



QA: N/A

May 19, 2003

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CONTRACT NO. DE-AC28-01RW12101 – SAFETY CONSCIOUS WORK ENVIRONMENT  
SURVEY (SCWE)

The purpose of this letter is to provide you with a copy of the recently conducted Safety  
Conscious Work Environment survey conducted by Bechtel SAIC Company, LLC (BSC) on  
behalf of the Yucca Mountain Project.

If you have any questions, please contact me at 295-0506.

A handwritten signature in black ink, appearing to read "John T. Mitchell, Jr.", written over a horizontal line.

John T. Mitchell, Jr.  
President and General Manager

19 MAY '03  
\_\_\_\_\_  
Date Signed

RFP:sjt-0519037366

Enclosure:  
SCWE Survey

## Survey Development

As a part of the Management Improvement Initiatives and the Safety-Conscious Work Environment, the Project has conducted the first in a series of quarterly surveys to assess our performance. This valuable feedback was intended to help us gauge whether we have been effective in our implementation of a safety-conscious work environment. The brief, 2-page survey consisted of 23 questions. Questions used in the Safety-Conscious Work Environment Survey were based directly on a sample survey created by the Nuclear Energy Institute (NEI) 97-05. They are consistent with typical questions used throughout the nuclear industry.

## Demographics

Demographics were used in this survey to categorize responses and quantify data. The two categories were employee type, including management and represented categories, and work location, including Summerlin, Area 25, DOE, East Coast, and National Labs.

## Survey Categories

The survey questions were grouped into five distinct categories representing the major topics of the YMP Safety-Conscious Work Environment. The survey categories are as follows:

1. **Safety Conscious Work Environment:** Evaluates the employee's awareness of the freedom to raise nuclear safety, radiological safety, industrial safety, and quality concerns without the fear of harassment, intimidation, retaliation, or discrimination. Assesses the employee's understanding of the need for open lines of communication between the employee and management.
2. **Employee Concerns Programs:** Examines employee's knowledge of OCRWM Concerns and BSC Employee Concerns Programs, including how and when to raise a concern, to whom concerns should be raised first, how to elevate the concern, and the confidentiality and protection offered by the Employee Concerns Programs.
3. **Corrective Action Program:** Measures the level of confidence employees have in the ability of the current Corrective Action Program to effectively resolve concerns in a timely manner. Also assesses the perception of an effective resolution of potential safety and quality issues handled by the Corrective Action Program.
4. **Employee Responsibility:** Gauges the level to which employees understand the role they individually play in a Safety Conscious Work Environment, including the responsibility to raise concerns and elevate them when necessary. Also measures the likelihood of the employee taking concerns above their direct supervisor, if the concern is unsatisfactorily handled.
5. **Management Expectations:** Evaluates the employee's perception of management's ability to clearly communicate expectations. Evaluates the employee's perception of management's values regarding the Employee Concerns Programs, Corrective Action Programs, and the promotion of a Safety-Conscious Work Environment.

## Dual Indicator Design

The survey was double-scored for each question presented. The first indicator was "Importance", referring to the level of significance and value the employee places on the question. The second indicator was "Occurrence". Occurrence in the survey referred to how satisfied the employee was, or level of satisfaction with, the question. The purpose of a dual indicator is to determine the level of importance the employee places on certain aspects of a Safety-Conscious Work Environment and the level of engagement the employee feels without fearing retribution. The indication is provided by the scaled value but also in the difference between the Importance and Occurrence values.

## Survey Administration

The BSC Safety-Conscious Work Environment Survey was administered to a randomly selected 25 percent of all Project workers, including BSC, DOE, subcontractor, and National Lab employees. All levels of the organization were included. Surveys were mailed to the selected participants on March 30, 2003, to be returned by April 18, 2003. A response rate of 41 percent was attained with a 37 percent effective population of usable data, i.e., legible, completed. This return ratio is sufficient to provide BSC with a reliable measure of employee attitudes and perceptions regarding a Safety-Conscious Work Environment. The results are also in concert with other project performance indicators.

## Scoring

For each theme, the average response rating (total of all scores for a given theme divided by the number of total responses within that same theme) was calculated for all represented demographics. Data gathered was analyzed for statistical significance and accuracy by Six Sigma Black Belts and was determined to be valid for the Yucca Mountain Project.

The total percentage of all reported scores for Importance and Occurrence were calculated to reveal that 93 percent of all employees surveyed believe that the survey themes are *Very Important to Critically Important*. It also revealed that 61 percent of the employees surveyed perceived these themes to be practiced at BSC. A further breakdown of the numbers by theme show the following:

- The greatest discrepancy between the Importance and Occurrence measures was in the Corrective Action Program. Within that theme, Importance rated at 91 percent and Occurrence rated at 49 percent. This indicates that employees are aware of the Corrective Action Program's Importance and feel it is ineffective in achieving its purpose.
- The smallest discrepancy theme, and also the theme with the highest overall scores for both Importance and Occurrence, was Employee Responsibility. Within the Employee Responsibility Theme, Importance was rated at 95 percent and Occurrence was rated at 73 percent. These figures suggest that employees understand their roles and responsibilities as individuals in a nuclear environment. However two-thirds feel hesitant to raise concerns, though they know they are required to do so.
- The results show that 92 percent of employees surveyed feel that the Concerns Programs (BSC and OCRWM) are *Very to Critically Important*; however, only 66 percent are familiar with the Concerns Programs or feel free from reprisal for using the concerns programs available to them.

- The Safety-Conscious Work Environment Theme scored highly in the Importance theme with 92 percent, indicating that employees surveyed believe a Safety-Conscious Work Environment is *Very to Critically Important* for the future of the Project. The Occurrence of a Safety-Conscious Work Environment was at 55 percent indicating that the Project is only marginally effective in implementation.
- The Management Expectations theme scored the second highest in Importance to the surveyed employees, at 93 percent. The Occurrence for this theme was at 63 percent indicating that management communications are progressing favorably.

Please refer to the following graphical representations for further information.

### Percentage Ratings vs. Numerical Data

It is important to differentiate between the two indicators provided, Favorable/Unfavorable Percentage and Actual Score, or Scale.

Percentage Indicators take the number of favorable responses and turn them into a percentage of the total collected. For example, 92 percent of the employees surveyed found the Safety-Conscious Work Environment to be *Very* or *Critically Important*. Another way of representing this same data is numerically. In this case, the average Actual Score for the Importance of the Safety Conscious Work Environment was 4.60. This number falls directly between the 4 (*Very*) and the 5 (*Critically*) *Important* indicators. Another example of this is the Occurrence rating for Theme 4, Employee Responsibility. The Percentage is rated at 73 percent, meaning that 73 percent of employees surveyed perceived the employees at BSC were performing their responsibilities as nuclear workers. The average score for the Employee Responsibility Occurrence indicator was 3.87, falling between the 3 (*Sometimes*) and the 4 (*Often*). The results reflect both percentage and numerical indicators.

### Indicated Trends

#### Positives

- Employees understand the importance of SCWE (more than 90 percent indicated every aspect of SCWE is important).
- Employees understand that they are responsible for identifying problems and adverse conditions (85 percent agreed).
- Employees said management's expectations regarding SCWE have been clearly communicated (more than 80 percent agreed).

#### Negatives

- 55 percent of employees surveyed fear retaliation for raising concerns.
- 55 percent don't believe a culture exists that is conducive to raising concerns.
- 60 percent don't believe that the resolution of safety and quality issues through the Corrective Action Program is effective.
- 55 percent said management expectations are not reflected in performance reviews, rewards, or discipline.

### Written Comments

Provisions were made for the employee receiving the survey to make additional written comments if desired. Written comments were provided regarding personal working environment, management, work loads, and feelings and experiences within a culture striving toward safety consciousness. A few of the comments (paraphrased) have been provided below:

"CAP is sometimes effective and rarely timely."

"Have not seen visible evidence w/in Summerlin of discipline imposed for violating SCWE."

"I feel very free to raise any issue to my boss – he is dedicated to safety and is extraordinary."

"CARs take too long to close"

"Though there are pockets of excellent management, fear of retaliation is rampant in middle and first level management."

"I have raised concerns to my management and have not gotten any response."

"I believe the Employee Concerns Programs and SCWE programs are critically important and it is good to know they exist."

"While SCWE has been verbally communicated, it is not being demonstrated by management."

"Should issues arise at work it is a comfort to know that I have options & objective solutions. This [ECP] Program is very valuable to us."

"Functional Managers are unable to address problems."

"It seems that we are moving forward, toward a nuclear safety environment. Me and my fellow workers are doing our best!"

"My manager supports this [SCWE] culture, but his management has been non responsive."

"I believe that BSC staff has strong belief and understanding of SCWE: I know there are craft employees that don't believe in SCWE and don't care enough to listen."

"If you have an opinion other than theirs [management's], you are ignored."

"The Corrective Action Program (to include root cause and lessons learned), over the past 10 years, has suffered a lot of recurrence. Consequently, the programs' effectiveness is in doubt."

"To write these things I have in this paper in the clear would adversely affect management's view of me and doubtless be detrimental to my future with BSC."

## Executive Summary

### Safety Conscious Work Environment Survey

May 7, 2003

In support of the Management Improvement Initiatives and in conformance with the BSC Management Plan, BSC conducted a Safety Conscious Work Environment (SCWE) Survey.

The purpose of the SCWE survey was to evaluate the effectiveness of the implementation of a SCWE by BSC, DOE and appropriate subcontractors. This survey was conducted using questions typical to those used in the nuclear industry and was administered to 25 percent of the YMP population on March 30, 2003. The survey will be repeated quarterly to a revolving 25 percent of employees in order to monitor and trend survey results over time.

The survey indicates the following trends:

#### Positives

- Employees understand the importance of SCWE (more than 90 percent indicated every aspect of SCWE is important).
- Employees understand that they are responsible for identifying problems and adverse conditions (85 percent agreed).
- Employees said management's expectations regarding SCWE have been clearly communicated (more than 80 percent agreed).

#### Negatives

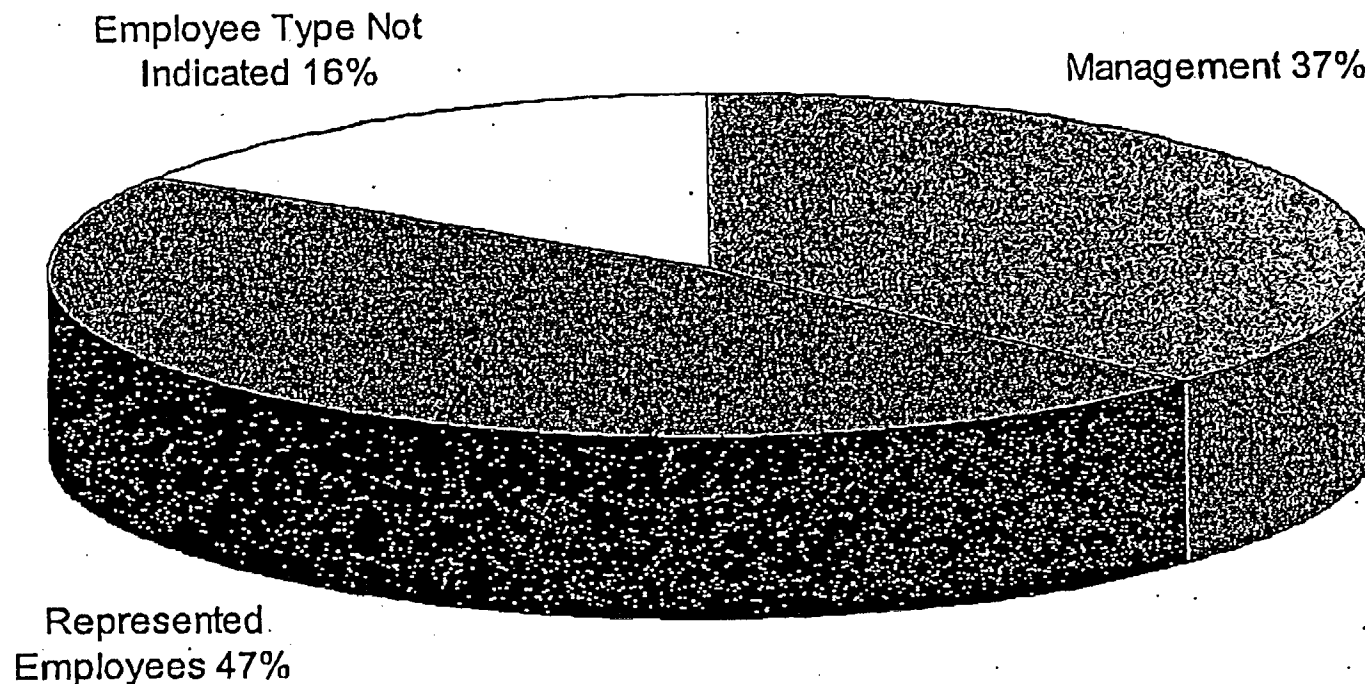
- 55 percent of employees surveyed fear retaliation for raising concerns
- 55 percent don't believe a culture exists that is conducive to raising concerns
- 60 percent don't believe that the resolution of safety and quality issues through the Corrective Action Program is effective
- 55 percent said management expectations are not reflected in performance reviews, rewards, or discipline.

With these results, senior management should determine the actions necessary to address these results so performance can be monitored in the upcoming surveys.



