



Office of the Inspector General

Inspections

**CONCERNS RESOLUTION
PROGRAM--
WATTS BAR NUCLEAR
PLANT**

Principal Contributors

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INTRODUCTION

During 1986, the Nuclear Regulatory Commission requested TVA's Office of the Inspector General to periodically review TVA's Concerns Resolution Program (hereinafter referred to as "the program"). This review covers the portion of the program applicable to Watts Bar Nuclear Plant (WBN). We completed our fieldwork at WBN in June 1994. In summary, WBN employees overwhelmingly felt free to raise nuclear safety concerns to their supervisors and management.

METHODOLOGY

Our objective was to determine whether the program is accomplishing its intended mission effectively. Program effectiveness, in general, may be measured by the extent (1) TVA employees and contractors feel secure in raising questions about nuclear safety at TVA installations and (2) the program has in place adequate means to resolve nuclear safety issues when they are raised outside of line management.

We reviewed the program by (1) reviewing the Concern Resolution Staff (CRS) process for handling concerns, (2) reviewing all files closed in 1993 and all pending files, (3) reviewing contractor Employee Concern Programs (ECP) at the site, and (4) conducting face-to-face interviews with randomly selected TVA nuclear and contractor employees. The structured interviews were designed to assess the extent people on-site feel free to raise nuclear safety and quality issues and to obtain feedback on the effectiveness of CRS and of the program. We interviewed 15 percent of the personnel on-site, which allows us to project our results to the entire workforce, generally, with a 95 percent confidence level and a margin of error of +/- 3 percent. (A copy of our structured interview questionnaire is attached as Appendix A.) We also requested each interviewee to complete an anonymous feedback form, thus giving them another opportunity to provide further relevant information.

OBSERVATIONS

We found the majority of files handled by CRS and ECP were handled effectively. Additionally, our survey shows the overwhelming majority of employees and contractors know about and would use CRS or ECP. We believe this collective evidence indicates CRS and the program are operating effectively at WBN. However, after completing our fieldwork, a program weakness was found regarding the exit interview

process. While we did not perform comprehensive testing of the exit interview process, OIG investigative operations is currently reviewing the specific circumstances. TVA nuclear management is currently taking actions to resolve this weakness. The following outlines the specific results of our review:

THE PROGRAM FILES

CRS--Based on the evidence in the files, CRS follows its own program directives. In our review of the CRS files, we looked for whether the concerns were clearly documented and appropriately classified. We looked for evidence that the concern was evaluated by someone with sufficient knowledge and that an independent reviewer could reasonably reach the same conclusion as reached by CRS. We also looked for indications of how CRS responded to the concerned individual. We reviewed 30 files that were closed during 1993 and 11 pending files. In summary, our review led to the following conclusions:

In general, CRS met its program objectives. Based on the evidence in the files, CRS follows its own program directives, sponsors avenues to receive and investigate nuclear safety and quality issues in confidence, coordinates with management to get technical issues resolved, and responds to the concerned individuals about investigation outcomes and corrective actions.

We had a question regarding a few of the closed files, which may be viewed as an opportunity for improvement. The question was whether CRS is ensuring the investigation of safety issues independent of management, where necessary, and adequately addresses all the issues. In one file, for example, CRS was asked to determine whether two managers of a safety program at WBN were experienced enough to do their job. CRS relied exclusively on WBN human resource officers (HROs) to evaluate the managers' background and experience (i.e., potentially the same HROs who were involved in the initial selection). The HROs indicated that while the program managers' credentials did not match the original criteria for the jobs, their experience was sufficient to satisfy the initial standards. Further, they noted the experience of the managers was consistent with that called for in 10 C.F.R. Part 50 for the program. CRS accepted Human Resources' evaluation and closed the file. In our

review, we found there was evidence that, if confirmed, would show the managers were qualified, but there was some uncertainty about some of the experience recited in the file for at least one of the program managers. Further, we questioned whether WBN Human Resources was sufficiently independent from WBN management to be the sole source of CRS's assessment of a Human Resources issue at WBN. *The improvement we recommend for CRS is to take steps to make certain that, when appropriate, safety questions are reviewed by someone with sufficient independence from the affected plant management.*

CONTRACTORS--Based on the evidence in the files, ECP follows its own program directives. In our review of the ECP files, we looked for the same kinds of evidence we looked for in the CRS files. We reviewed 33 files that were closed during 1993 and 11 pending files. In summary, our review led to the following conclusions.

In general, ECP met its objectives. Based on the evidence in the files, ECP follows its own program directives, sponsors avenues to receive and investigate nuclear safety and quality issues in confidence, coordinates with management to get technical issues resolved, and responds to the concerned individuals about investigation outcomes and corrective actions.

Areas for improvement in the ECP include the following.

1. The ECP for Ebasco Constructors, Inc. (ECI), as well as for Ebasco Services, Inc. (ESI), had several files that were investigated that were possibly beyond the scope of the ECP. We found that 11 of ECI's 19 files (58 percent) and 2 of ESI's 11 files (18 percent) had no safety-related issues and no implications of matters that would impact safety-related issues.
2. The ECP managers for PCI/ICMS and for ESI are also the quality control and quality assurance managers, respectively, for their companies at WBN. Based on information we received during our review, these two responsibilities are sufficiently adverse to each other that consideration should be given to separating these duties whenever feasible. Furthermore, the ECP manager for Stone and

Webster Engineering Corporation was also responsible for hiring, firing, payroll, and performance reviews.

When the individual with ECP responsibilities also controls employee matters related to career continuation, the employee may be inhibited from raising safety concerns. Therefore, extra care should be taken to assure the necessary independence between roles is exhibited to the workforce.

SURVEY RESULTS

We interviewed 216 TVA WBN employees and 380 WBN contractors.

