they're ready.

25 I, just from a resource standpoint, can't afford to

1 do that inspection twice.

2 MR. MURLEY: I'm sure the NRR resources are running  
3 two to three to four times as high for this plant as average  
4 too.

5 CHAIRMAN ZECH: Mr. Carr?

6 COMMISSIONER CARR: I only have one question for the  
7 staff. In reading over the maintenance inspection, one thing  
8 that caught my attention in there was the comment about  
9 maintenance procedures being modified on the scene. I couldn't  
10 figure out whether it was by the workers or by the system  
11 engineer or who was there to say, yeah, that's an approved way  
12 to do it, or was nobody there?

13 MR. RUSSELL: I think it's some of both. There were  
14 examples. The one that immediately comes to mind is the  
15 machining work that was done on the throttle valve poppets for  
16 the HPCI turban, which appeared to be done in the shop without  
17 prior review and approval.

18 But that is exactly one of the concerns that we have  
19 that there were modifications being made. There was corrective  
20 maintenance work that was being done and troubleshooting work  
21 requests.

22 So that the issue is not only what work is being  
23 done, but how well is it being controlled, and we believe that  
24 some of the ESF actuations that occurred, occurred principally  
25 as a result of not carefully reviewing what the consequence of

1 the action was, what circuits would be de-energized, for  
2 example, when pulling fuses.

3 But that is the principal issue associated with work  
4 control that we have concerns about.

5 CHAIRMAN ZECH: When you come back next time I'd like  
6 you to make a point of giving us your evaluation at that time  
7 of this issue.

8 MR. RUSSELL: Yes, sir.

9 CHAIRMAN ZECH: Commissioner Rogers?

10 COMMISSIONER ROGERS: I have nothing to add.

11 CHAIRMAN ZECH: Well, let me just say you heard me  
12 talk to the Pilgrim people about the time you need to do the  
13 job right, and you've indicated that you have a schedule which  
14 certainly sounds reasonable to me.

15 But I would just like to emphasize to you and to Tom  
16 Murley, too, that the headquarters and the region people and  
17 we, the Commission, certainly expect you to take the time you  
18 need to review this plan carefully.

19 It's been down for more than two years, and there  
20 were a number of concerns we had. We understand there's been  
21 significant management changes. It's encouraging to hear about  
22 some of the programs in place and some of the results that you  
23 can see from what we've been told this morning.

24 But, still, I think it's important that you take the  
25 time you need to assure yourself, and the Commission will want

1 to be assured of your confidence, before we go ahead with any  
2 restart decision, if we do. So, I think that's very important.

3 And, also, of course, we will want to hear from you  
4 again before we authorize restart, at a meeting here before the  
5 Commission. And we want the Pilgrim Boston-Edison people here,  
6 too, before we would make that decision.

7 I think the briefing this morning has been very  
8 valuable. There's obviously a ways to go. It's encouraging to  
9 see that progress has been made.

10 But we expect the staff, the region, and the  
11 headquarters people to continue monitoring the Pilgrim plant  
12 and to bring to our attention, prior to the next meeting, if  
13 you think it's necessary, any concerns that you think the  
14 Commission should be aware of and involved in.

15 We just want to keep in close touch with the Pilgrim  
16 plant as it moves ahead. So, we would ask you to do that as  
17 you see fit as time goes on.

18 Are there any other questions from my fellow  
19 Commissioners? If not, thank you very much. We stand  
20 adjourned.

21 [Whereupon, the briefing was concluded at 11:35 a.m.]

22

23

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CERTIFICATE OF TRANSCRIBER

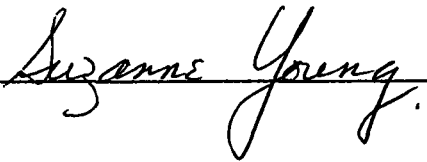
This is to certify that the attached events of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: COMMISSION BRIEFING ON THE STATUS OF  
PILGRIM NUCLEAR POWER STATION

PLACE OF MEETING: Washington, D.C.

DATE OF MEETING: THURSDAY, JUNE 9, 1988

were transcribed by me. I further certify that said transcription is accurate and complete, to the best of my ability, and that the transcript is a true and accurate record of the foregoing events.

  
\_\_\_\_\_

Ann Riley & Associates, Ltd.

6/9/88

SCHEDULING NOTES

TITLE: BRIEFING ON STATUS OF PILGRIM

SCHEDULED: 10:00 A.M., THURSDAY, JUNE 9, 1988 (OPEN)

DURATION: APPROX 1-1/2 HRS

PARTICIPANTS: BOSTON EDISON COMPANY (LICENSEE)

- STEPHEN J. SWEENEY,	5 MINS
CHIEF EXECUTIVE OFFICER AND	
CHAIRMAN OF THE BOARD OF DIRECTORS	
- RALPH G. BIRD, SENIOR VICE PRESIDENT	20 MINS
NUCLEAR	
- KENNETH L. HIGHFILL, STATION DIRECTOR	5 MINS
- ROY A. ANDERSON, PLANT MANAGER	5 MINS
- RONALD B. VARLEY	5 MINS
MANAGER EMERGENCY PREPAREDNESS	

NRC

- VICTOR STELLO, EDO	5 MINS
- THOMAS MURLEY, NRR	10 MINS
- WILLIAM RUSSELL, REGION I	10 MINS



JUNE 9, 1988

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

STEPHEN J. SWEENEY  
CHAIRMAN AND CEO

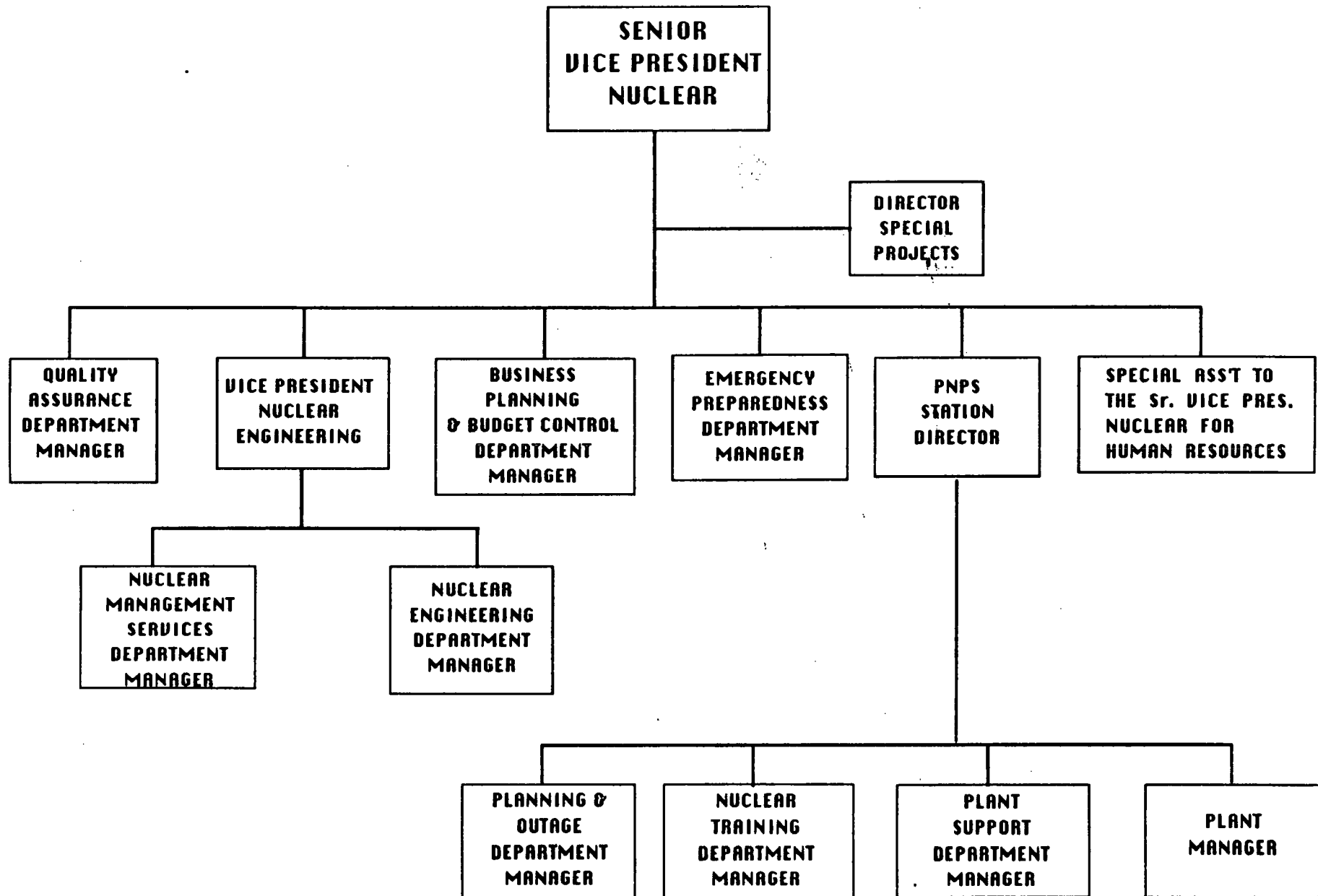
RALPH G. BIRD  
SENIOR VP, NUCLEAR

KENNETH L. HIGHFILL  
STATION DIRECTOR

ROY A. ANDERSON  
PLANT MANAGER

RONALD A. VARLEY  
MANAGER, EMERGENCY PREPAREDNESS

# NUCLEAR ORGANIZATION CHART



## **CURRENT PLANT STATUS**

- **PLANT REFUELED**
- **REACTOR REASSEMBLED**
- **HYDROSTATIC TEST COMPLETE**
- **ILRT COMPLETE**
- **MAJOR MODIFICATION WORK COMPLETE**
- **PLANT CLEAN AND DECONTAMINATED**

