

**EMPLOYEE
CONCERNS
SPECIAL PROGRAM**

**VOLUME 9
INDUSTRIAL SAFETY CATEGORY**

**SUBCATEGORY REPORT 90400
PROTECTIVE EQUIPMENT**

UPDATED

**TVA
NUCLEAR POWER**

8902210432 890206
PDR ADOCK 05000259
P PDC

TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM

REPORT NUMBER: 90400

REPORT TYPE: Watts Bar Nuclear Plant Subcategory

REVISION NUMBER: 2

TITLE: Protective Equipment As Related
to Industrial Safety

PAGE 1 OF 16

REASON FOR REVISION:

Minor editorial changes and revisions to sections 5.0, 6.0, and 7.0

PREPARATION

PREPARED BY:

Tom Rogan

SIGNATURE

1-23-87

DATE

REVIEWS

PEER:

E. J. Wiseman

SIGNATURE

1/24/87

DATE

TAS:

*RCS
2/1/87*

D. J. Stewart

SIGNATURE

2/1/87

DATE

CONCURRENCES

CEG-H: *Lonn E. Ellis*

1/29/87

SRP: *James R. Russell*

2-10-87

SIGNATURE

DATE

SIGNATURE*

DATE

APPROVED BY:

MUR
ECSP MANAGER

2/1/87
DATE

N/A

MANAGER OF NUCLEAR POWER
CONCURRENCE (FINAL REPORT ONLY)

DATE

*SRP Secretary's signature denotes SRP concurrences are in files.

Preface, Glossary, and List of Acronyms
for ECTG Subcategory Reports

HISTORY OF REVISION

REV NUMBER	PAGES REVISED	REASON FOR CURRENT REVISION
1	i	To clarify that one or more attachments will help the reader find where a particular concern is evaluated

Preface

This subcategory report is one of a series of reports prepared for the Employee Concerns Special Program (ECSP) of the Tennessee Valley Authority (TVA). The ECSP and the organization which carried out the program, the Employee Concerns Task Group (ECTG), were established by TVA's Manager of Nuclear Power to evaluate and report on those Office of Nuclear Power (ONP) employee concerns filed before February 1, 1986. Concerns filed after that date are handled by the ongoing ONP Employee Concerns Program (ECP).

The ECSP addressed over 5800 employee concerns. Each of the concerns was a formal, written description of a circumstance or circumstances that an employee thought was unsafe, unjust, inefficient, or inappropriate. The mission of the Employee Concerns Special Program was to thoroughly investigate all issues presented in the concerns and to report the results of those investigations in a form accessible to ONP employees, the NRC, and the general public. The results of these investigations are communicated by four levels of ECSP reports: element, subcategory, category, and final.

Element reports, the lowest reporting level, will be published only for those concerns directly affecting the restart of Sequoyah Nuclear Plant's reactor unit 2. An element consists of one or more closely related issues. An issue is a potential problem identified by ECTG during the evaluation process as having been raised in one or more concerns. For efficient handling, what appeared to be similar concerns were grouped into elements early in the program, but issue definitions emerged from the evaluation process itself. Consequently, some elements did include only one issue, but often the ECTG evaluation found more than one issue per element.

Subcategory reports summarize the evaluation of a number of elements. However, the subcategory report does more than collect element level evaluations. The subcategory level overview of element findings leads to an integration of information that cannot take place at the element level. This integration of information reveals the extent to which problems overlap more than one element and will therefore require corrective action for underlying causes not fully apparent at the element level.

To make the subcategory reports easier to understand, three items have been placed at the front of each report: a preface, a glossary of the terminology unique to ECSP reports, and a list of acronyms.

Additionally, at the end of each subcategory report will be a Subcategory Summary Table that includes the concern numbers; identifies other subcategories that share a concern; designates nuclear safety-related, safety significant, or non-safety related concerns; designates generic applicability; and briefly states each concern.

Either the Subcategory Summary Table or another attachment or a combination of the two will enable the reader to find the report section or sections in which the issue raised by the concern is evaluated.

The subcategories are themselves summarized in a series of eight category reports. Each category report reviews the major findings and collective significance of the subcategory reports in one of the following areas:

- management and personnel relations
- industrial safety
- construction
- material control
- operations
- quality assurance/quality control
- welding
- engineering

A separate report on employee concerns dealing with specific contentions of intimidation, harassment, and wrongdoing will be released by the TVA Office of the Inspector General.

Just as the subcategory reports integrate the information collected at the element level, the category reports integrate the information assembled in all the subcategory reports within the category, addressing particularly the underlying causes of those problems that run across more than one subcategory.

A final report will integrate and assess the information collected by all of the lower level reports done for the ECSP, including the Inspector General's report.

For more detail on the methods by which ECTG employee concerns were evaluated and reported, consult the Tennessee Valley Authority Employee Concerns Task Group Procedure Manual. The Manual spells out the program's objectives, scope, organization, and responsibilities. It also specifies the procedures that were followed in the investigation, reporting, and close-out of the issues raised by the over employee concerns.

ECSP SUBCATEGORY REPORT GLOSSARY OF TERMS*

classification of evaluated issues the evaluation of an issue leads to one of the following determination:

Class A: Issue can not be verified as factual

Class B: Issue is factually accurate, but what is described is not a problem (i.e., not a condition requiring corrective action)

Class C: Issue is factual and identifies a problem, but corrective action for the problem was initiated before the evaluation of the issue was undertaken

Class D: Issue is factual and presents a problem for which corrective action has been, or is being, taken as a result of an evaluation

Class E: Issue itself does not identify a problem, but as a result of the evaluation another problem was discovered for which corrective action was initiated or is needed

collective significance an analysis which determines the importance and consequences of the findings in a particular ECSP report by putting those findings in the proper perspective.

concern (see "employee concern")

corrective action steps taken to fix specific deficiencies or discrepancies revealed by a negative finding and, when necessary, to correct causes in order to prevent recurrence.

criterion (plural: criteria) a basis for defining a performance, behavior, or quality which ONP imposes on itself (see also "requirement").

element or element report an optional level of ECSP report, below the subcategory level, that deals with one or more issues.

employee concern a formal, written description of a circumstance or circumstances that an employee thinks unsafe, unjust, inefficient or inappropriate; usually documented on a K-form or a form equivalent to the K-form.

evaluator(s) the individual(s) assigned the responsibility to assess a specific grouping of employee concerns.

findings includes both statements of fact and the judgments made about those facts during the evaluation process; negative findings require corrective action.

issue a potential problem, as interpreted by the ECTG during the evaluation process, raised in one or more concerns.

K-form (see "employee concern")

requirement a standard of performance, behavior, or quality on which an evaluation judgment or decision may be based.

root cause the underlying reason for a problem.

*Terms essential to the program but which require detailed definition have been defined in the ECTG Procedure Manual (e.g., generic, specific, nuclear safety-related, unreviewed safety-significant question).

