ACRS-2660

PDR 2/21/90

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
REGIONAL PROGRAMS SUBCOMMITTEE MEETING
REGION I OFFICE
KING OF PRUSSIA, PA
AUGUST 29-30, 1989

CERTIFIED

PURPOSE:

The purpose of this meeting was to review the activities under the purview of the NRC Region I Office.

ATTENDEES:

Principal meeting attendees included:

ACRS	NRC Staff	
F. Remick, Chairman	W. Russell	J. Joyner
J. Carroll, Member	T. Martin	J. Roth
I. Catton, Member	W. Kane	J. White
W. Kerr, Member	S. Collins	P. Swetland
D. Ward, Member	G. Kelly	J. Wiggins
C. Wylie, Member	L. Bettenhausen	D. Haverkamp
	D. Holody	R. Conte
	R. Gallo	R. Blough
	N. Blumberg	L. Tripp
	J. Strosnider	P. Eselgroth
	P. Eapen	C. Cowgill
	J. Durr	R. Bores
	M. Knapp	W. Lazarus

MEETING HIGHLIGHTS, AGREEMENTS, AND REQUESTS

1. Dr. Remick noted this was the fifth visit of the Subcommittee to an NRC regional office. He said the Subcommittee had found the previous meetings to be very interesting, particularly as a source of information directly related to nuclear operations topics not readily available to the ACRS at NRC Headequarters.

2. Mr. W. Russell (Region I Office Administrator) introduced his staff and discussed the details of the operations of the Region I Office. Figure 1 shows an overview of the office's organization. Russell noted that the Region I examiners are cross-qualified as inspectors; this is done in part to vary the workload and challenge for the individual.

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1/1

DESIGNATED ORIGINAL

Certified By EMB

Figure 2 shows the Region I workscope. There are 27 commercial power reactor units with full power licenses, 15 test and research reactors in operation, and over 3,000 byproduct materials licensees under the region's perview.

In response to Mr. Carroll as to why there are so few Agreement States in the region, Mr. Russell said the problem is one of lack of resources and/or reluctance of the states to take on the job.

Unique activities of Region I include acting as homebase for the mobile NDE facility, operating the TLD program for the agency's off-site radiation monitoring effort at all power plant sites in the country, and use of on-site laboratory facilities for conducting environmental monitoring programs.

Major office issues noted were the concern over lack of personnel resources and the associated problems of manpower replacement. The turnover rate so far this fiscal year is running approximately 15%. Given that a new inspector requires approximately 18 months to become fully qualified, a significant problem is apparent.

Mr. Russell also discussed the formation of a "restart panel" format to address the restart of problem plants (ex: Pilgrim, Peach Bottom). They have been effective, but are resource intensive. In response to Mr. Carroll, Mr. Russell said Region I piloted the restart panel approach.

It was noted by Mr. Russell that problems with materials licensees have been fairly resource intensive.

Maintaining consistency among regions is done by counterpart meetings among the regions' managers. Also, NRC Headquarters monitors the regions' performance in this regard. Headquarters also coordinates

escalated enforcement actions. In response to Dr. Remick, Mr. Russell said each region does have its own "personality" as directed by the offices' senior management; however from a programmatic standpoint the regions have developed a good measure of consistency. Russell said that Mr. Murley has ordered a survey of regulatory effectiveness, given recent complaints from the industry. The result will be a report similar to that issued by Mr. O'Reilly (then Director of Region II) in 1982.

In response to Dr. Remick, Mr. Russell said some benefit may come from consolidation of license examiners resources at headquarters.

Mr. Carroll noted that information provided the Subcommittee at a past regional meeting indicated that Region I had a low instance of violations issued per site. Mr. Russell indicated that he believes the emphasis in enforcement should be on the corrective actions one is trying to obtain, not to have a "bean count" of the number of violations issued.

3. Mr. L. Bettenhausen detailed the program conducted by Region I to qualify the NRC regional inspectors. There are a number of inspector "tracks" available such as reactor operations, safeguards, radiological and reactor engineering disciplines. Inspector candidates are typically experienced personnel with navy nuclear or industry backgrounds and are degreed (B.S., M.S., etc.). In response to Mr. Ward, NRC indicated that approximately 20% of inspectors have industrial backgrounds. Most are government hires.

In response to Subcommittee questions, it was noted that there is no program for formal retraining or updating of regulations for the inspectors.

Mr. Russell noted that there is an ongoing erosion of inspector experience levels because of the federal salary cap. NRC is becoming increasingly less competitive with industry salaries. If this continues, the agency will have to move to an intern program with a correspondingly longer training time. In response to Mr. Ward, Mr. Bettenhausen indicated that NRC does look for certain personnel traits in its inspector candidates. Mr. Carroll asked if the region has considered use of industrial psychologists for selection of resident inspectors. The Region indicated that the current selection process has served them well. Mr. Martin indicated that the regional inspectors are closely monitored and, in some cases, have been recalled from sites sooner than usual (5 years).

4. T. Martin addressed the enforcement program. He noted the purpose and philosophy behind the program. Martin indicated that the region strives to focus on important issues and not get bogged down with minor infractions. The Region looks upon enforcement actions (Notice of Violation, Order, Civil Penalty, etc.) as tools to enhance safety; there are no quotas for inspectors to meet. Dr. Remick asked if the agency is under duress to recover more of their budget through enforcement, pursuant to Congressional direction. Mr. Martin said the NRC does not do this, rather the Congressional mandate applies to the fee system assessed to licensee review requests.

The enforcement procedure was detailed (Fig. 3). In response to Dr. Kerr, Mr. Martin said the financial consequences of an enforcement action(s) can be significant via a lowered Systematic Assessment of Licensee Performance (SALP) rating and subsequent restrictions vis-vis the financial markets.

Oversight of the enforcement process is conducted by audits (NRC) and the regional management information system (MIS). The MIS is unique to the Region I Office.

D. Holody discussed the past history and current problems with enforcement. Figure 4 shows the number of escalated enforcement actions for Region I. For FY 89, the number of violations issued is up from FY 88's level. The same trend is evident for all the regions (Fig. 5).

Mr. Carroll raised the issue of a recent enforcement action at Limerick where plant personnel failed to properly classify emergency events. Discussion noted that the NRC has been routinely inspecting plants to assure the personnel have the capability to do so, as their classification actions are key to setting the EP process in motion.

Mr. Holody detailed the latest revisions to the enforcement policy. These changes provide greater incentives, both positive and negative, for the licensee to identify violations and comprehensively correct them; also it allows the NRC staff additional authority to exercise discretion in enforcement matters. To date, no problems have been seen in implementing this policy. A significant increase in escalated enforcement actions has been seen - particularly for materials licensees.

Two suggested changes to enforcement policy were made:

1. Obtain authority to issue civil penalties and orders against vendors who cause violations at licensed facilities (agency is evaluating this proposal).