## **SALP "3" AREAS ADDRESSED**

- **SECURITY**
- **FIRE PROTECTION**
- **RADIOLOGICAL CONTROLS**
- **SURVEILLANCE**
- **ASSURANCE OF QUALITY**

SAFETY ENHANCEMENT PROGRAM

EQUIPMENT MODIFICATIONS  
AND  
PROCEDURE IMPROVEMENTS

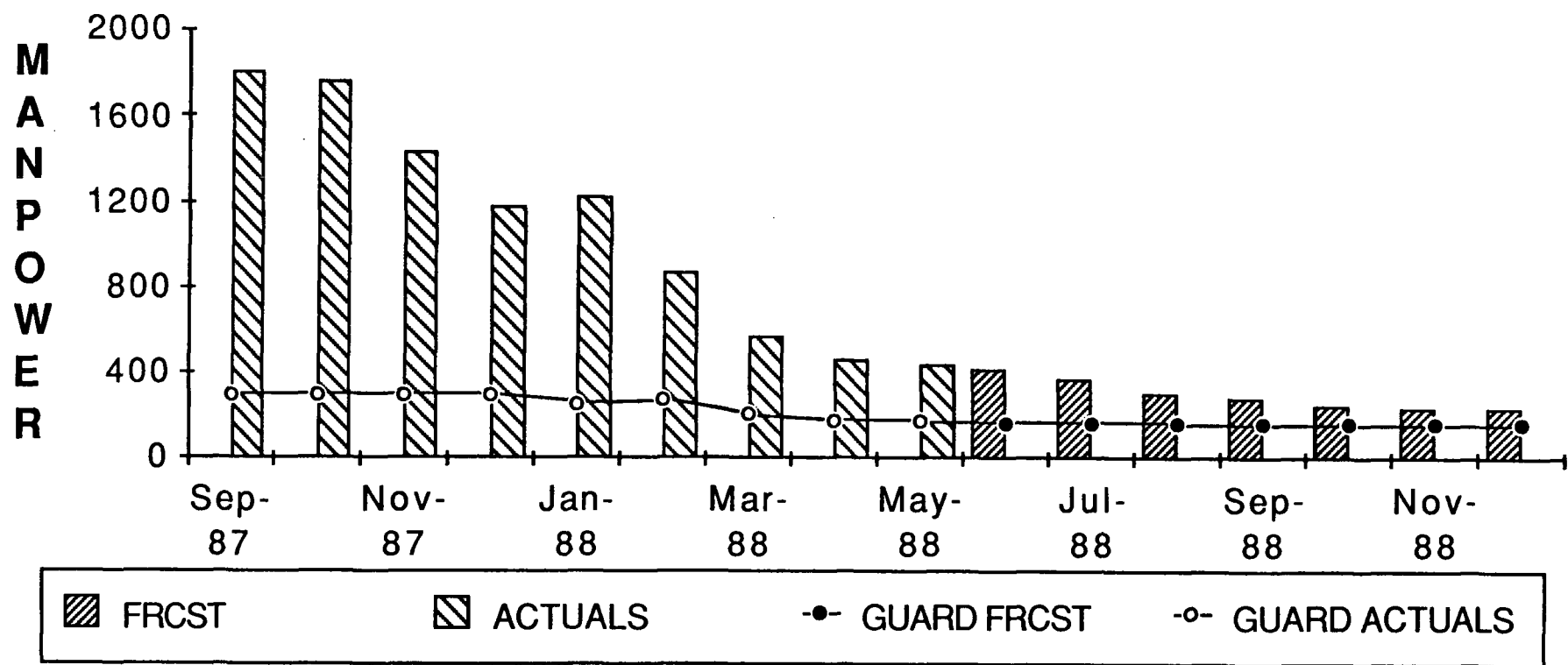
EMPHASIZE PREVENTION OF CORE DAMAGE

REVISE EOPS  
REV.4 BWR GUIDELINES

## **MAJOR OUTAGE PROJECTS**

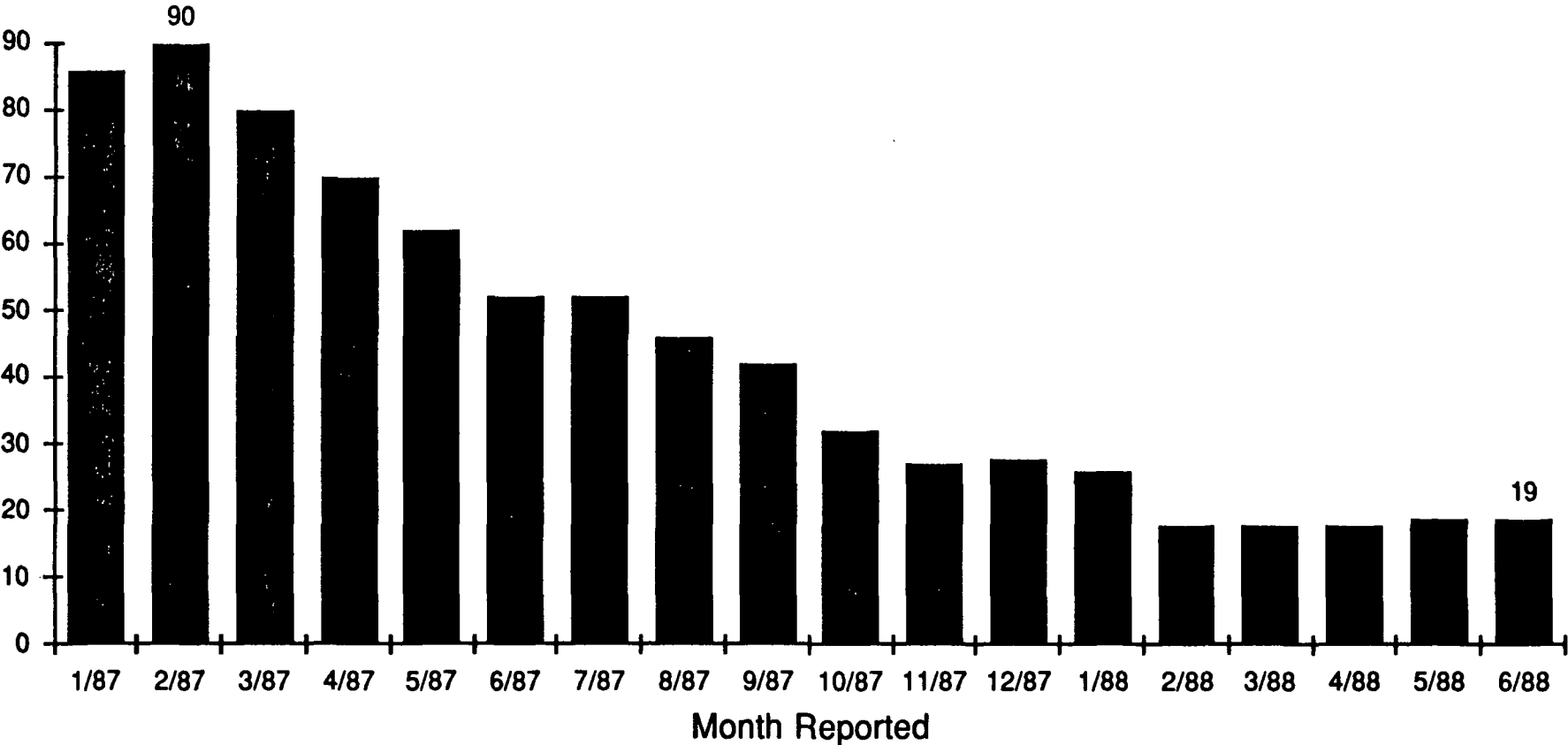
- **APPENDIX R**
- **SECURITY SYSTEM UPGRADES**
- **PLANT SPECIFIC SIMULATOR**
- **TURBINE GENERATOR OVERHAUL**
- **REFURBISHMENT OF PLANT SYSTEMS**
- **DECONTAMINATION**