Acronyms

AI	Administrative Instruction
AISC	American Institute of Steel Construction
ANS	American Nuclear Society
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
AWS	American Welding Society
BFN	Browns Ferry Nuclear Plant
BLN	Bellefonte Nuclear Plant
CAQ	Condition Adverse to Quality
CAR	Corrective Action Report
CATD	Corrective Action Tracking Document
CCTS	Corporate Commitment Tracking System
CEG-H	Category Evaluation Group Head
CFR	Code of Federal Regulations
CI	Concerned Individual
CMTR	Certified Material Test Report
COC	Certificate of Conformance/Compliance
DCR	Design Change Request
DNC	Division of Nuclear Construction (see also NU CON)

**TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM**

REPORT NUMBER: 90400

FRONT MATTER REV: 1

PAGE vi OF viii

DNE Division of Nuclear Engineering
DNQA Division of Nuclear Quality Assurance
DNT Division of Nuclear Training
DOE Department of Energy
DPO Division Personnel Officer
DR Discrepancy Report or Deviation Report
ECN Engineering Change Notice
ECP Employee Concerns Program
ECP-SR Employee Concerns Program-Site Representative
ECSP Employee Concerns Special Program
ECTG Employee Concerns Task Group
EEOC Equal Employment Opportunity Commission
EQ Environmental Qualification
ERT Employee Response Team or Emergency Response Team
FCR Field Change Request
FSAR Final Safety Analysis Report
FY Fiscal Year
GET General Employee Training
HVAC Heating, Ventilating, Air Conditioning
II Installation Instruction
INPO Institute of Nuclear Power Operations
IRN Inspection Rejection Notice

**TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM**

REPORT NUMBER: 90400

FRONT MATTER REV: 1

PAGE vii OF viii

L/R	Labor Relations Staff
M&AI	Modifications and Additions Instruction
MI	Maintenance Instruction
MSPB	Merit Systems Protection Board
MT	Magnetic Particle Testing
NCR	Nonconforming Condition Report
NDE	Nondestructive Examination
NPP	Nuclear Performance Plan
NQAM	Nuclear Quality Assurance Manual
NRC	Nuclear Regulatory Commission
NSB	Nuclear Services Branch
NSRS	Nuclear Safety Review Staff
NU CON	Division of Nuclear Construction (obsolete abbreviation, see DNC)
NUMARC	Nuclear Utility Management and Resources Committee
OSHA	Occupational Safety and Health Administration (or Act)
ONP	Office of Nuclear Power
OWCP	Office of Workers Compensation Program
PHR	Personal History Record
PT	Liquid Penetrant Testing
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QC	Quality Control
QCI	Quality Control Instruction

**TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM**

REPORT NUMBER: 90400

FRONT MATTER REV: 1

PAGE viii OF viii

QCP	Quality Control Procedure
QTC	Quality Technology Company
RT	Radiographic Testing
SQN	Sequoyah Nuclear Plant
SI	Surveillance Instruction
SOP	Standard Operating Procedure
SRP	Senior Review Panel
SWEC	Stone and Webster Engineering Corporation
TAS	Technical Assistance Staff
TVA	Tennessee Valley Authority
UT	Ultrasonic Testing
VT	Visual Testing
WBECSP	Watts Bar Employee Concern Special Program
WBN	Watts Bar Nuclear Plant
WR	Work Request or Work Rules
WP	Workplans

1.0 CHARACTERIZATION OF ISSUES

Personal protective equipment (PPE) includes hardhats, safety glasses, ear plugs, gloves, foot protectors, and respirators. This equipment is normally used to prevent injuries from hazards that cannot be eliminated by equipment design or engineering controls. One of the limitations of PPE is that it prevents injuries only if a safety program that motivates employees to wear the equipment is implemented.

This subcategory contains concerns relating to the adequacy, availability, and use of PPE. These concerns are grouped into six elements based on the following perceived problems. None of the issues in this subcategory are nuclear safety-related.

1.1 Opposition To Use (Four Concerns)

Opposition was expressed to wearing hardhats and safety glasses at all times even though hazards may not be present.

1.2 Safety Glasses Obstruct Vision (Seven Concerns)

Safety glasses with side shields obstruct vision. Vision is also obstructed by poor quality lens that distort vision and cause eye strain. Also the required side shields cause debris to be blown into the eye. An employee attempting to avoid obstructed vision caused by distortion in lens of standard issue safety glasses was not able to obtain zero correction prescription lens from the construction organization.

1.3 Inconsistent Enforcement (Eight Concerns)

Enforcement of personal protective equipment rules is inconsistent between annual, Trades and Labor (T&L), plant and construction employees.

1.4 Failure To Use Shielding (Five Concerns)

Concerns indicated a failure to use portable shields when welding or grinding and failure to provide overhead protection in the Reactor Building 2 annulus area.

1.5 Inadequate Supply of Equipment (Eight Concerns)

The site does not have an adequate supply (summer 1985) of safety glasses or safety belts. Construction employees are not issued work gloves.

1.6 Sandblasting (Two Concerns)

Are concerns expressed about Kentucky Dam sand blasting equipment a problem at WBN?

The concerns from Kentucky Dam list problems such as wornout equipment and inoperable devices that the operator can use to stop airflow (deadman safety device).

2.0 SUMMARY

- 2.1 The six elements in this subcategory form two larger issues. The first issue deals with questions about the rules requiring PPE to be worn in work areas at all times. Also inconsistent enforcement of these rules is questioned.

The second issue addresses employee dissatisfaction with the availability of protective equipment and the use of protective barriers.

- 2.2 The method of evaluation was to review the previously completed employee concern reports to provide background information. Then applicable plant instructions, procedures, and correspondence were obtained and reviewed. The procedures and instructions were then compared with OSHA standards and ANSI standards. Field investigation included inspection of plant and construction areas, inspection of personal protective equipment available for issue, and interviews with employees, supervisors, and safety engineers.

- 2.3 No negative findings were identified relating to the requirement for use of PPE at all times while in work areas. Evaluation of the work reveals that hazards are not found only in specific areas or associated with certain jobs. These hazards can be effectively controlled only by wearing PPE at all times. Although there is personal inconvenience involved by wearing hardhats and safety glasses, accident experience has proven the ability of this equipment to prevent injuries. The value of preventing potentially serious injuries outweighs the associated inconvenience of the PPE.

The issue that enforcement of PPE policies is inconsistent between site groups such as plant, construction, annual, or T&L employees was not substantiated, but it was determined that site policy is not being effectively enforced. It was noted that 10 to 15 percent of all the above groups were not wearing safety glasses where required and many plant employees were violating safety rules by wearing athletic shoes in areas controlled by construction.

Although temporary shortages have occurred, good quality and adequate supplies of protective equipment are normally provided. Most of the shortages of safety glasses occurred when the site policy changed to 100-percent usage and adequate stocks of glasses were not on site.

No negative findings were identified relating to the use of protective barriers such as welding or grinding shields. However, interviews determined the construction organization is not fully implementing requirements to provide overhead protection for employees working in the reactor 2, annulus area.

2.4 The collective significance of these issues is that the Industrial Safety Program will be more effective if the rules for PPE are made uniform and are consistently enforced. Employee effectiveness will be improved if all employees have one set of PPE rules to follow.

2.5 The differing rules were caused by the construction and plant organizations developing over many years as separate organizations. In 1985 the organizations were combined into the Office of Nuclear Power.

3.0 EVALUATION PROCESS

3.1 Method of Evaluation

The method of evaluation was to review the previously completed employee concern reports to provide background information. Then applicable plant instructions, procedures, and correspondence were obtained and reviewed. Field investigation included inspection of plant and construction areas, inspection of personal protective equipment available for issue, and interviews with employees, supervisors, and safety engineers.

The method of evaluation was selected because the combination of interviews, field observations and equipment inspections provided a balanced and complete source of data.