2. Obtain authority to issue enforcement action directly against nonlicensed individuals engaged in wrongdoing which affects licensed activities (Commission has approved this policy and the Headquarters staff is preparing the appropriate rule changes).

Item 2 has been adopted by the Commission (ex: Peach Bottom operators, materials licensees employees, etc.).

5. R. Gallo introduced the topic of plant maintenance programs by discussing the issue of the proposed maintenance Policy Statement. The Region believes the Policy Statement should address: (1) reliability centered maintenance, (2) preventive and predictive programs, (3) engineering support, (4) root cause analysis, (5) trending, and (6) application of risk significant concepts. Other needs that the Region sees in this area include: (1) contractor training, and (2) dedication of commercial grade parts. In response to Dr. Remick, Mr. Gallo said the Region believes a maintenance rule is needed in order to provide leadership in the maintenance area. Dr. Kerr questioned how the NRC will identify what will be an acceptable objective of the maintenance rule. He is wary of a strict focus on "maintenance for maintenance's sake" as a key factor of plant performance.

In response to Mr. Carroll, Mr. Gallo said the NRC does not use the INPO performance indicators (PIs). Evaluation of eight of the licensees' maintenance programs to date showed five were functioning well overall. One was considered inadequate. In response to Mr. Carroll, Mr. Gallo said he believes the plant's maintenance programs are improving, and INPO is responsible in part; NRC inspection is also a big impedus for improvement.

Gallo detailed the types of program deficiencies seen at plants (Figure 6) as a result of the NRC inspections. After some discussion, Messrs. Ward and Kerr observed that NRC's actions in the maintenance area seem to be forcing a particular style of maintenance on utilities. Mr. Ward indicated that it's not clear that such action (forcing a uniform approach) is the preferred way to assure good maintenance will be achieved.

Turning to the topic of licensee efforts to enhance skill levels/career progression of maintenance personnel, Mr. Gallo indicated such opportunities do exist (Fig. 7). In response to Mr. Ward, the Region indicated some licensees in Region I have maintenance training facilities comparable to similar facilities seen at plants in Japan for example.

Commenting on the development of maintenance performance indicators, Mr. Blumberg said the Region has not been involved in their development. Other comments on the maintenance PI development effort were:

- NRC use of NPRDS to rate licensee performance may effect the reliability of this data base (as licensees won't be so forthcoming in the future).

- PIs should be used to spot adverse trends, not to rank plants.

- A single indicator may not be sufficient to rank plants.

- A combination of indicators should be considered:

  (a) maintenance-related LERs
  (b) "equipment out of service"
  (c) "unplanned trips due to maintenance," including testing

6. The Subcommittee toured the mobile NDE laboratory and associated laboratory test facilities located in the Regional offices.

7. The topic of quality assurance programs was addressed by Mr. P. K. Eapen. Key points noted by Mr. Eapen were:

   - NRC has had a strong emphasis on QA. The effort was directed to looking at "work" not "paper." This effort resulted in the

upgrading of the technical competence of licensees' QA organizations.

- The Region is assessing QA based on "real life" situations. Appendix B violations are now based on hardware or performance concerns. Problems noted were that no one section of the Region's organization is responsible for QA and the Region's expertise in QA is "fading away" as people leave/retire.

- NRC needs to assure that "quality" is an integral part of the licensees line organization. In response to Mr. Carroll, Mr. Eapen said that the emphasis on performance based QA is more or less consistent across the five regional offices. Mr. Ward noted that his reading of the QA situation, based on the recent ACRS-sponsored meeting on this topic, lead him to conclude that foreign entities rely on the professional integrity of the working organization to assure QA. The Region indicated that they rely on their evaluation of the licensee's management to assure they have instilled quality in the line organizations.

8. Mr. Durr addressed the topic of technical specification improvement programs. He said this issue has resulted in an effort to reconstitute the plants' design basis, given the need to establish the engineering basis(es) for plant-life extension. In most cases, the licensees are initiating the design basis reconstitution/consolidation effort.

9. The activities of the Division of Radiation Safety and Safeguards were reviewed by Dr. M. Knapp. Dr. Knapp discussed the organization, facilities, and workload in the Region.

   The status of the fuel cycle facilities was reviewed. Figure 8 lists these facilities. Past problems with some of these facilities were noted, including an ongoing concern with the CE facility in Windsor, CT.

It was noted that a SALP was performed on the Windsor site's operations. This SALP was conducted at the initiative of the Region I Office.

In response to Dr. Kerr, Mr. Russell indicated that the "visability" of a SALP seems to have improved the situation in the Windsor case, despite the fact that a score of "3" doesn't mean that regulations are being broken. Further discussion brought up the fact that for the CE facility, the NRC audits lead to the conclusion that the margin of safety for operations was uncomfortably low and improvement was judged to be necessary.

L. Bettenhausen discussed the details of the materials licensees located in Region I. There are approximately 3030 materials licensees; 1200 of these are medical related. Regarding enforcement actions, it was noted the radiography activities have the greatest actual and potential radiation exposure risk; continuing attention is necessary.

Discussion of the current problem material facility ("Safety Light Corporation") was given. As a result of corporate maneuvers, the company was, in effect, orphaned. The ability to finance necessary decontamination requirements was left in doubt. NRC has issued Orders to assure necessary funding will be available. Also, a site cleanup plan is under review by the Region.

10. W. Kane introduced the activities in the "Reactor Projects" division of Region I dealing with assessment of licensee performance.

G. Kelly reviewed the workload and scope of the Region's inspection activities. Figure 9 shows the breakdown of expenditures for these activities. About 20% of the effort has been devoted to region initiatives and reactive inspections. A breakdown of inspection time by site is given on Figure 10. About half the effort is devoted to a small set (8 sites) of plants that have, for the most part, had problems.

Discussion ensued regarding the inspection effort vis-a-vis SALP scores. The debate focussed on whether resources were properly allocated for "good" vs. "bad" performers.

The revised inspection performance goals were noted. These goals are: (1) provide flexibility to allocate resources based upon performance, (2) increase emphasis on the use of teams, (3) respond to new (or generic) safety issues, and (4) focus resources on specific disciplinary areas of emphasis. In response to Dr. Catton, the Region indicated that no inspections are performed to check compliance with Generic Letter requirements until a "TI" (temporary instruction) is issued by NRR to the regional offices.

Planning for regional inspections is now keyed to a given plant's SALP cycle. The senior resident inspector (RI) is designated as the cognizant regional official vis-a-vis all elements of the inspection plan for his plant.

P. Swetland discussed the impact of NRC team inspections on licensee performance. Mr. Ward asked why no event in the last 1-2 years has warranted an "IIT" vs. an "AIT." Mr. Russell noted that licensee performance has improved and that no event has been considered serious enough to warrant an IIT effort. Figures 11-12 list the team inspections initiated from Headquarters and the Region, respectively.