# March 2003 SCWE Survey Results

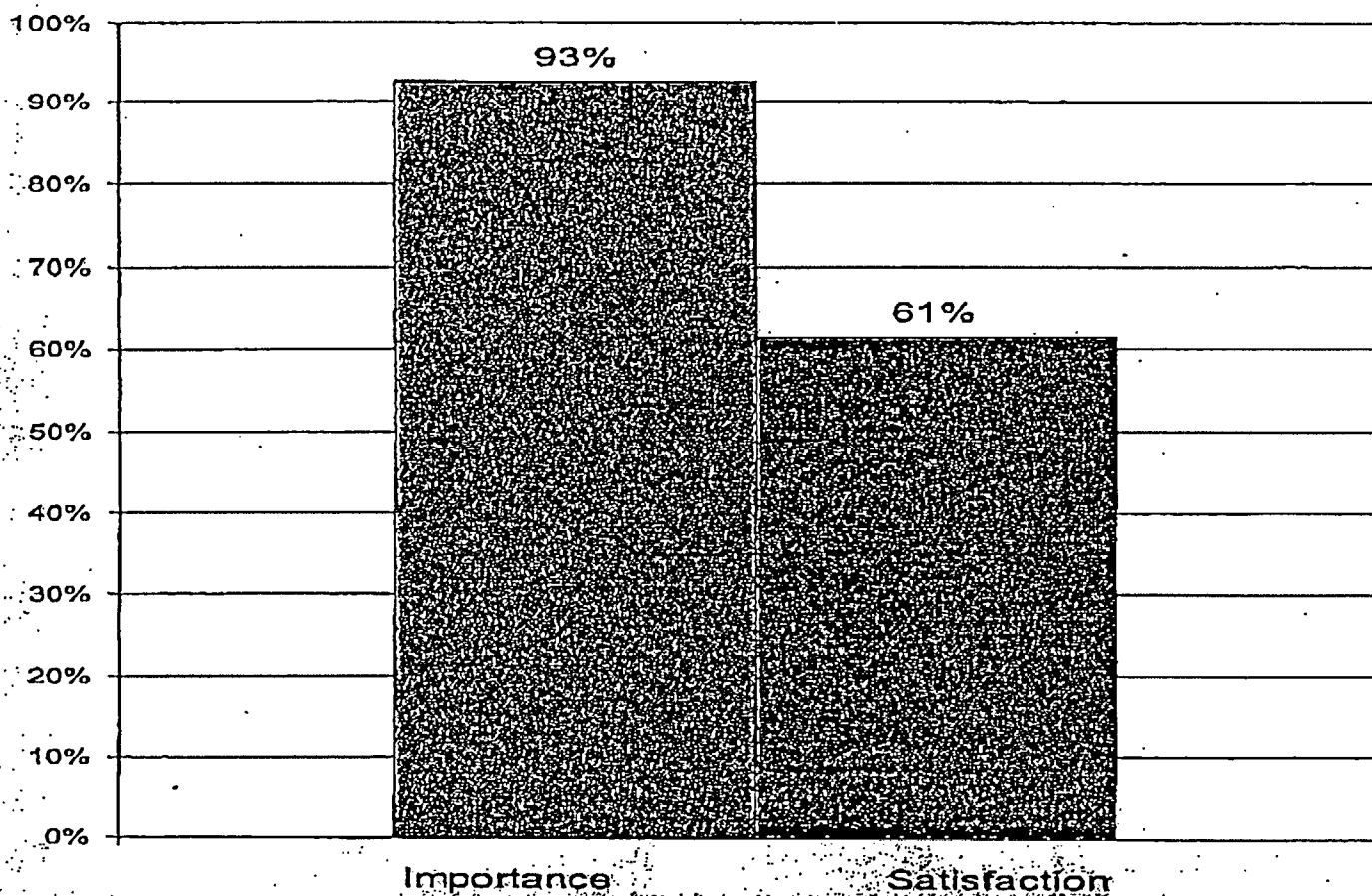
## Results Make-Up by Employee Type





# March 2003 SCWE Survey Results

## Total Percent Importance and Satisfaction

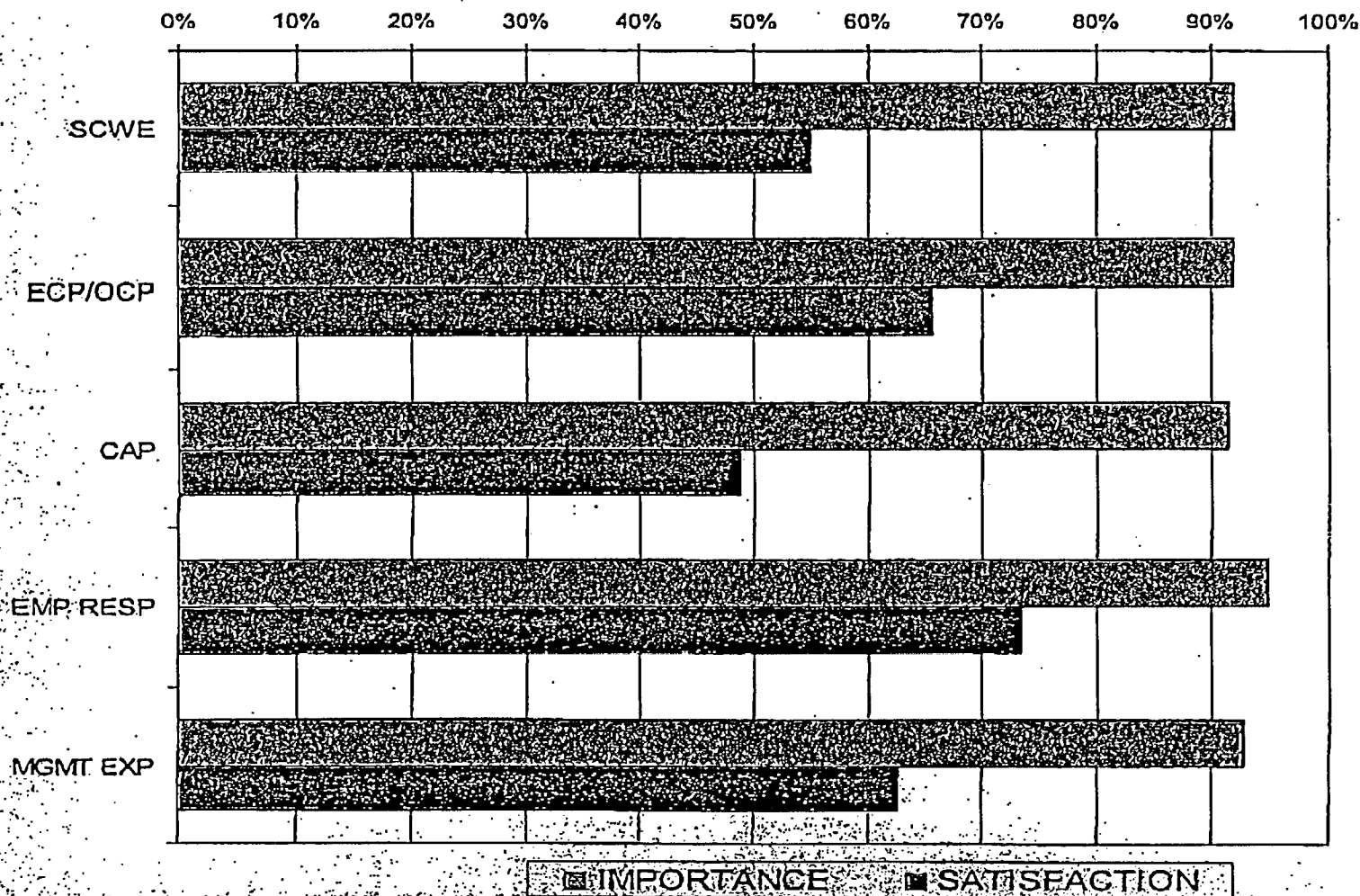






# March 2003 SCWE Survey Results

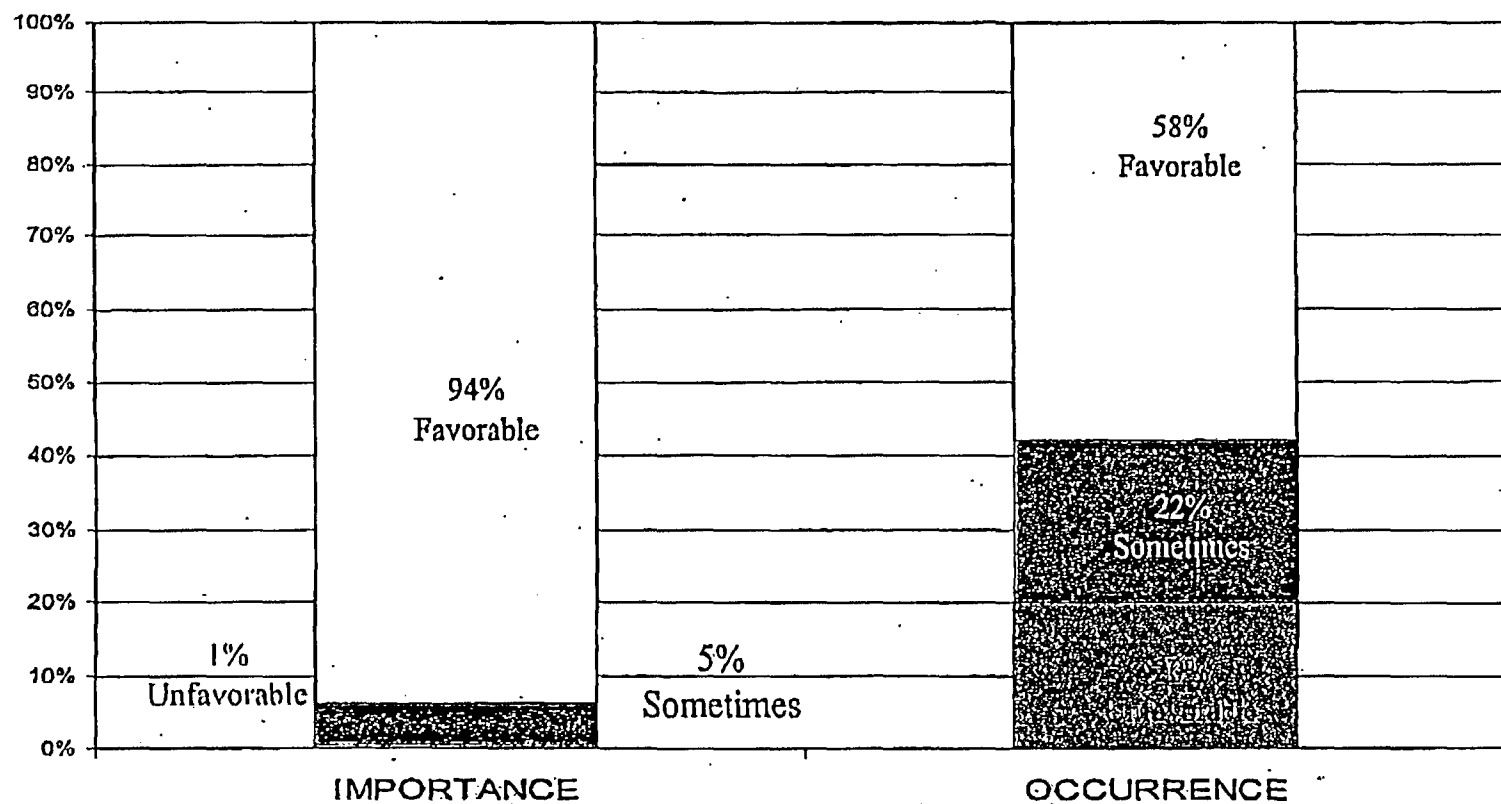
## Importance and Satisfaction by Theme





# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment

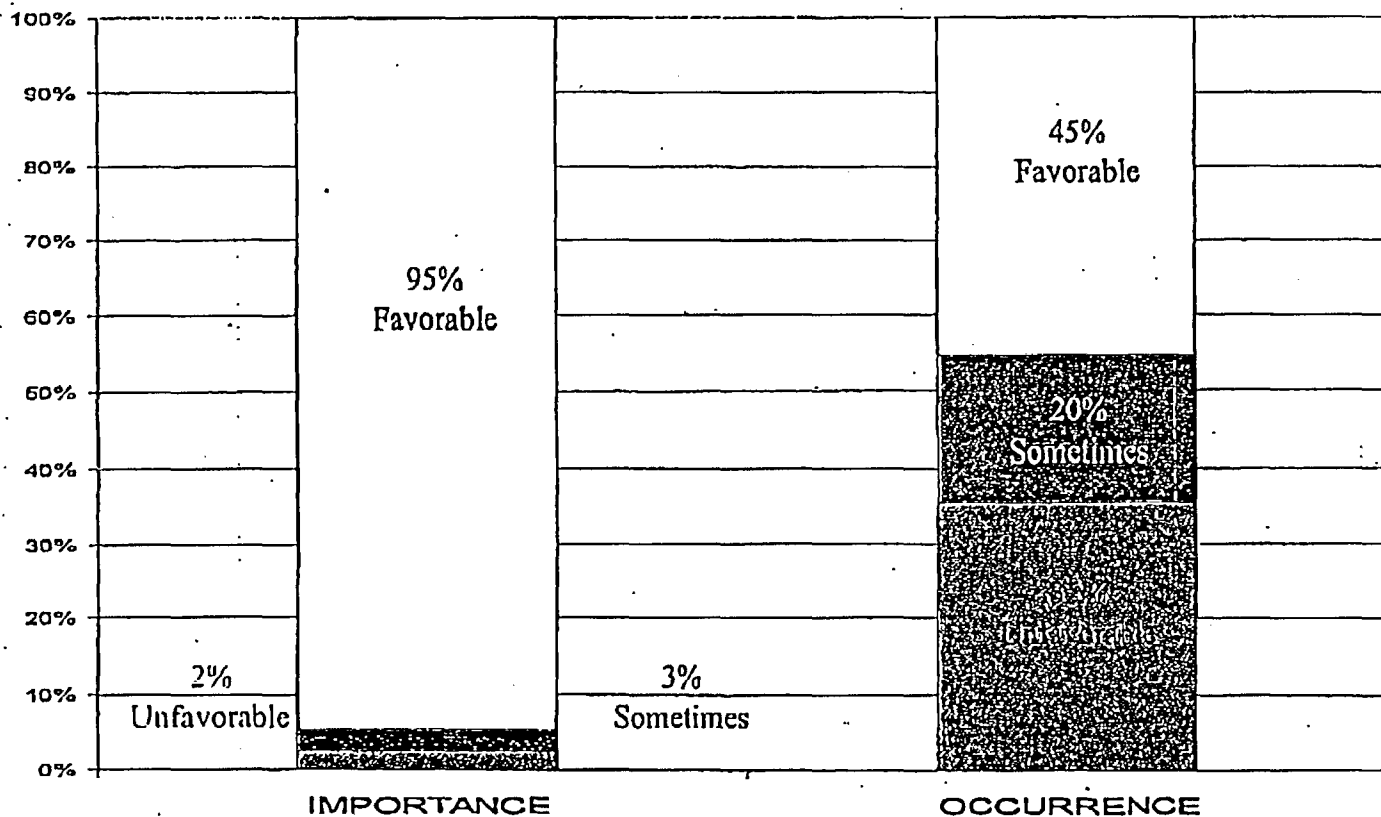


QUESTION 1: I feel free to approach management regarding any concern.



# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment

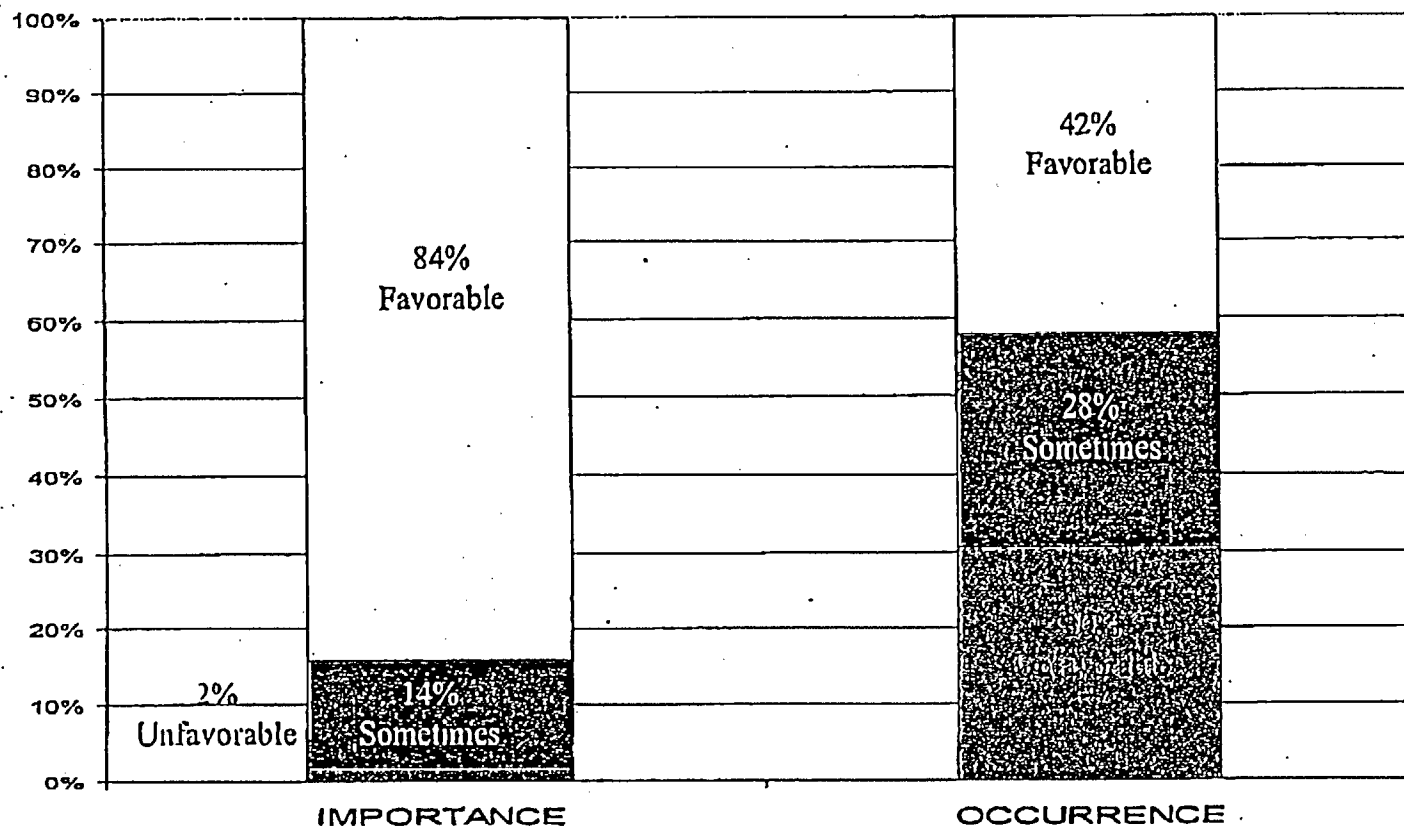


QUESTION 2: I believe I can raise any concern (nuclear safety, radiological safety or quality) without fear of retaliation.



# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment

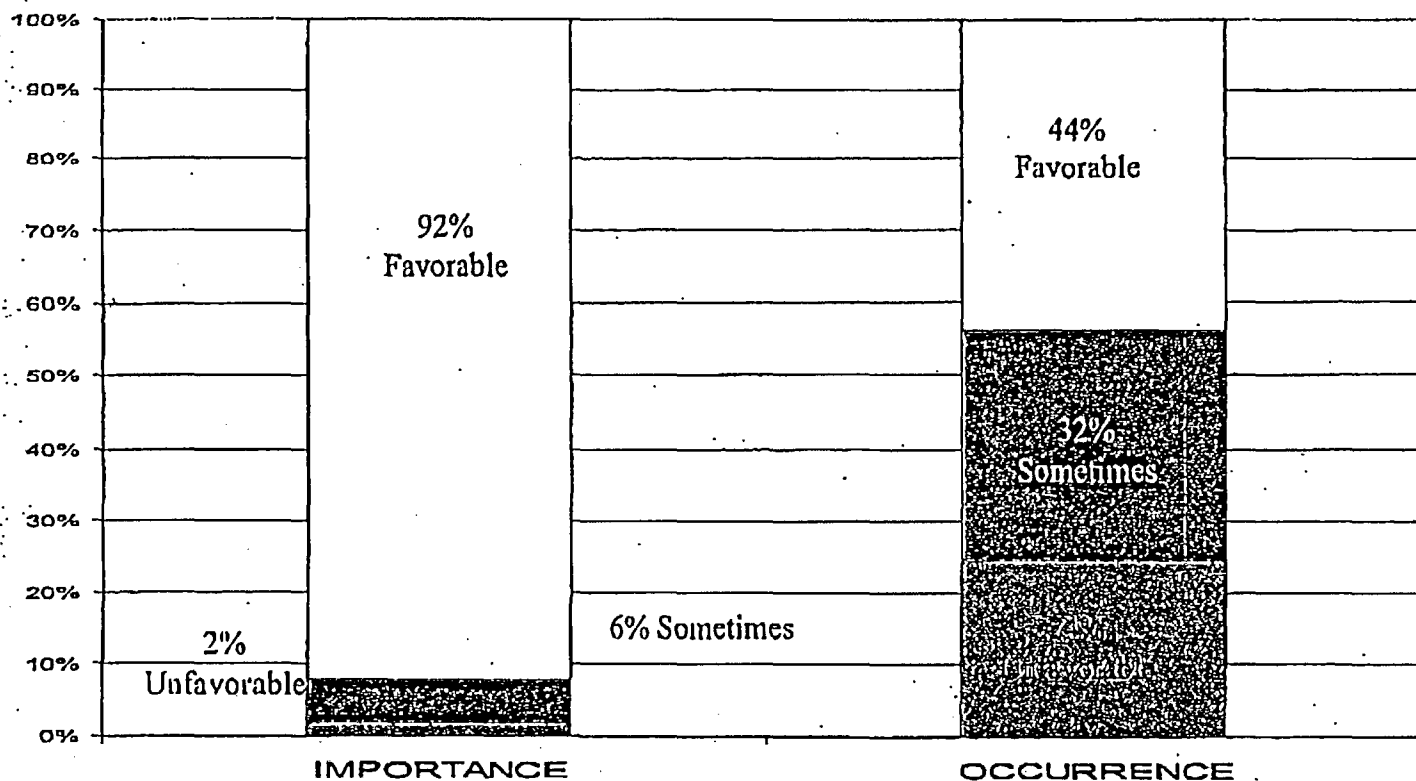


QUESTION 3: I believe that if my management made a non-conservative decision, I could challenge that decision.



# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment

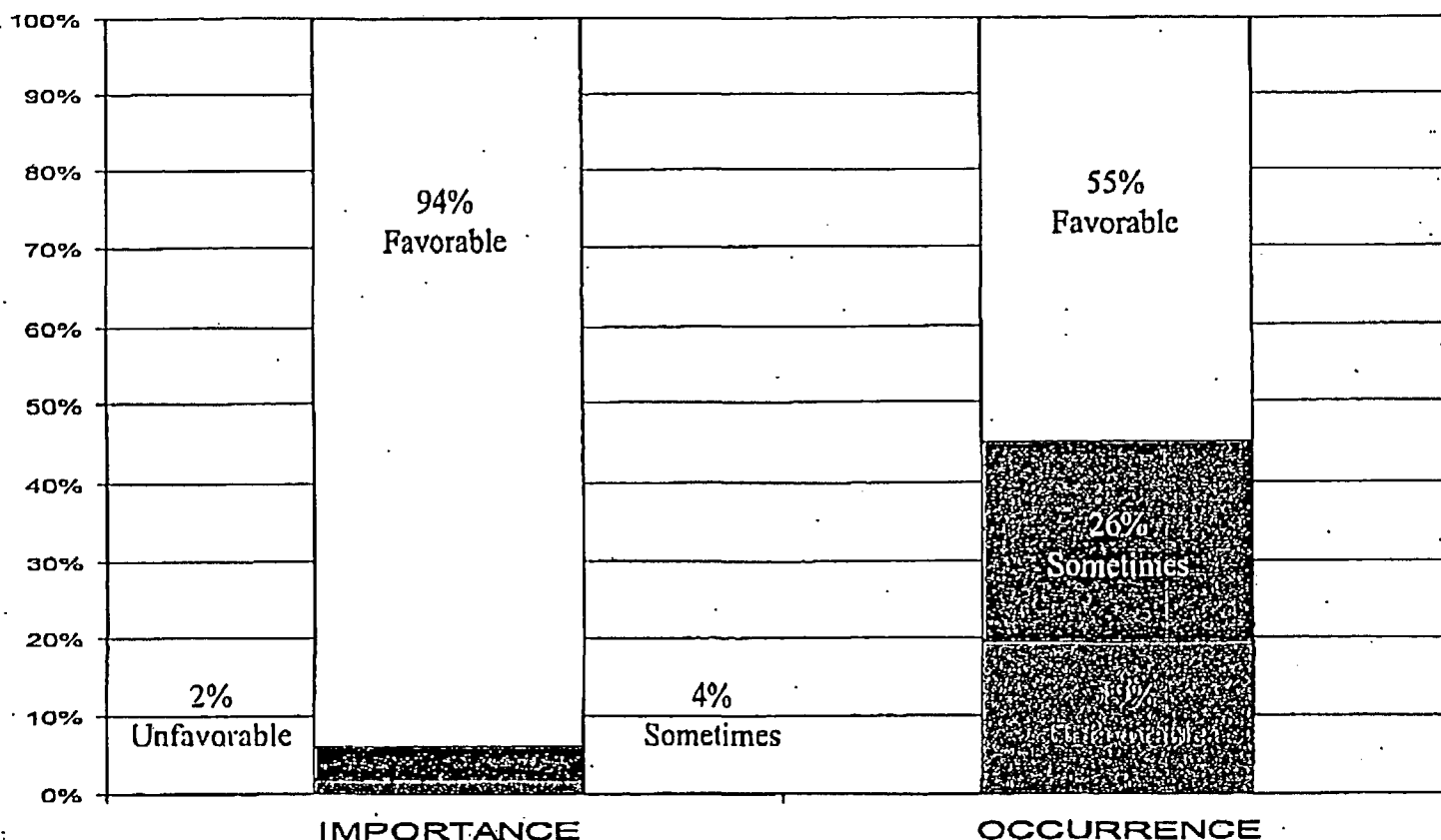


QUESTION 4: I believe a culture exists that is conducive to raising concerns (nuclear safety, industrial safety, radiological safety and quality).



# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment



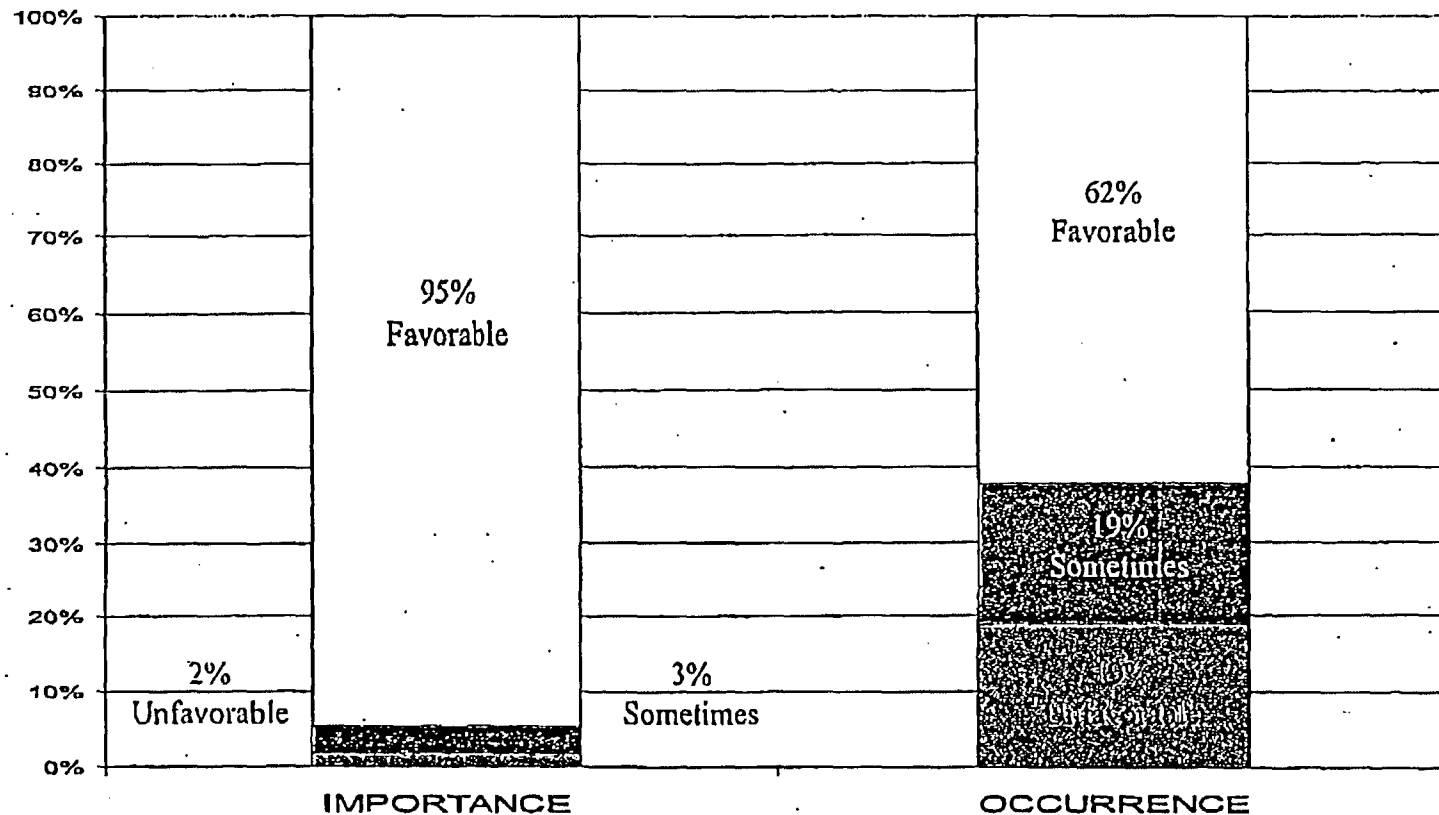
QUESTION 5: I believe that management wants employees to report concerns.





# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment

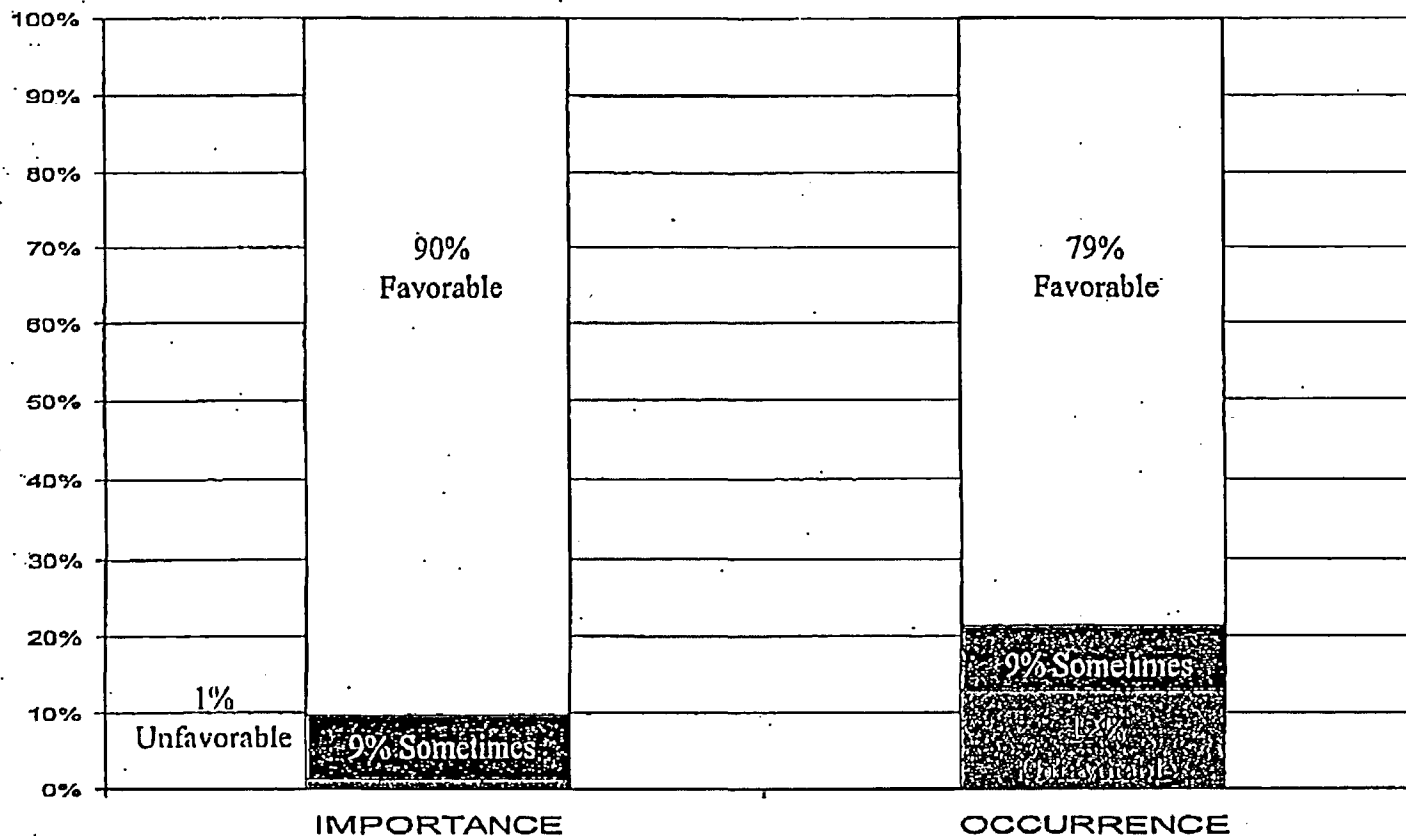


QUESTION 6: I believe my work environment is professional and open (i.e. free from any harassment, intimidation, retaliation or discrimination)



# March 2003 SCWE Survey Results

## Theme 1: Safety Conscious Work Environment



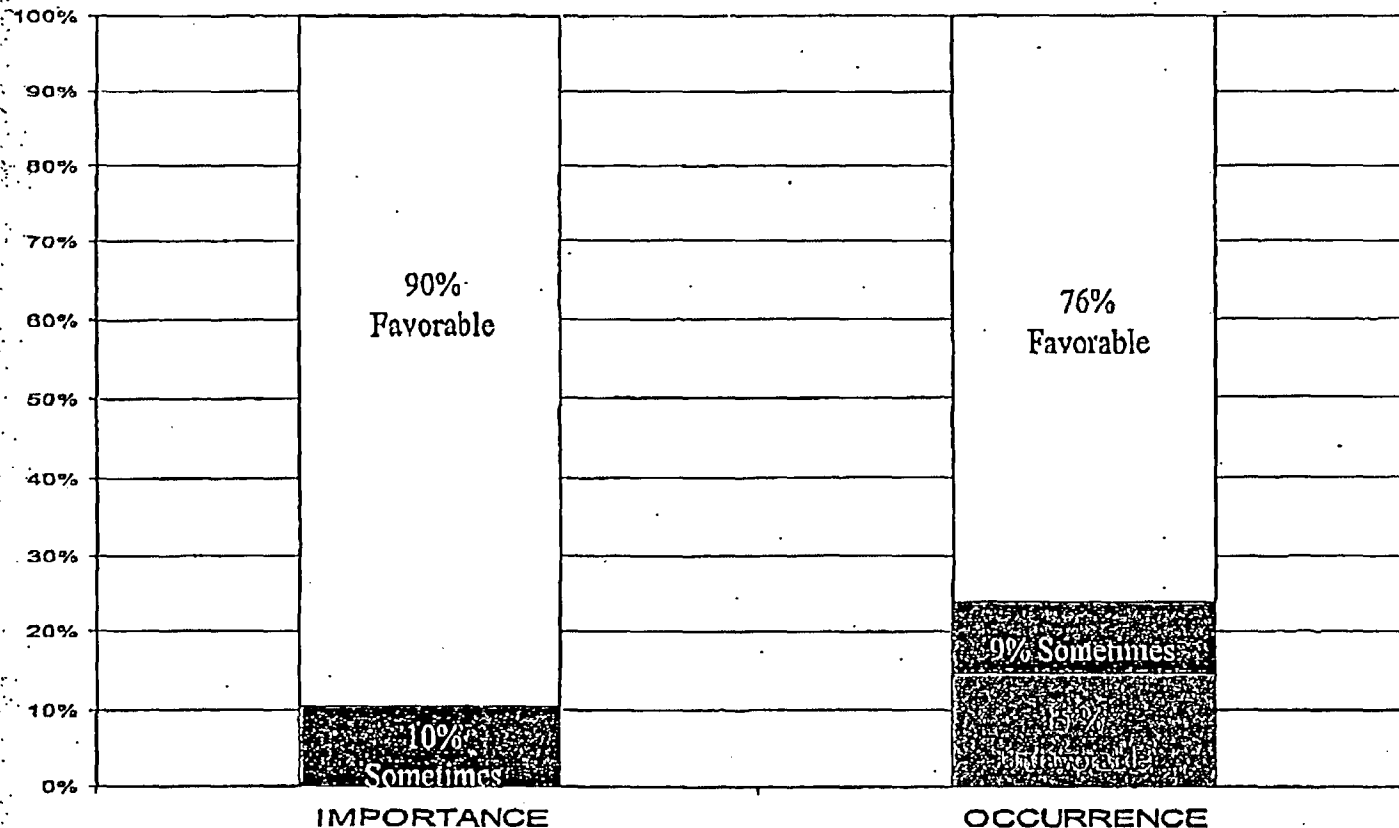
QUESTION 7: If I had a concern to raise, I would go to my supervisor first.





# March 2003 SCWE Survey Results

## Theme 2: Employee Concerns Programs - ECP/OCP

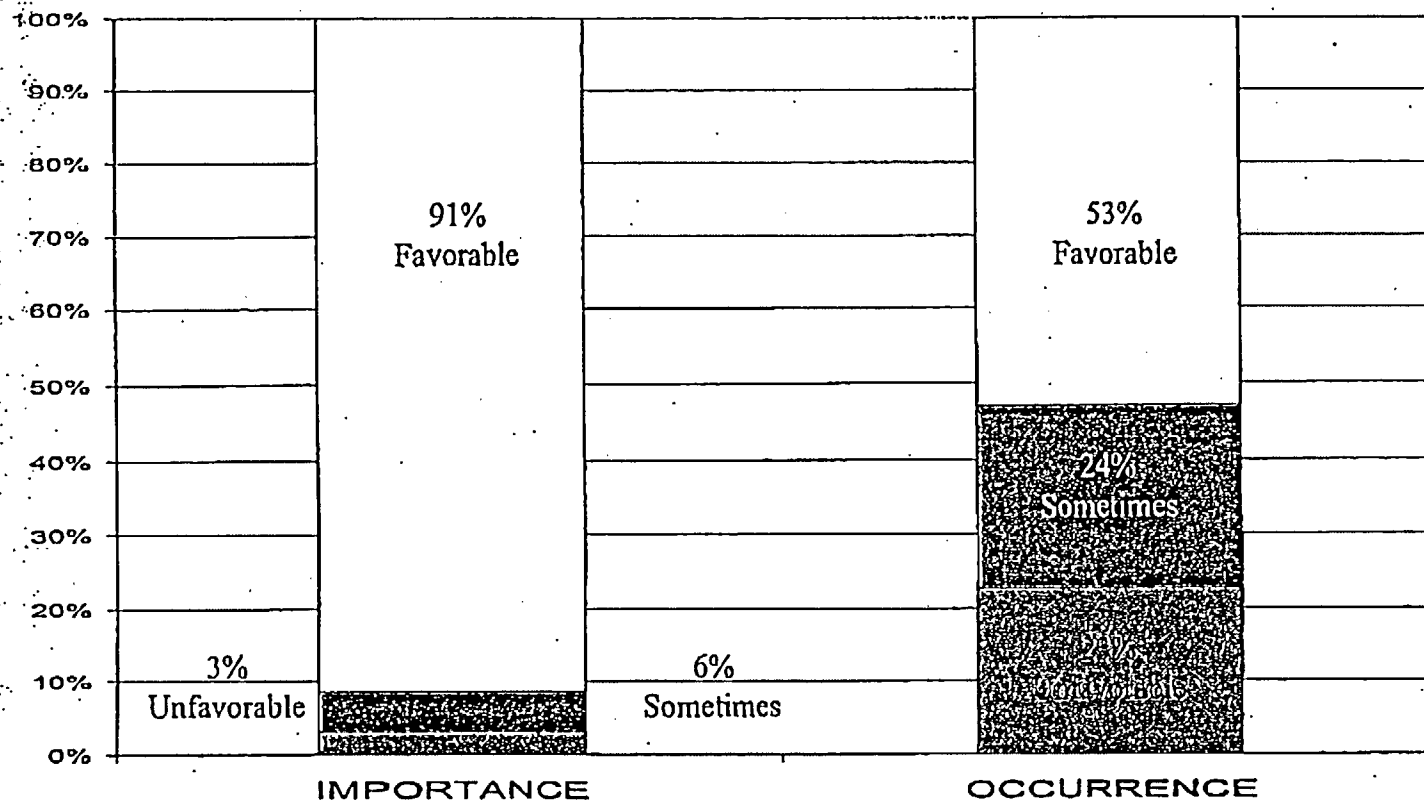


QUESTION 8: I am familiar with the BSC and OCWRM Employee Concerns Program.