**PILGRIM STATION  
NON - BOSTON EDISON RAMP DOWN**



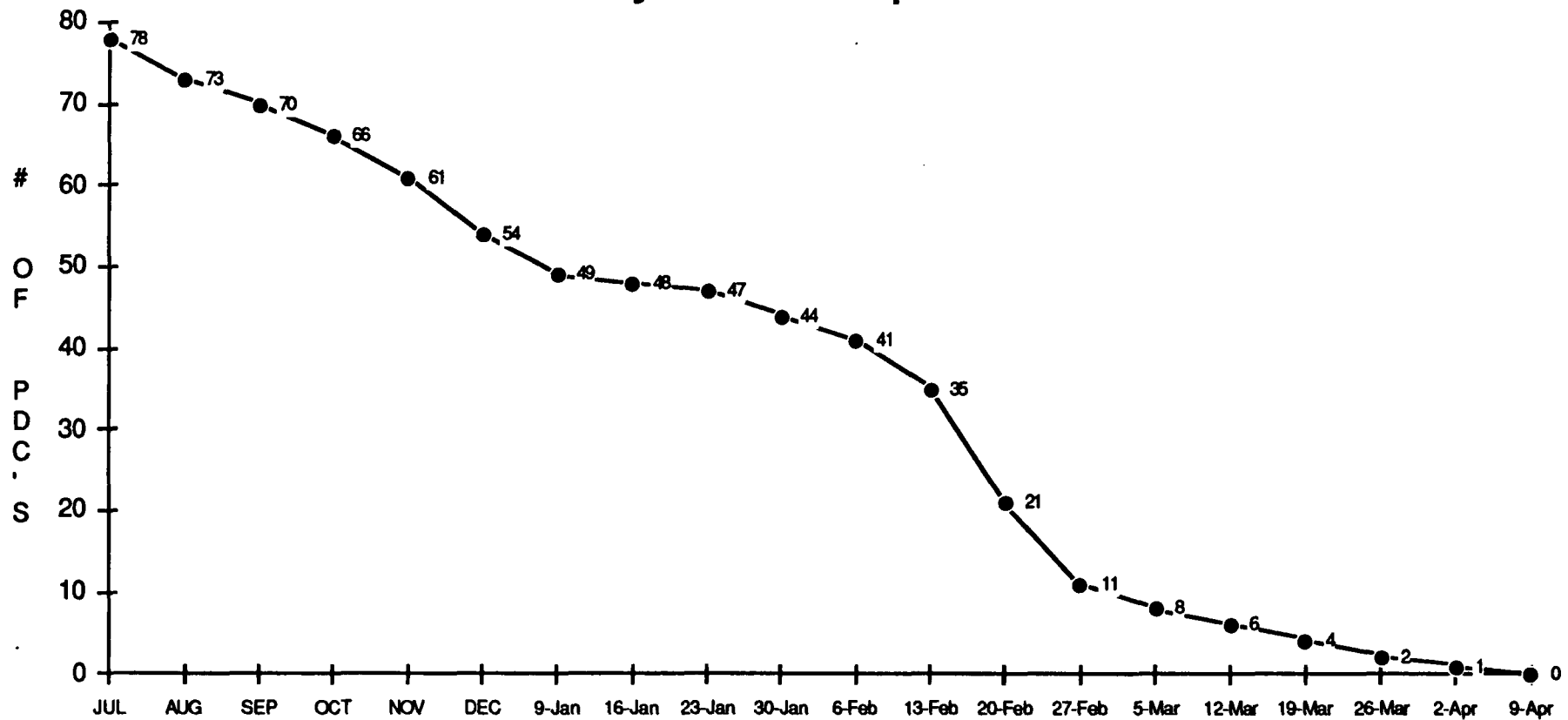


# Open Temp Mods

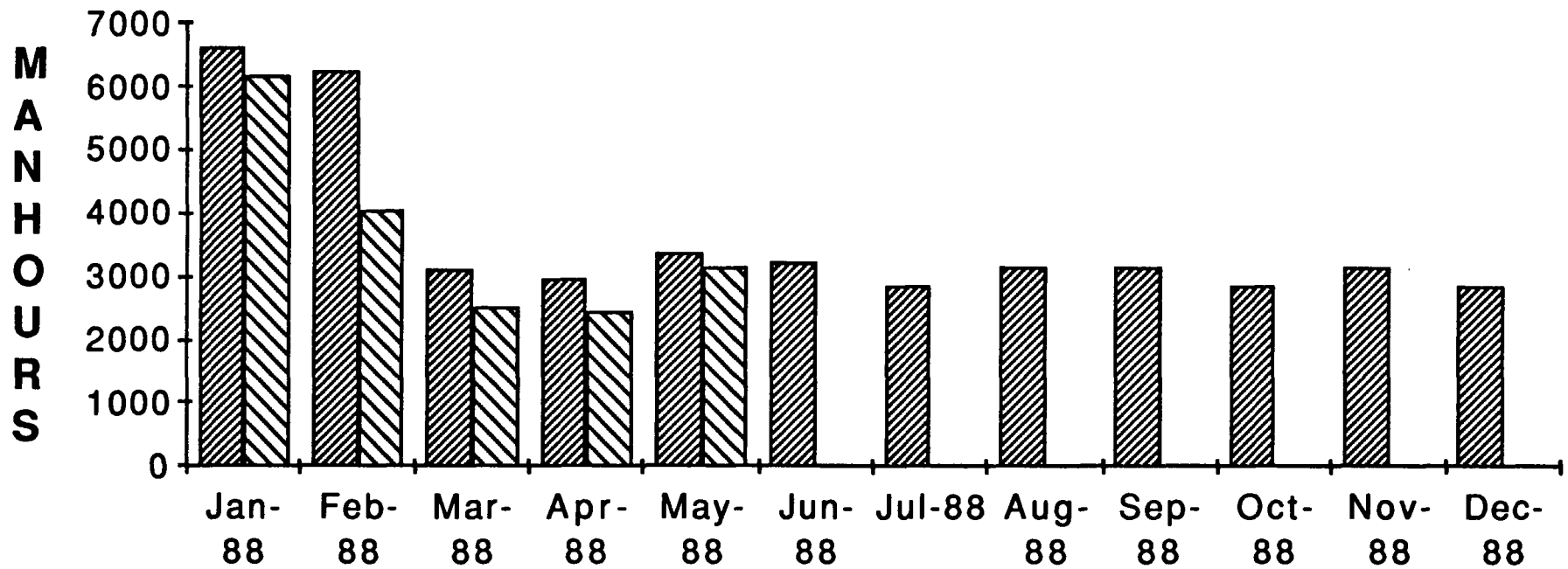


# BECHTEL WORK PACKAGE CLOSE-OUTS

## July 1987 - April 1988



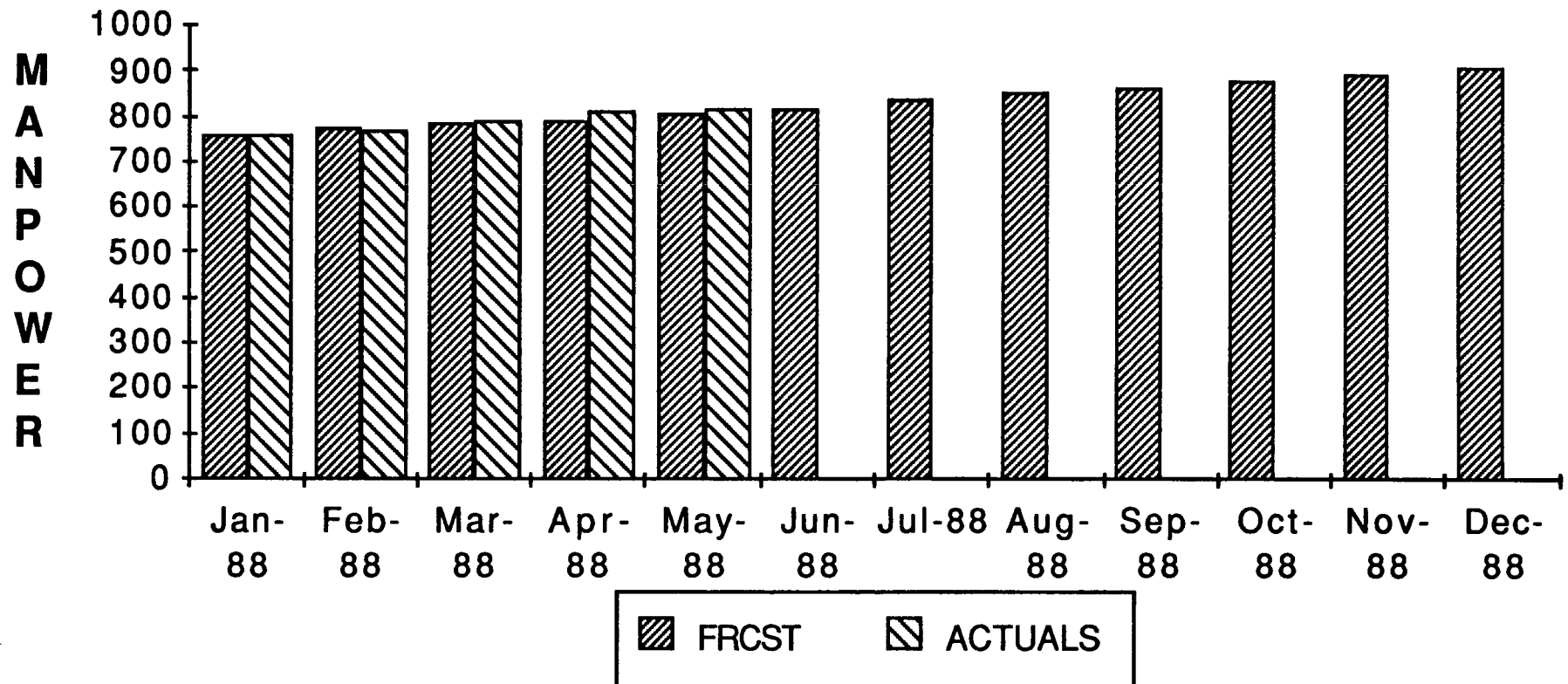
## PILGRIM STATION NUORG OVERTIME



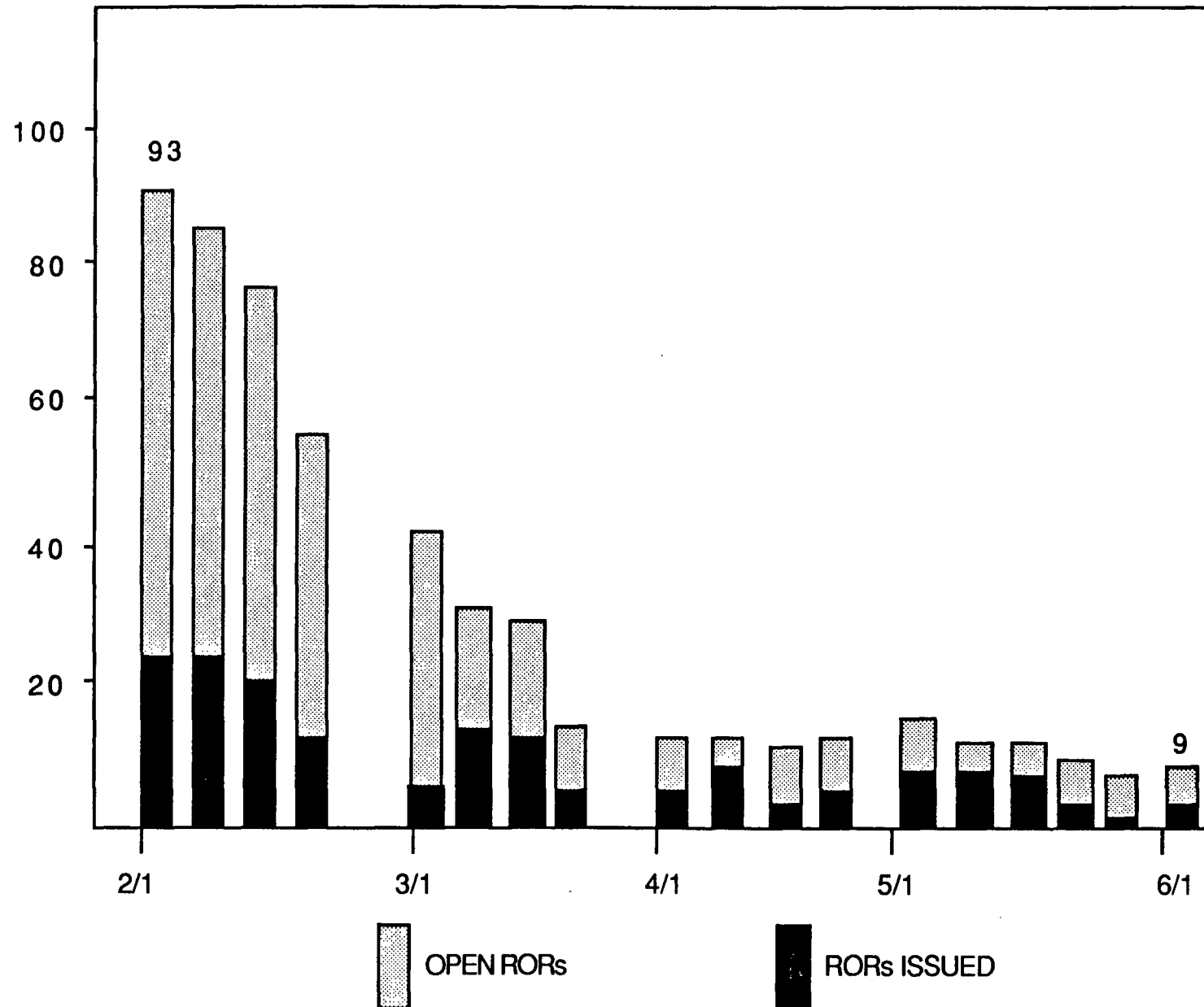
Note: Figures are a weekly average

FRCST ACTUALS

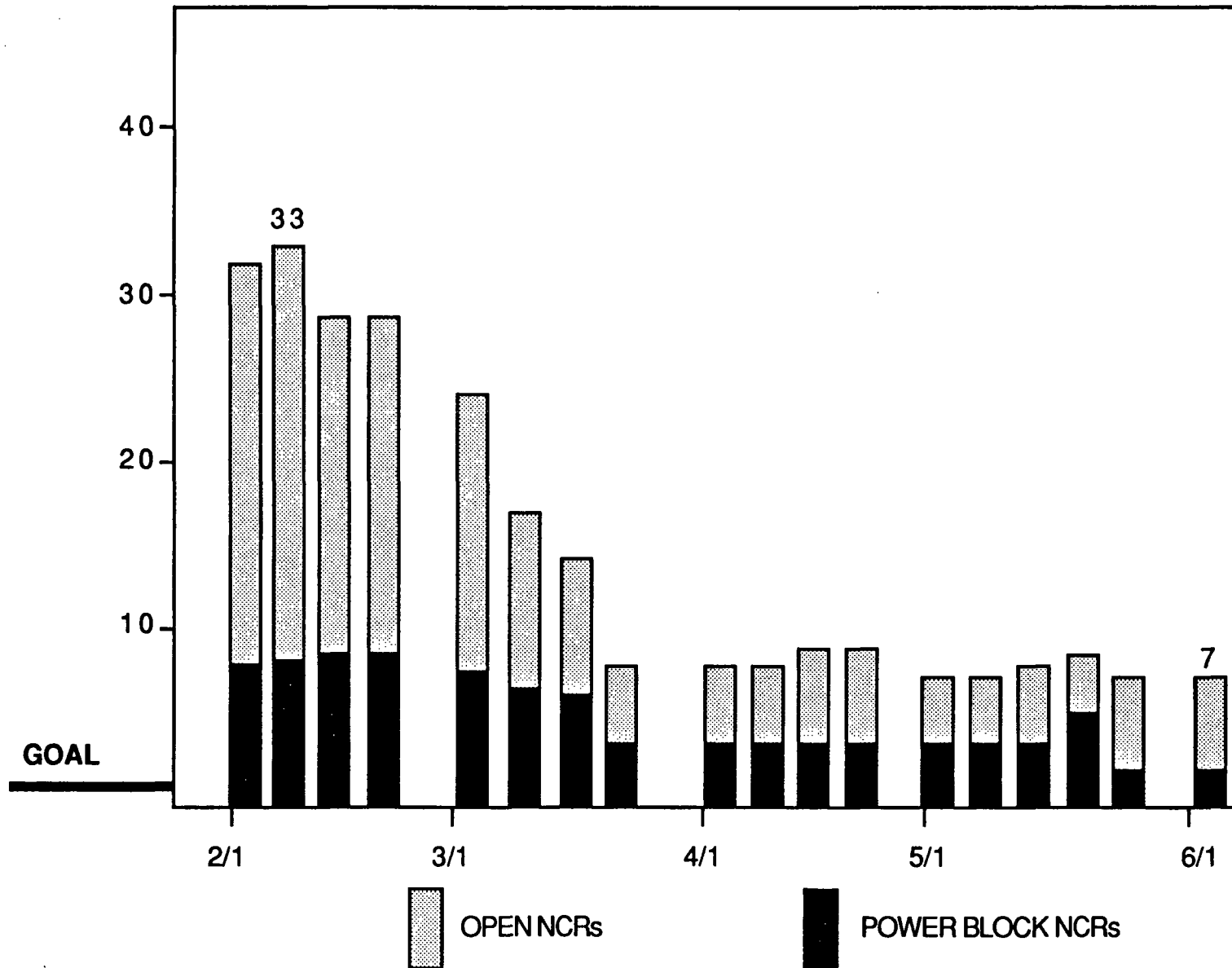
## PILGRIM STATION NUORG STAFFING



## RADIOLOGICAL OCCURRENCE REPORTS (ROR'S)



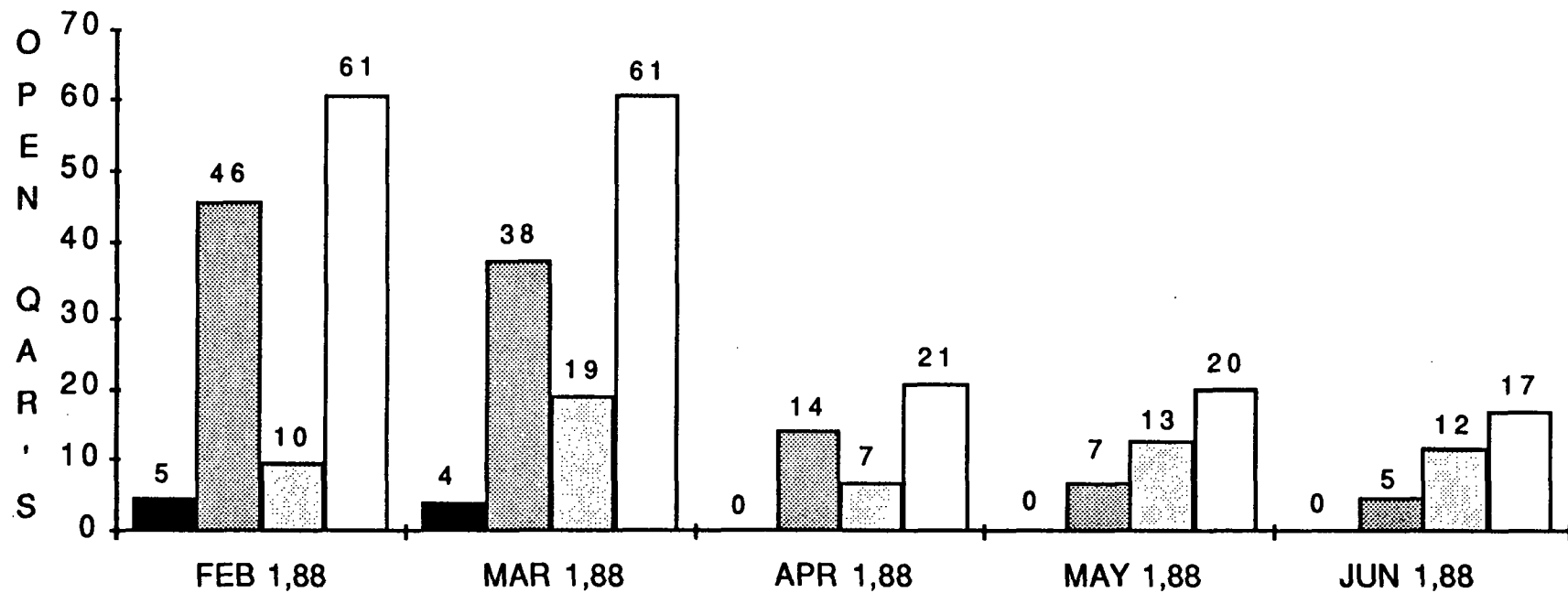
## NON-CONFORMANCE REPORTS (NCR'S)



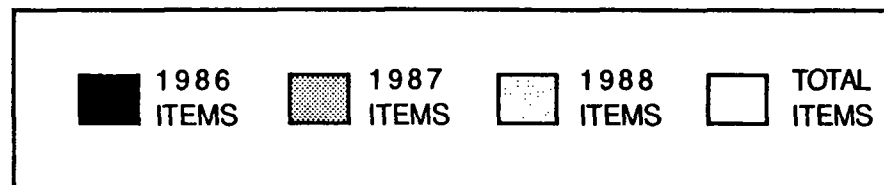
# QUALITY ASSURANCE RECOMMENDATION

## TRENDS

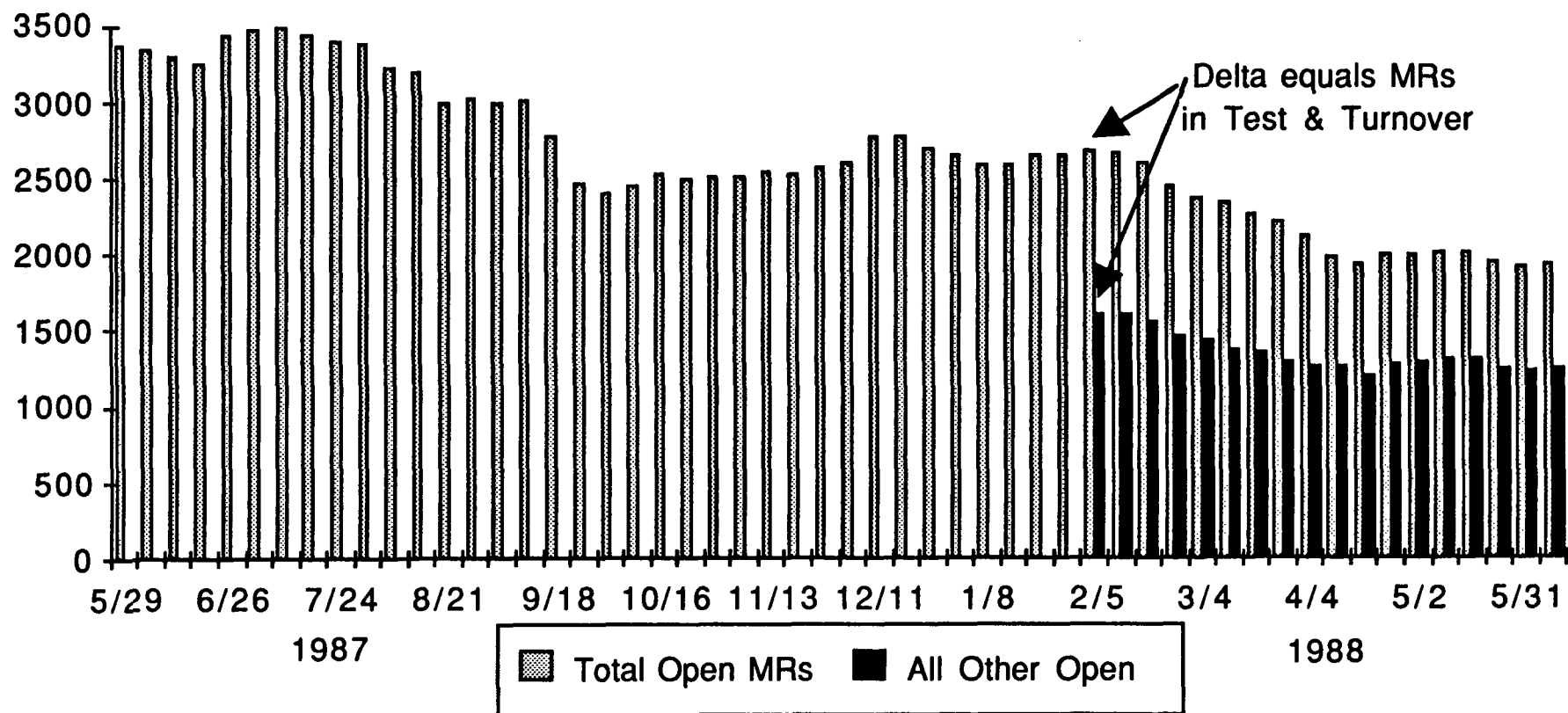
(FOR PNPS ORGANIZATION)