Based on our survey interviews, the overwhelming majority of employees and contractors felt free to report nuclear safety or quality problems at WBN. Specifically, 98 percent of the employees and 99.7 percent of the contractors interviewed at WBN said they would report a problem, if they knew of one, through some avenue. The employee's and the contractor's immediate supervisor was, by a large margin, the most frequently mentioned avenue for reporting concerns. Of the employees and the contractors interviewed, 98 percent said they would go to their supervisor, if needed. Of the 216 employees, 4 would not, all 4 citing fear of reprisal. Of the 380 contractors interviewed, 8 would not. Of the eight, three said they would fear reprisal, one said it would hurt their career, three said management would not fix it, and one said "You don't do that in favor of keeping the contract with TVA." (Please see Appendix B for further details of survey responses.)

Of the employees interviewed, 69 (29 as a routine part of their job) said they had reported a problem to their supervisor. Of those, 87 percent said the supervisor was responsive and thorough, and 94 percent said they would use that avenue again.

Of the contractors interviewed, 59 (14 as a routine part of their job) said they had reported a problem to their supervisor. Of those, 83 percent said the supervisor was responsive and thorough, and 92 percent said they would use that avenue again.

The majority of employees and contractors surveyed said they would go to their CRS or ECP, if needed. For the employees, 98 percent said they knew about CRS, and 93 percent of those said they would bring an issue to them, if needed. Only 2 percent of the employees interviewed responded negatively about not reporting to CRS. Of the negative reasons cited, five were allegations of loss of confidentiality or possible reprisal from supervisors, three were because they thought CRS was ineffective to accomplish the tasks, and one said the program was simply unnecessary. Six respondents said they would report through other avenues.

For the contractors, 97 percent knew about ECP, and 90 percent of those said they would report an issue to them, if needed. Only 6 percent of the contractors interviewed responded negatively about not reporting to ECP. Of the negative reasons cited, 15 were because of possible reprisal from supervisors or harm to their career; 19 were because they thought ECP was ineffective, not independent, or untrustworthy, and 2 were for reasons unrelated to the program. Eleven respondents said they would report through other avenues.

We also found that for the contractors, 89 percent knew about CRS, and 96 percent of them would use it, if needed.

The majority of employees and contractors surveyed said they felt free to raise intimidation and harassment (I&H) issues with CRS or ECP. For the 216 employees, 89 percent said they felt free to raise an I&H issue with CRS, while 8 percent said they would not. Only 4 percent of the employees interviewed responded negatively about not reporting to CRS. Of the negative reasons cited, 16 were for concerns about career or possible reprisal from management, and 3 were for concerns about CRS effectiveness. Nine respondents said they would "handle it myself" or "report it elsewhere."

For the 380 contractors, 87 percent said they felt free to raise an I&H issue with ECP, while 12 percent said they would not. Only 8 percent of the contractors interviewed responded negatively about not reporting to ECP. Of

the negative reasons cited, 27 were for concerns about career or possible reprisal from management, and 11 were for concerns about ECP effectiveness. Fifteen respondents said they would "handle it myself" or "report it elsewhere."

While we believe the CRS and ECP are operating effectively, we believe that an opportunity exists to reduce further the relatively small percentage of employees and contractors who expressed a reluctance to report an I&H issue to CRS/ECP due to a perception of adverse impact if they did so.

The majority of employees and contractors surveyed appeared to have a general understanding of the purpose of CRS or ECP. In addition, most employees who had a basis for an opinion indicated their program's staff was effective. Of the employees, 40 percent of the responses said the primary purpose of the CRS is "an alternate path to management," and 23 percent of the responses said the primary purpose of the CRS is to "investigate or record nuclear safety issues." Only 3 percent of the respondents said CRS was ineffective in these roles. The remaining considered CRS to be effective or had no basis for opinion. Of the 211 employees we interviewed at WBN who knew about CRS, 17 employees had used it. Of these 17, 14 would use it again, and 2 respondents did not answer. The respondent who would not use CRS said CRS was unresponsive in providing feedback. (Please see Appendix C for further details of survey responses.)

Of the contractors, 17 percent of the responses said the primary purpose of the ECP is "an alternate path to management," and 35 percent of the responses said the primary purpose of the ECP is to "investigate or record nuclear safety issues." Only 6 percent of the respondents said ECP was ineffective in these roles. The remaining considered ECP to be effective or had no basis for opinion. Of the 355 employees we interviewed at WBN who knew about ECP, 19 employees had used it. Of these 19, 14 would use it again, and 4 respondents either did not respond or did not know if they would use ECP again. The one respondent who would not use ECP did not comment as to why. (Please see Appendix C for further details of survey responses.)

With respect to how well the respondents thought nuclear safety or quality problems are being resolved at WBN, 87 percent of the employees and the contractors at WBN who had an opinion thought the problems were being resolved well or very well. For those who said problems are not being resolved well, about one-half of the comments were related to unsatisfactory problem resolution, about one-third cited management and personnel problems, and about one-fifth were on budget considerations. (Please see Appendix D for further details of survey responses.)

Lastly, respondents were asked if they had any other comments they would like to add. The most frequent comments are highlighted in Appendix E.

The survey participants gave us four technical queries relative to WBN, which we passed on to the CRS. The CRS received each query and proceeded to handle each.

ANONYMOUS SURVEY FEEDBACK

We provided interviewees with an anonymous feedback questionnaire (see Appendix F) which gathered data about the interviewee's perceptions of the interview and confidentiality issues and which gave interviewees another opportunity to raise issues in a nonthreatening environment.

No comments were critical of the interviewer or expressed doubts about the confidentiality of their interview. Additionally, no comments raised issues relating to the safety or quality of the nuclear plant.

Of 118 comments made, 88 expressed appreciation for a well done interview and/or the chance to talk about the issues to a willing listener, 1 suggested a topic for future interviews, 16 involved issues that were peripheral to this review, 9 were concerned with management or budget issues, 3 were complimentary of the plant, and 1 complimented the CRS.

In our opinion, the tenor of the feedback suggests that the interviewees felt free to discuss the issues that were the focus of the interviews. (We have provided the text of these comments to CRS management.)