# March 2003 SCWE Survey Results

## Theme 2: Employee Concerns Programs - ECP/OCP

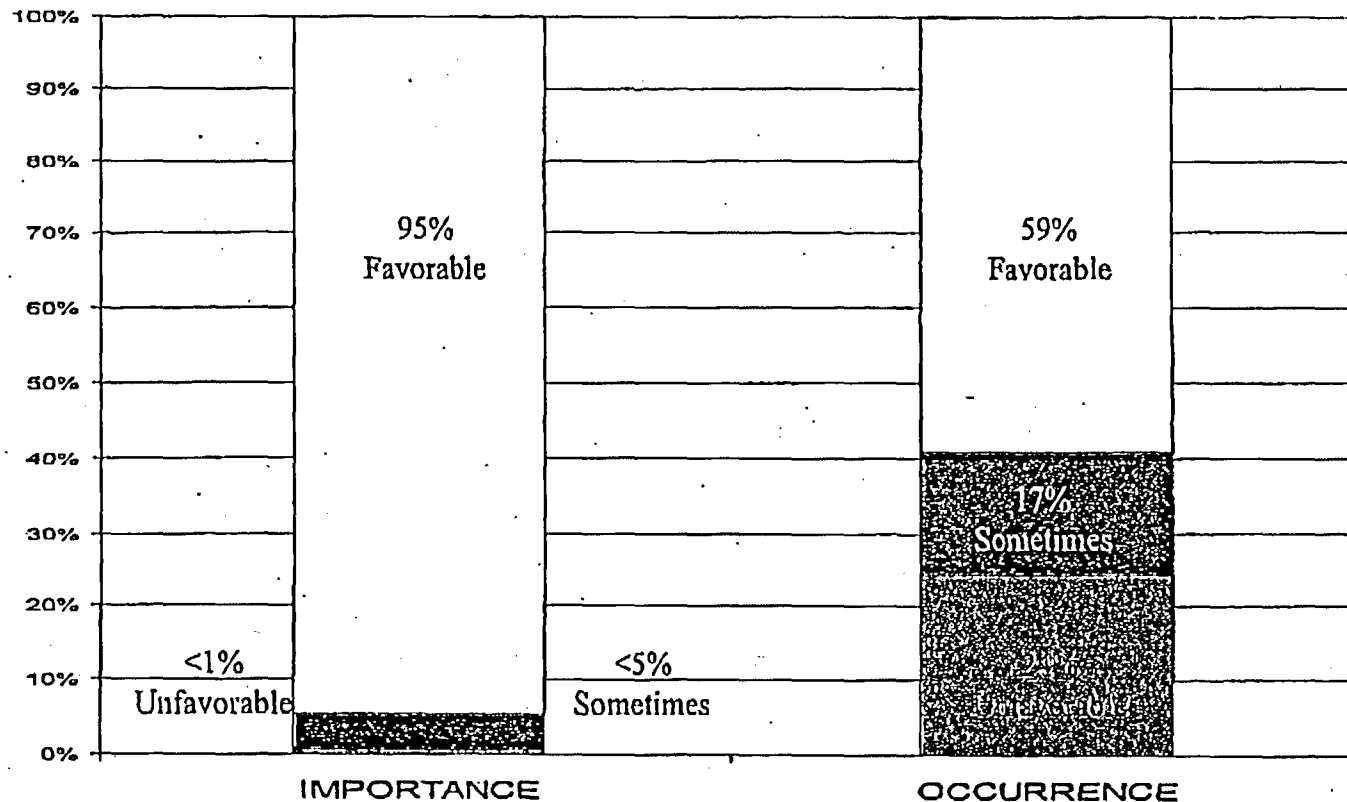


QUESTION 9: I am confident that issues reported through the Employee Concerns Programs are thoroughly investigated and appropriately resolved



# March 2003 SCWE Survey Results

## Theme 2: Employee Concerns Programs - ECP/OCP

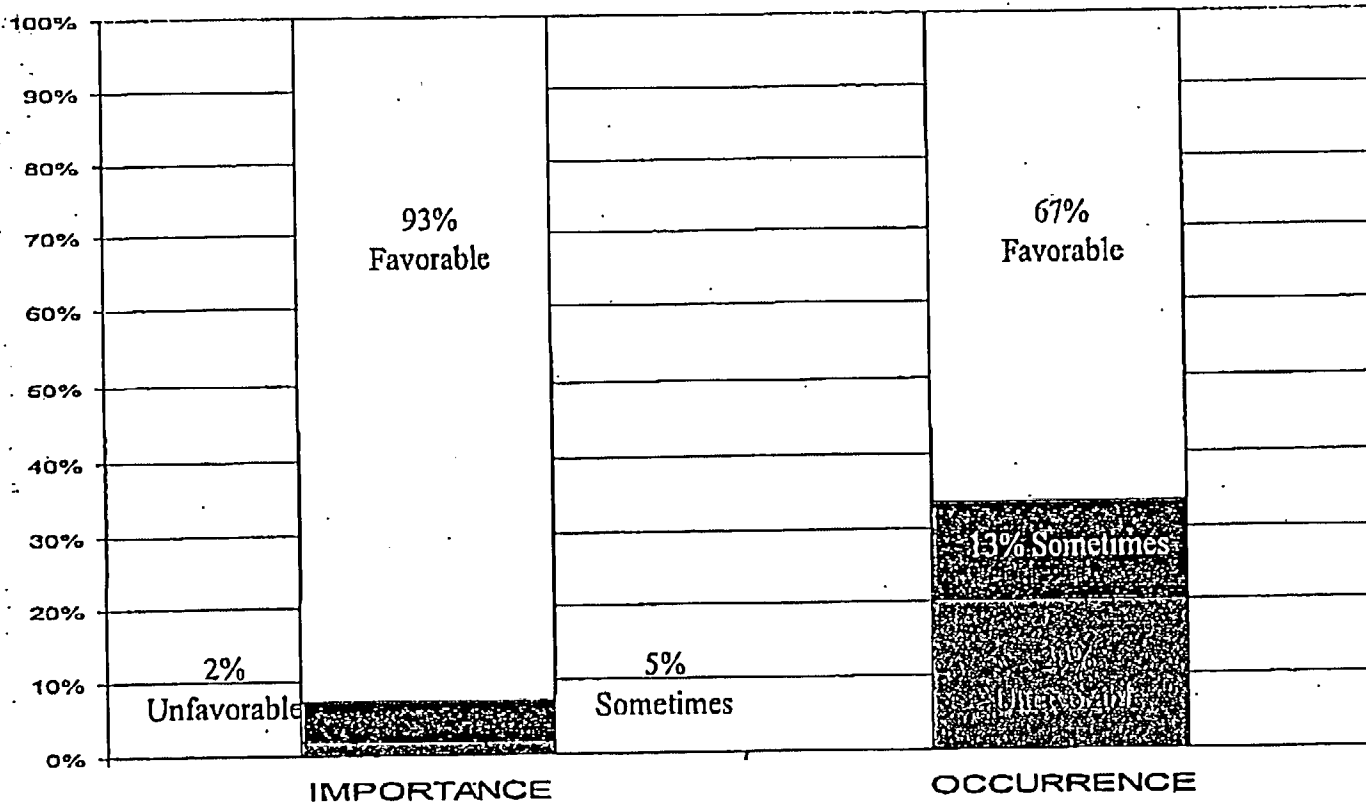


QUESTION 10: I can use the Employee Concerns Program without fear of reprisal



# March 2003 SCWE Survey Results

## Theme 2: Employee Concerns Programs - ECP/OCP

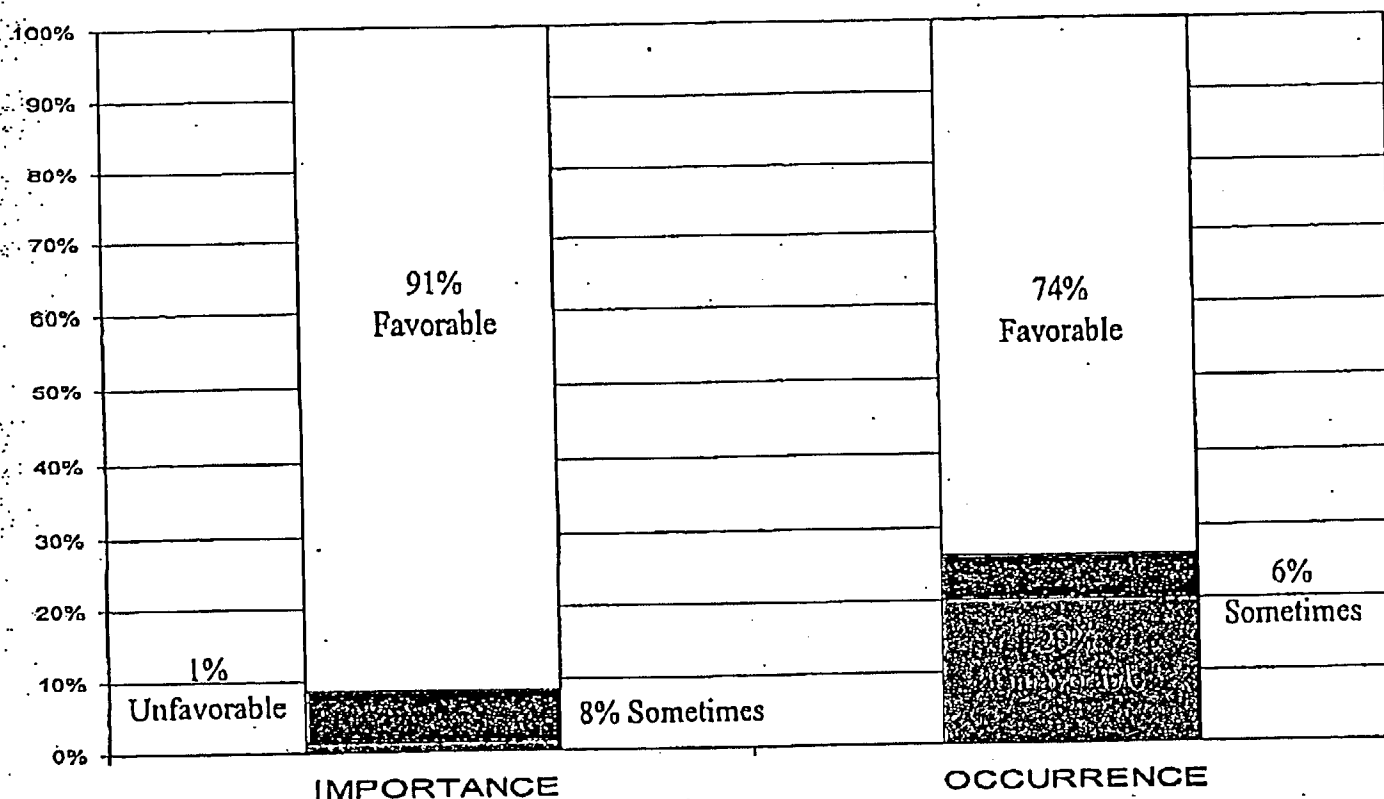


QUESTION 11: The Employee Concerns Programs will maintain my confidentiality to the extent permitted under law if I request it.



# March 2003 SCWE Survey Results

## Theme 2: Employee Concerns Programs - ECP/OCP

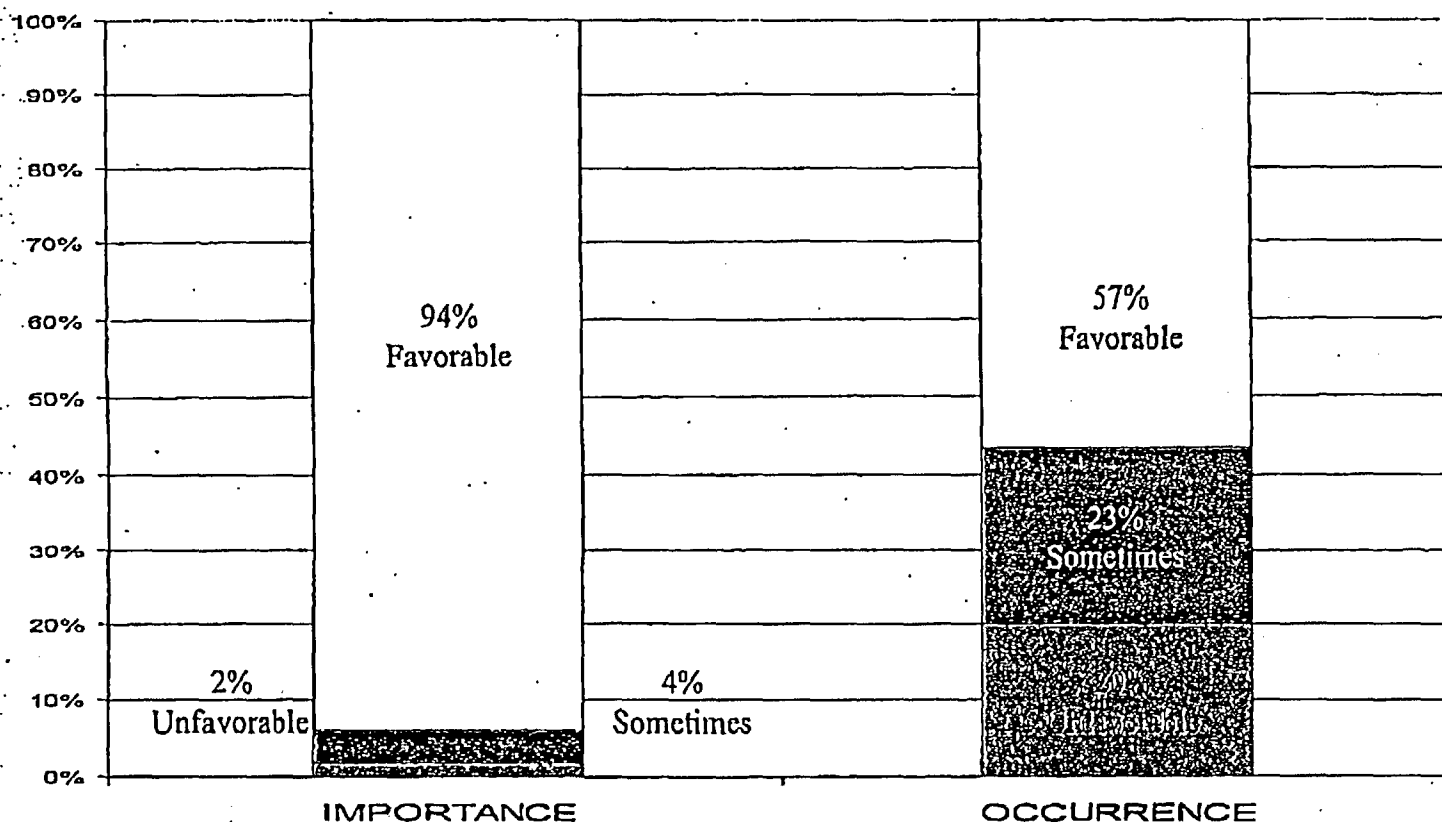


QUESTION 12: I know how to submit a concern or who to contact if I want to raise a concern to the Employee Concerns Programs available to me.