Benefits of team inspections include the diversity of talent a team provides and the higher visability they incur with the licensee. Drawbacks relate to the extensive resources required by both the NRC and licensee.

Discussion of team inspection achievements noted that the Agency is increasingly relying on performance based inspections. Mr. Carroll noted that NRC has, on occasion, inspected beyond the regulations.

The benefits/problems associated with use of RIs were noted by J. Johnson. On the plus side:

- Provide real-time observations; witness activities as they happen.
- Ensure emergency response; monitor conditions, provide direct contact with senior NRC officials.
- Site-specific knowledge.
- On-site interface with: licensee, local officials, public.
- Inspection efficiency higher; less travel time than region based personnel.

The cons include:

- Tendency to be called by or tasked by many to do work; ex: "Let's have the resident check this."
- Rotation policy; negative affect on morale and family stress.
- High loss rate dilutes experience level and site continuity.
- Greater sense of isolation on and off the job.

Mr. McKay discussed the move towards performance-based inspections by NRC. Previously, inspections were compliance oriented. Today, inspections are focused on performance or lack thereof. This includes observation of licensee activities and event reconstruction. Examples of a performance-based approach include the use of SALPs, team inspections, resident inspectors, etc.

Dr. Kerr indicated that he is uneasy with the current NRC approach in using regulation by subjective judgment via the SALPs, etc., instead of revising the regulations to reflect the change from construction to operation of these plants.

Mr. Russell indicated that he believes the regulations provide a workable framework for regulation of operating plants. Further discussion noted that the Region has been told by some licensees that the SALP reports are valuable to their conduct of operations.

11. Mr. Kane introduced the topic of the Systematic Assessment of Licensee Performance (SALP) program. SALPs are conducted every 12-18 months for each site. Plants on the "watch list" receive a SALP every 12 months. SALPs are used by NRC to aid resource allocations, improve licensee performance, and diagnose performance trends.

The SALP process was noted. Typically, preparation of the initial SALP report is overseen by the site's senior RI. A SALP board is convened and is chaired by the Director of the Division of Reactor Projects of the cognizant regional office. In response to Dr. Remick, the Region said that NRR ensures that the SALP process is consistent from region-to-region. Figures 13-14 show the steps of the SALP process and the SALP board composition, respectively. In response to Mr. Carroll, Mr. Kane noted that SALP board members are rotated among the regions in order to help assure consistency and cross-fertilization of experience.

Figure 15 shows the functional areas rated for a typical SALP on an operating plant. Figure 16 lists the evaluation criteria used by NRC for the SALP deliberations.

Dr. Remick asked if the licensee is contacted, in camera, to get their observations regarding the performance of the RIs. Mr. Kane indicated that he does receive calls from licensees with questions/concerns along

this line. Mr. Russell also noted that he has been contacted by licensees with concerns related to an RI's performance.

The definitions applied to the Category ratings (1-3) were noted (Figure 17).

G. Kelly reviewed the results of the SALPs conducted in Region I. Typically it costs a senior NRC region manager approximately 25% of his time for the SALP process. Figure 18 shows the distribution of the SALP ratings by category for the Region I plants as of August 1989. In response to Mr. Carroll, Mr. Russell said that he does not know how NRC's SALP ratings compare with INPO's ratings.

Mr. Kelly said that a trend in performance usually initiates action sooner than other indicators (e.g., a declining trend will spur increased inspection attention).

The Region has encouraged licensee self assessment initiatives and their coordination of these activities with the SALP effort. NRC hopes to use the self assessment effort to credit a given licensees positive actions vis-a-vis the SALPs.

In response to questions from the subcommittee, the Region noted the following:

- The impact of SALP on licensee performance has been positive. It helps focus NRC's attention on plant operations. SALP has helped spur improved plant performance.

- To the extent of their limited knowledge, the Region has been told by licensees that safety will not be impeded by PUC actions. However, there has been concern that some long-term actions may be impacted. Some utilities have had to cut back nonnuclear expenses under the threat of prudency hearings.

- The Region has had to contend with active state involvement in nuclear affairs. Almost all the states containing nuclear plants are so involved.

- Mr. Ward asked if the Region has considered a "return" to traditional regulations for operating plants. Mr. Russell said the SALP process is functioning as a regulatory mechanism. He also said even if "General Operating Criteria" existed, one would still require some form of a SALP-like process in order to judge compliance with such criteria.

12. The effectiveness of plant safety review activities was discussed. It was noted that the NRC's experience is that utilities with effective self assessment and corrective action programs achieve better performance. During discussion, Mr. Carroll said some plant safety review committees act as "rubber stamps" as a result of being required by technical specifications. He indicated that there are more effective means of providing independent safety oversight.

13. W. Kane discussed the topic of problem plants or plants on the "watch list." To begin, the steps involved in the restart process were discussed (Figure 19). It was noted in response to questions that a plant restart can be approved either by the NRC staff or by Commission vote depending on the Category it is assigned.

    There was discussion of whether it is safer to operate at full power (per design) rather than at lower power for a long time. Dr. Kerr maintained that there has not been an analysis of the trade-offs involved for operation at low power, and he would be interested in seeing such an analysis. Mr. Russell maintained that he believes low power operation provides additional margin for such parameters as decay heat load, offsite dose consequences, etc. Mr. Russell did note that he allowed Peach Bottom to operate up to 35% for its initial power plateau, based on problems seen at Pilgrim which was limited to 25% power.

The problems seen at Nine Mile Point Unit 1 were described. In 1988, NRC issued two CALs requiring a number of corrective actions be performed prior to restart. An NRC Restart Assessment Panel was formed in 1988. The licensee had submitted a Restart Action Plan which is now under review by NRC. In response to Mr. Carroll, Mr. Russell indicated that the decision to shut down plant operations is, in the end, a matter of considered judgment by NRC senior management.

The status of the Pilgrim restart effort was noted. Currently, the plant is at the 75% power plateau of its restart power ascension program. Region I also noted the current status of the Peach Bottom restart effort. Unit 2 is now at 100% power; Unit 3 has yet to restart.

There was discussion regarding involvement of the affected states in the restart process. Mr. Russell indicated that the region's experience to date has been favorable and the state's actions have not been obstructive.

L. Tripp detailed the situation with the Calvert Cliffs plant. It was noted that the plant had a 18-month history of declining performance in several areas, prior to the May 1989 shutdown of both units. In response to questions, Mr. Russell noted that a complacent attitude, coupled with a cut in resources, combined to result in their getting into trouble.

Dr. Kerr asked from where the recommendation for shutdown of Calvert Cliffs ensued. Mr. Russell indicated that as a result of problems the licensee identified, they initiated the shutdown in early May, as well as stated their intent not to restart until they had addressed relevant problems to their satisfaction.