OPPORTUNITIES FOR IMPROVEMENT

One opportunity for improvement at WBN is to find ways to increase trust and confidence among the relatively small percentage of employees and contractors who do not feel free to report I&H issues to CRS/ECP for adverse reasons. Because most of the adverse reasons dealt with concerns about reprisal from supervisors, one could assume that individuals think their I&H concerns would get back to their own management. Therefore, improvements should focus on increasing assurances of confidentiality when using the program. For example, when the program is publicized or covered in employee training, the availability of confidentiality should be highlighted.

A second opportunity for improvement at WBN is to ensure that the contractors' ECP exhibit the necessary independence from contractor management. One way to achieve this goal would be to select an ECP manager who would be perceived as independent from the contractor's line management. Alternatively, the availability of CRS to contractor personnel could be more highly publicized. A third option would be to determine whether the contractors' employment level on-site is large enough to justify having an ECP.

The third opportunity for improvement at WBN is to ensure, where appropriate, that safety questions are reviewed by someone with sufficient independence from the affected plant management. For example, if plant management selects individuals to fill certain employment roles and the qualifications of those individuals are questioned, then a review of qualifications should be undertaken by professionals outside of the plant's management chain.

TVA Nuclear Safety and Quality Concerns Questionnaire

Interviewer: _____ No. _____ Site: _____
 Job Title: _____ Contractor: _____
 Years at TVA _____ Time in TVA Nuclear _____

1) • If you had a nuclear safety or quality problem, would you report it? Y ___ N ___ M ___ NR ___ O ___

If no, why not? _____

• If you would report a problem, to whom would you first report? (... and second, ... and third?)

- | | |
|--|-------|
| • Work Order | _____ |
| • Corrective Action Process | _____ |
| • Fellow Worker | _____ |
| • Immediate Supervisor or Foreman | _____ |
| • Your Supervisor's Management | _____ |
| • Contractor's Site Management | _____ |
| • TVA's Site Management | _____ |
| • Contractor's Employee Concerns Program | _____ |
| • TVA Concerns Resolution Staff | _____ |
| • Human Resources | _____ |
| • TVA Office of Inspector General | _____ |
| • Nuclear Regulatory Commission | _____ |
| • Department of Labor | _____ |
| • Other _____ | _____ |

2) • Would you report a nuclear safety or quality problem to your Supervisor? Y ___ N ___ M ___ NR ___ O ___

If no, why not? *(Note: Do not read options to interviewee: Use as a convenient way to record data.)*
 Fear of reprisal from Supv. ___ Schedule pressures ___ Hurt my career ___
 Mgmt. ineffective to fix it ___ Report it elsewhere ___ No response ___
 Other _____

• Have you ever raised a safety or quality problem with your supervisor? Y ___ N ___ M ___ NR ___ O ___

If yes: Approximately when? _____
 Was your supervisor responsive and did he or she get the problem evaluated thoroughly? Y ___ N ___ M ___ NR ___ O ___

Would you report a problem through your supervisor again? Y ___ N ___ M ___ NR ___ O ___

If no, why not? _____

KEY: Y = yes, N = no, M = maybe or it depends, NR = no response or don't know, O = other

TVA Nuclear Safety and Quality Concerns Questionnaire
(page 2)

3) Did you know that your employer has an **Employee Concerns Program (ECP)**?
Y ___ N ___ M ___ NR ___ O ___

(If no, ask "since you don't know about ECP, perhaps there is a weakness in their training program that we need to identify and fix. Have you had GET or other orientation training?" Yes ___ No ___, and skip question 4, below.)

Would you report nuclear safety or quality problems to your **Employee Concerns Program**?
Y ___ N ___ M ___ NR ___ O ___

If no, why not? (Note: do not read options to interviewee; use as a convenient way to record data.)

Fear of reprisal from Supv. ___ Schedule pressures ___ Hurt my career ___
ECP ineffective to fix it ___ Report it elsewhere ___ No response ___
ECP not independent enough to accomplish its duties? ___ Other _____

Have you ever used ECP?
Y ___ N ___ M ___ NR ___ O ___

If yes, what year did you use the program (date: _____) and please describe the problem?

Safety/Technical ___ Mgmt & Personnel ___ Intimidation & Harassment ___ EEO ___
Other _____

Was ECP responsive and did they get the problem evaluated thoroughly?
Y ___ N ___ M ___ NR ___ O ___

Was the feedback you received adequate and timely?
Y ___ N ___ M ___ NR ___ O ___

Would you report a problem through ECP again?
Y ___ N ___ M ___ NR ___ O ___

If no, why not? _____

4) What do you consider to be among the primary purposes of the ECP?

(Note: do not read options to interviewee; use as a convenient way to record data.)

___ Alternate path for those who don't go to line mgmt.	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Arbitrator or additional path after going to line mgmt.	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Raise Quality issues	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Raise "technical" issues	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Record nuclear safety concerns	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Raise concerns to Site Management	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Satisfy the Nuclear Regulatory Commission	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Investigate nuclear safety concerns	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Direct concerns toward the best resolution	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Handle Management and Personnel issues	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Provide a safe harbor to register concerns	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Handle concerns in confidence	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Report Intimidation and Harassment issues	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Catch concerns before they become problems	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___
___ Other _____	Effec. ___ Ineffec. ___ No Opin./Dir. Knowledge ___

KEY: Y = yes, N = no, M = maybe or it depends, NR = no response or don't know, O = other

TVA Nuclear Safety and Quality Concerns Questionnaire
(page 3)

5) Do you feel free to raise Intimidation and Harassment concerns with ECP? Y ___ N ___ M ___ NR ___ O ___

If no, why not? (Note: do not read options to interviewee: use as a convenient way to record data.)