Specific details for each of the issues are shown below:

3.1.1 Opposition To Use

Applicable plant and construction procedures were reviewed. Accident data on eye injuries before and after the change in safety glasses requirements were obtained.

Interviews were conducted with both plant and construction safety engineers. Ten observations were made of the use of personal protective equipment by employees.

3.1.2 Safety Glasses Obstruct Vision

Interviews were conducted with twenty plant and construction personnel followed by inspection of safety glasses available for issue at the warehouse. Finally, contact was made with Medical Services for their opinion on whether eye strain is caused by safety glasses.

3.1.3 Inconsistent Enforcement

Applicable plant and construction procedures or memorandums were reviewed. Then interviews with plant and construction safety engineers were conducted, followed by observations of protective equipment usage in plant and construction areas.

3.1.4 Failure To Use Shielding

Previously completed employee concern investigation reports were reviewed for background information. Then 14 employees were interviewed and work areas were observed to determine the extent of compliance with requirements.

3.1.5 Inadequate Supply of Equipment

Safety equipment was inspected in the plant and construction warehouses on September 1985 and April 1986. The WBN construction management assistant was contacted April 4, 1986, for information on the issuance of work gloves.

3.1.6 Sandblasting

Information was obtained in interviews with plant and construction employees involved in sandblasting and by inspection of sandblasting equipment.

3.2 Criteria and correspondence utilized

- A. Memorandum from W. T. Cottle to Guenter Wadewitz dated January 10, 1985, "Watts Bar Nuclear Plant - Eye Protection Program Policy"

This memorandum states why eye protection is necessary, details what type of protection is required, and describes when or where it is required.

- B. Watts Bar Nuclear Plant Hazard Control Instruction PPE2 - "Requirements for Wearing Hardhats and Safety Glasses"

This is the instruction for plant employees regarding use of hardhats and safety glasses.

- C. Memorandum from Guenter Wadewitz dated June 12, 1985, "Atts Bar Nuclear Plant - Policy Changes - Employee Use of Personal Protective Equipment"

This memorandum provides additional details concerning the implementation of the personal protective equipment regulations.

- D. Memorandum from Guenter Wadewitz dated July 11, 1985, "Employee Noncompliance with Personal Safety Requirements"

This memorandum instructs supervisors to enforce rules equally for both annual and T&L employees.

- E. Memorandum from W. I. Cottle dated September 19, 1985, "Safety Program - Dress Code Reminder"

This memorandum details what the construction organization PPE requirements are and instructs plant employees to conform to these rules when in areas controlled by construction.

- F. Memorandum from R. C. Smith dated October 25, 1985, relating to employee concerns involved with medical problems resulting from wearing safety glasses.

- G. DOL Standard 29 CFR 1926.451.A.(16)

This standard requires overhead protection for personnel on a scaffold exposed to overhead hazards.

4.0 Findings

4.1 Generic

The majority of the issues addressed by this subcategory are site-specific in nature. However, since the use of protective equipment is universal at all ONP sites, these findings and conclusions may be generally applied at other such sites. Therefore, these issues are being addressed through the development of ONP Standards (which are generic documents for all of ONP) and through the development of site procedures (which deal with site-specific circumstances).

The findings and conclusions of this subcategory report are not in conflict with any findings and conclusions generated as a result of previous investigations of the employee concerns addressed by this report.

4.2 Site-Specific: - WBN

4.2.1 Opposition To Use

Discussion

Overhead hazards and eye hazards exist throughout the plant, not just in specific locations. Sources of overhead hazards are overhead work associated with construction or maintenance. Sources of eye hazards are welding, grinding, chemicals, high pressure lines, etc.

It is accepted industry practice to use hardhats and safety glasses to control hazards that cannot be eliminated by equipment design or engineering controls. When hazards exist at transitory locations in a facility, a 100-percent protective equipment program is more effective in preventing accidents than a policy requiring protective equipment only when performing specific tasks.

Before April 1985, the site required protective equipment only for persons performing specific tasks. Since adopting the 100-percent protective equipment rule, eye injuries to plant employees have been reduced by 63 percent. Eye injuries to construction employees were reduced by 33 percent.

When the safety glasses policy was changed, employees not accustomed to wearing glasses experienced some discomfort. To minimize this problem, a selection of glasses were available and the glasses met the recognized standards for the manufacture of glasses. Glasses with antifog lens or antifog glasses cleaner are available. It is site policy that if employees are not satisfied with a pair of glasses they can exchange them for another pair. The glasses available in the warehouse are of good quality.

Conclusions

Some employees do oppose the wearing of personal protective equipment, but this resistance does not constitute a valid concern. The protection afforded by the PPE is more important than the wearer's discomfort.

4.2.2 Safety Glasses Obstruct Vision

Discussion

A comprehensive 100-percent eye protection program to minimize eye injuries was adopted by the site on January 10, 1985. Because they were not accustomed to wearing glasses at all times, many people had difficulty adjusting to wearing safety glasses. While some safety glasses do partially obstruct peripheral vision, this problem soon disappears after the person begins wearing glasses.

In addressing the issue that lens distortion obstructs vision TVA Medical Services was contacted. They advise that correctly prescribed lens or good quality industrial safety glass lens have not been shown to produce eye strain. They also state that because of the potentially serious nature of traumatic eye injuries, appropriate protective eyewear is essential in industrial environments where eye hazards exist. Inspection of safety glasses available for issue reveals that they are good quality glasses with no noticeable distortion .

If a plant employee is not satisfied with the fit or lens quality of safety glasses, they can obtain zero correction prescription through TVA. The construction organization's policy is to not provide this type of eye wear. While this does not present a safety problem, the conflict between interacting organizations creates a perception that safety is not equally important to all organizations.

To alleviate the concern that wearing safety glasses obstructs vision while backing trucks, construction supervision now permits drivers to remove safety glasses while backing. The concern that safety glasses side shields direct debris into the wearer's eyes was not substantiated. While this might happen in a peculiar case, side shields provide a greater degree of protection from blowing debris or flying particles than regular glasses.

Conclusions

Concerns addressing obstructed vision caused by safety glasses are not substantiated. The glasses that are available for issue are of good quality and the benefits of wearing glasses outweigh the discomfort of wearing them.

4.2.3 Inconsistent Enforcement

Discussion

Both the plant and construction organizations have specific rules for the use of personal protective equipment. One significant difference is that the plant allows leather athletic shoes to be worn and construction does not. Site rules require each organization to conform to the other's rules when in areas controlled by that organization.

In a memorandum dated July 11, 1985, the construction organization recognized that safety rules for T&L and for their salaried employees were not being enforced equally. The memorandum called for supervisors to take action to correct the problem. Inspections did not reveal that unequal enforcement now exists. The concern that construction employees must wear protective equipment at lunch is addressed in a memorandum dated June 12, 1985, that states personal protective equipment is not normally required to be worn during lunch periods.

A January 10, 1985 memorandum states that hardhats and safety glasses are required in "work areas." Observations in most plant and construction areas indicate approximately 85-percent conformance with safety glasses rules. Violators were not confined to a particular group, but included annual, T&L, plant, and construction personnel. Observations in the Temporary Service and Office Building (TSO) area and the Interim Office Building (IOB) area revealed widespread nonuse of hardhats and safety glasses. Observations reveal that many plant employees violate rules by wearing leather athletic shoes in construction areas.

Conclusion

The concern that groups, such as T&L, are being singled out for enforcement of safety glasses rules was not substantiated.