Messrs. Ward and Remick asked whether the "lesson learned" of Calvert Cliffs as seen by the Region (i.e., reliance on talented people to get around procedural inadequacies) applies to the instance of "regulation

by SALP" that is now ongoing at NRC. Mr. Russell agreed there is a good point here and indicated that his problem of declining resources adds weight to the issue

Mr. Carroll posed a hypothetical case where the licensee of a SALP "Category 1" plant decides to go to a "Category 2" level due to the pressure of economics. He asked: is this acceptable? The Region indicated that this would put them in an uncomfortable situation, and may be difficult for the licensee to pull off (i.e., starting down a "slippery slope").

14. R. Gallo discussed plant operator licensing. He detailed the Region's resources for operator examinations. There are 16 certified examiners; six of these have held commercial reactor operator licenses. To date, in F' 1989, 159 requalification exams and 219 initial exams have been conducted by the Region. In response to Dr. Kerr, Mr. Gallo said approximately 17% of requalification applicants fail the exam.

The impacts of revision to 10 CFR Part 55 were noted. These include:

- Operator licenses extended to six-year terms from two year licenses.
- Site-specific simulator mandated: is considered an invaluable training/examination tool.
- Forced licensee middle and upper level management attention and involvement to licensed operator requalification training program.
- Substantial NRC resources are being dedicated to requalification exams in order to support six-year license renewals.

Dr. Remick asked if the Region has considered moving to an audit function for operator licensing examinations. Mr. Gallo indicated that once

a "steady-state" workload is achieved, there won't be any significant problems. He was reluctant to see NRC surrender its current role here.

As a result of further discussion, Mr. Russell indicated that he is on record as advocating the utilities conduct the exams, provided the failure rates come down to reasonable levels. Dr. Remick indicated that his understanding is that industry considers the new performance-based requalification exam to be a fair and valid test. The high failure rates being seen are believed to be caused by older operators whose original operator licenses were grandfathered under Part 55 and who are now being forced to upgrade their skill levels.

Dr. Catton suggested that the Region investigate whether there is/are problems with the operator training programs a la: lack of INPO accreditation, etc.

Dr. Catton questioned how a training program can successfully train an operator for an initial exam but do poorly preparing an operator for a requalification exam. Mr. Russell indicated that differences in scheduling, training elements, etc., impact requalification efforts. Further discussion resulted in noting that the requalification failure rate may well drop in the future, as utilities complete the switchover to fully performance-based training.

Discussion of the plant simulator capabilities brought out the fact that the simulator must be certified by comparison to actual test data from the plant in question.

The national theory examination (generic fundamentals) was discussed. The test is standardized based on common knowledge related to the theory of nuclear power operations. It is specific to plant type (BWR & PWR) and is given three times a year. Grading is by pass/fail grade (numerical - greater than 70%). A pilot program was conducted and considered highly successful.

Mr. Eselgroth discussed the steps taken to assure operator examinations are consistent among the regions. Consistency is maintained by use of examiner standards (NUREG-1021), audits, and inter-region examiner training.

Regarding the need for degreed operators, the Region indicated that they believe there should be at least one degreed operator on each shift crew. Mr. Russell indicated that he supports the Commission's Policy Statement on the matter and noted that the industry is moving towards having more and more degreed operators.

In response to Dr. Kerr, Mr. Russell indicated that he feels the performance based operator examination is the right approach. Regarding ensuring operators have the correct attributes (good attitude, etc.), Mr. Russell said this has to be determined by other (indirect) means.

15. The topic of radiological controls was discussed. Details of the HP inspection areas and ALARA program elements reviewed by the region were noted. Regarding ALARA, Mr. Ward indicated some utilities have stated that they are spending money far in excess of $1000/man-rem to reduce personnel exposure. The Region indicated that such a decision is the licensees, and the SALP scores are not based on such expenditures.

Details of the Region I radiological inspection programs and associated laboratory facilities were provided. Among the unique activities of the Region is providing and monitoring all the TLDs NRC places around the 72 U.S. reactor sites. The Region is responsible for continuous monitoring of these TLDs. Counting facilities are located in the Region I offices. Another service provided is to assist some of the state environmental monitoring programs.

16. W. Lazarus discussed the Region's emergency planning (EP) programs. The details of the procedures involved in the exercising the licensees'

emergency plan were noted. Figure 20 shows the key areas evaluated. Strengths and weaknesses of the EP programs were noted. Key problems cited included:

- Nonuniform emergency classification systems.
- Lack of siren verification systems -- few licensees have currently installed one.
- Method(s) for public alerting need upgrading.
- Lack of cooperation of offsite authorities.
- Lack of realism of EP exercises results in some negative training.

The burden of EP exercises on local governments was discussed. In general, the largest impact falls on the local volunteers. Some volunteers have dropped out of the program, persuant to FEMA's post-exercise critique(s), which was taken as criticism of their efforts.

The case of an inadvertent siren actuation near TMI was noted. In response to Mr. Wylie, it was stated that such events are not rare, and it was agreed that more explicit public directions are needed for this type of incident.

Details of the Region's incident response program were discussed. In response to Dr. Remick, it was noted that FEMA does interact with NRC only during an actual event. It was also noted that the authority to issue an evacuation order currently rests with the Chairman of the NRC.

17. The Subcommittee thanked Mr. Russell and his staff for two days of excellent presentations. Dr. Remick said he appreciated the candor of

the presenters in response to the Subcommittee's inquiries. Mr. Russell returned the Chairman's compliments and said he believed the meeting was quite productive for all concerned.

18. The meeting was adjourned at 3:40 p.m. on August 30, 1989.

SUMMARY OF AGREEMENTS, ASSIGNMENTS, REQUESTS, AND FUTURE ACTIVITIES

- The Subcommittee discussed a variety of topics with the Region I representatives. These topics, with a few exceptions, were similar/identical to issues discussed with the other four NRC region offices.

- There appears to be a growing problem with attracting and maintaining skilled personnel due to the federal salary limits. This issue is being felt most acutely at the region offices because of their "first line" basis vis-a-vis competition for job skills with the industry. Mr. Russell indicated that his office's overall skill level is dropping sharply due to a high turnover rate and delays associated with government hiring procedures.

- There was extensive discussion of the impact of the SALP program on plant licensees. The Subcommittee indicated that the use of SALP as a form of defacto regulation may not be in the best interests of nuclear safety. Rather, it was suggested that NRC should consider whether the current regulations are in need of substantial revision, given the NRC's shift in its mission to regulation of operating plants.

- In the aggregate, the Subcommittee has found these meetings useful and informative. In particular, it was noted that the regions possess a unique store of direct information regarding the state of plant operations that is not readily available to the ACRS at the Headquarters level. The Subcommittee has also been favorably impressed with the competence and dedication evidenced by the region offices' personnel.

- The Subcommittee has completed a "tour" of all five region offices. Dr. Remick has indicated that the ACRS should continue its contacts with the regions through future meetings of this Subcommittee. Committee Members are encouraged to contribute discussion topics/issues for future meetings.