QAR MONTHLY STATUS

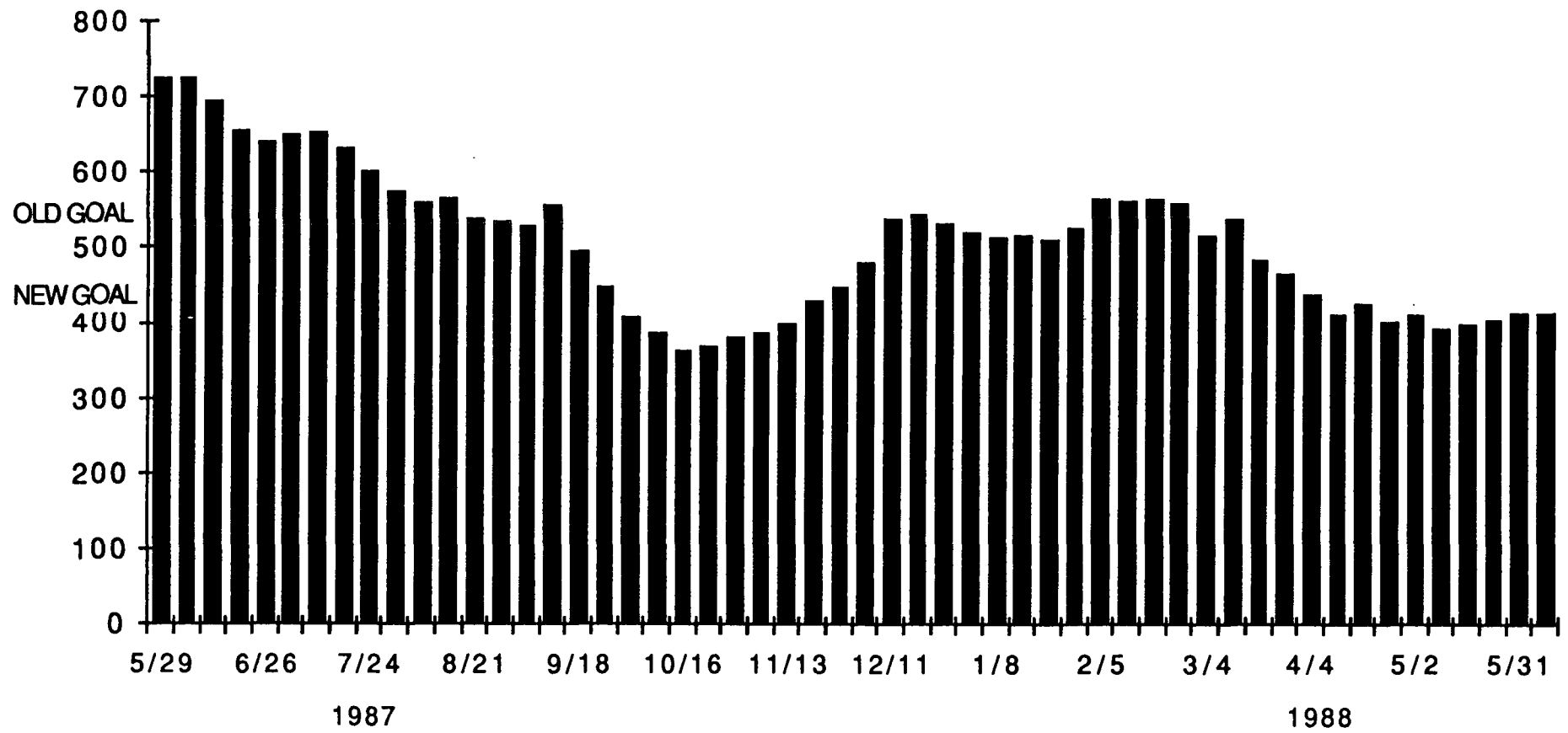


# TOTAL OPEN MRs

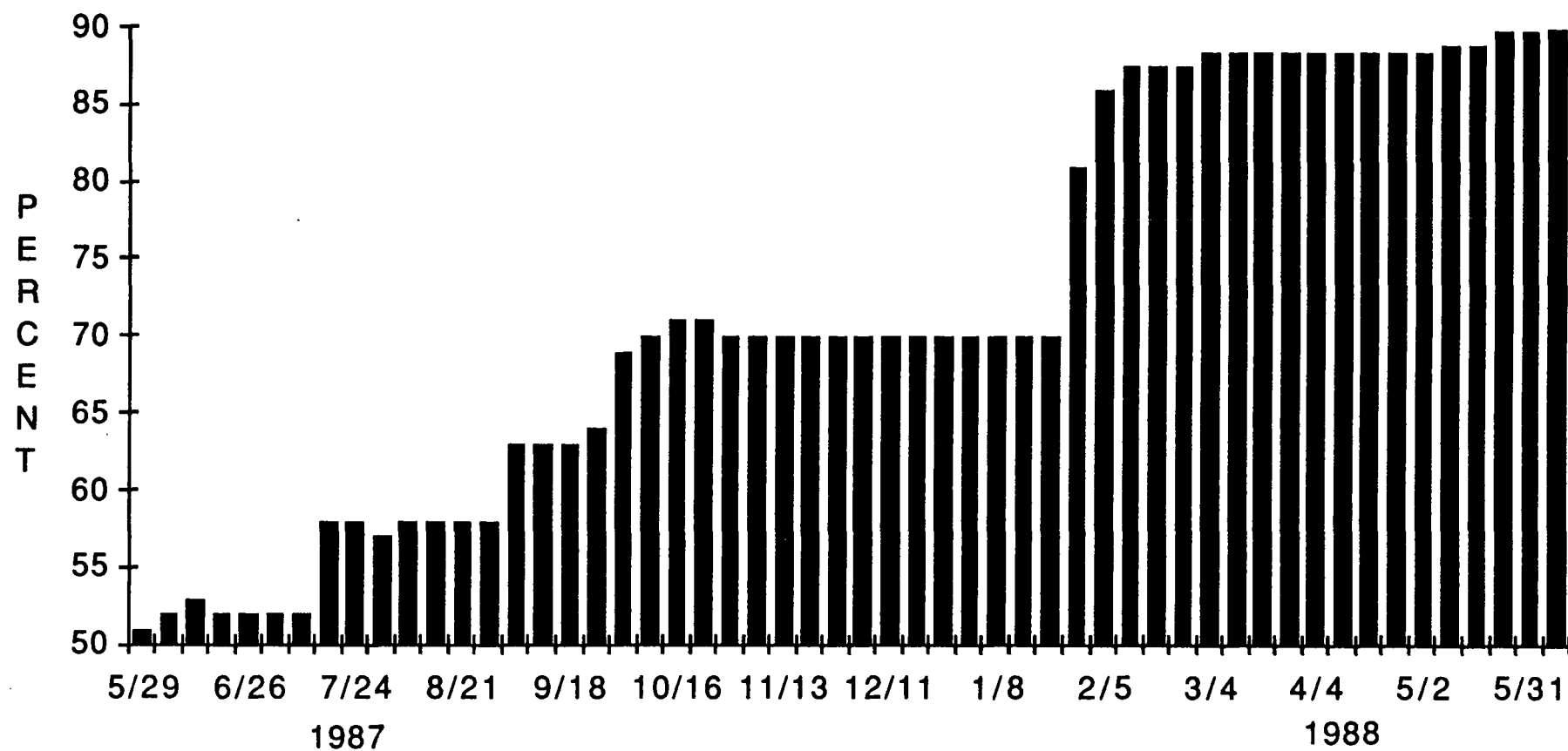




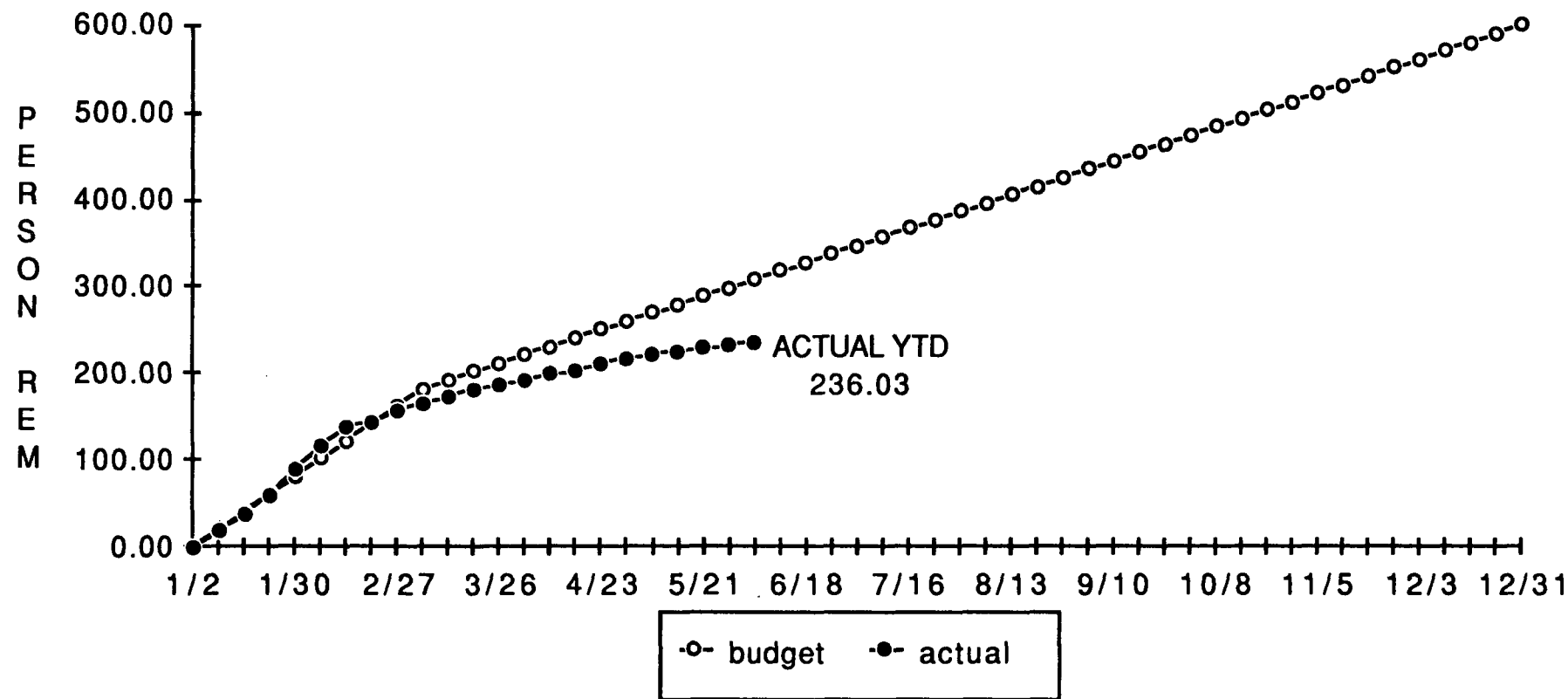
# POWER BLOCK MRs



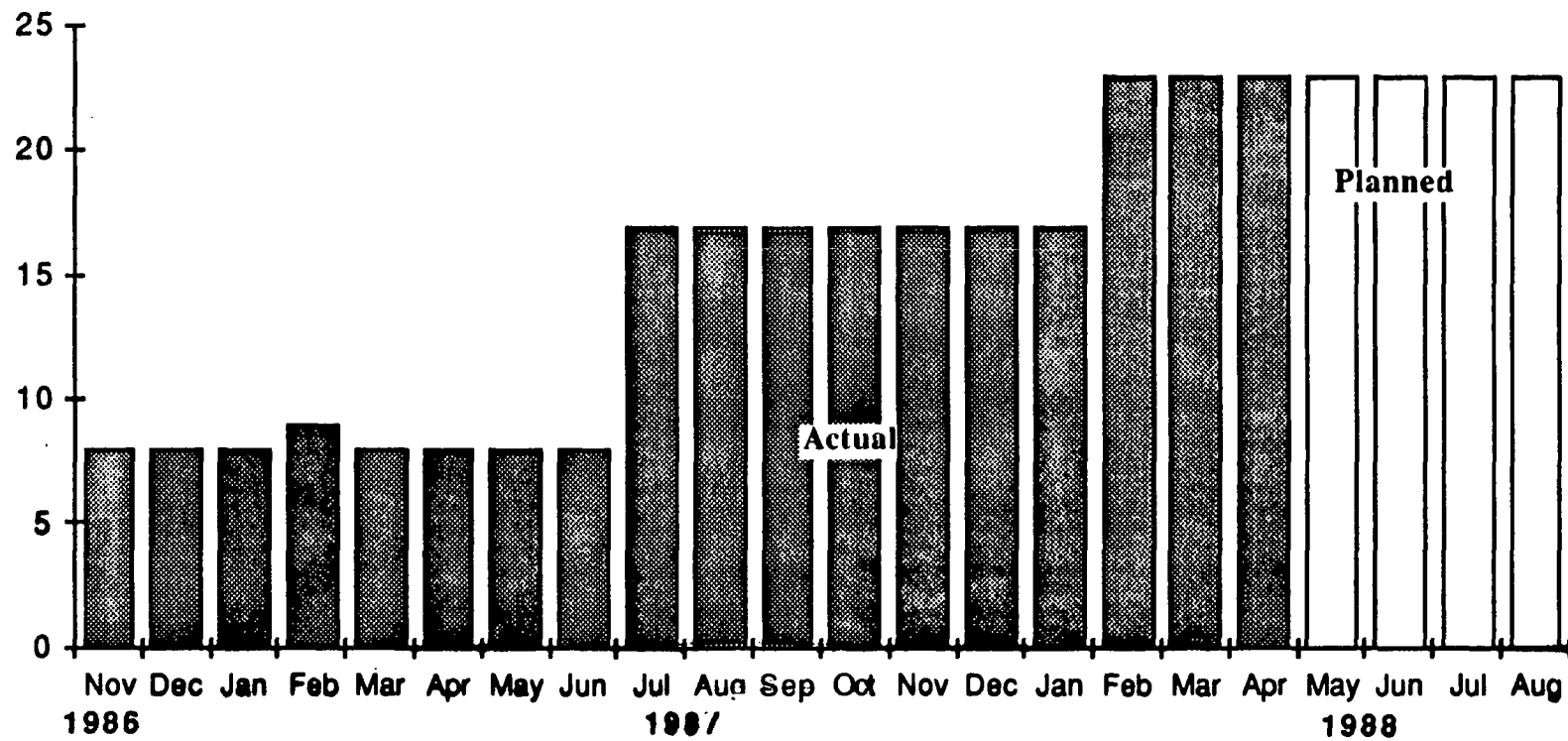
# PLANT DECON



# ALARA TRACKING



## Licensed Operator Staffing Status



## **RESOURCES PROVIDED BY BECo**

- **PROFESSIONAL EMERGENCY PLANNERS**
- **FUNDING OF CIVIL DEFENSE POSITIONS**
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COMMISSION BRIEFING  
ON THE STATUS  
OF  
PILGRIM NUCLEAR STATION  
JUNE 9, 1988

PRESENTATION OUTLINE

BACKGROUND

RESTART CRITERIA

STAFF RESTART ACTIVITIES

FUTURE STAFF ACTIVITIES

SLIDE 1

BACKGROUND

SHUTDOWN APRIL 12, 1986

CONFIRMATORY ACTION LETTER 86-10

MANAGEMENT MEETINGS ON RESTART ISSUES

\*TECHNICAL/EQUIPMENT PROBLEMS

\*MANAGEMENT CONCERNS

\*SALP FINDINGS

EMERGENCY PREPAREDNESS

SAFETY ENHANCEMENT PROGRAM

2,206 PETITIONS/PUBLIC CONCERNS



RESTART CRITERIA