- Fear of reprisal from Supv. ___ Schedule pressures ___ Hurt my career ___
 ECP ineffective to fix it ___ Report it elsewhere ___ No response ___
 ECP not independent enough to accomplish its duties? ___ Other _____

6) Do you know that TVA has a Concerns Resolution Staff (CRS) for reporting employee concerns? Y ___ N ___ M ___ NR ___ O ___

(If no, ask "since you don't know about CRS, perhaps there is a weakness in their training program that we need to identify and fix. Have you had GET or other orientation training?" Yes ___ No ___.)

• Would you report nuclear safety or quality problems to the TVA Concerns Resolution Staff? Y ___ N ___ M ___ NR ___ O ___

If no, why not? (Note: do not read options to interviewee: use as a convenient way to record data.)

- Fear of reprisal from Supv. ___ Schedule pressures ___ Hurt my career ___
 CRS ineffective to fix it ___ Report it elsewhere ___ No response ___
 CRS not independent enough to accomplish its duties? ___

Other _____

• Have you ever used the CRS program? Y ___ N ___ M ___ NR ___ O ___

If yes, what year did you use the program (date: _____) and please describe the problem?

- Safety/Technical ___ Mgmt & Personnel ___ Intimidation & Harassment ___ EEO ___
 Other _____

Was CRS responsive and did they get the problem evaluated thoroughly? Y ___ N ___ M ___ NR ___ O ___

Was the feedback you received adequate and timely? Y ___ N ___ M ___ NR ___ O ___

Would you report a problem through CRS again? Y ___ N ___ M ___ NR ___ O ___

If no, why not? _____

7) In your judgment, considering all the possible ways to get nuclear safety and quality problems fixed, how well are problems being resolved at Browns Ferry?

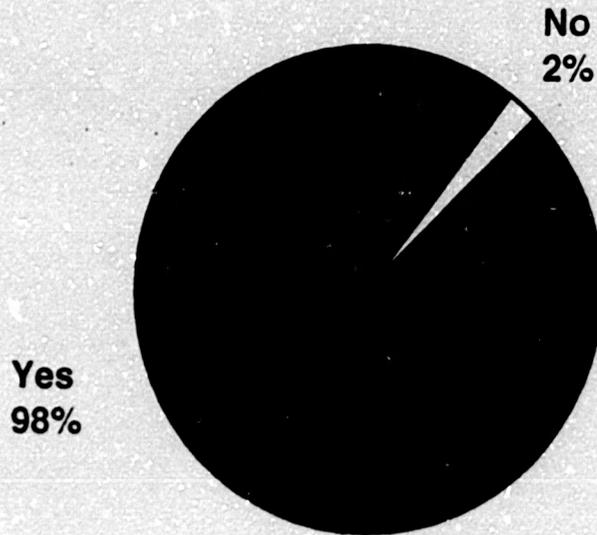
Very good ___ Good job ___ Fair job ___ Poor job ___ Very poor ___ No Opin./Dir. Knowledge ___

Please explain and include specific examples: _____

8) Do you have any additional comments? _____

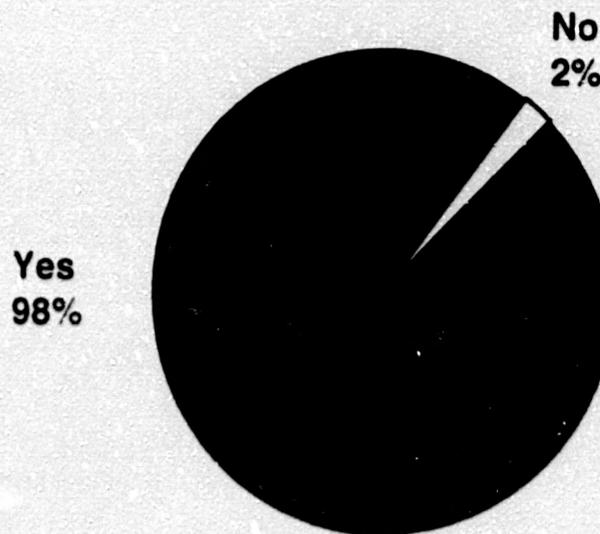
**DO WBN EMPLOYEES/CONTRACTORS FEEL FREE TO RAISE
NUCLEAR SAFETY ISSUES TO MANAGEMENT?**