4.2.4 Failure to Use Shielding

Discussion

Plant and construction organizations require protective screens to be erected around welding or grinding operations when other employees are exposed to debris. Inspections reveal good compliance with requirements to provide shielding in shop areas. Work areas near walkways in construction areas have adequate shielding. The construction safety engineer states that occasional deficiencies in shielding do occur, primarily because work areas change frequently. Enforcement of the use of welding screens by supervisors is a continuing effort.

The annulus areas are arranged so that platforms and work areas are positioned over each other, and it is more than 100 feet from top to bottom. This is an area where construction and maintenance work can be expected to occur. Six inspections of this area have detected no work being performed over others, but the potential does exist. Paragraph 3.2.G above requires overhead protection for personnel on a scaffold exposed to overhead hazards.

An interview with a craftsman working in the annulus indicated that his crew works over and under others with no precautions taken for overhead hazards. He states he is aware of accidents where items have fallen down through the annulus. Interview with the craftsman's foreman confirms that working under or over others is an accepted hazard and that overhead protection is rarely erected.

Conclusion

The concern that adequate shields and barriers are not used when welding was not substantiated. The concern that overhead protection in the annulus is inadequate was substantiated.

4.2.5 Inadequate Supply of Equipment

Discussion

During the spring of 1985, the site instituted a 100-percent eye protection program with sideshields required by construction. At the beginning of the new program, there were temporary shortages of protective eyewear.

Plant and construction warehouses and toolrooms were checked during September 1985 and April 1986. An adequate supply and selection of safety glasses and safety belts were available. Safety glasses meet the ANSI Z87.1 standard and are of good quality.

Before institution of this program during April 1985, construction issued safety glasses without side shields. In April 1985, the policy was changed to require side shields on both prescription and nonprescription glasses. During the fall of 1985, construction dropped the requirement for side shields on prescription glasses but continued to purchase side shields on safety glasses.

The construction organization provides special purpose gloves, such as those used for chemical or electrical hazards, but does not provide general use work gloves. General use work gloves are provided by the plant organization.

Construction employees are required to obtain ear plugs from their foreman and not from the subwarehouse. This policy provides a means to account for the number of ear plugs used, but does not impede their issuance.

Conclusion

That portion of this issue which dealt with the adequacy of the supply of protective equipment is not substantiated. The site provides an adequate supply of good quality personal protective equipment. However, since a conflict exists between construction and plant policy on the issuance of general purpose work gloves, that portion of this issue which dealt with the availability of work gloves is substantiated.

4.2.6 Sandblasting

Discussion

Plant and construction painters state that the sandblasting protective equipment is in good condition. If additional or replacement equipment is needed they have no difficulty obtaining this through their supervision. Protective equipment was inspected and it was in apparent good condition. Deadman controls are operable.

Conclusion

This issue was not substantiated at WBN.

5.0 COLLECTIVE SIGNIFICANCE

5.1 Management Effectiveness

Management has not been effective in the enforcement of existing rules and procedures for personal protective equipment, nor have they been effective in ensuring that such rules and procedures are consistent for all site organizations. Since this is one of the most visible aspects of industrial safety, this lack of enforcement reflects on the entire safety program.

This has resulted in poor employee compliance, decreased employee moral, and unnecessary confusion on the part of employees, and has increased the probability that employees could be injured through their non-compliance with existing protective equipment rules and procedures.

5.2 Employee Effectiveness

Employees are not effective in their compliance with existing personal protective equipment rules and procedures, thereby increasing their risk of injury.

6.0 CAUSES

The major causes for the issues within this subcategory are (1) inconsistencies in personal protective equipment rules and procedures among the various site organizations, (2) a general lack of enforcement of such existing rules and procedures, and (3) a lack of implementation of existing rules and procedures for providing overhead protection for employees working under others.

7.0 CORRECTIVE ACTION

There are no outstanding corrective actions from any previous investigations or reports conducted on the employee concerns within this report.

Inconsistencies in policies, procedures, and rules among the various site organizations is a recognized problem at WBN. These inconsistencies are being addressed and resolved through the issuance of site-wide policies, procedures, and rules by a subcommittee composed of members of the various site organizations.

These inconsistencies and management's lack of support of the safety program are addressed by Corrective Action Tracking Documents (CATDs) within the Management of Safety Subcategory report (Report 90100) of the Industrial Safety Category as follows:

CATD numbers 90100-1, 5, and 9 establish a Central Safety Committee (CSC) at WBN. This committee (which is already in place and functional) has as its primary purpose to improve the enforcement by line management of the safety program. The subcommittee referenced above is a part of the CSC.

The following is a list of CATDs and their respective corrective action plans generated as a result of this evaluation.

7.1 Site-Specific - WBN

A. CATD 90400-1

Problem Description: Overhead protection is not being utilized by construction personnel in the Reactor Building 2 annulus. Employees work over or under others without providing protection from falling objects.

Corrective Action Plan: The construction organization will implement the following action by October 1, 1986.

- a. The inspection processes for the Reactor Building 2 annulus area will target housekeeping on all elevations with no loose materials as the objective.
- b. The Construction Superintendent's Office (CSO) will require craft workers to utilize tool containers, properly tied off, to reduce probability of loose tools being dislodged from work locations.
- c. The CSO will obtain and install a roofing method for scaffolding in the "open space" between containment buckstays (rings) and the shield wall. This process will be required standard operating procedure for any scaffolding elevation other than the top buckstay (ring) where the potential hazard does not exist.
- d. Workplans developed by Construction Engineer's Office (CEO) will note this area as a high potential location for falls and falling objects and will include appropriate safety requirements in the safety section of said plans.

B. CAID 90400-2

Problem Description: Approximately 85 to 90 percent of the employees in construction areas are wearing the required eye protection. Persons noted not complying with the rules include plant employees, construction employees, annual employees, T&L employees and contractors.

Corrective Action Plan: The construction organization will implement the following to correct the problem above.

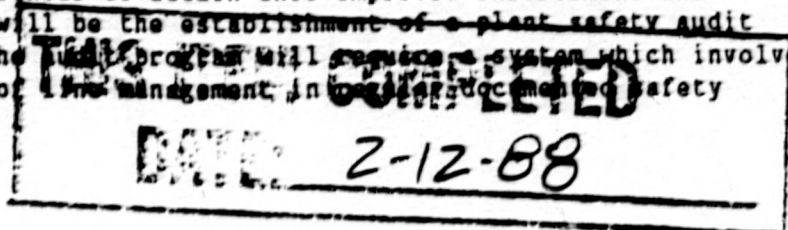
- a. Working through the Central Safety Committee (CSC) (rules and procedures subcommittee) develop and distribute a clear, concise, and consistent protective eyewear/footwear policy for all site employees. This will be accomplished by January 1, 1987.
- b. By use of the Nuclear Construction "interlocking safety inspection" process, identify program weaknesses and hold responsible employees and supervisors accountable for their noncompliance. This will be accomplished by December 1, 1986.

In addition, DNC will increase interim enforcement of existing eye protection rules by line management.

C. CAID 90400-3

Problem Description: Approximately 85 to 90 percent of the employees in plant areas are wearing the required eye protection. Persons noted not complying with the rules include plant employees, construction employees, annual employees, T&L employees and contractors.