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BECO SELF ASSESSMENT/POWER ASCENSION PROGRAM REVIEW  
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DECREASE PERIOD FOR NEXT SALP

JUNE 9, 1988

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

STEPHEN J. SWEENEY  
CHAIRMAN AND CEO

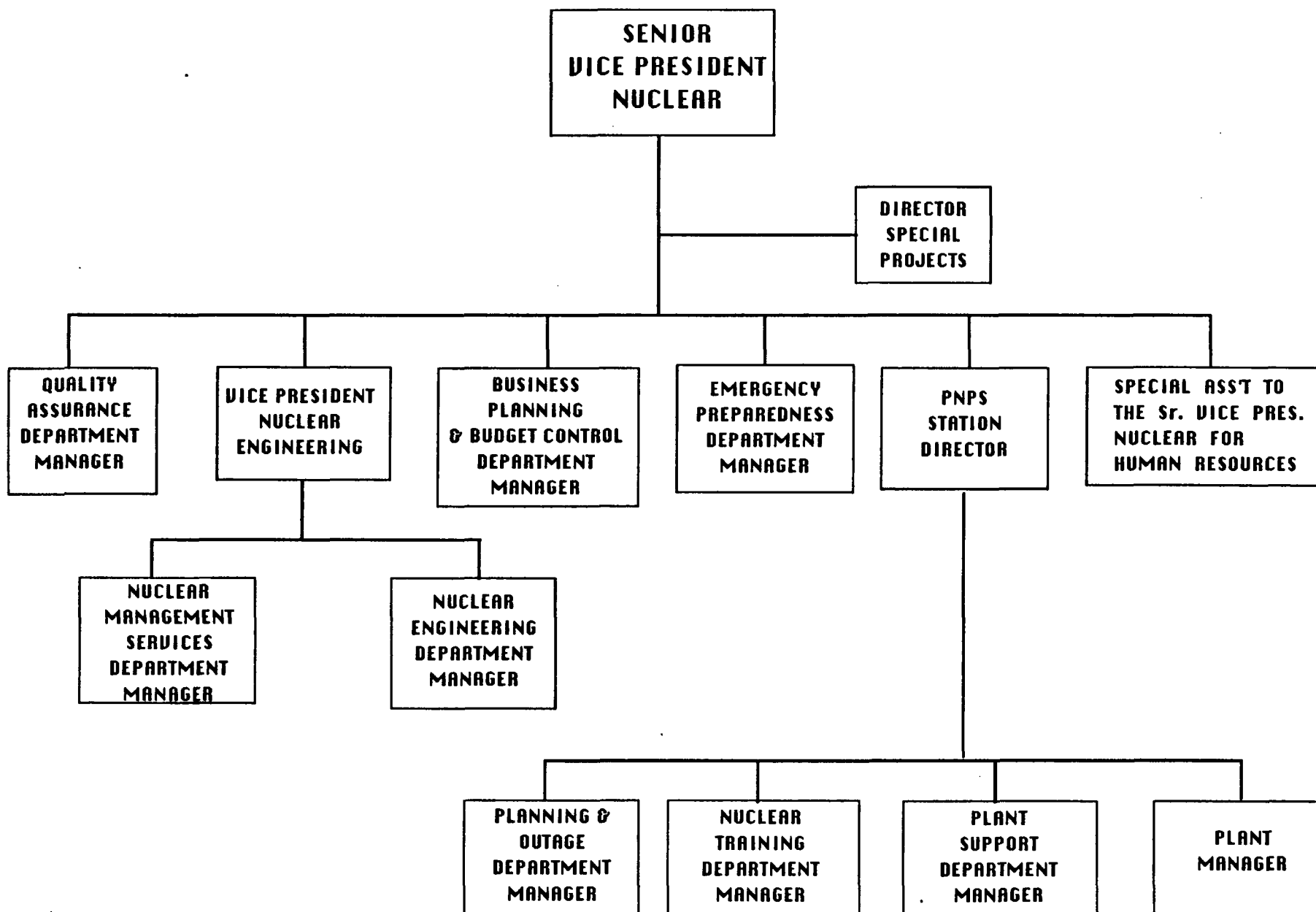
RALPH G. BIRD  
SENIOR VP, NUCLEAR

KENNETH L. HIGHFILL  
STATION DIRECTOR

ROY A. ANDERSON  
PLANT MANAGER

RONALD A. VARLEY  
MANAGER, EMERGENCY PREPAREDNESS

# NUCLEAR ORGANIZATION CHART



## **CURRENT PLANT STATUS**

- **PLANT REFUELED**
- **REACTOR REASSEMBLED**
- **HYDROSTATIC TEST COMPLETE**
- **ILRT COMPLETE**
- **MAJOR MODIFICATION WORK COMPLETE**
- **PLANT CLEAN AND DECONTAMINATED**

## **SALP "3" AREAS ADDRESSED**

- **SECURITY**
- **FIRE PROTECTION**
- **RADIOLOGICAL CONTROLS**
- **SURVEILLANCE**
- **ASSURANCE OF QUALITY**



SAFETY ENHANCEMENT PROGRAM

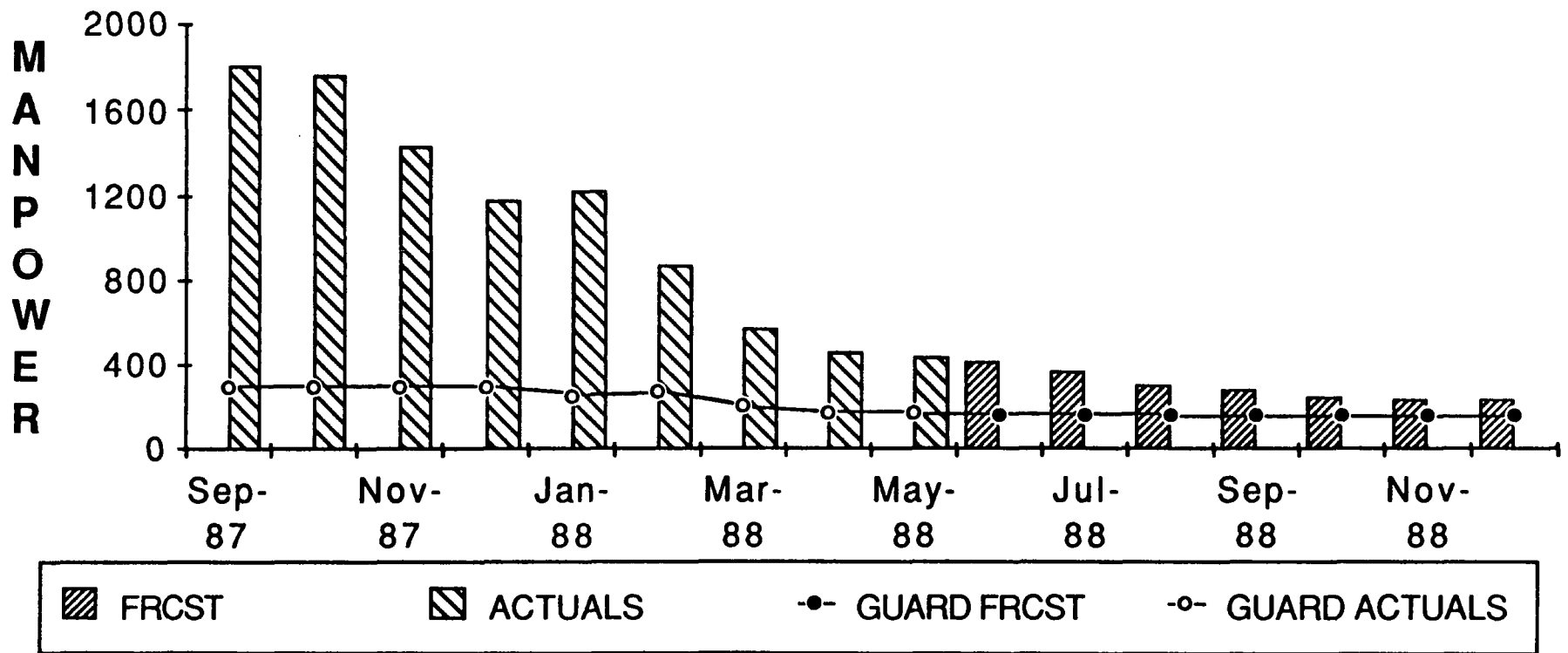
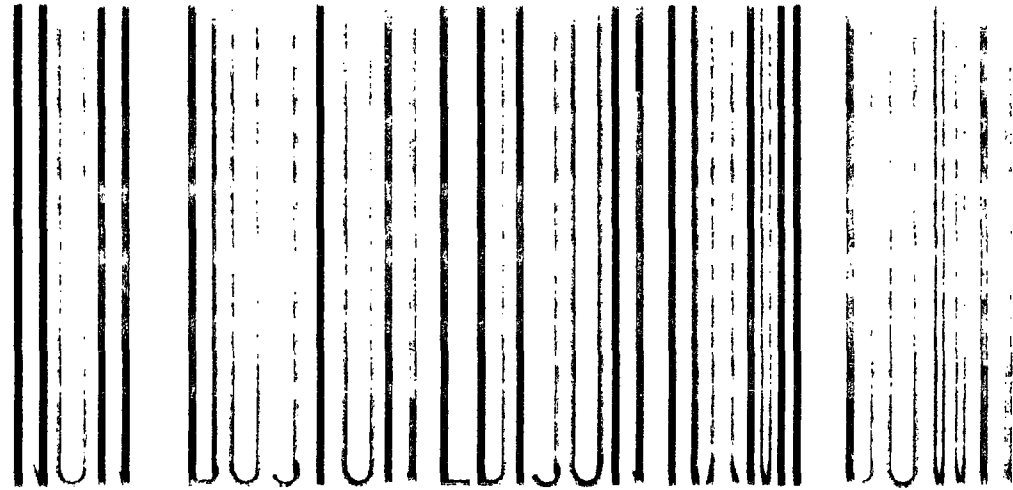
EQUIPMENT MODIFICATIONS  
AND  
PROCEDURE IMPROVEMENTS