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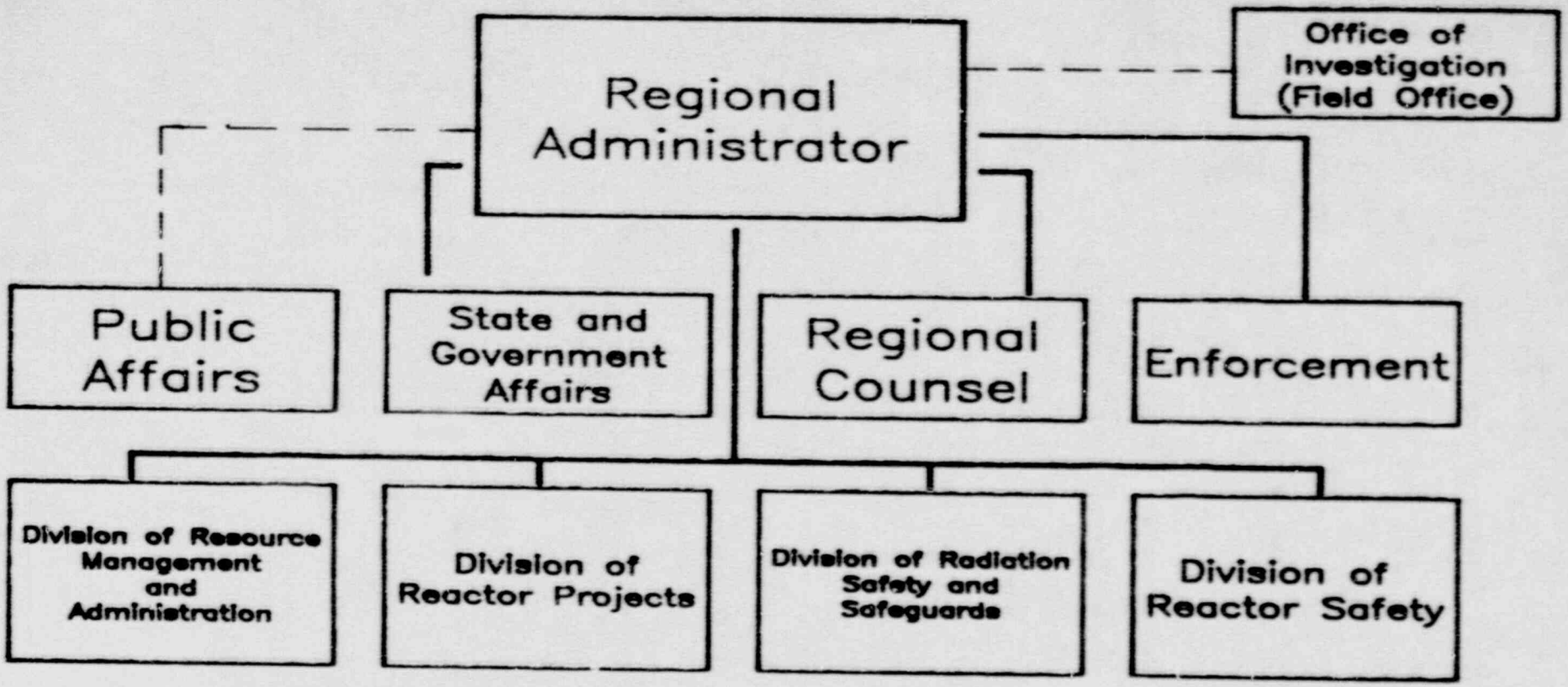
NOTE: Additional meeting details can be obtained from a transcript of this meeting available in the NRC Public Document Room, 2120 L Street, N.W., Washington, D.C. 20006, (202) 634-3273, or can be purchased from Heritage Reporting Corporation, 1220 L Street, N.W., Suite 600, Washington, D.C. 20005, (202) 628-4888.



- Administrative Support
- Budget and Procurement
- Personnel

- Resident Inspectors
- Reactor Inspection Program
- Salp

- Emergency Planning Incident Resp.
- Rad. Protect. Rx/Fuel Facilities
- Safeguards
- Materials Licensing & Inspection

- Reactor Inspection Specialists
- Engineering Support
- Operator Licensing
- Rx License Amendments

REGION I LICENSEES

27 ~~27~~ UNITS LICENSED TO OPERATE AT FULL POWER

22 SITES: 7 DUAL UNITS; 14 SINGLE UNITS INCLUDING ONE 3 UNIT SITE (MILLSTONE UNITS 1, 2 & 3)

1 POWER ASCENSION PROGRAM (LIMERICK UNIT 2)

2 SEABROOK & SHOREHAM

17 LICENSED TEST & RESEARCH REACTORS INCLUDING COLUMBIA AND SAXTON

5 FUEL FACILITIES

3,030 BYPRODUCT MATERIALS LICENSEES

EXCLUDING AGREEMENT STATES:
MARYLAND, NEW HAMPSHIRE, NEW YORK AND RHODE ISLAND

FIG. 2

Potential Violation Identification - Start Corrective Action	Inspection Exit - Verify Knowledge	Regional Debrief and Evaluation	Write Inspection Report	Licensee Evaluation and Response Modification	Enforcement Conference	Evaluation of Facts/Propose Enforcement

Concurrence and Transmittal	Licensee Evaluation and Response Modification	NRC Evaluation Negotiation and Acceptance	Licensee Complete Long Term CA	NRC Confirm CA Effectiveness

PAST EXPERIENCES/CURRENT PROBLEMS

- ESCALATED ENFORCEMENT (CIVIL PENALTIES/ORDERS) FOR POWER REACTORS IN REGION I HAS INCREASED OVER THE PAST YEAR, BUT IS CLOSE TO PREVIOUS YEARS IF EQUIPMENT QUALIFICATION CIVIL PENALTIES ARE NOT INCLUDED

	AVERAGE NO. FY 84 - FY 88 (REGION I)	FY 89 NO. TO DATE (REGION I)
POWER REACTORS		
CIVIL PENALTIES	8	13 *
ORDERS	2	0
MATERIALS/FUEL FACILITIES/RESEARCH RXs		
CIVIL PENALTIES	11	16
ORDERS	4	5

* INCLUDES 4 EQUIPMENT QUALIFICATION CIVIL PENALTIES

F16-4

PAST EXPERIENCES/CURRENT PROBLEMS

° ESCALATED ENFORCEMENT (CIVIL PENALTIES/ORDERS) FOR POWER REACTORS NATIONWIDE HAS INCREASED SLIGHTLY OVER THE PAST YEAR, BUT IS ACTUALLY LESS IF EQUIPMENT QUALIFICATION CIVIL PENALTIES ARE NOT INCLUDED

	AVERAGE NO. FY 84 - FY 88 (ALL REGIONS)	FY 89 NO. TO DATE ALL REGIONS)
POWER REACTORS		
CIVIL PENALTIES	45	50 *
ORDERS	4	1
MATERIALS/FUEL FACILITIES/RESEARCH RXs		
CIVIL PENALTIES	35	51
ORDERS	11	12

* INCLUDES 10 EQUIPMENT QUALIFICATION CIVIL PENALTIES

FIG. 5

TYPES OF DEFICIENCIES OBSERVED DURING MTI'S

(1) INADEQUATE OR UNCLEAR MAINTENANCE PROGRAM DESCRIPTIONS.