WBN EMPLOYEES



N = 215 Interviewees

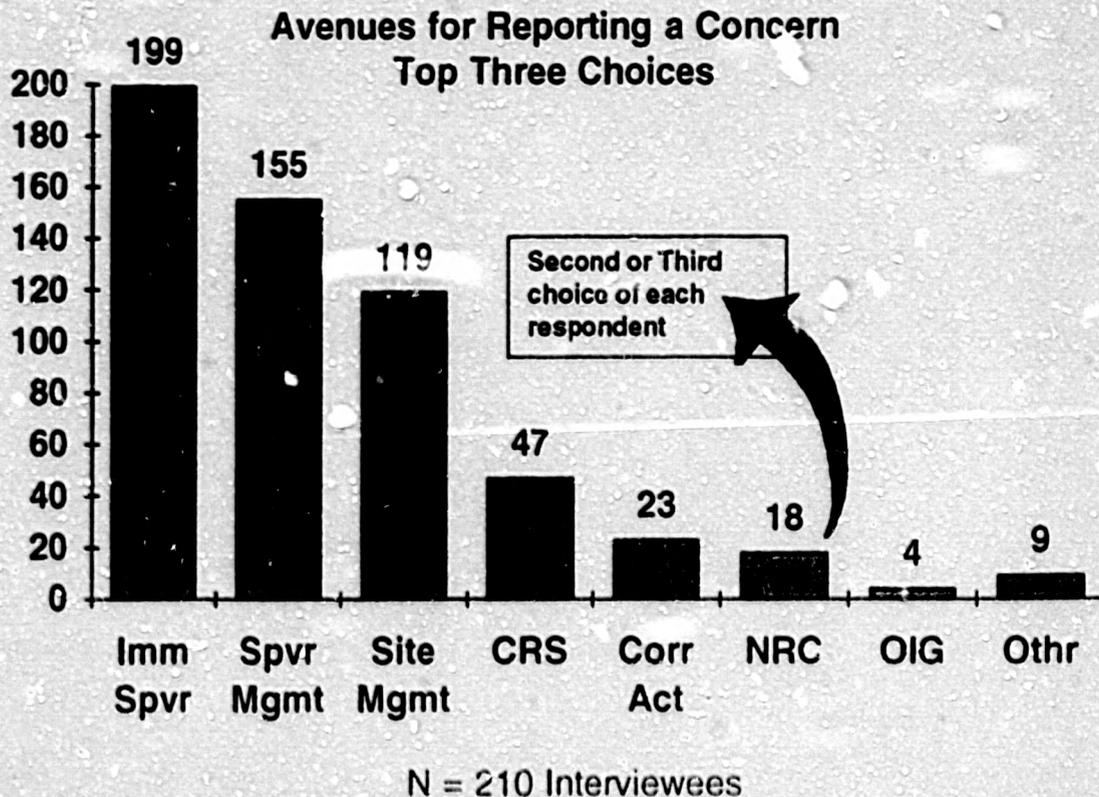
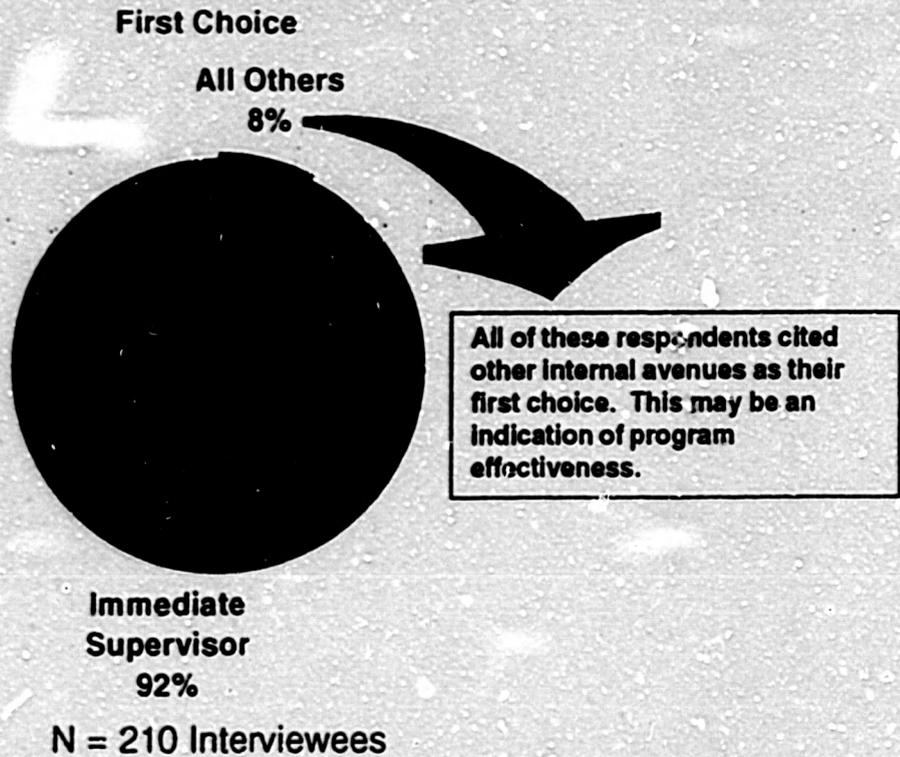
WBN CONTRACTORS