EMPHASIZE PREVENTION OF CORE DAMAGE

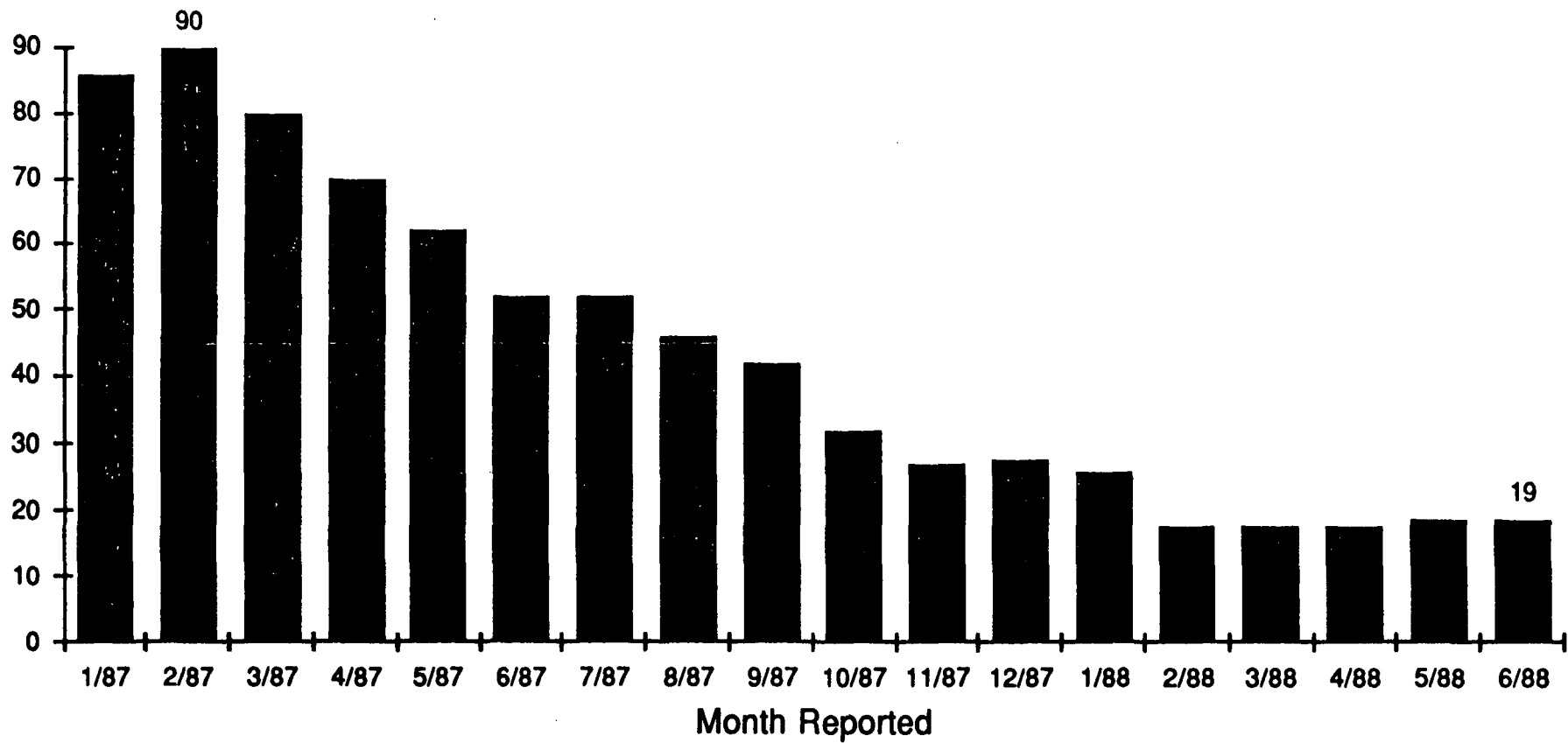
REVISE EOPS  
REV.4 BWR GUIDELINES

## **MAJOR OUTAGE PROJECTS**

- **APPENDIX R**
- **SECURITY SYSTEM UPGRADES**
- **PLANT SPECIFIC SIMULATOR**
- **TURBINE GENERATOR OVERHAUL**
- **REFURBISHMENT OF PLANT SYSTEMS**
- **DECONTAMINATION**