(2) LACK OF VENDOR MANUAL CONTROL, NO UPDATES, NO SYSTEM.

(3) DO NOT USE RISK ANALYSIS FOR PM OR WORK PRIORITIZATION.

(4) EQUIPMENT HISTORIES LACKING OR HARD TO USE.

(5) NO TRENDING OR FAILURE ANALYSIS SYSTEMS.

(6) MAINTENANCE PROCEDURES HARD TO FOLLOW OR ARE TOO GENERAL.

(7) LITTLE OR NO QC INVOLVEMENT AT SOME PLANTS.

(8) SYSTEM ENGINEERS NOT INVOLVED IN MAINTENANCE.

4.A.3 LICENSEE EFFORTS TO ENHANCE SKILL LEVELS/CAREER PROGRESSION OF MAINTENANCE PERSONNEL BASED ON MAINTENANCE TEAMS

- PLANT CAPACITY AND PLANT LIFE EXTENSION EMPHASIS CREATE NEED FOR MORE AND BETTER TRAINED MAINTENANCE PERSONNEL AND ENGINEERS

- TRAINING PROGRAMS
  - ARE MORE FORMAL AND ACCREDITED
  - USE IMPROVED FACILITIES, MOCK-UPS AND SPARE EQUIPMENT FOR HANDS-ON TRAINING
  - ARE GEARED FOR TECHNICAL SKILL UPGRADE
  - INCLUDE MAINTENANCE ASSIST EXPERIENCE

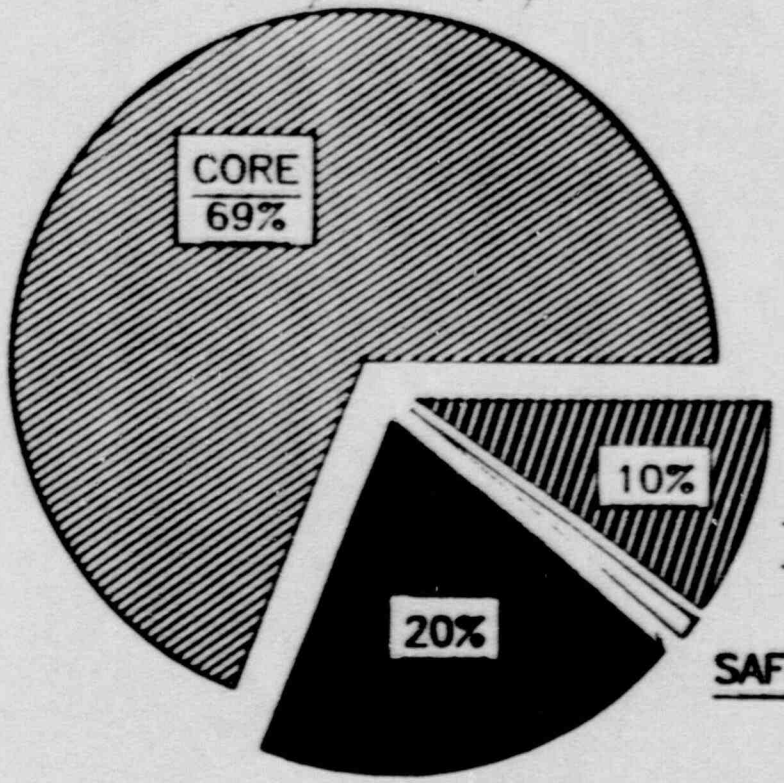
- FACILITY SPONSORED EDUCATION CREATES OPPORTUNITIES FOR ADVANCEMENT

  - MAINTENANCE WORKER TO ENGINEERING TECHNICIAN TO STAFF ENGINEER

- NRC EXPECTS COLLEGE DEGREES FOR MANAGERS (ANS 3.1)

FIG. 7

CURRENT REGION I INSPECTION EXPENDITURES BY PROGRAM ELEMENT (65,127 HOURS AS OF 5/20/89)



TEAMS

SAFETY ISSUES < 1%

INITIATIVES AND REACTIVE

- Less than one year of experience with core
- Conservative in core completion
- Half of the 20% discretionary really isn't

IV

MAJOR REGION I FUEL CYCLE FACILITIES-STATUS

UNITED NUCLEAR CORPORATION-NAVAL PRODUCTS	OPERATIONAL
UNITED NUCLEAR CORPORATION-RECOVERY SYSTEMS	DECOMMISSIONING
COMBUSTION ENGINEERING	OPERATIONAL
BABCOCK AND WILCOX-APOLLO	DECOMMISSIONING
BABCOCK AND WILCOX-PARKS TOWNSHIP	REACTOR EQUIPMENT REFURBISHMENT
CINTICHEM	OPERATIONAL
DOE-WEST VALLEY	SUPERNATANT REMOVAL FROM TANK 8D-1