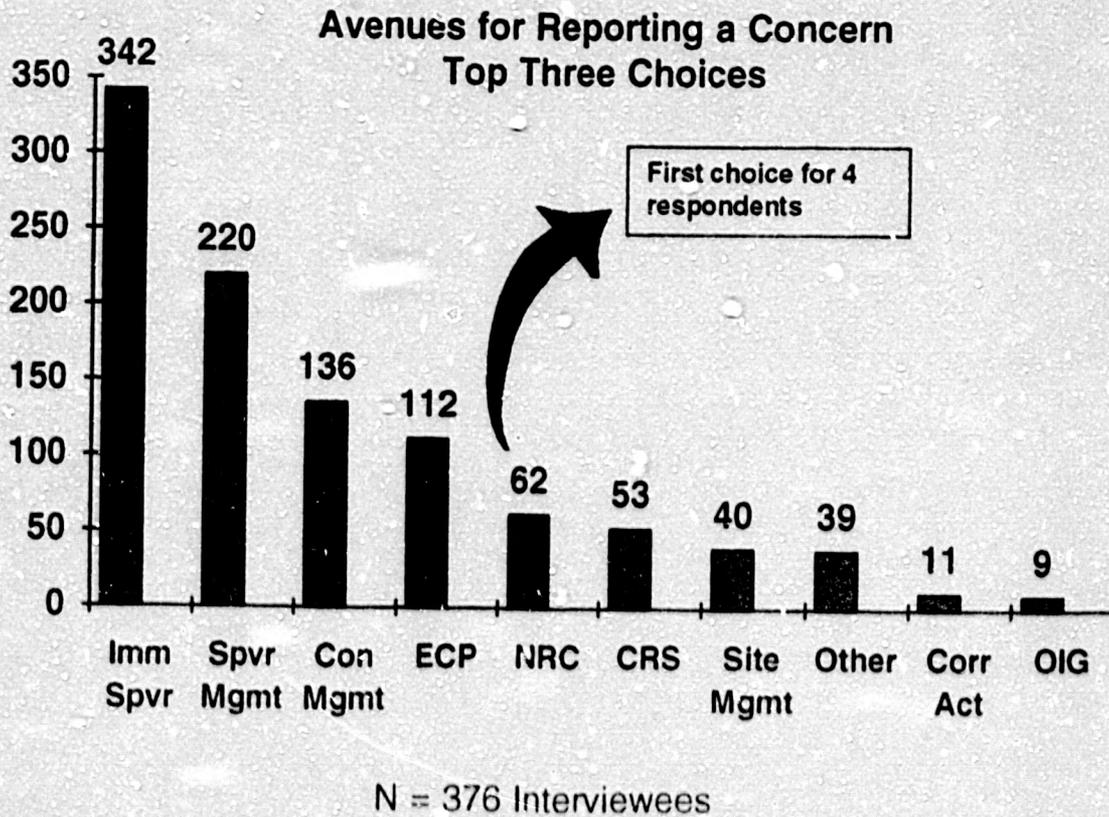
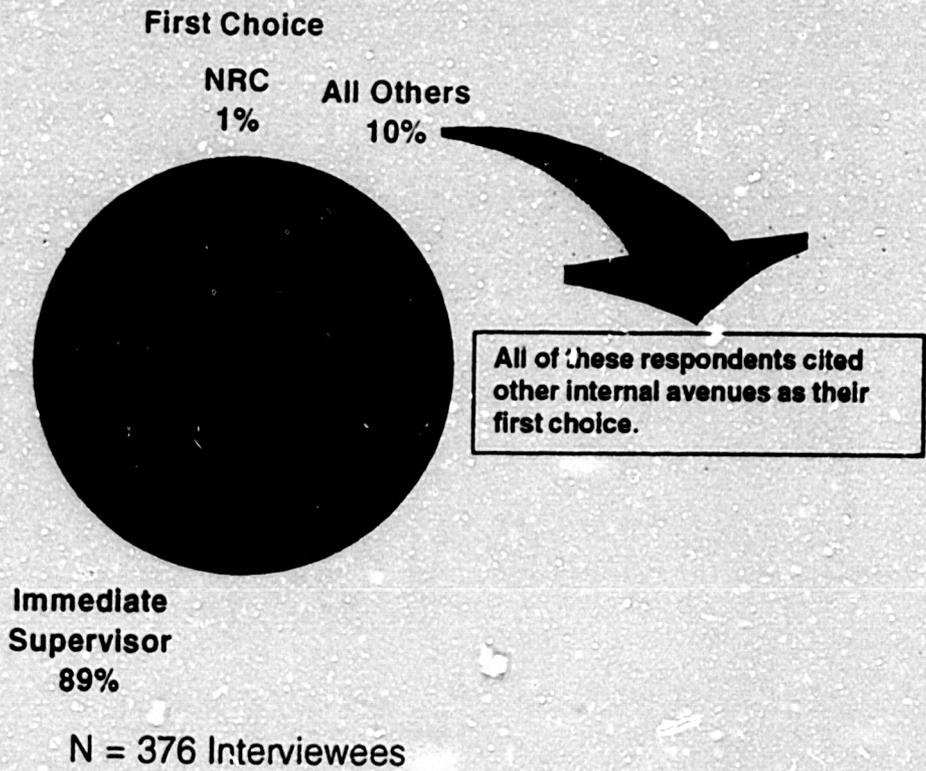
N = 379 Interviewees

TO WHOM WOULD YOU REPORT A CONCERN?