# March 2003 SCWE Survey Results

## Theme 3: Corrective Actions Program (CAP)



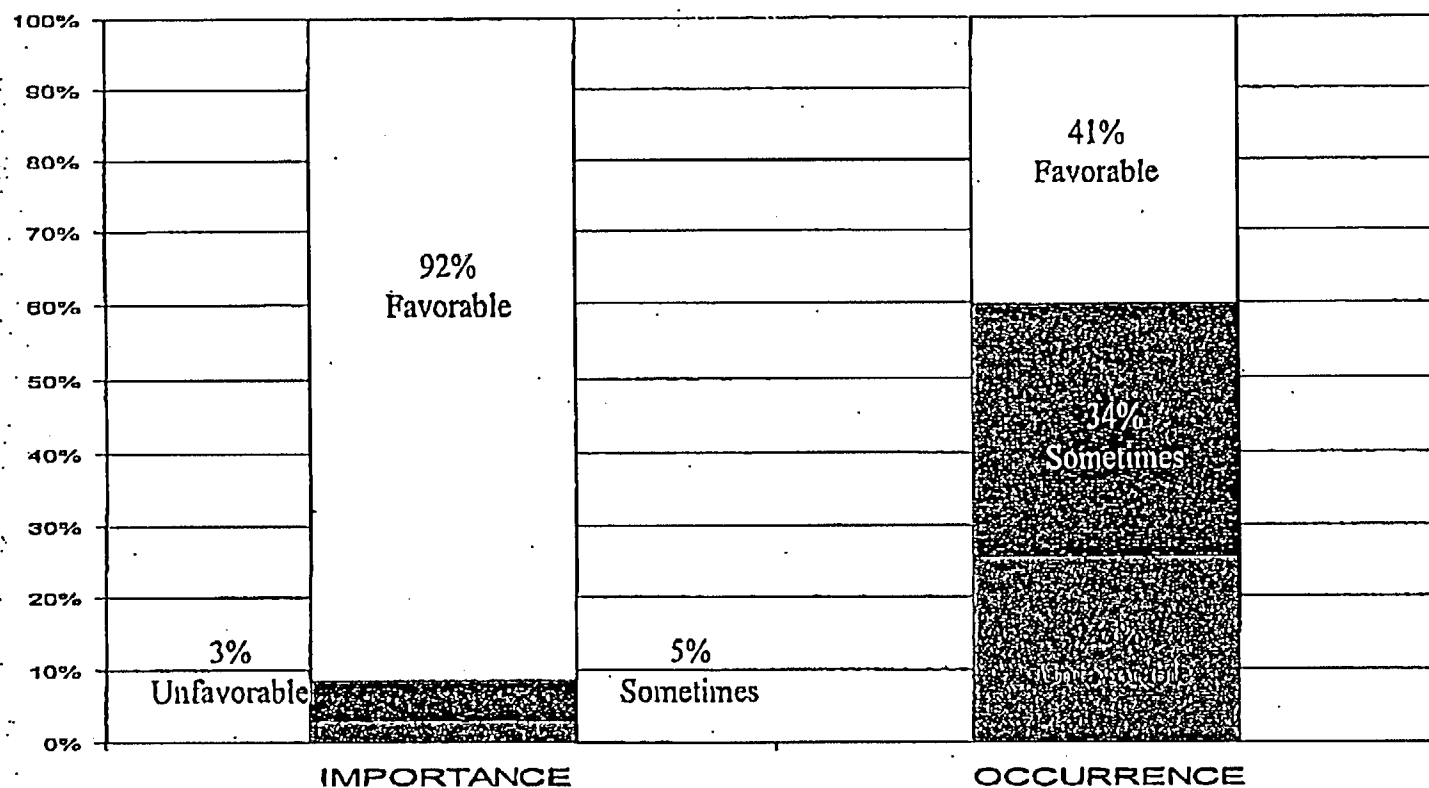
QUESTION 13: My management takes corrective actions on employee concerns brought to them





# March 2003 SCWE Survey Results

## Theme 3: Corrective Actions Program (CAP)

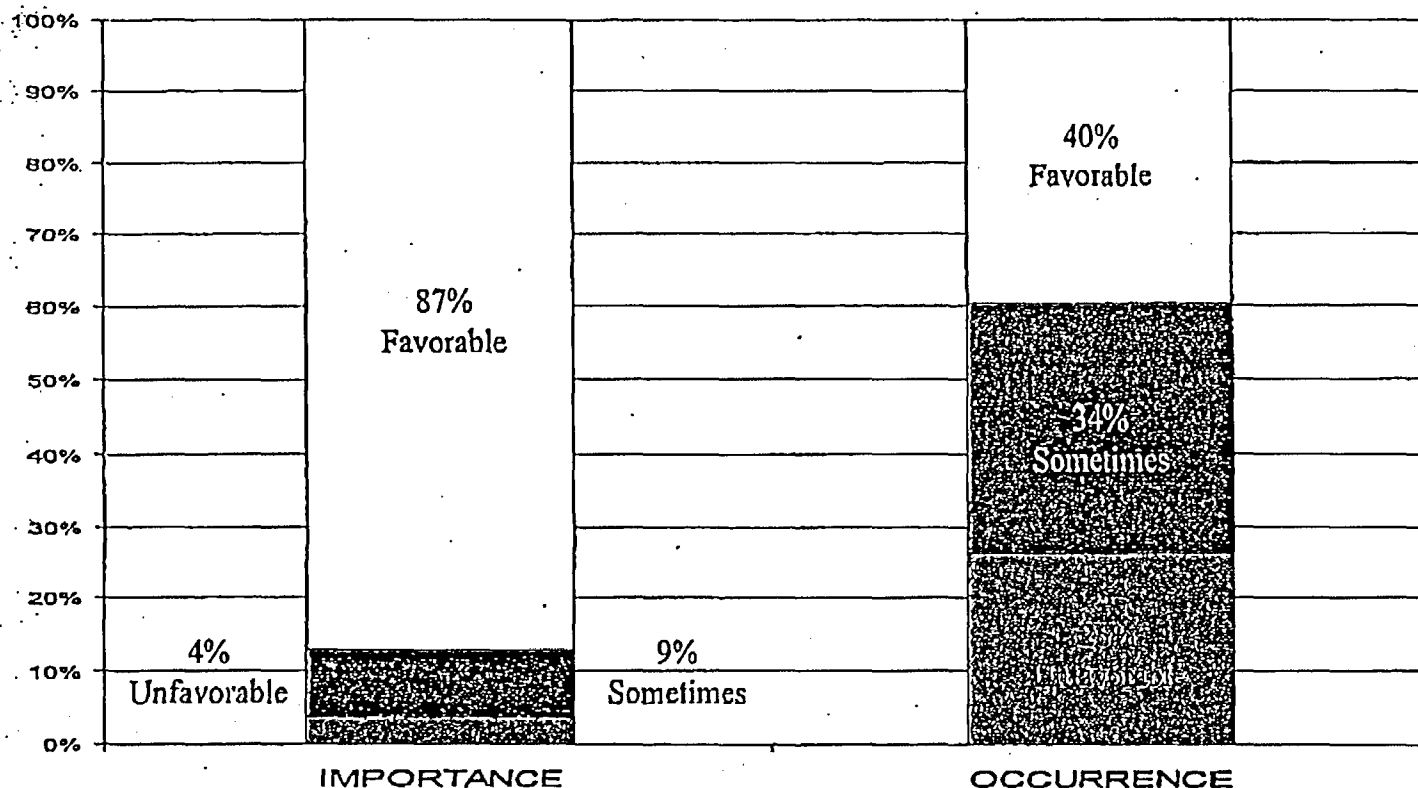


QUESTION 14: The Corrective Action Program (CAP) is utilized effectively to resolve conditions adverse to quality in a timely manner.



# March 2003 SCWE Survey Results

## Theme 3: Corrective Actions Program (CAP)



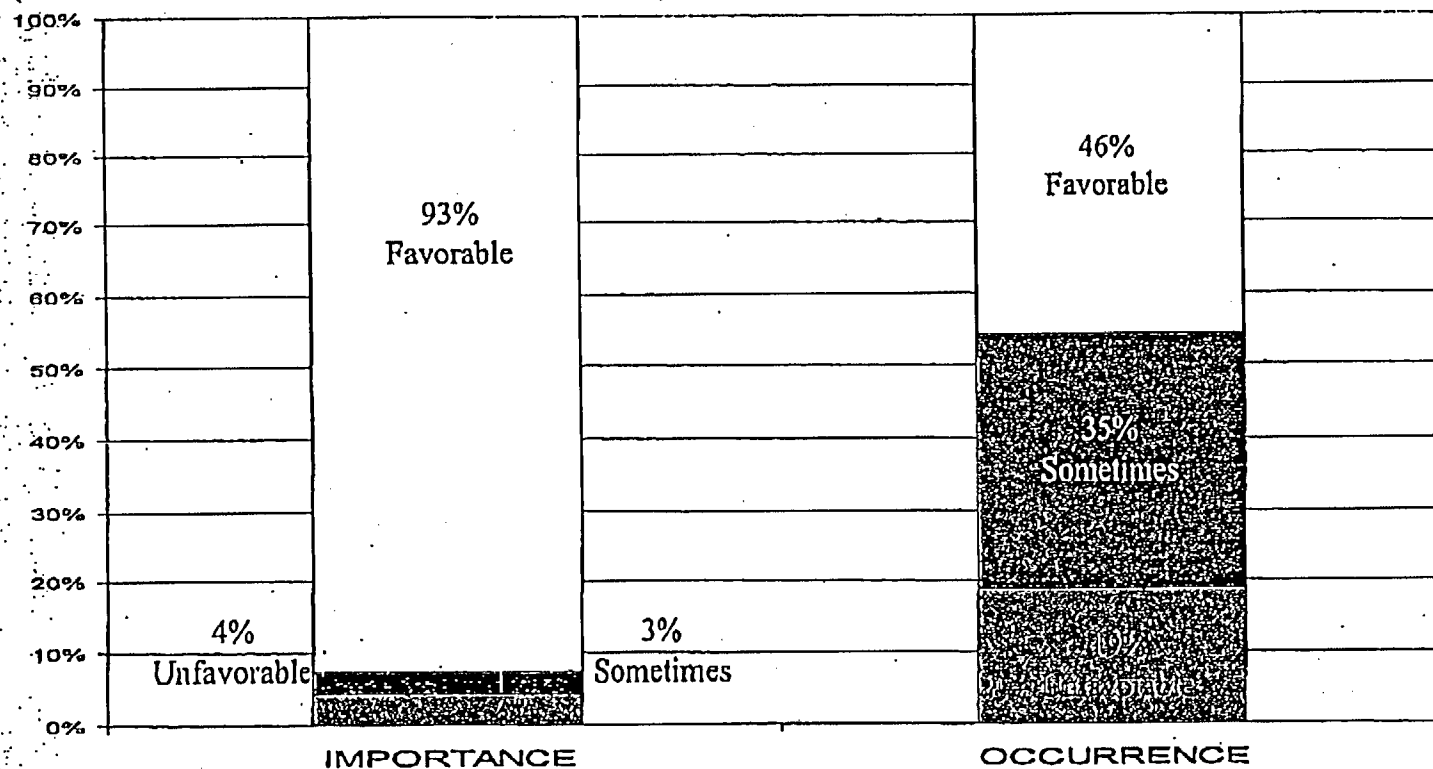
QUESTION 15: Resolution of potential safety/quality issues including root causes and lessons learned through the CAP is effective.