Corrective Action Plan: One of the site's major goals for the recently developed CSC is to achieve more safety involvement and accountability on the part of line management. This committee will provide the direction necessary to ensure significantly improved line enforcement of all site-safety rules. One of the principal methods to attain this improved enforcement and compliance will be the establishment of a plant safety audit program. The audit program will require a system which involves all levels of line management in documented safety



inspections to determine unsafe acts and conditions. Audit findings and resultant corrective actions will be tracked and reviewed as a standing condition for the CSC at least monthly. The plant safety audit program will be initiated by January 1, 1987.

In addition to these measures, OMF will target eye protection for increased enforcement by line management.

D. CATD 90400-4

Problem Description: A high percentage of employees and contractors do not wear hard hats or safety glasses in areas around the ISO, Modifications Building, and the IOB. The policy should either be revised or enforced.

Corrective Action Plan: The rules requiring PPE in these areas will be evaluated. If the evaluation determines that hazards in these areas do not warrant the use of PPE, the rules will be changed. If PPE is required the rules will be enforced. This decision will be made by March 1, 1987.

E. CATD 90400-5 and 6

Problem Description: Plant employees can be provided with zero correction prescription safety glasses and general purpose work gloves, but these are not provided to construction employees.

Corrective Action Plan: Overall site policy concerning safety glasses, protective clothing, etc., will be brought before the site CSC subcommittee for Safety Rules and Procedures by January 1, 1987, by the construction organization.

06
ONLY

F. CATD 90400-7

Problem Description: The concerns that rules for footwear are being inconsistently enforced was substantiated. Plant employees wear leather athletic shoes in construction areas in violation of site rules.

Corrective Action Plan: The current rules governing footwear within the construction organization will be targeted for increased enforcement. Working through the CSC (rules and procedures subcommittee) the construction organization will develop and distribute a clear, concise, and consistent protective eyewear/footwear policy for all site employees. By use of the "interlocking safety inspection" process, construction will identify program weaknesses and hold responsible employees and supervisors accountable for their noncompliance.

G. CAID 90400-8

Problem Description: The concerns that rules for footwear are being inconsistently enforced was substantiated. Plant employees wear leather athletic shoes in construction areas in violation of site rules.

Corrective Action Plan: Working through the Safety Rules and Procedures Subcommittee, the CSC will develop a consistent protective footwear policy for all site employees. The policy and a memorandum informing all employees of policy revisions will be issued by March 1, 1987. Until such policy is implemented, compliance with existing footwear regulations will receive additional emphasis.

8.0 LIST OF EVALUATORS

J. T. Rogers

9.0 ATTACHMENTS

Attachment A - Subcategory Summary Table

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 SP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 1
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904
EX-85-045-00201 T50162	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	EX-85-045-002	QTC	SOME OF THE SAFETY PROCEDURES ARE CARRIED TOO FAR AND SOME SAFETY EQUIPMENT IS A HINDERANCE IN SOME PLACES. (SAFETY GLASSES) CONSTRUCTION CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOWUP REQUIRED.	4.2.1
EX-85-066-00301 T50183	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	EX-85-066-003	QTC	SAFETY GLASSES ARE REQUIRED TO BE WORN IN AREAS THEY ARE NOT NEEDED. AT TIMES THEY POSE A HAZARD BECAUSE THEY FOG UP AND A PERSON CANNOT SEE OUT OF THE TOP OF THEM. CONSTRUCTION DEPT. CONCERN. CI HAS NO ADDITIONAL	4.2.2
EX-85-098-00101 T50191	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	EX-85-098-001	QTC	CRAFTWORKERS CANNOT GET EARPLUGS DIRECTLY FROM SUBWAREHOUSE TOOL ROOM (ALTHOUGH THEY CAN SIGN FOR OTHER EXPENDABLE ITEMS SUCH AS SAFETY GLASSES/SIDE SHIELDS). THIS CAUSES CRAFT TO OCCASIONALLY BE WITHOUT EAR PROTECTION. HAD NO FURTHER INFORMATION. CONSTRUCTION DEPT. CONCERN.	4.2.5

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 NP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 2
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION # CAT - SF SUBCAT - 904
85-138-00401 T50235	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA E		QTC	SAFETY RULES (WEARING OF HARD HATS AND WORK SHOES) ARE NOT EQUALLY IMPOSED ON CRAFT AND ANNUAL PERSONNEL, THOUGH BOTH WORK IN THE SAME AREAS AND ARE EXPOSED TO THE SAME HAZARDS. CONSTRUCTION DEPARTMENT CONCERN. CIP WORK REQUIRED.	4.2.3, 6.0 (2), 7.1 (G)
85-168-00101 T50025	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-85-168-001	QTC	CAN'T SEE OUT OF SAFETY GLASSES BECAUSE OF GLARE. TVA IS MORE CONCERNED WITH THE APPEARANCE OF COMPLIANCE THAN THE SAFETY GLASSES REQUIREMENT THAN THAT THEY ARE WITH THE FUNCTION OF THE GLASSES	4.2.2
85-185-00201 T50022	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA C	IN-85-185-002	QTC	DOUBLE STANDARDS FOR IMPOSITION OF SAFETY RULES. CRAFTS ARE CITED FOR NOT WEARING SAFETY GLASSES/HARD HATS WHETHER IN A "WORK" ZONE OR NOT YET ANNUALS AND OTHER INDIVIDUALS WALK AROUND WITHOUT SAFETY GLASSES OR HARD HATS	4.2.3, 6.2, 7.2.B

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 IP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 3
 RUN TIME - 15:50:14
 RUN DATE - 01/28/87

LEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION # CAT - SF SUBCAT - 904
IN-85-194-00301 T50226	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A		QTC	CRAFT PERSONNEL ARE REQUIRED TO HEAR HARD HATS AND SAFETY GLASSES WHETHER THEY ARE IN A WORK AREA OR NOT, WHETHER AS POWER PRODUCTION PERSONNEL CONSTANTLY WALK THROUGH WORK AREAS WITHOUT THEM. CI HAS NO FURTHER INFORM	4.2.3, 6.0(2), 7.1(B)
IN-85-205-00201 T50007A	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-85-205-002	QTC	IVA ISSUE SAFETY GLASSES CAUSE EYE STRAIN AND LOSS OF DEPTH PERCEPTION DUE TO POOR QUALITY OF THE LENSES. IVA ALSO IMPEDES THE ISSUANCE OF ZERO CORRECTION SAFETY GLASSES (PRESCRIPTION)	4.2.2, 6.0(1), 7.1(B)
IN-85-399-00201 T50013	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-85-399-002	QTC	ANNUAL AND OUTAGE EMPLOYEES ARE NOT REQUIRED TO FOLLOW THE SAME SAFETY RULES CONCERNING HARD HATS AND FOOTWEAR THAT ARE APPLICABLE TO CONSTRUCTION PERSONNEL, EVEN THOUGH THEY WORK IN THE SAME AREAS OF THE PLANT. CONLS ARE AVAILABLE	4.2.3, 6.0(1), 7.1(B)