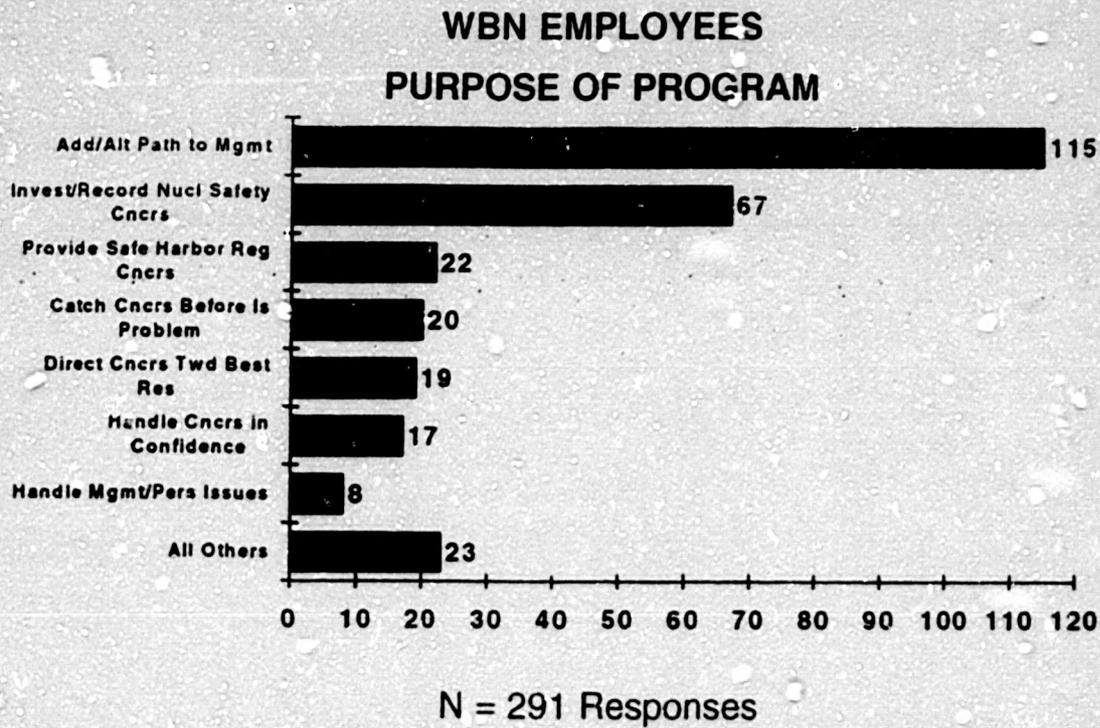
WBN EMPLOYEES



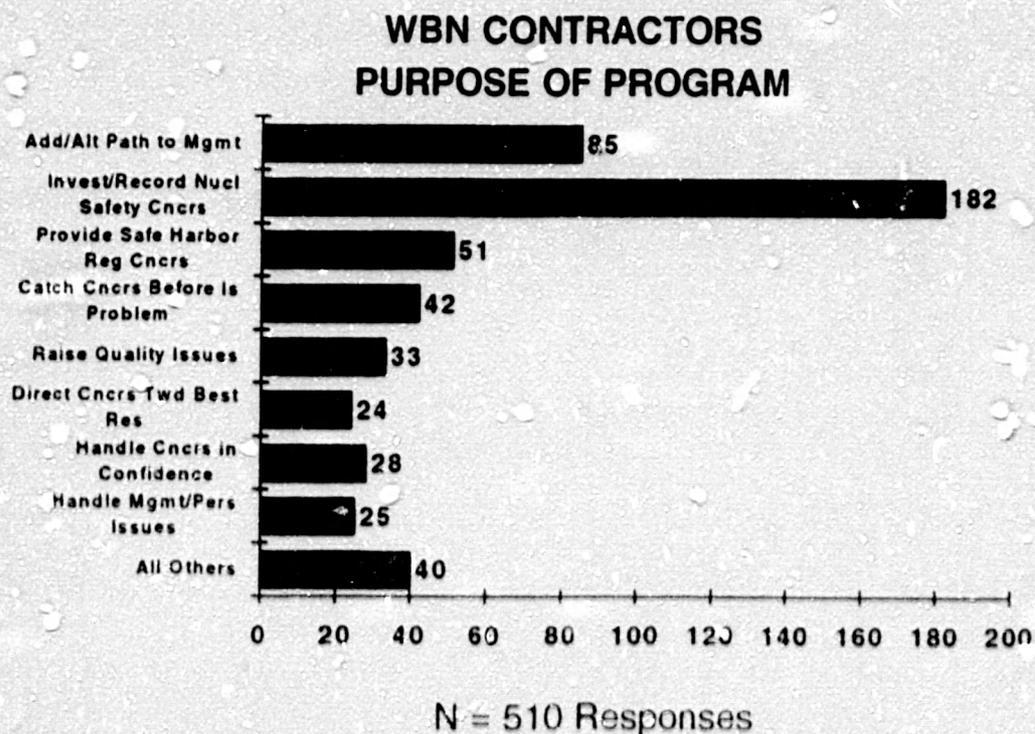
TO WHOM WOULD YOU REPORT A CONCERN? WBN CONTRACTORS



THE MAJORITY OF EMPLOYEES UNDERSTAND CRS'S ROLE

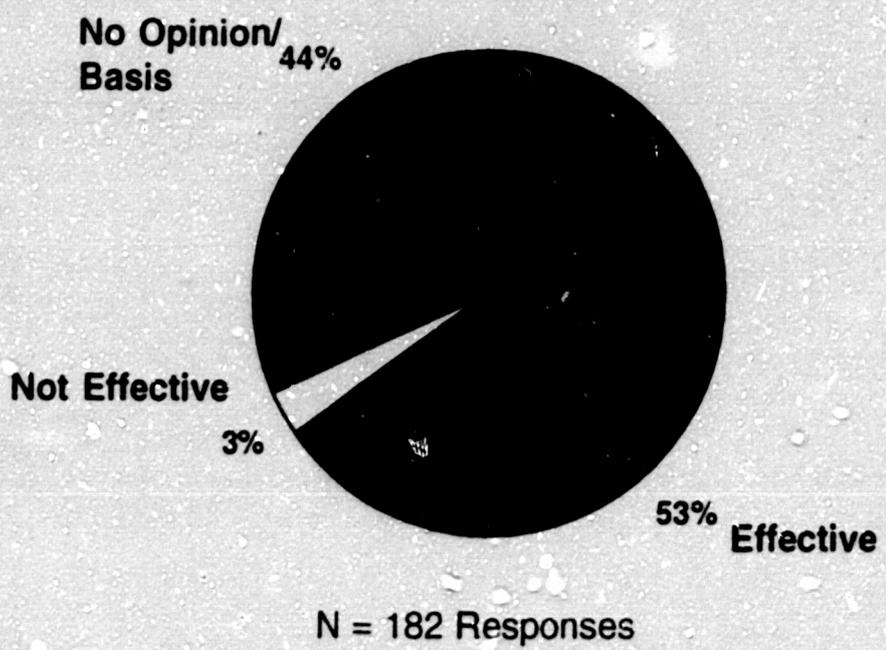


THE MAJORITY OF CONTRACTORS UNDERSTAND ECP'S ROLE



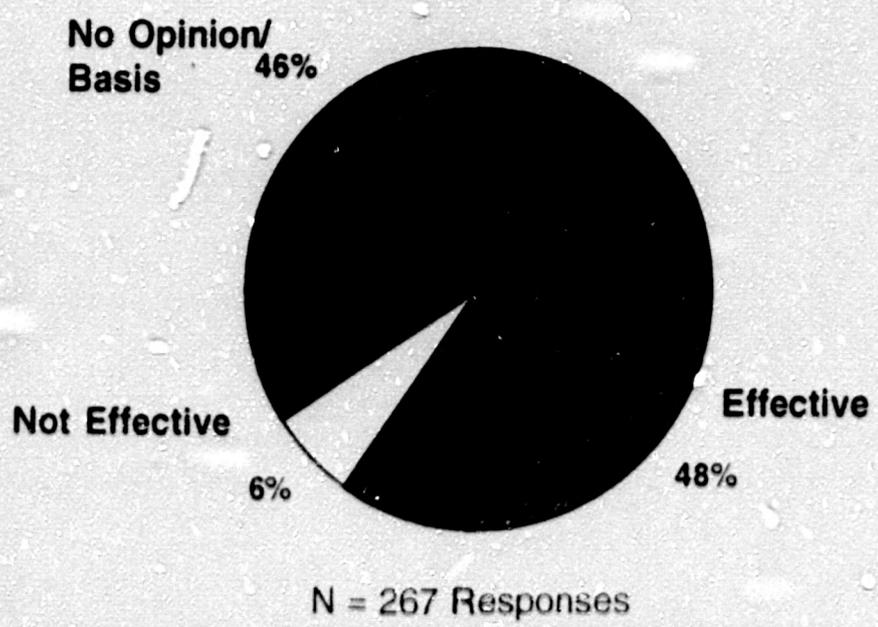
**PERCEPTION OF CRS EFFECTIVENESS AS AN ALTERNATIVE
PATH TO MANAGEMENT OR FOR INVESTIGATING NUCLEAR
SAFETY CONCERNS**