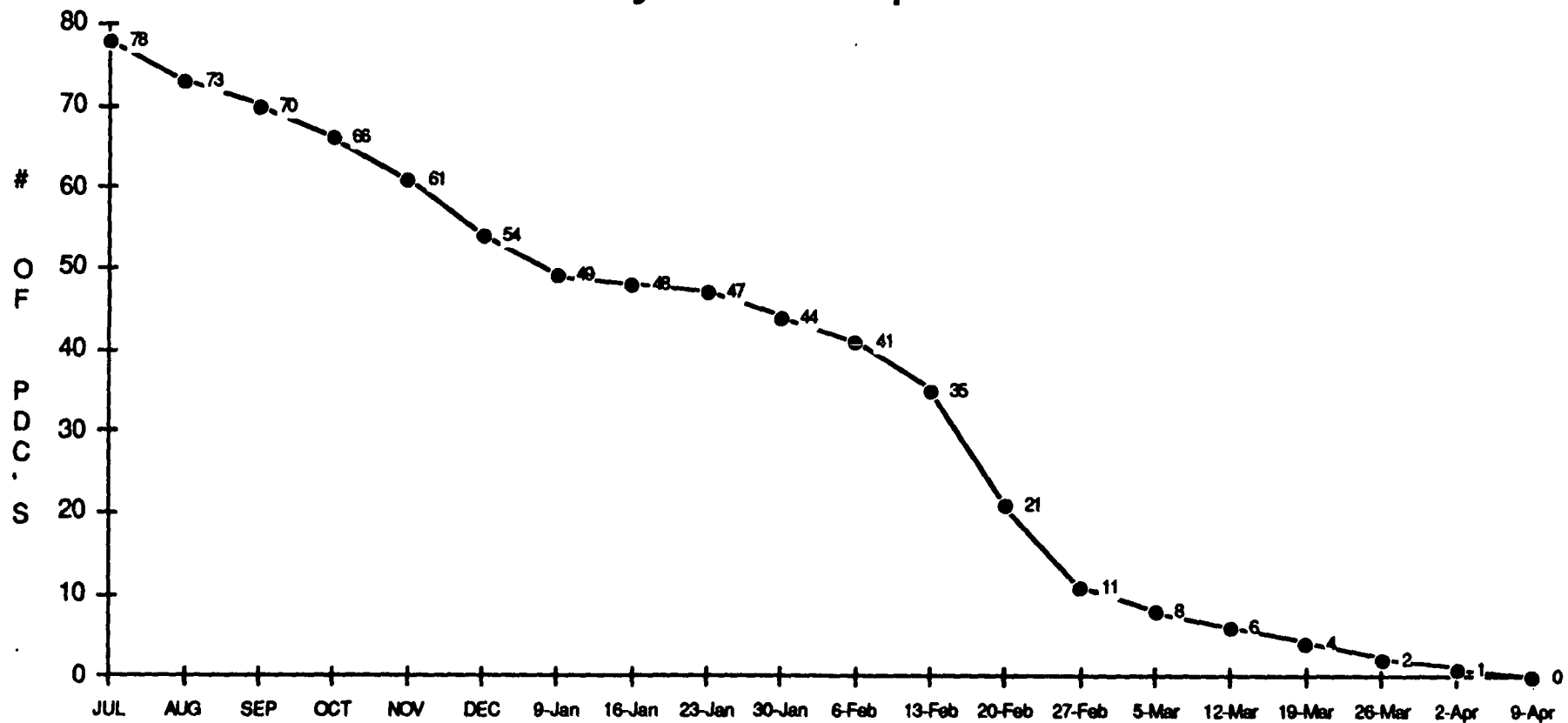


## Open Temp Mods

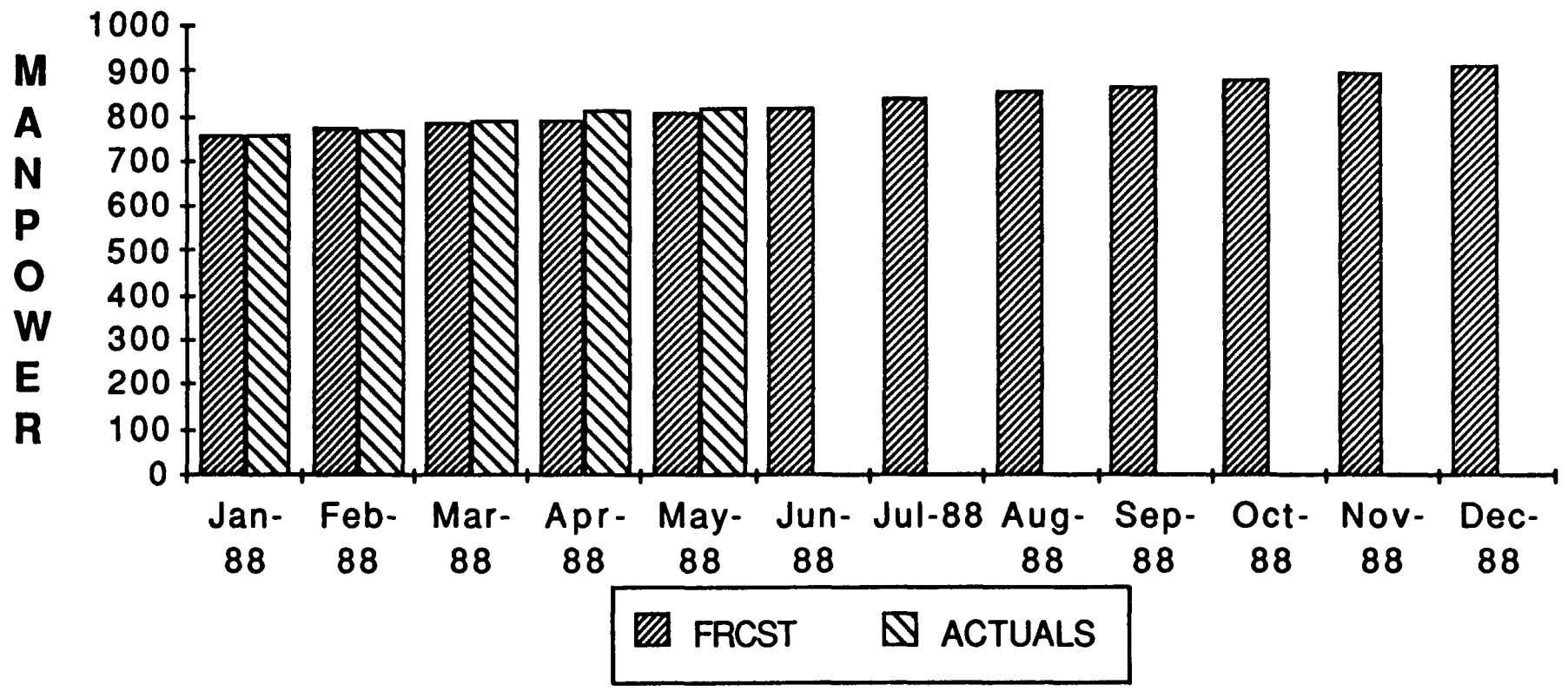


# BECHTEL WORK PACKAGE CLOSE-OUTS

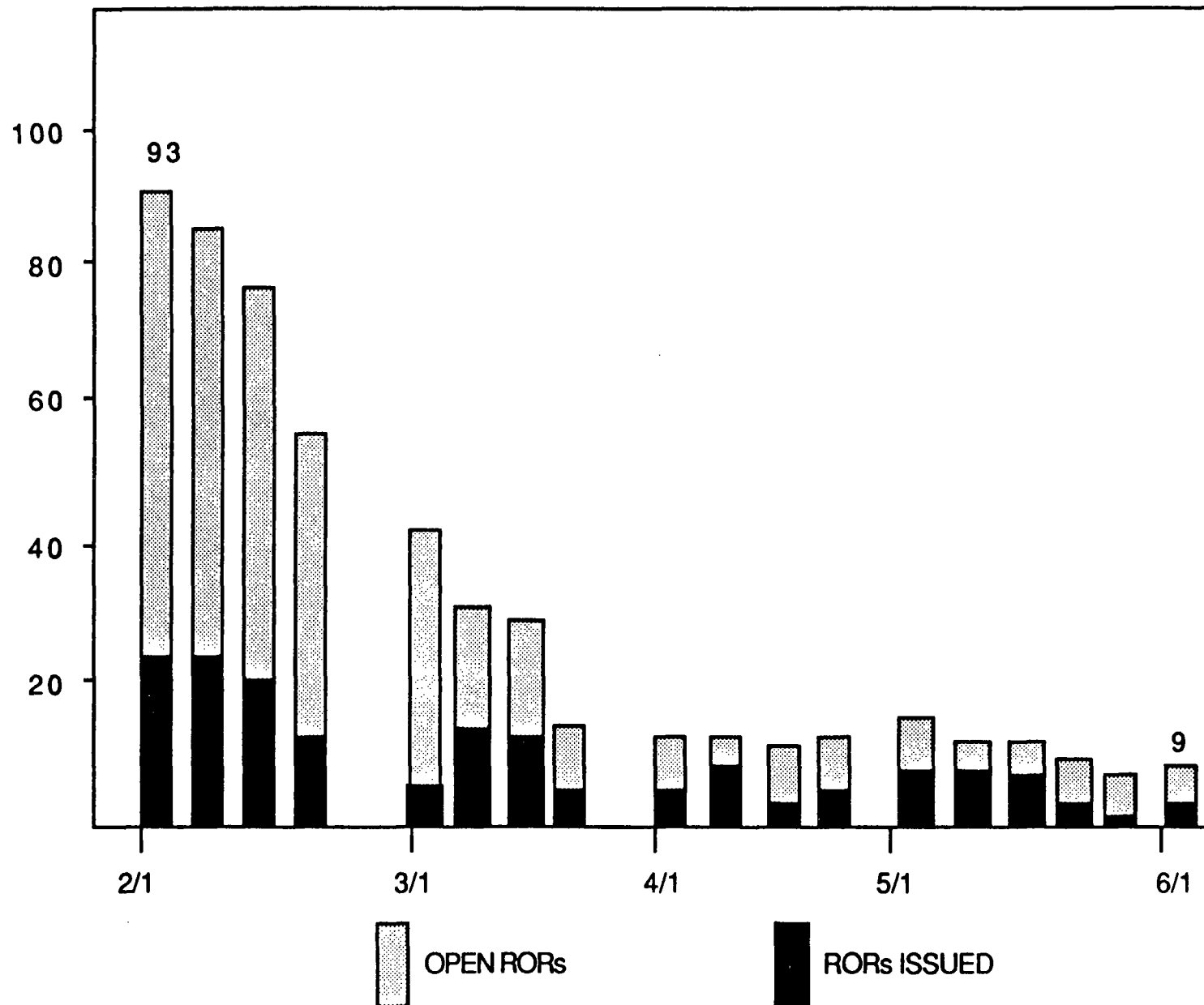
## July 1987 - April 1988



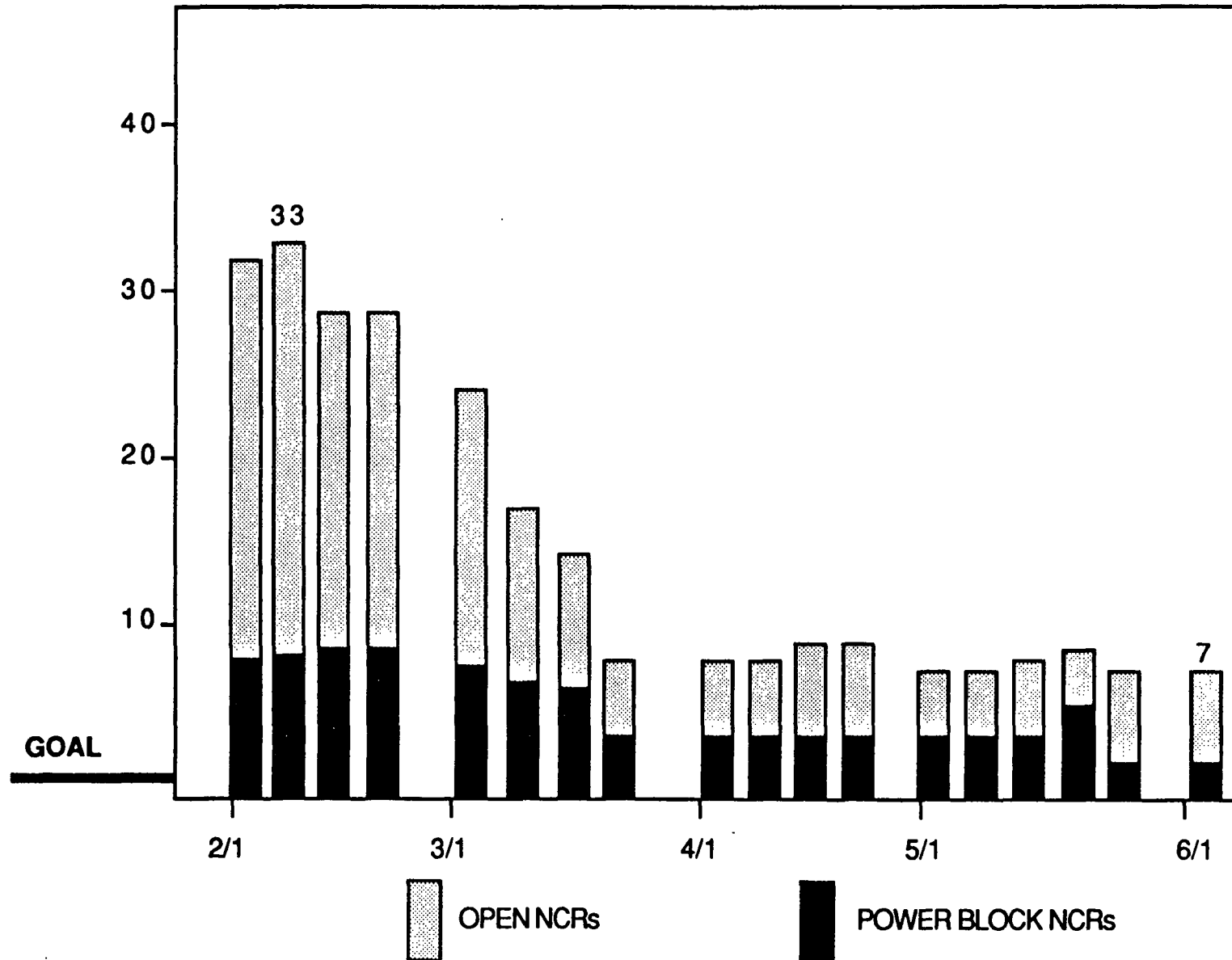
**PILGRIM STATION  
NUORG STAFFING**



## RADIOLOGICAL OCCURRENCE REPORTS (ROR'S)



## NON-CONFORMANCE REPORTS (NCR'S)

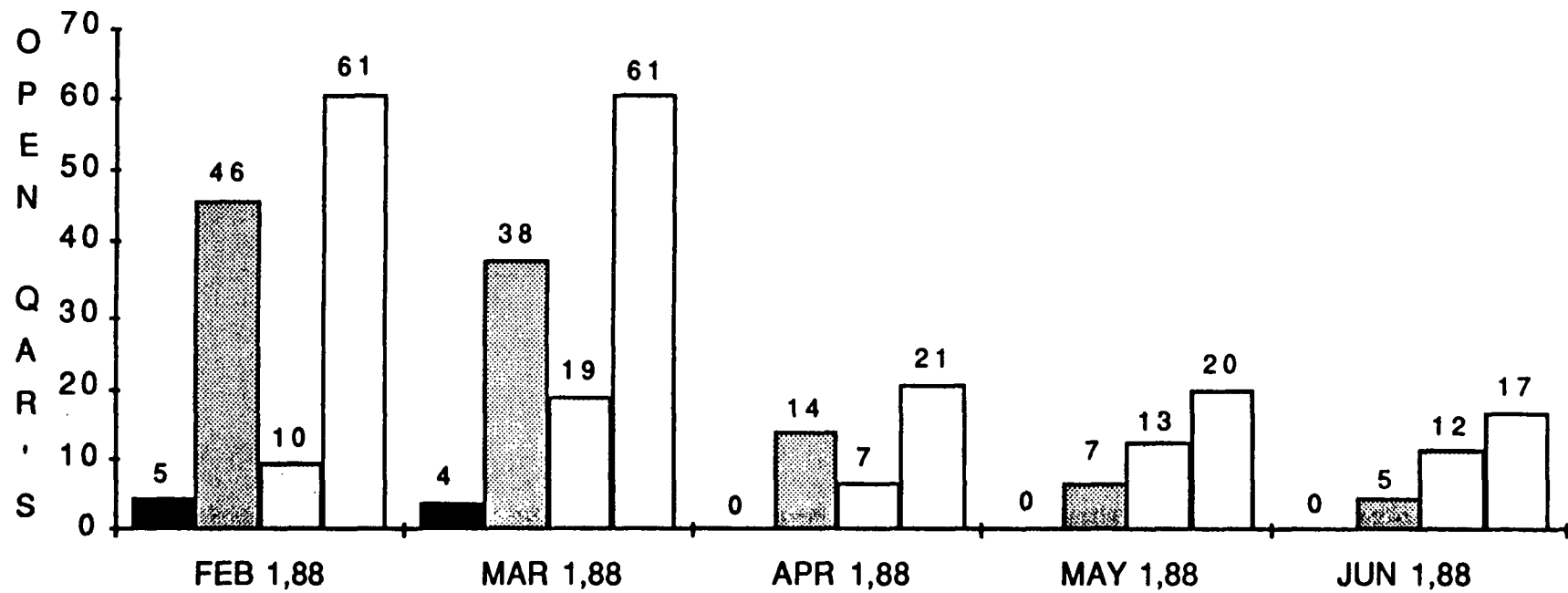




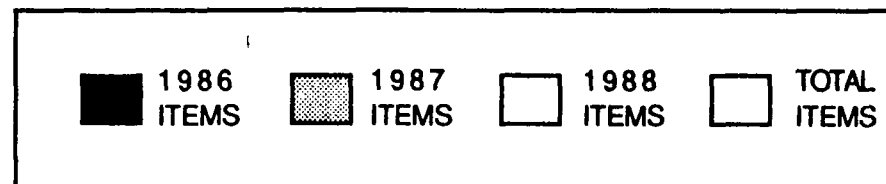
# QUALITY ASSURANCE RECOMMENDATION

## TRENDS

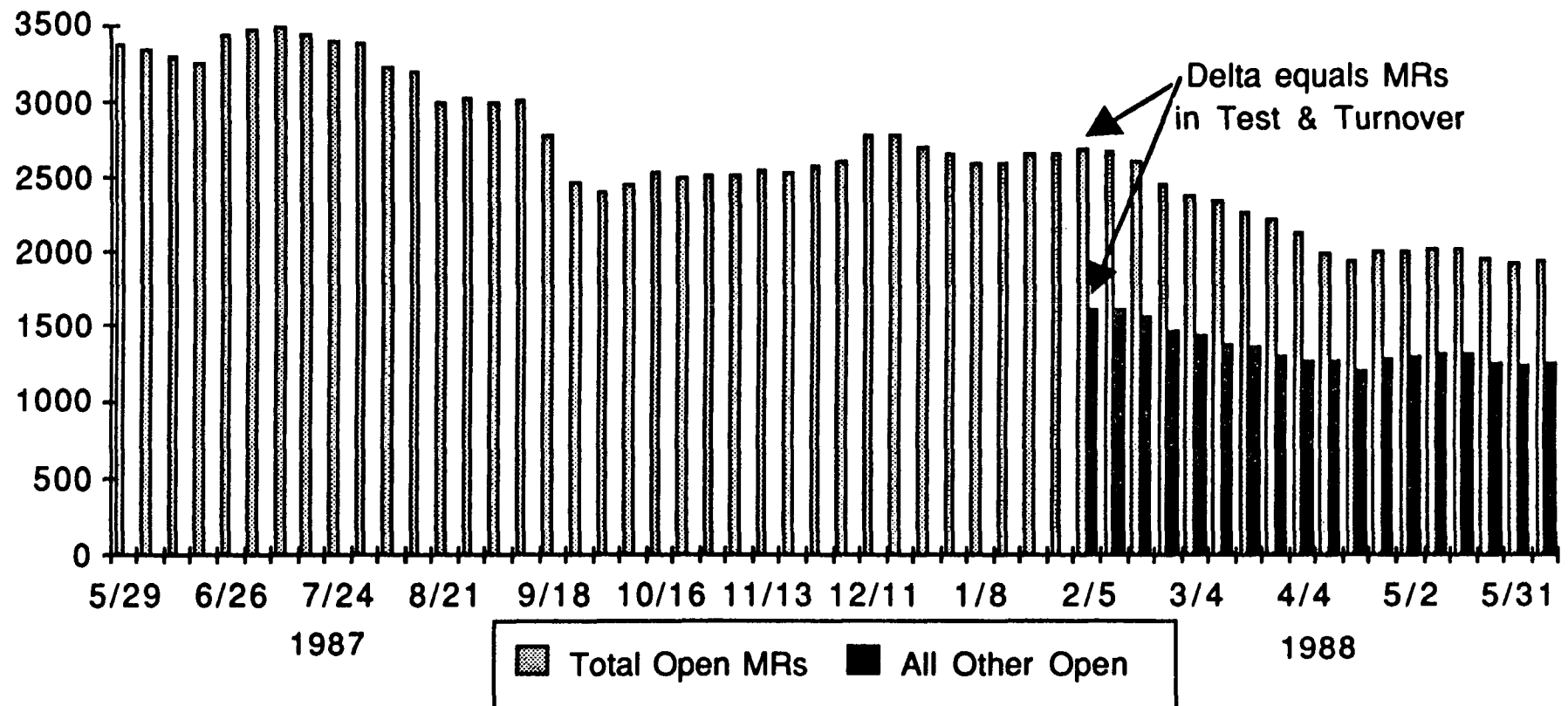
(FOR PNPS ORGANIZATION)