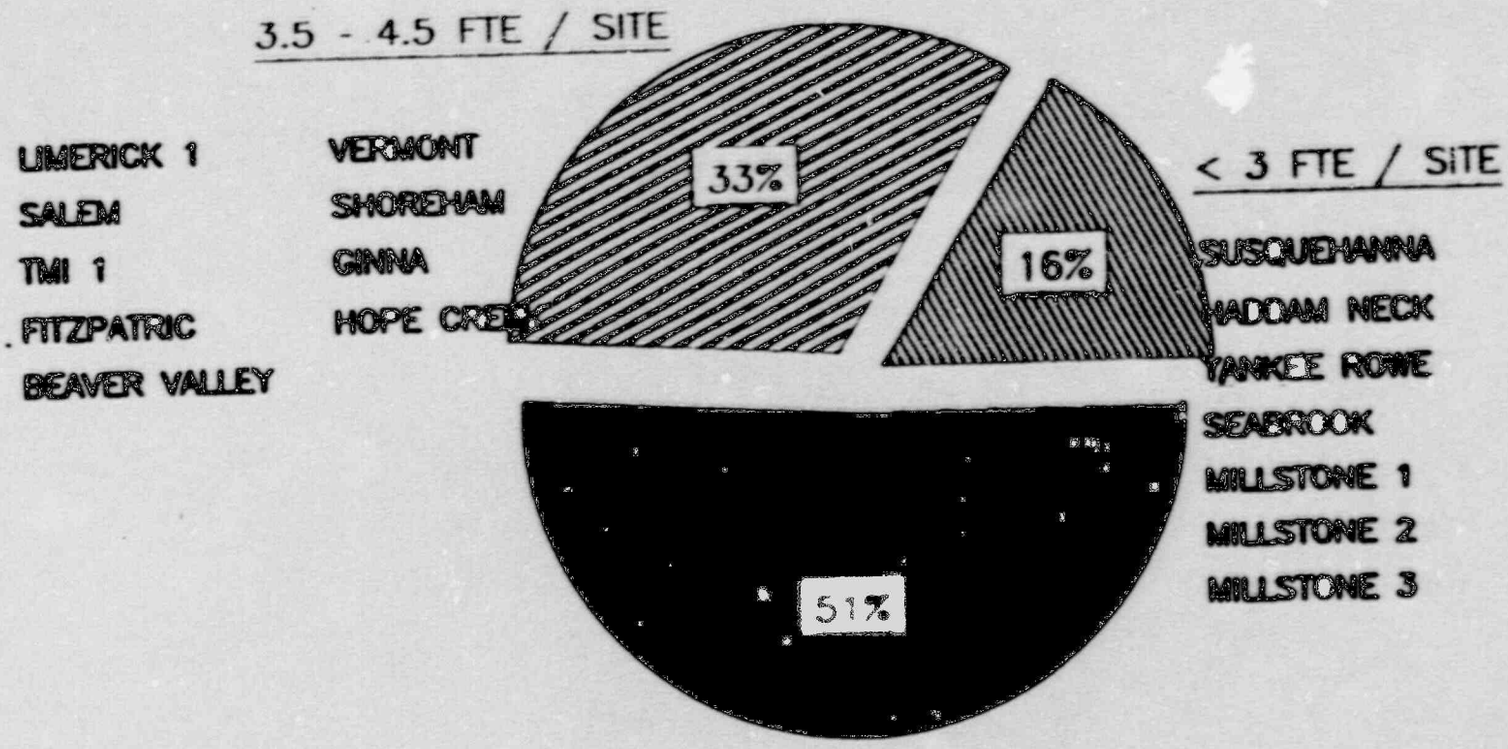
F168

REGION 1 FY 1989

OCT 88 THRU SEP 89

TOTAL PROJECTED: 98,000 HRS

BUDGET: 82,500 HRS



> 5 FTE / SITE

PEACH BOTTOM - 11 FTE

PILGRIM - 9 FTE

NINE MILE PT - 9 FTE

CALVERT CLIFFS - 7 FTE

OYSTER CREEK - 6.5 FTE

INDIAN POINT 3

MAINE YANKEE

INDIAN POINT 2

[illegible]

REGIONAL

TEAM INSPECTIONS

AUGMENTED INSPECTION TEAM (AIT)

- REGIONAL RESPONSE TO SELECTED NON-EMERGENCY EVENTS

INDEPENDENT PERFORMANCE ASSESSMENT TEAM (IPAT)

- INDEPENDENT EVALUATION OF THE UNDERLYING CAUSES FOR OBSERVED LICENSEE PERFORMANCE (GOOD OR BAD)

OPERATIONAL SAFETY TEAM INSPECTION (OSTI/OAT)

- COMPREHENSIVE REVIEW OF OPERATIONS AND SUPPORT ACTIVITIES, INCLUDING SHIFT COVERAGE

OPERATIONAL READINESS ASSESSMENT (ORA/RAT/IATI)

- EVALUATION OF LICENSEE READINESS TO OPERATE A FACILITY (NEW CONSTRUCTION OR FOLLOWING A LENGTHY SHUTDOWN)

OUTAGE/START-UP INSPECTIONS

- TEAM COVERAGE OF REFUELING OUTAGE ACTIVITIES AND/OR FACILITY READINESS FOR START-UP FROM AN OUTAGE

FIG. 1

HEADQUARTERS

TEAM INSPECTIONS

INCIDENT INVESTIGATION TEAM (IIT)

- AGENCY-WIDE RESPONSE TO A SIGNIFICANT NON-EMERGENCY EVENT

DIAGNOSTIC EVALUATION TEAM (DET)

- INDEPENDENT EVALUATION OF UNDERLYING CAUSES FOR POOR LICENSEE PERFORMANCE

MANDATORY TEAM INSPECTION (MTI)

- COMPREHENSIVE INSPECTION OF AN AGENCY-SELECTED PROGRAM AREA AT ALL FACILITIES
- CURRENT MTI COVERS MAINTENANCE

SAFETY SYSTEM FUNCTIONAL INSPECTION (SSFI)

- "VERTICLE SLICE" APPROACH TO ALL PROGRAM AREAS AS THEY APPLY TO ONE OR MORE SELECTED SYSTEMS

SAFETY SYSTEM OUTAGE MODIFICATION INSPECTION (SSOMI)

- COMPREHENSIVE REVIEW OF SYSTEM MODIFICATIONS AND THEIR IMPACT ON SYSTEM OPERABILITY

REGULATORY EFFECTIVENESS REVIEW (RER)

- EVALUATION OF SECURITY PROGRAM EFFECTIVENESS THROUGH PRACTICAL CHALLENGES TO PHYSICAL SECURITY SYSTEMS

FIG. 1

SUMMARY OF PROCESS

- INPUTS TO SALP REPORT FROM SRI, DRS, DRSS AND NRR
- REPORT PREPARED BY SRI
- INITIAL REVIEW BY S/C AND B/C
- REPORT REVIEWED BY SALP BOARD
- BOARD REPORT ISSUED BY REGIONAL ADMINISTRATOR
- MANAGEMENT MEETING
- LETTER FROM LICENSEE
- FINAL REPORT ISSUED BY REGIONAL ADMINISTRATOR

F16 13

SALP BOARD COMPOSITION

CHAIRMAN - DIRECTOR, DRP

MEMBERS - DIRECTOR, DRS
DIRECTOR, DRSS
DEPUTY DIRECTOR, DRP
BRANCH CHIEF, DRP
SECTION CHIEF, DRP
SENIOR RESIDENT INSPECTOR
PROJECT MANAGER, NRR
SES-LEVEL MANAGER, NRR

FIG 14

FUNCTIONAL AREAS - OPERATING REACTORS

- PLANT OPERATIONS
- RADIOLOGICAL CONTROLS
- MAINTENANCE 'SURVEILLANCE
- EMERGENCY PREPAREDNESS
- SECURITY
- ENGINEERING/TECHNICAL SUPPORT
- SAFETY ASSESSMENT/QUALITY VERIFICATION
- OTHERS AS NEEDED

FIG. 15

EVALUATION CRITERIA

- ASSURANCE OF QUALITY INCLUDING MANAGEMENT INVOLVEMENT AND CONTROL

- APPROACH TO IDENTIFICATION AND RESOLUTION OF TECHNICAL ISSUES FROM A SAFETY STANDPOINT

- RESPONSIVENESS TO NRC INITIATIVES

- ENFORCEMENT HISTORY

- OPERATIONAL AND CONSTRUCTION EVENTS (INCLUDING RESPONSE TO, REPORTING OF, AND CORRECTIVE ACTIONS FOR)

- STAFFING (INCLUDING MANAGEMENT)

- EFFECTIVENESS OF TRAINING AND QUALIFICATION

FIG. 1E

PERFORMANCE RATINGS

CATEGORY 1 - LICENSEE MANAGEMENT ATTENTION AND INVOLVEMENT ARE READILY EVIDENT AND PLACE EMPHASIS ON SUPERIOR PERFORMANCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES, WITH THE RESULTING PERFORMANCE SUBSTANTIALLY EXCEEDING REGULATORY REQUIREMENTS. LICENSEE RESOURCES ARE AMPLE AND EFFECTIVELY USED SO THAT A HIGH LEVEL OF PLANT AND PERSONNEL PERFORMANCE IS BEING ACHIEVED. REDUCED NRC ATTENTION MAY BE APPROPRIATE.