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 P - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 4
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL				HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION #		
					2 SAF RELATED	3 FIND CLASS	BF	BL				SQ	WB	CAT
IN-85-437-00401 T50027	SF	904	N	WBN	1	N	N	N	Y	IN-85-437-004	QTC	SAFETY RULES (SAFETY BELTS, GLASSES, HARD HATS, ETC...) ARE ENFORCED FOR CRAFTS (ALL) YET "WHITE HATS" CONTINUE TO VIOLATE THESE RULES WITH NO DISCIPLINARY ACTION TAKEN.	4.2.3,	6.0(2), 7.1(B)
					2	NA	NA	NA	NO					
					3	NA	NA	NA	A					
IN-85-487-00201 T50065	SF	904	N	WBN	1	N	N	N	Y	IN-85-487-002	QTC	SAFETY GLASSES ISSUED TO CONSTRUCTION PERSONNEL DO NOT HAVE SIDE SHIELDS BUILT IN, REQUIRING USE OF SLIP-ON SIDE SHIELDS, WHICH WOULD BE ONLY marginally effective. CRAFT PERSONNEL ASSIGNED TO POWER DIVISION ARE ISSUED GENERAL SIDE SHIELDS. C/I CONSIDERS THIS SITUATION DISCRIMINATORY, AND DETRIMENTAL TO PERSONNEL SAFETY. NO FURTHER SPECIFICS AVAILABLE.	4.2.5	
					2	NA	NA	NA	NO					
					3	NA	NA	NA	C					
IN-85-539-00301 T50042	SF	904	N	WBN	1	N	N	N	Y	IN-85-539-003	QTC	PROVIDE BETTER EYE PROTECTION FOR EMPLOYEES. (DETAILS KNOWN BY QTC)	4.2.5	
					2	NA	NA	NA	NO					
					3	NA	NA	NA	A					

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 IP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 5
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL				HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904	
					2 SAF RELATED	3 FIND CLASS	BF	BL					SQ
1-85-564-00201 T50048	SF	904	N	WBN	1	N	N	N	Y		QTC	PERSONNEL SAFETY PROBLEM WITH EQUIPM ENT. (QTC HAS DETAILS)	4.2.5
					2	NA	NA	NA	NO				
					3	NA	NA	NA	A				
1-85-578-00101 T50052	SF	904	N	WBN	1	N	N	N	Y	IN-85-578-001	QTC	PERSONAL SAFETY REQUIREMENTS OFTEN V IOLATED DURING CONSTRUCTION, AS WHEN WELDERS DO NOT USE CURTAINS/BARRIER S WHILE GRINDING AND WELDING.	4.2.4
					2	NA	NA	NA	NO				
					3	NA	NA	NA	A				
1-85-651-00101 T50062	SF	904	N	WBN	1	N	N	N	Y		QTC	DOUBLE STANDARD WITH RELATION TO THE HEARING OF HARDHATS & SAFETY GLASSE S ON THE JOB AT ALL TIMES. WB EMPLO YEEES AT THE ADMIN. BLDG. & SURROUNDI NG AREA ARE NOT REQUIRED TO HEAR SAF ETY EQUIPMENT (HATS, GLASSES, SHOES)	4.2.3, 6.0(2), 7.1(3)
					2	NA	NA	NA	NO				
					3	NA	NA	NA	B				

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 MP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 6
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ WB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION # CAT - SF SUBCAT - 904
1 -85-708-00101 T50080	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA D	IN-85-708-001	QTC	NUCLEAR POWER PERSONNEL ARE NOT REQUIRED TO COMPLY WITH THE SAME SAFETY RULES AS CONSTRUCTION PERSONNEL, EVEN THOUGH BOTH GROUPS WORK IN THE SAME AREA. EXAMPLES INCLUDED HEARING OR NOT HEARING OF HARD HATS, SAFETY GOGGLES, NO FURTHER SPECIFICS.	4.2.3, 6.0(2), 7.1(3)
1 -85-713-00201 T50069	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-85-713-002	QTC	YELLOW "WRAP-AROUND" SAFETY GLASSES ARE UNSAFE WHEN USED BY ANY INDIVIDUAL DRIVING A VEHICLE WITH A WINDSHIELD OR WINDOWS. IT IS IMPOSSIBLE TO SEE OUT THE "SIDES" OF THE GLASSES WHEN YOU TURN YOUR HEAD TO BACK-UP. NO FURTHER INFORMATION AVAILABLE.	4.2.2
1 -85-776-00101 T50082	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA C	IN-85-776-001	QTC	THE AVAILABILITY OF SAFETY EQUIPMENT SUCH AS SAFETY GLASSES AND BELTS IS POOR. POWER STORES DOES NOT KEEP SUFFICIENT SAFETY EQUIPMENT ON HAND. THERE IS A NEED FOR A STOCKED SAFETY LOCKER ON POWER SIDE. NO ADDITION	4.2.5

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 WP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 7
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S M R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904
1 -85-819-00101 T50086	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-85-819-001	QTC	THE SIDE SHIELDS FOR EYEGASSES, DIRECTS DEBRIS INTO THE EYES WHEN THE WIND BLOWS.	4.2.2
11 -85-819-00201 T50086	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA E	IN-85-819-002	QTC	THE SAFETY DEPARTMENT DOES NOT ENFORCE REGULATIONS EVENLY IN THAT SOME PEOPLE IN SHOP AREAS WEAR TENNIS SHOES AND NO SIDE SHIELDS ON EYE GLASSES	4.2.3, 6.0(2), 7.1(G)
11 -85-934-00201 T50096	SF	904	N	HBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A		QTC	PORTABLE WELDING SHIELDS ARE OFTEN INCOMPLETELY INSTALLED (OPEN ON ONE OR MORE SIDES) WHICH SUBJECTS INDIVIDUALS WHO MUST WALK PAST THESE OPEN AREAS TO ARE FLASHES AND FLYING DEBRIS FROM GRINDING OPERATIONS. C/I HAS P REQUIRED.	4.2.4

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 IP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 8
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL				HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION # CAT - SF SUBCAT - 904	
					2 SAF RELATED	3 FIND CLASS	BF	BL					SQ
1-85-989-00501 150104	SF	904	N	WBN	1	N	N	N	Y	IN-85-989-005	QTC	RECENT RULE CHANGE REQUIRES THAT EVERYONE WEAR SAFETY GLASSES PAST BREEZEWAY, BUT CI AND OTHERS HAVE TRIPPED BECAUSE SAFETY GLASSES DISTORT VISION. CI HAS NO FURTHER INFORMATION. NO FOLLOW UP REQUIRED.	4.2.2
					2	NA	NA	NA	NO				
					3	NA	NA	NA	B				
1-86-031-00101 150113	SF	904	N	WBN	1	N	N	N	Y		QTC	CRAFTS (KNOWN) HAVE REQUESTED WORK GLOVES, TO NO AVAIL. CI HAS NO FURTHER INFORMATION (SUBMISSION OF DETAILS, KNOWN TO QTC, WOULD COMPROMISE CI'S CONFIDENTIALITY). NO FOLLOW UP REQUIRED.	4.2.5, 6.0(1), 7.1(G)
					2	NA	NA	NA	NO				
					3	NA	NA	NA	D				
1-86-100-00101 150120	SF	904	N	WBN	1	N	N	N	Y	IN-86-100-001	QTC	TVA DOES NOT HAVE AN ADEQUATE SUPPLY OF PROTECTIVE EYEWEAR, SPECIFICALLY CLEAR EYE GOGGLES WHICH PROVIDE FULL FRONT AND SIDE PROTECTION. COMMON TO BOTH UNITS/HUC POWER CONCERN/PERSONNEL SAFETY DEPT PROBLEM/ONGOING	4.2.5
					2	NA	NA	NA	NO				
					3	NA	NA	NA	C				