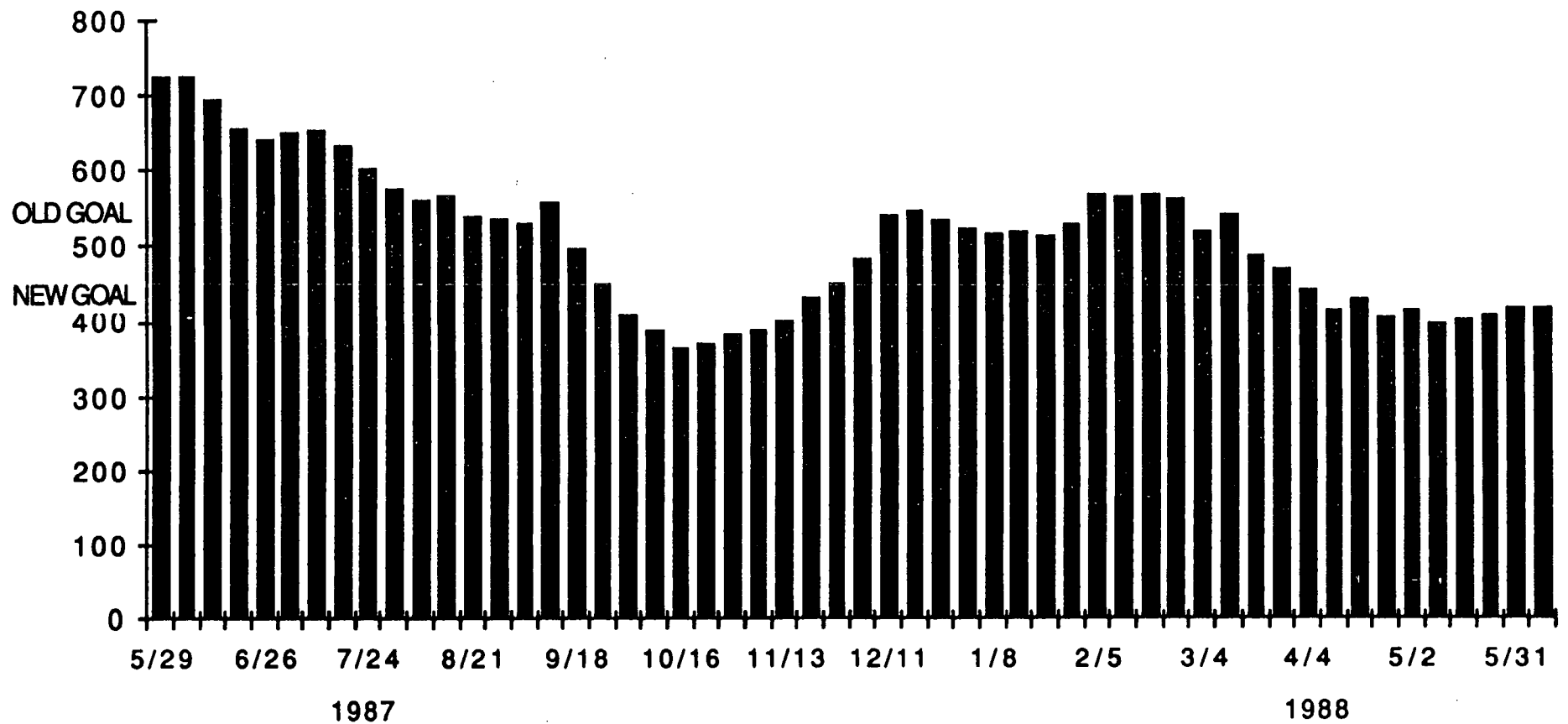
QAR MONTHLY STATUS



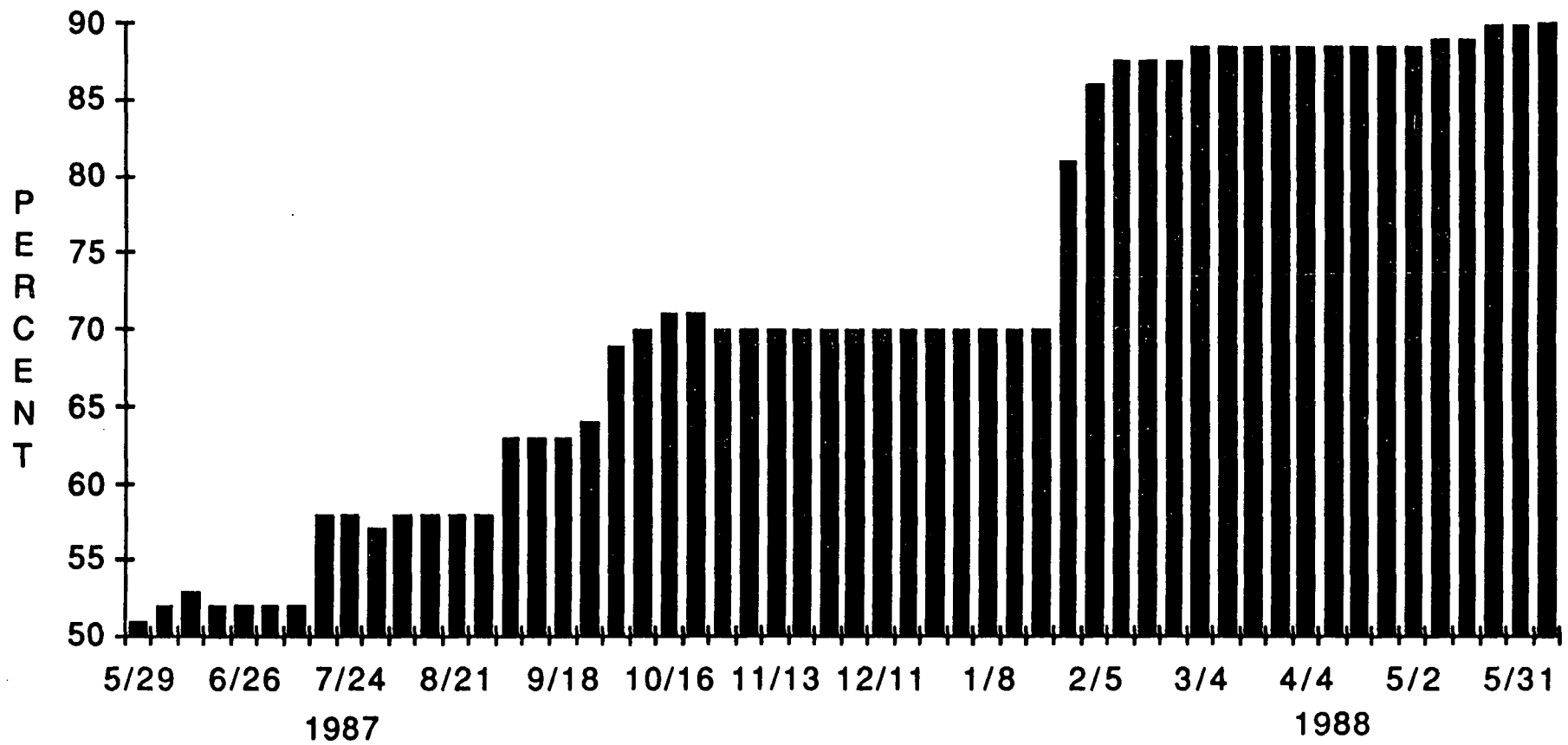
# TOTAL OPEN MRs



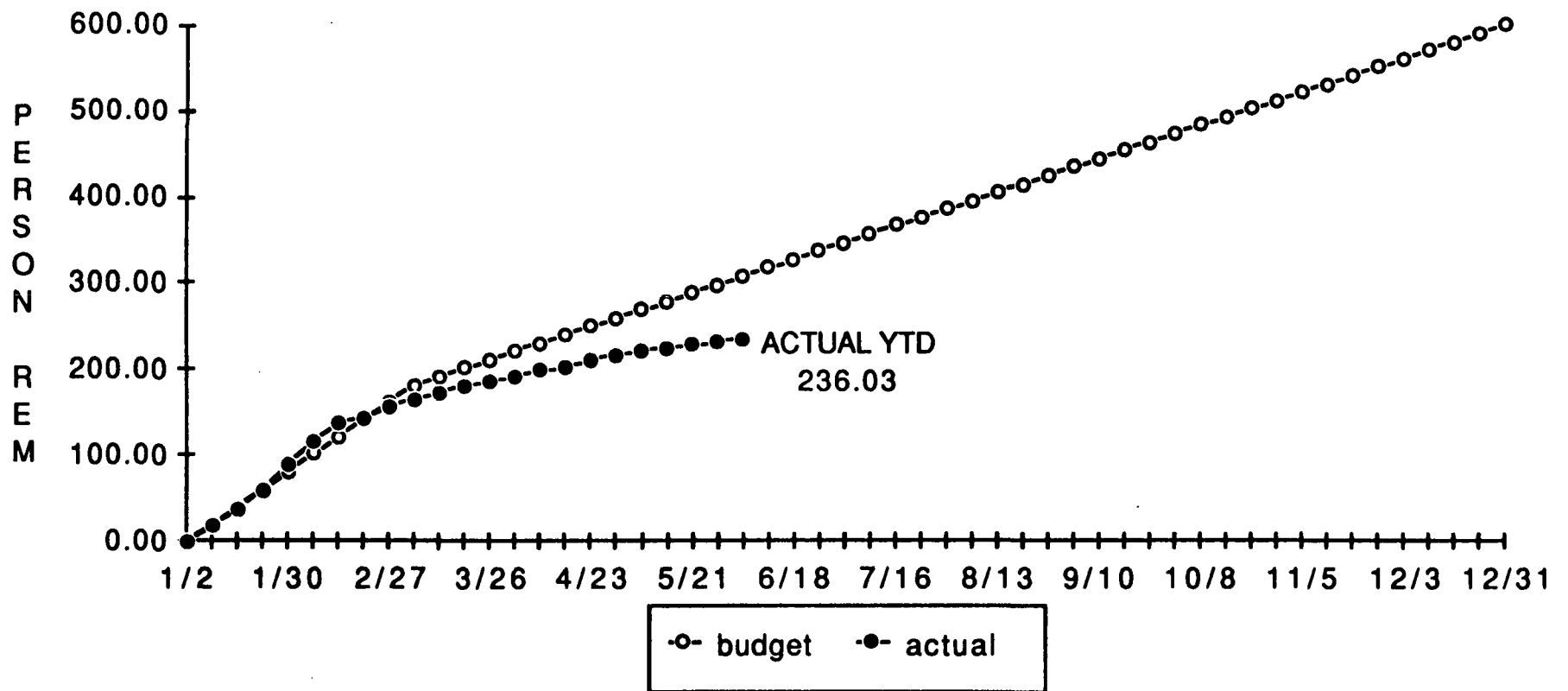
# POWER BLOCK MRs



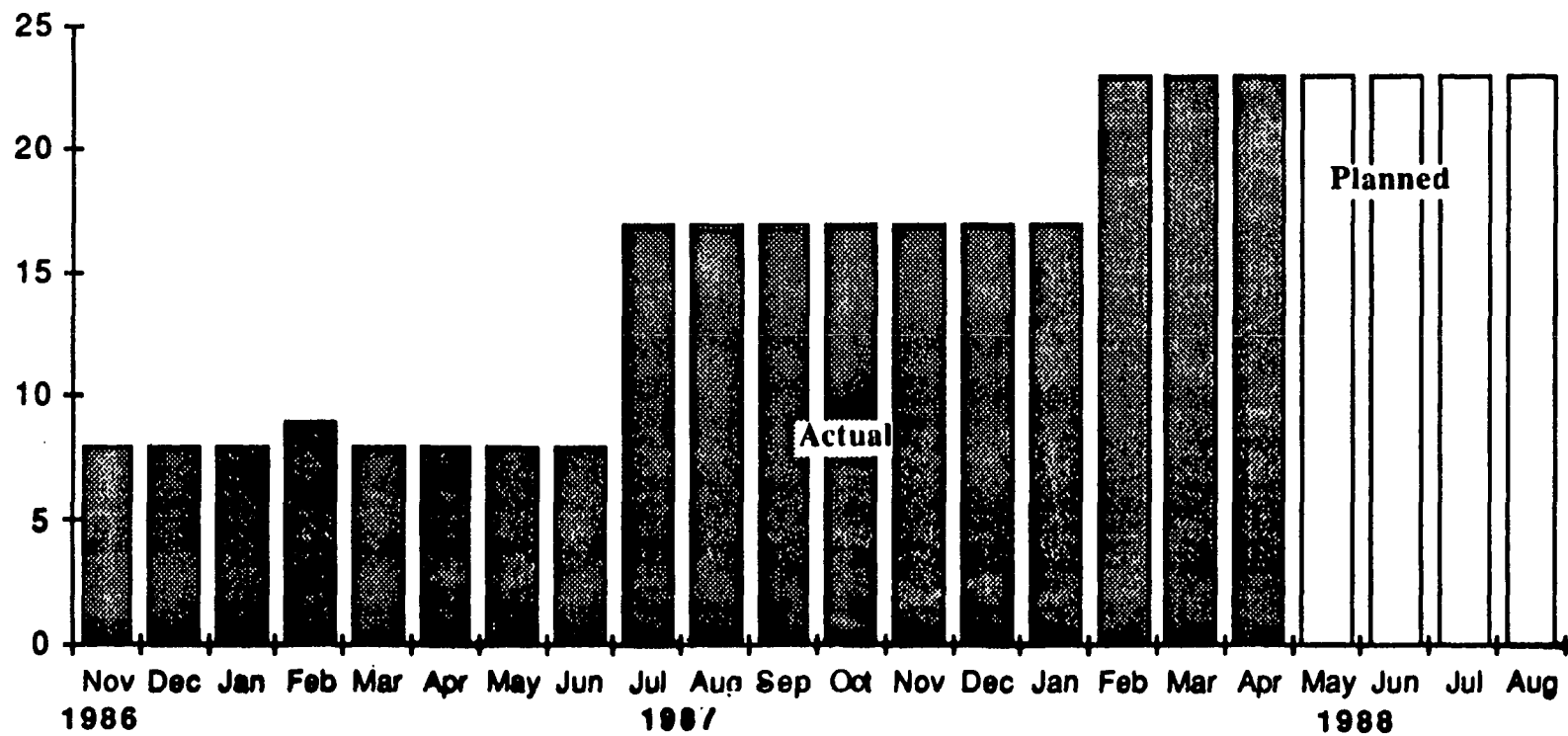
# PLANT DECON



# ALARA TRACKING



## Licensed Operator Staffing Status



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