CATEGORY 2 - LICENSEE MANAGEMENT ATTENTION TO AND INVOLVEMENT IN THE PERFORMANCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES ARE GOOD. THE LICENSEE HAS ATTAINED A LEVEL OF PERFORMANCE ABOVE THAT NEEDED TO MEET REGULATORY REQUIREMENTS. LICENSEE RESOURCES ARE ADEQUATE AND REASONABLY ALLOCATED SO THAT GOOD PLANT AND PERSONNEL PERFORMANCE IS BEING ACHIEVED. NRC ATTENTION SHOULD BE MAINTAINED AT NORMAL LEVELS.

CATEGORY 3 - LICENSEE MANAGEMENT ATTENTION TO AND INVOLVEMENT IN THE PERFORAMNCE OF NUCLEAR SAFETY OR SAFEGUARDS ACTIVITIES ARE NOT SUFFICIENT. THE LICENSEE'S PERFORMANCE DOES NOT SIGNIFICANTLY EXCEED THAT NEEDED TO MEET MINIMAL REGULATORY REQUIREMENTS. LICENSEE RESOURCES APPEAR TO BE STRAINED OR NOT EFFECTIVELY USED. NRC ATTENTION SHOULD BE INCREASED ABOVE NORMAL LEVELS.

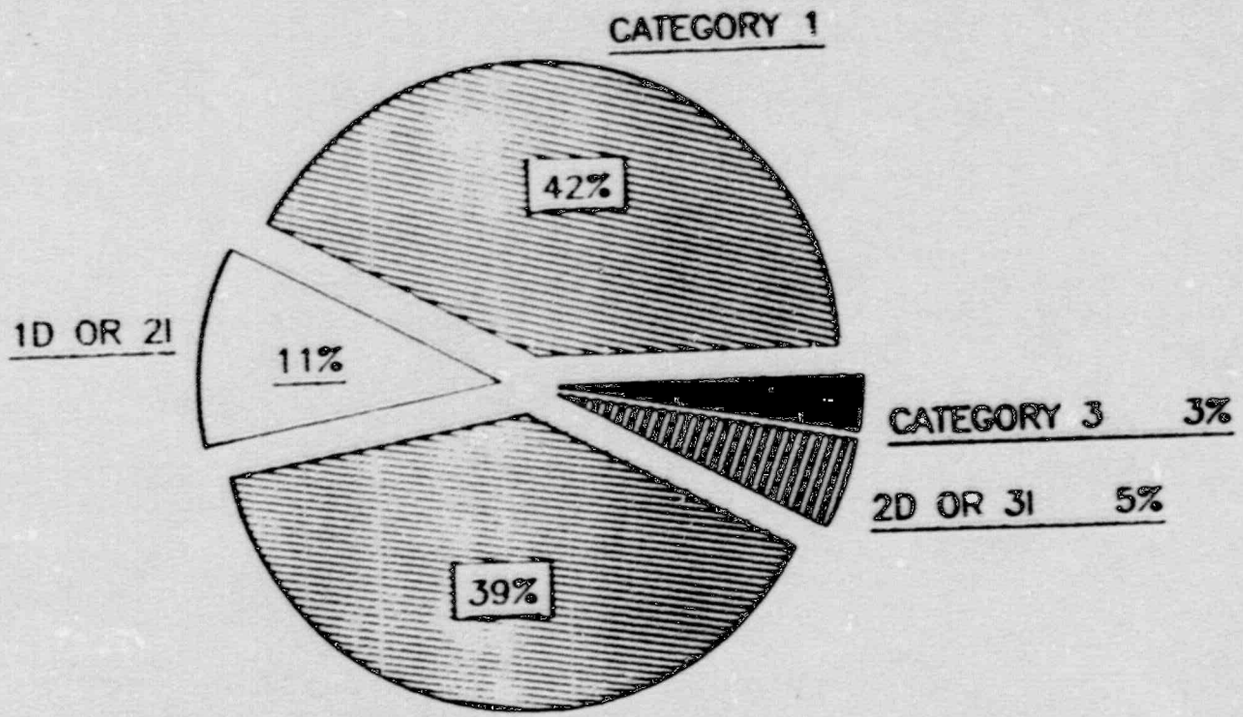
[illegible]

REGION I

DISTRIBUTION OF SALP RATINGS

- 22 PLANTS RATED -

AS OF AUGUST 1989



- Relatively few Category 3's in Region I in any functional area
- Trends strongly influence resource decisions
- Discretionary initiatives driven by SALP

81-14

(N)
Bill K

STEPS IN THE RESTART PROCESS

-- ISSUE CAL TO DEFINE EXPECTED LICENSEE ACTIONS

-- RESTART PANEL CONSTITUTED

-- LICENSEE SUBMITS A RESTART ACTION PLAN

-- PANEL REVIEWS AND APPROVES THE RESTART ACTION PLAN

-- PANEL REVIEWS THE LICENSEE'S SELF-ASSESSMENT PROGRAM

-- PANEL REVIEWS THE LICENSEE'S POWER ASCENSION TESTING PROGRAM

-- LICENSEE SUBMITS A READINESS FOR RESTART REPORT

-- NRC CONDUCTS AN INTEGRATED ASSESSMENT TEAM INSPECTION

-- PANEL RECOMMENDS TO SENIOR MANAGEMENT THE LIFTING OF THE CAL

-- CAL IS LIFTED

-- NRC AUGMENTED INSPECTION TO MONITOR RESTART OF THE FACILITY AND THE POWER ASCENSION TESTING ACTIVITIES

FIG. 19

KEY AREAS OF EVALUATION

- CLASSIFICATION OF EVENTS
- NOTIFICATIONS TIMELY AND COMPLETE
- ACTIVATION OF EMERGENCY RESPONSE ORGANIZATION
- EFFORTS TO MITIGATE THE ACCIDENT
- DOSE ASSESSMENT
- PROTECTIVE ACTION RECOMMENDATIONS BASED ON PLANT CONDITIONS AS WELL AS DOSE PROJECTIONS
- INTERFACE WITH OFF-SITE AGENCIES

FIG 20