WBN EMPLOYEES



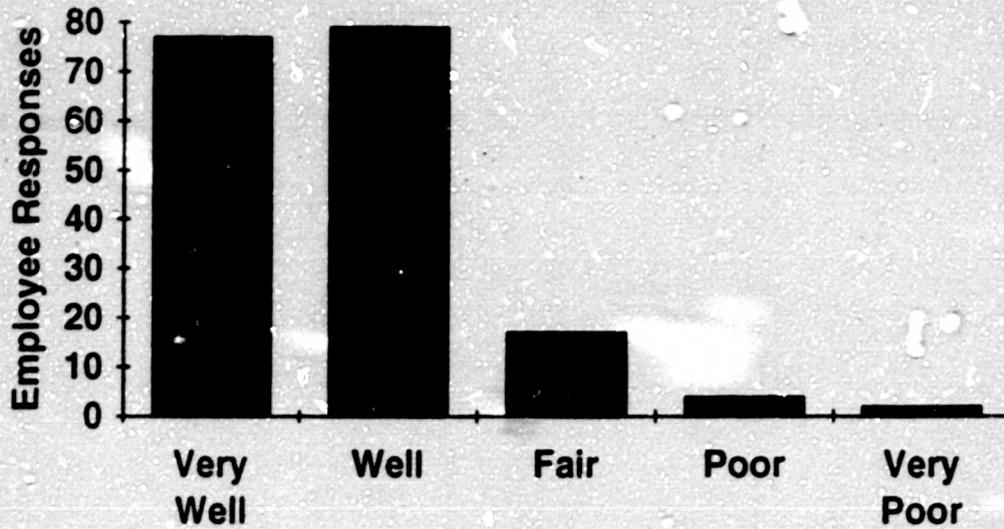
**PERCEPTION OF ECP EFFECTIVENESS AS AN ALTERNATIVE
PATH TO MANAGEMENT OR FOR INVESTIGATING NUCLEAR
SAFETY CONCERNS**

WBN CONTRACTORS



HOW WELL PROBLEMS ARE BEING RESOLVED

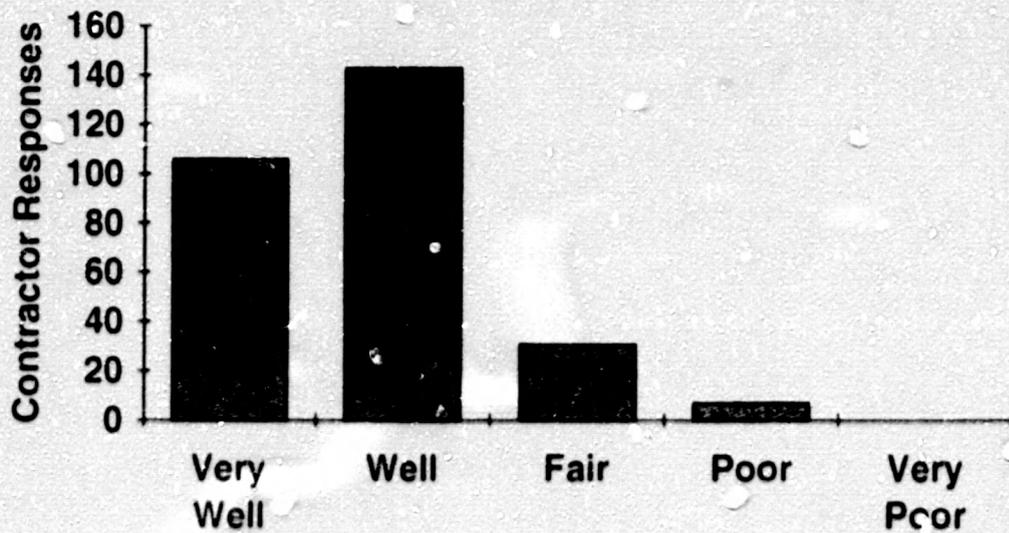
WBN EMPLOYEES



N = 210 Interviewees

30 of the respondents indicated they did not have enough experience with the program to formulate an opinion.

WBN CONTRACTORS



N = 379 Interviewees

90 of the respondents indicated they did not have enough experience with the program to formulate an opinion.

SUMMARY OF COMMENTS

1. **12** comments were complimentary of CRS or ECP.
2. **35** comments were critical of the program due to dissatisfaction with management or personnel issues.
3. **8** comments were critical of CRS or ECP.
4. **7** comments suggested improvements to the program or asked for more information. These suggestions were provided to the CRS.
5. **6** comments expressed concerns about adequate budget.
6. **42** comments were complimentary of plant management or plant operations.
7. **5** comments expressed concerns that equipment or material might not be adequate.

OIG Interviewer Feedback Questionnaire

The interviewer told me my comments would be confidential.

Strongly Agree ___ Agree ___ Neutral ___ Disagree ___ Strongly Disagree ___

The interviewer treated me with courtesy and respect.

Strongly Agree ___ Agree ___ Neutral ___ Disagree ___ Strongly Disagree ___

The interviewer seemed interested in what I had to say.

Strongly Agree ___ Agree ___ Neutral ___ Disagree ___ Strongly Disagree ___

The interviewer encouraged me to say whatever I wanted while answering the questions.

Strongly Agree ___ Agree ___ Neutral ___ Disagree ___ Strongly Disagree ___

Anything else you would like to tell the interviewer?