# March 2003 SCWE Survey Results

## Theme 3: Corrective Actions Program (CAP)

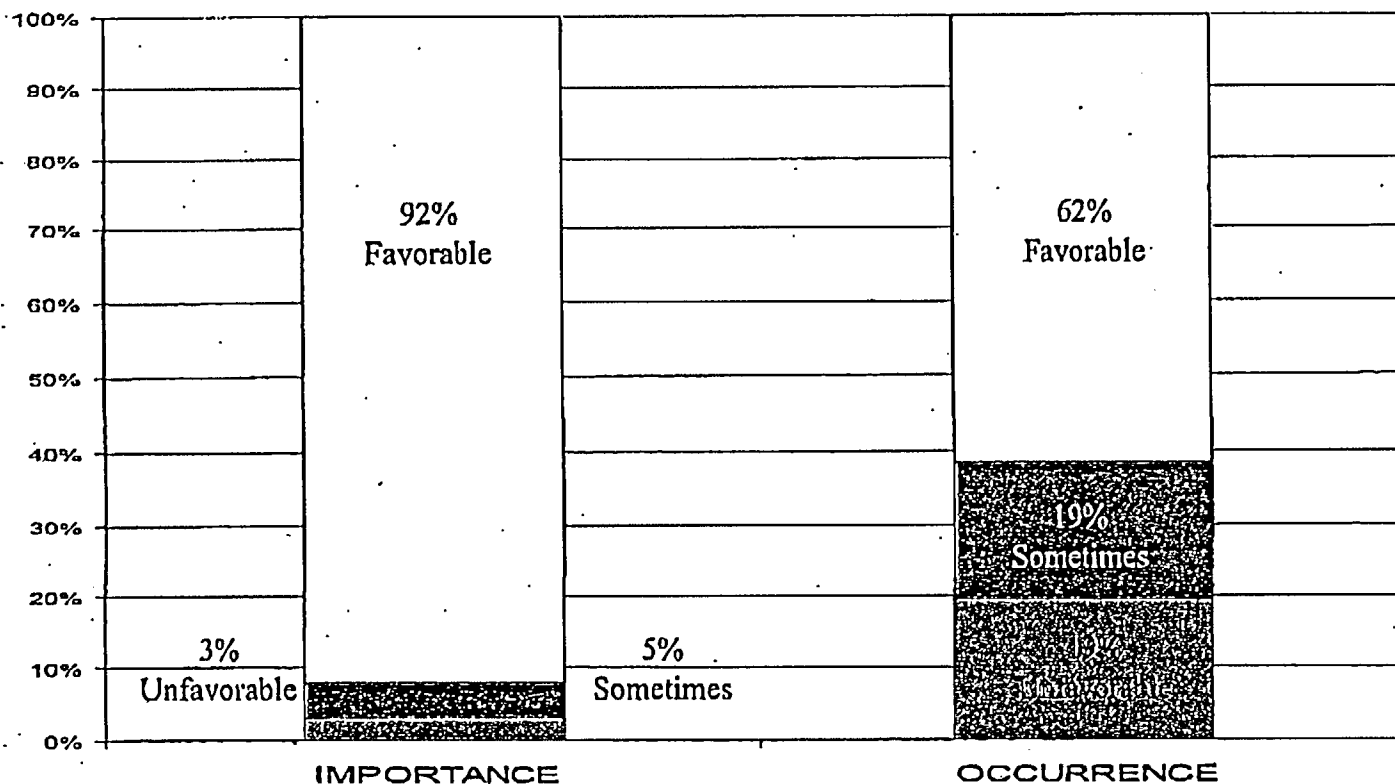


QUESTION 16: Identification of potential nuclear safety, industrial safety, radiological safety or quality issues through CAP is effective in our organization



# March 2003 SCWE Survey Results

## Theme 3: Corrective Actions Program (CAP)

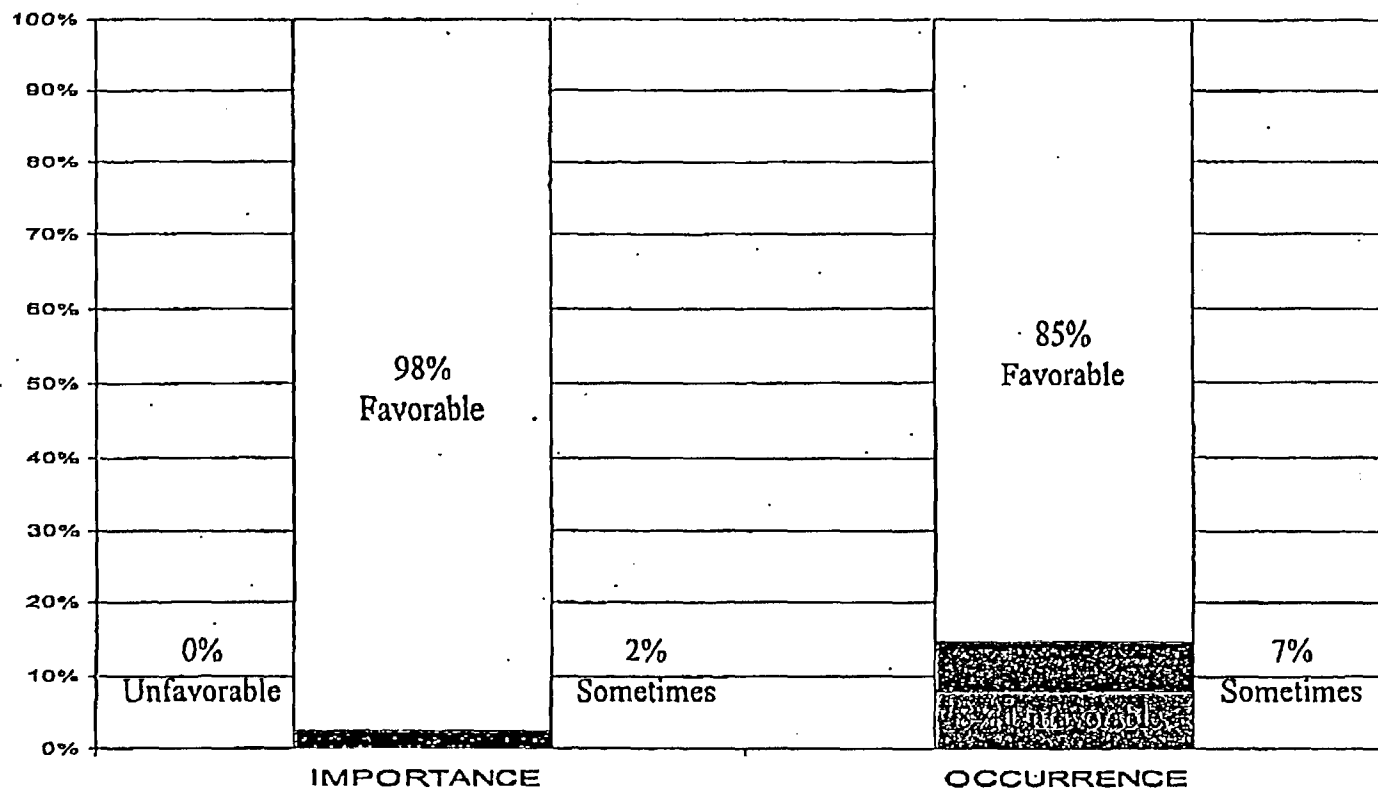


QUESTION 17: I feel free to raise nuclear safety, industrial safety, radiological safety or quality concerns through the CAP without fear of reprisal.



# March 2003 SCWE Survey Results

## Theme 4: Employee Responsibility in a SCWE

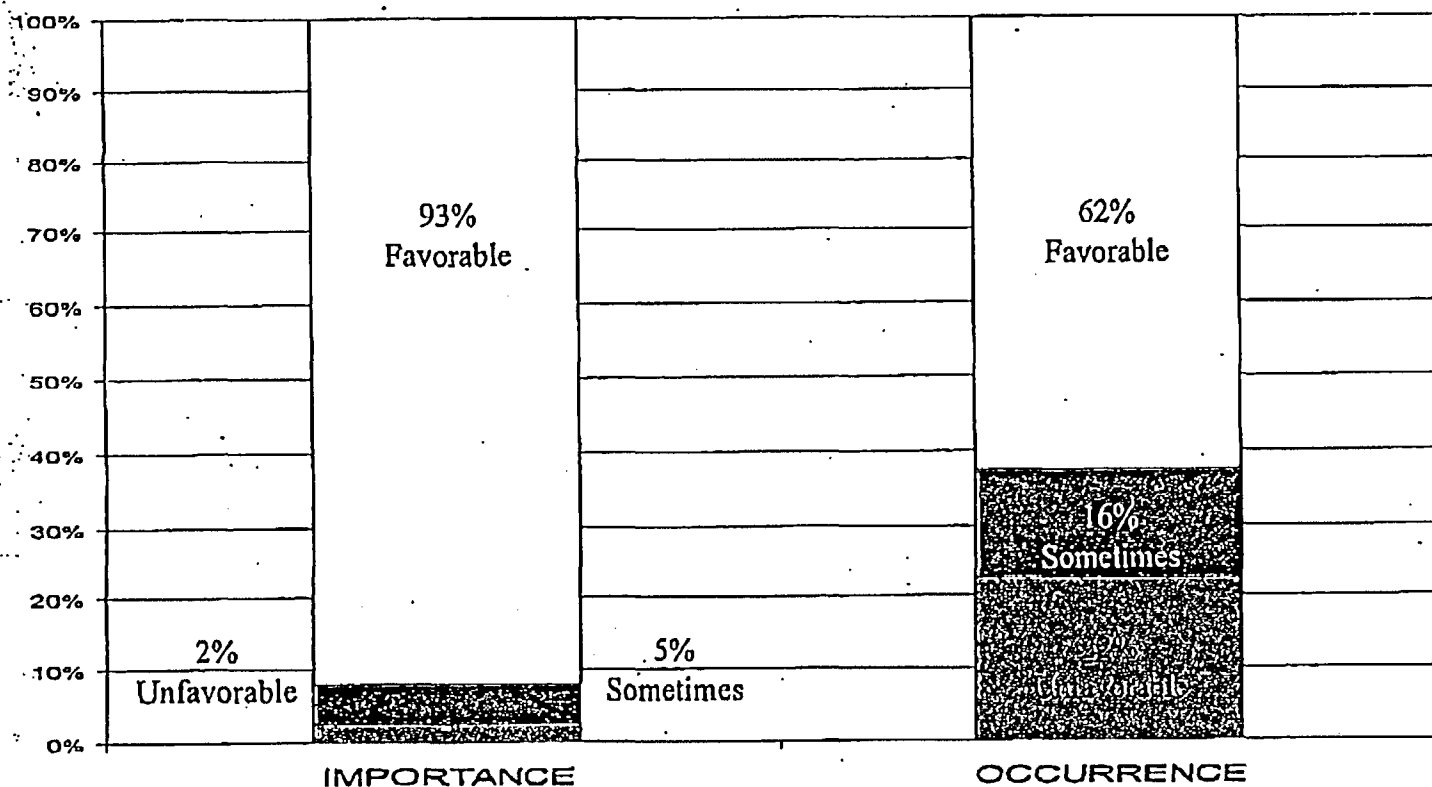


QUESTION 18: As a nuclear worker, I am responsible for identifying problems and adverse conditions.



# March 2003 SCWE Survey Results

## Theme 4: Employee Responsibility in a SCWE

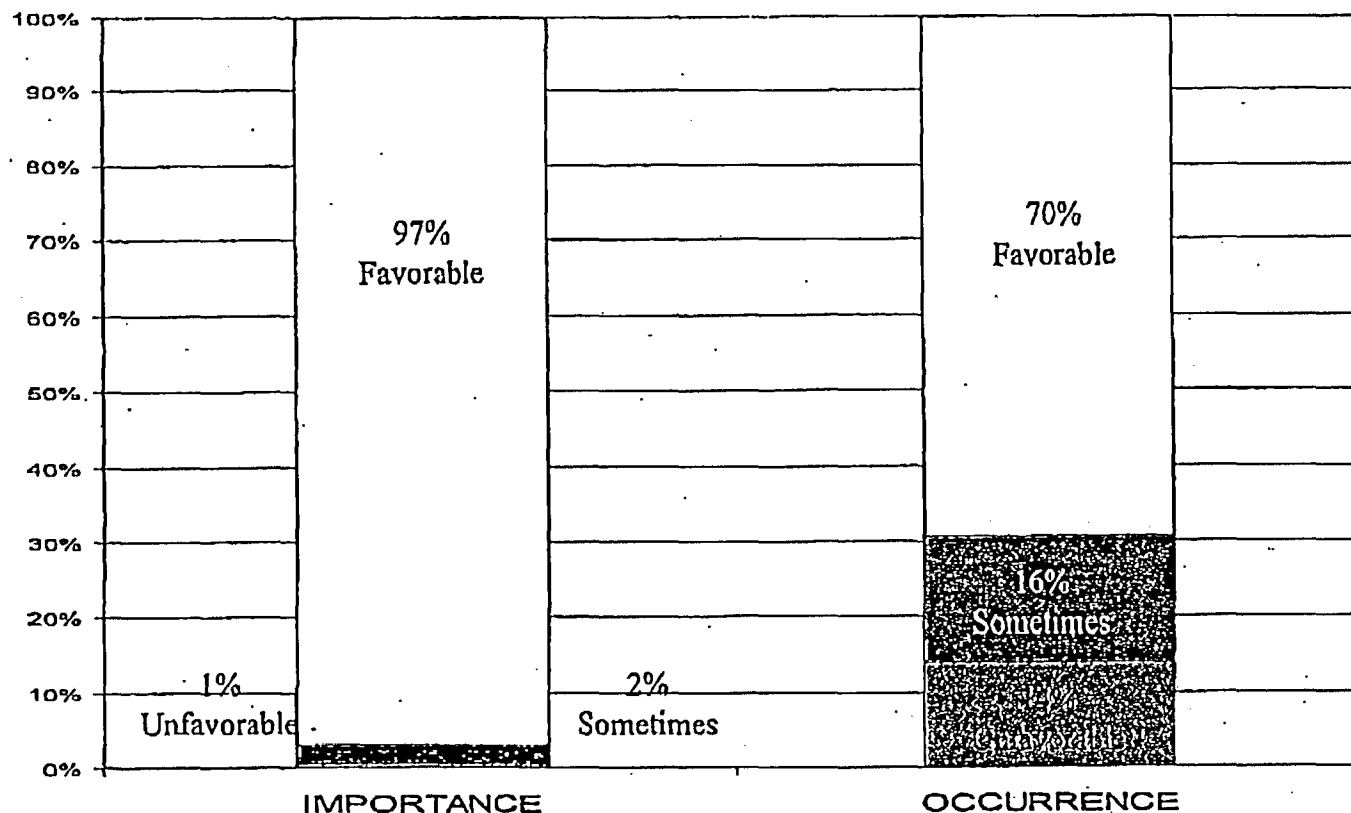


QUESTION 19: If you had a concern to raise, and didn't want to notify your immediate supervisor, would you raise it to the Employee Concerns Program or a member of Senior Management?