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 SP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 9
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ NB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904
IN-86-149-00101 150127	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-86-149-001	QTC	IT IS NOT HEALTHY FOR EMPLOYEES TO BE FORCED TO WEAR SAFETY GLASSES 8 HOURS A DAY, UNLESS THE EMPLOYEE IS IN A HAZARDOUS AREA CONTINUALLY. CI FEELS THAT CONTINUOUS WEARING OF SAFETY GLASSES COULD CAUSE EYE STRAIN, A EYE EXAMINATIONS OF EMPLOYEES TO DETECT THIS TYPE OF STRAIN. CONSTRUCTION CONCERN. CI HAS NO FURTHER INFORMATION.	4.2.2
IN-86-182-00301 150123	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA A	IN-86-182-003	QTC	SOME WELDING AREAS DO NOT HAVE ADEQUATE WRAPERY PROTECTION TO PROTECT ADJACENT PERSONNEL FROM EYE/SKIN BURNS. CONSTRUCTION DEPT CONCERN. CI HAS NO ADDITIONAL INFORMATION.	4.2.4
IN-86-251-00101 150145	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	IN-86-251-001	QTC	SAFETY GLASSES MUST BE WORN IN ALL AREAS. DUE TO THE HEAT IN SOME AREAS, IT CAUSES THE GLASSES TO FOG, THEREBY CAUSING AN UNSAFE CONDITION. CONSTRUCTION DEPT. CONCERN. CI HAS NO FURTHER DETAILS. NO FOLLOW UP REQUIRED.	4.2.1

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 IP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 10
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL 2 SAF RELATED 3 FIND CLASS BF BL SQ HB	HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904
IN-86-258-00301 T50145	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	IN-86-258-003	QTC	HARD HAT AND SAFETY GLASSES MUST BE WORN AT ALL TIMES IF IN A SPECIFIC AREA. CI FEELS SAFETY GLASSES AND HARD HAT ARE NECESSARY ONLY IF OPERATING OR WORKING AROUND A HAZARD. A LETTER OF DISCIPLINARY ACTION RESULTS IN PARTIAL CONCERN. CI HAS NO FURTHER DETAILS. NO FOLLOW UP REQUIRED.	4.2.1
IN-86-295-00301 T50151	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	IN-86-295-003	QTC	SAFETY GLASSES ARE MANDATORY FOR AREAS WHERE HAZARDS EXIST. CI FEELS THIS IS UNNECESSARY NUC. POWER DEPT CONCERN. CI HAS NO ADDITIONAL INFORMATION. NO FOLLOW-UP REQUIRED.	4.2.1
IN-86-302-00601 T50161	SF	904	N	WBN	1 N N N Y 2 NA NA NA NO 3 NA NA NA B	IN-86-302-006	QTC	WELDERS ARE ALLOWED TO WORK DIRECTLY ABOVE OTHER WORKERS WITHOUT PROPER PROTECTION FOR THOSE BELOW. SPARKS AND OBJECTS FALL BELOW ON WORKERS; R B #2, ANNULUS AREA. CONSTRUCTION CONCERN. CI HAS NO ADDITIONAL INFORMATION.	4.2.4, 6.2, 7.2.A, 6.0(3), 7.1(A)

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 WP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 11
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

CATEGORY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S H R D	PLT LOC	1 REPORT APPL			HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION CAT - SF SUBCAT - 904
					2 SAF RELATED	3 FIND CLASS	BF BL SQ HB				
00-85-001-01001 T50079	SF	904	N	WBN	1 N	2 NA	3 NA	00-85-001-010	QTC	SANDBLASTING HELMETS (FOR SUPPLYING CLEAN AIR) HAVE HOLES IN THEM AND DO NOT PROTECT PERSONNEL FROM INHALING DEBRIS CAUSED BY SANDBLASTING. (KENTUCKY DAM HYDRO PLANT) NAME OF SUPERVISOR KNOWN; PERSONS INJURED KNOWN;	4.2.6
00-85-001-01101 T50079	SF	904	N	WBN	1 N	2 NA	3 NA	00-85-001-011	QTC	PROPER EQUIPMENT IS NOT PROVIDED TO PROTECT EMPLOYEES FROM SKIN CONTACT WITH SANDBLASTING DEBRIS. (KENTUCKY DAM HYDRO PLANT) SANDBLASTING SUITS (COVERALLS) ARE NOT PROVIDED, SUPERVISORS NAME KNOWN, TIME OF OCCURANCE	4.2.6
00-85-MDM-1	01	SF 904	N	WBN	1 N	2 NA	3 NA		DECP	CI RECOMMENDS PLACING SAFETY BELTS IN THE PLANT NEXT TO STEP LADDERS AND EXTENSION LADDERS. THEY SHOULD BE CONTROLLED BY THE SAME METHOD - COLOR CODED SO THEY WON'T BE REMOVED. AND DIFFERENT SIZES (S,M,L)	4.2.5

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 WP - ISSS - RHM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECPS)
 EMPLOYEE CONCERN INFORMATION BY CATEGORY/SUBCATEGORY
 SUBCATEGORY: 904 PROTECTIVE EQUIPMENT

PAGE - 12
 RUN TIME - 16:50:14
 RUN DATE - 01/28/87

LEGACY: SF INDUSTRIAL SAFETY

CONCERN NUMBER	CAT	SUB CAT	S R D	PLT LOC	1 REPORT APPL				HISTORICAL REPORT	CONCERN ORIGIN	CONCERN DESCRIPTION	REF. SECTION # CAT - SF SUBCAT - 904	
					2 SAF RELATED	3 FIND CLASS	BF	BL					SQ
DN-227	01	SF 904	N	WBN	1	N	N	N	Y		OECP	INDIVIDUAL IS CONCERNED THAT WELDERS HERE NOT USING ADEQUATE SHIELDING TO PREVENT MOLTEN METAL FROM FLYING OUT INTO PASSAGE WAY.	4.2.4
					2	NA	NA	NA	NO				
					3	NA	NA	NA	A				

34 CONCERNS FOR CATEGORY SF SUBCATEGORY 904

CONCERNS ARE GROUPED BY FIRST 3 DIGITS OF SUBCATEGORY NUMBER.

ECSP CORRECTIVE
Action Tracking Document
(CATD)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CATD No. 90400-1 4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP - NU CON - WB
6. PROBLEM DESCRIPTION: QR NQR The concern that overhead protection is not being utilized in the RB-2 annulus was substantiated. Employees work over or under others without providing protection from falling objects.

ATTACHMENTS

7. PREPARED BY: NAME Tom Rogers TR DATE: 8-11-86
8. CONCURRENCE: CEG-H: Loe S. Miller DATE: 8/17/86
9. APPROVAL: ECTG PROGRAM MGR. Deborah L. Miller DATE: 2/2/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: SEE ATTACHMENT

ATTACHMENTS

11. PROPOSED BY: DIRECTOR/MGR: Jim J. Poirier DATE: 8/19/86
12. CONCURRENCE: CEG-H: _____ DATE: _____
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE

TITLE

DATE

ECSP CORRECTIVE
Action Tracking Document
(CAID)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CAID No. 90400-2
4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP-NU CON-WB
6. PROBLEM DESCRIPTION: QR NQR Approximately 85 to 90 percent of the employees in plant areas are wearing the required eye protection. Persons noted not complying with the rules include plant employees, construction employees, annual employees, T&L employees and contractors.