# March 2003 SCWE Survey Results

## Theme 5: Management Expectations for a SCWE

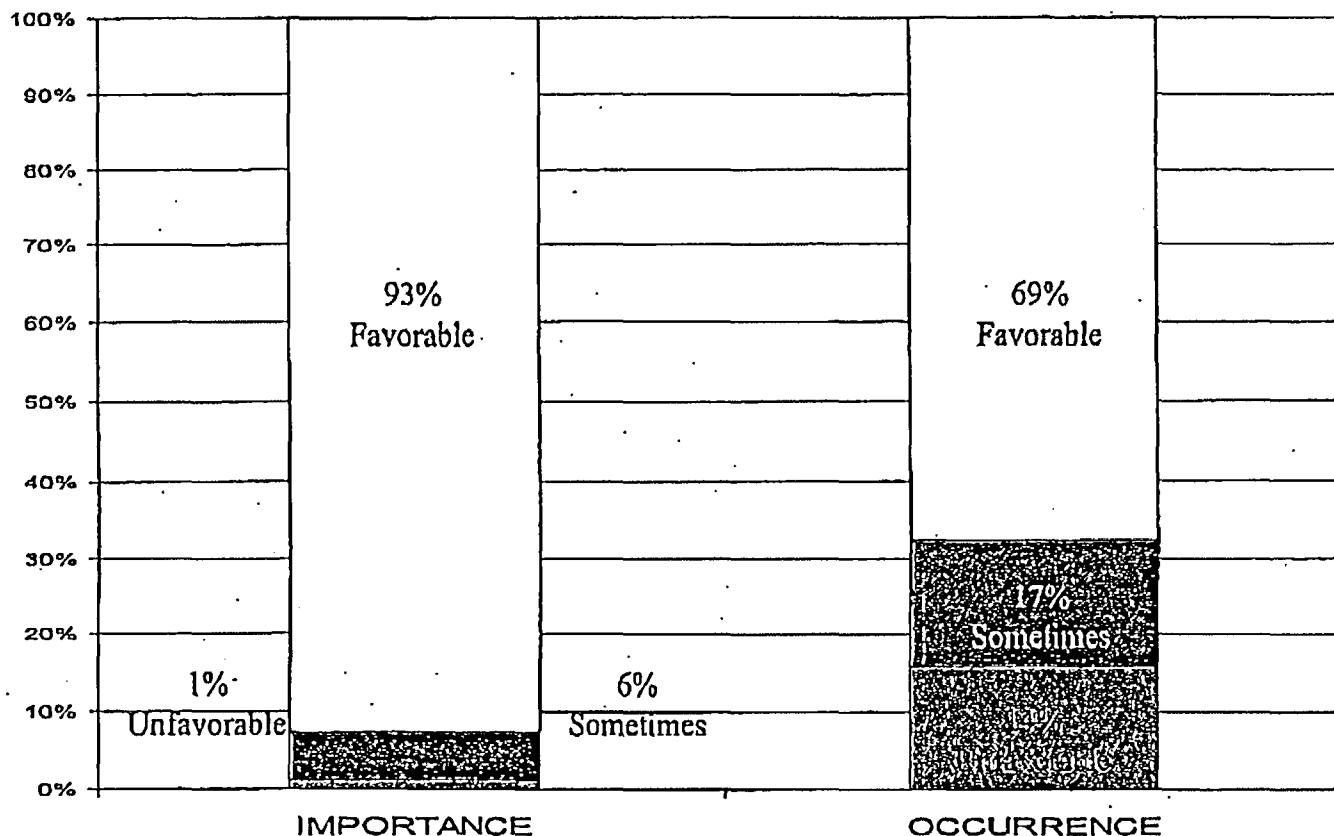


QUESTION 20: I believe that my management adheres to a Safety Conscious Work Environment.



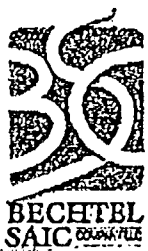
# March 2003 SCWE Survey Results

## Theme 5: Management Expectations for a SCWE



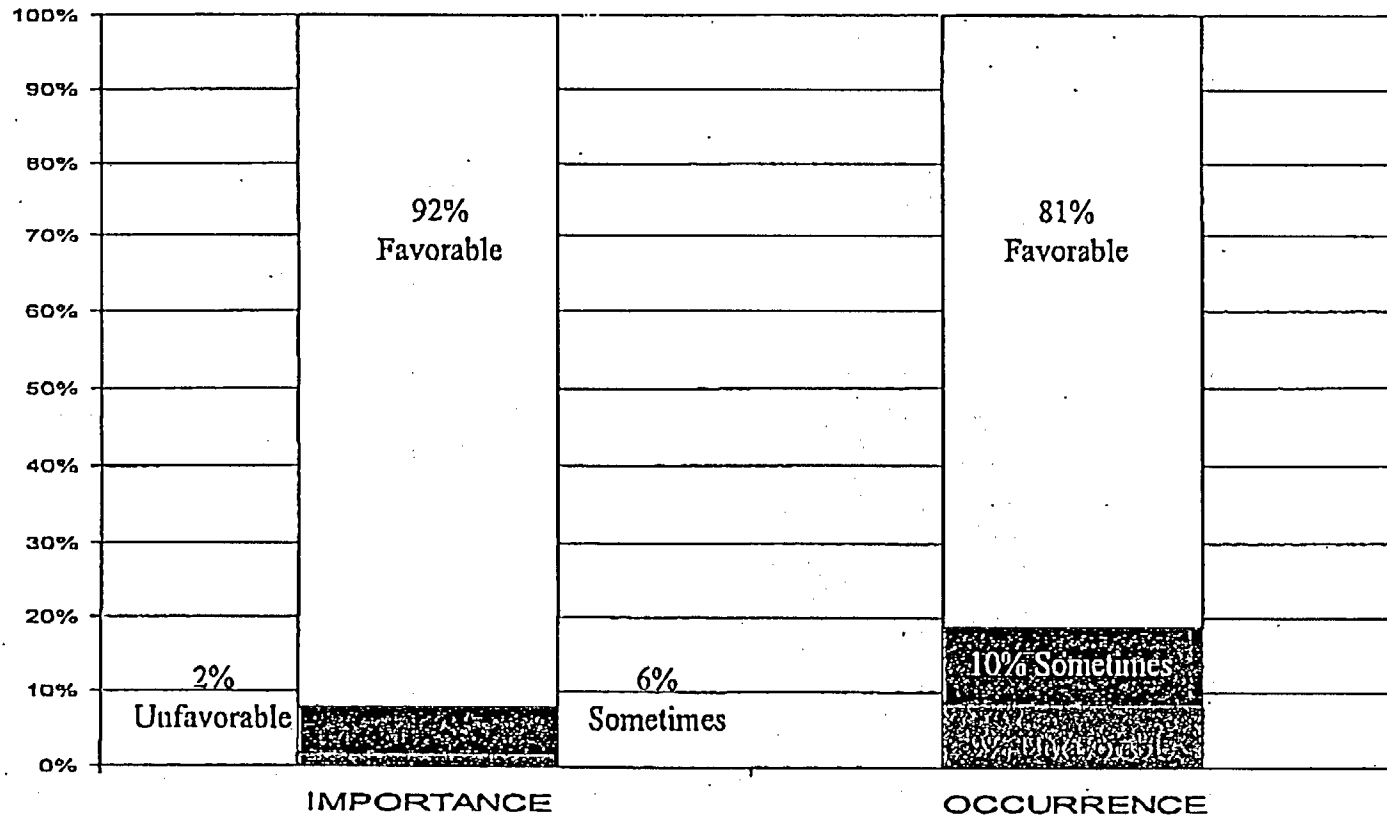
QUESTION 21: I believe that upper management supports the Employee Concerns Program.





# March 2003 SCWE Survey Results

## Theme 5: Management Expectations for a SCWE

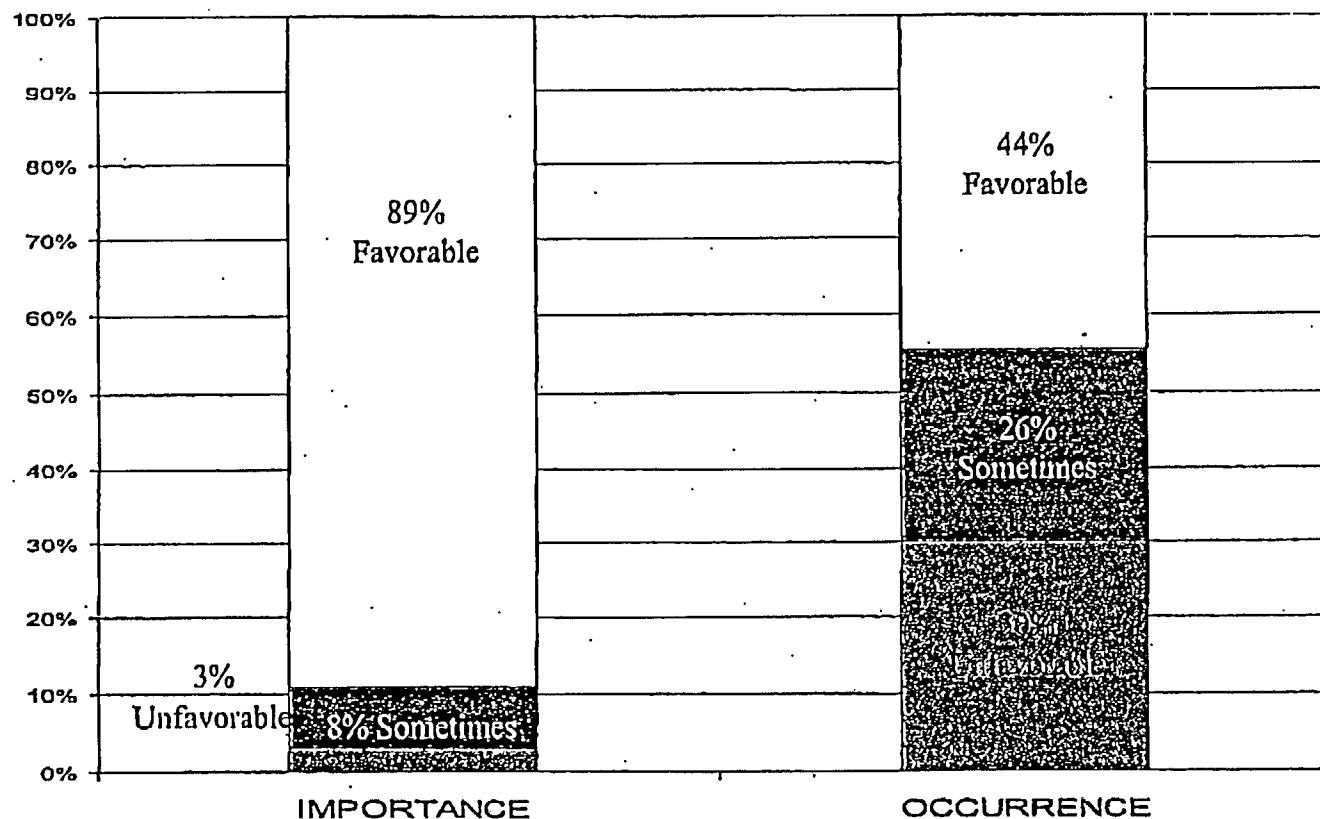


QUESTION 22: Management's expectations regarding Safety Conscious Work Environment are, or have been, clearly communicated.



# March 2003 SCWE Survey Results

## Theme 5: Management Expectations for a SCWE



QUESTION 23: Management's expectations are consistent with performance reviews, rewards, and discipline.



## SAFETY CONSCIOUS WORK ENVIRONMENT SURVEY

**This is a confidential data submittal form for the purpose of collecting industry Safety Conscious Work Environment Survey data. Each item has two measurements associated with it: IMPORTANCE and OCCURRENCE. Please check the box for each measurement for each statement that most closely matches your opinion. Once you have completed the survey, please fill out the demographic information on the bottom of page 2 and return it to the Employee Concerns Department in the envelope provided. Thank you for your cooperation.**

## IMPORTANCE

Not  
Important

## Critically Important

**1 2 3 4 5**

[illegible]

- 1 I feel free to approach management regarding any concern.
- 2 I believe I can raise any concern (nuclear safety, industrial safety, radiological safety or quality) without fear of retaliation.
- 3 I believe that if my management made a non-conservative decision, I could challenge that decision.
- 4 I believe a culture exists that is conducive to raising concerns (nuclear safety, industrial safety, radiological safety, and quality).
- 5 I believe that management wants employees to report concerns.
- 6 I believe my work environment is professional and open (i.e. free from any harassment, intimidation, retaliation or discrimination).
- 7 If I had a concern to raise, I would go to my supervisor first.
- 8 I am familiar with the BSC and OCRWM Employee Concerns Programs.
- 9 I am confident that issues reported through the Employee Concerns Programs are thoroughly investigated and appropriately resolved.
- 10 I can use the Employee Concerns Programs without fear of reprisal.
- 11 The Employee Concerns Programs will maintain my confidentiality to the greatest extent permitted under law if I request it.
- 12 I know how to submit a concern or who to contact if I want to raise a concern to the Employee Concerns Programs available to me.
- 13 My management takes corrective actions on employee concerns brought to them.
- 14 The Corrective Action Program (CAP) is utilized effectively to resolve conditions adverse to quality in a timely manner.

## OCCURRENCE

NEVER  
SELDOM  
SOMETIMES  
OFTEN  
ALWAYS

[illegible]

## IMPORTANCE

## OCCURRENCE

Not  
Important

Critically  
Important

1 2 3 4 5

NEVER  
1  
SELDOM  
2  
SOMETIMES  
3  
OFTEN  
4  
ALWAYS  
5

☐ ☐ ☐ ☐ ☐

15 Resolution of potential nuclear safety / quality issues including root causes and lessons learned through the CAP is effective.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

16 Identification of potential nuclear safety, industrial safety, radiological safety or quality issues through the CAP is effective in our organization

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

17 I feel free to raise nuclear safety, industrial safety, radiological safety or quality concerns through the CAP without fear of reprisal.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

18 As a nuclear worker, I am responsible for identifying problems and adverse conditions.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

19 If you had a concern to raise and didn't want to notify your supervisor, would you raise it to the Employee Concerns program or a member of Senior Management?

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

20 I believe that my management adheres to the principles of a Safety Conscious Work Environment.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

21 I believe that upper management supports the Employee Concerns Programs.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

22 Management's expectations regarding Safety Conscious Work Environment are or have been clearly communicated.

☐ ☐ ☐ ☐ ☐

☐ ☐ ☐ ☐ ☐

23 Management's expectations are consistent with performance reviews, rewards and discipline.

☐ ☐ ☐ ☐ ☐

### COMMENTS:

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You may use additional sheets as necessary.

### DEMOGRAPHICS:

- ☐ I am a Management Employee  
☐ I am a Represented Employee

#### Work Location:

- ☐ Summerlin  
☐ Area 25  
☐ National Labs  
☐ DOE