7. PREPARED BY: NAME Tom Rogers ATTACHMENTS
DATE: 8-11-86
8. CONCURRENCE: CEG-H *[Signature]* DATE: 8/12/86
9. APPROVAL: ECTG PROGRAM MGR. *[Signature]* DATE: 8/21/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: SEE ATTACHMENT

11. PROPOSED BY: DIRECTOR/MGR: *[Signature]* ATTACHMENTS
DATE: 8/19/86
12. CONCURRENCE: CEG-H: _____ DATE: _____
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP CORRECTIVE
Action Tracking Document
(CATD)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CATD No. 90400-3
4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP-WB
6. PROBLEM DESCRIPTION: QR NQR Approximately 85 to 90 percent of the employees in plant areas are wearing the required eye protection. Persons noted not complying with the rules include plant employees, construction employees, annual employees, T&L employees and contractors.
7. PREPARED BY: NAME Tom Rogers ATTACHMENTS DATE: 8-11-86
8. CONCURRENCE: CEG-H Tom S. [unclear] DATE: 8/13/86
9. APPROVAL: ECTG PROGRAM MGR. [Signature] DATE: 2/2/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See attached.
11. PROPOSED BY: DIRECTOR/MGR: [Signature] ATTACHMENTS DATE: _____
12. CONCURRENCE: CEG-H: _____ DATE: _____
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP CORRECTIVE
Action Tracking Document
(CATD)

INITIATION

- 1. Immediate Corrective Action Required: Yes No
 - 2. Stop Work Recommended: Yes No
 - 3. CATD No. 90400-4
 - 4. INITIATION DATE 8-11-86
 - 5. RESPONSIBLE ORGANIZATION: ONP-WB
 - 6. PROBLEM DESCRIPTION: QR NQR The memo describing the eye protection program policy at WBN dated January 1, 1985 from W. T. Gottle and Guenter Wadewitz, states eye protection and hard hats shall be worn in work areas. A high percentage of employees and contractors do not wear this equipment in areas around the TSOB, Modifications Building, and the IOB. This policy should either be revised or enforced.
- ATTACHMENTS
- 7. PREPARED BY: NAME Tom Rogers DATE: 8-11-86
 - 8. CONCURRENCE: CEG-H Tom Rogers DATE: 8/17/86
 - 9. APPROVAL: ECTG PROGRAM MGR. [Signature] DATE: 2/2/87

CORRECTIVE ACTION

- 10. PROPOSED CORRECTIVE ACTION REASON: See attached.
- 2-5-88
- 11. PROPOSED BY: DIRECTOR/MGR: [Signature] ATTACHMENTS DATE: _____
 - 12. CONCURRENCE: CEG-H: _____ DATE: _____
 SRP: _____ DATE: _____
 ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

- 13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP CORRECTIVE
Action Tracking Document
(CATD)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CATD No. 90400-5
4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP-NU CON-WB
6. PROBLEM DESCRIPTION: QR NQR Plant employees can be provided with zero correction prescription safety glasses and general purpose work gloves. Because only one concern was submitted on each of these items and they do not directly effect employee safety, the significance to the site is minimal. This is an issue that would be within the scope of the site Control Safety Committee subcommittees for Safety Rules and Procedures.
7. PREPARED BY: NAME Tom Rogers ATTACHMENTS DATE: 8-11-86
8. CONCURRENCE: CEG-H Tom Rogers DATE: 8/15/86
9. APPROVAL: ECTG PROGRAM MGR. DeWitt DATE: 2/2/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: Overall site policy concerning safety glasses, protective clothing ect, will be brought before the site Central Safety Committee subcommittees for Safety Rules and Procedures.
11. PROPOSED BY: DIRECTOR/MGR: Gene Flambert ATTACHMENTS DATE: 8/20/86
12. CONCURRENCE: CEG-H: Lon E. Hill DATE: 8/22/86
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE

TITLE

DATE

ECSP CORRECTIVE
Action Tracking Document
(CAID)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CAID No. 90400-6
4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP-WB
6. PROBLEM DESCRIPTION: QR NQR Plant employees can be provided with zero correction prescription safety glasses and general purpose work gloves. Because only one concern was submitted on each of these items and they do not directly affect employee safety, the significance to the site is minimal. This is an issue that would be within the scope of the site Central Safety Committee subcommittee for Safety Rules and Procedures.
7. PREPARED BY: NAME Tom Rogers DATE: 8-11-86
8. CONCURRENCE: CEG-H Tom E. Rogers DATE: 8/17/86
9. APPROVAL: ECTG PROGRAM MGR. [Signature] DATE: 2/2/87

ATTACHMENTS

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN:
See attached.
11. PROPOSED BY: DIRECTOR/MGR: [Signature] DATE: _____
12. CONCURRENCE: CEG-H: _____ DATE: _____
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

THIS ITEM COMPLETED
DATE: 2-12-88

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP CORRECTIVE
Action Tracking Document
(CAID)

INITIATION

1. Immediate Corrective Action Required: Yes No
 2. Stop Work Recommended: Yes No
 3. CAID No. 90400-7
 4. INITIATION DATE 8-11-86
 5. RESPONSIBLE ORGANIZATION: ONP-NU CON-WB
 6. PROBLEM DESCRIPTION: QR NCR The concerns that rules for footwear is being inconsistently enforced was substantiated. Plant employees wear leather athletic shoes in construction areas in violation of site rules. Differing rules for interacting groups has an adverse effect on the safety program and makes enforcement of the rules more difficulty.
- ATTACHMENTS
7. PREPARED BY: NAME Tom Rogers T.R. DATE: 8-11-86
 8. CONCURRENCE: CEG-H Don Ellis DATE: 8/12/86
 9. APPROVAL: ECTG PROGRAM MGR. D. Stewart DATE: 2/2/87

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: SEE ATTACHMENT
- _____

- ATTACHMENTS
11. PROPOSED BY: DIRECTOR/MGR: Sam Flinter DATE: 8/19/86
 12. CONCURRENCE: CEG-H: _____ DATE: _____
SRF: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE

ECSP CORRECTIVE
Action Tracking Document
(CATD)

INITIATION

1. Immediate Corrective Action Required: Yes No
2. Stop Work Recommended: Yes No
3. CATD No. 90400-8
4. INITIATION DATE 8-11-86
5. RESPONSIBLE ORGANIZATION: ONP-WB
6. PROBLEM DESCRIPTION: QR NQR The concerns that rules for footwear is being inconsistently enforced was substantiated. Plant employees wear leather athletic shoes in construction areas in violation of site rules. Differing rules for interacting groups has an adverse effect on the safety program and makes enforcement of the rules more difficulty.
7. PREPARED BY: NAME Tom Rogers *TR* ATTACHMENTS DATE: 8-11-86
8. CONCURRENCE: CEG-H Lon Sallee DATE: 8/12/86
9. APPROVAL: ECTG PROGRAM MGR. [Signature] DATE: 8/21/86

CORRECTIVE ACTION

10. PROPOSED CORRECTIVE ACTION PLAN: See attached.
11. PROPOSED BY: DIRECTOR/MGR: [Signature] ATTACHMENTS DATE: _____
12. CONCURRENCE: CEG-H: _____ DATE: _____
SRP: _____ DATE: _____
ECTG PROGRAM MGR: _____ DATE: _____

VERIFICATION AND CLOSEOUT

13. Approved corrective actions have been verified as satisfactorily implemented.

SIGNATURE TITLE DATE