UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

July 25, 1997

Charles M. Dugger, Vice President
Operations - Waterford 3
Entergy Operations, Inc.
P.O. Box B
Killona, Louisiana 70066

SUBJECT: NRC INSPECTION REPORT 50-382/97-05

Dear Mr. Dugger:

Thank you for your letter of July 8, 1997, in response to our letter and Notice of Violation dated May 23, 1997. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation regarding Examples 1, 2, and 3 of the violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained regarding Examples 1, 2, and 3.

As a result of our review of Example 4 (involving welding on a containment spray line as opposed to a safety injection line), we have found that additional information is needed. This need was discussed with Mr. T. Gaudet during a telephone call on July 22, 1997. Specifically, the proposed corrective action for Example 4 was only to counsel the team leader. However, we identified in our inspection report that Example 4 revealed many breached barriers. The additional information that we are requesting should address your proposed corrective actions to remedy the causes that led to all of the barrier failures.

As agreed during our telephone call, please provide the additional information by August 22, 1997. This time extension will enable your completion of the root cause analysis and the finalization of corrective actions.

Sincerely,

Dwight D. Chamberlain

for Arthur T. Howell III, Director
Division of Reactor Safety

Docket No.: 50-382
License No.: NPF-38

cc:
Executive Vice President and
Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Vice President, Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Wise, Carter, Child & Caraway
P.O. Box 651
Jackson, Mississippi 39205

General Manager, Plant Operations
Waterford 3 SES
Entergy Operations, Inc.
P.O. Box B
Killona, Louisiana 70066

Manager - Licensing
Waterford 3 SES
Entergy Operations, Inc.
P.O. Box B
Killona, Louisiana 70066

Chairman
Louisiana Public Service Commission
One American Place, Suite 1630
Baton Rouge, Louisiana 70825-1697

Director, Nuclear Safety &
Regulatory Affairs
Waterford 3 SES
Entergy Operations, Inc.
P.O. Box B
Killona, Louisiana 70066

William H. Spell, Administrator
Louisiana Radiation Protection Division
P.O. Box 82135
Baton Rouge, Louisiana 70884-2135

Parish President
St. Charles Parish
P.O. Box 302
Hahnville, Louisiana 70057

Mr. William A. Cross
Bethesda Licensing Office
3 Metro Center
Suite 610
Bethesda, Maryland 20814

Winston & Strawn
1400 L Street, N.W.
Washington, D.C. 20005-3502

bcc to DCD (IE01)

bcc distrib. by RIV:

Regional Administrator	Resident Inspector
DRP Director	DRS-PSB
Branch Chief (DRP/D)	MIS System
Project Engineer (DRP/D)	RIV File
Branch Chief (DRP/TSS)	Leah Tremper (OC/LFDCB, MS: TWFN 9E10)

DRS AI 97-G-0057

DOCUMENT NAME: R:_WAT\WT705ak.WMM

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:RI:MB		C:MB	C	D:DRP		D:DRS	
WMMcNeill/lmb		DAPowers		TPGwynn		ATHowell III	
07/11/97		07/12/97		07/23/97		07/28/97	

OFFICIAL RECORD COPY

bcc to DCD (IE01)

bcc distrib. by RIV:

Regional Administrator	Resident Inspector
DRP Director	DRS-PSB
Branch Chief (DRP/D)	MIS System
Project Engineer (DRP/D)	RIV File
Branch Chief (DRP/TSS)	Leah Tremper (OC/LFDCB, MS: TWFN 9E10)

DRS AI 97-G-0057

DOCUMENT NAME: R:_WAT\WT705ak.WMM

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:RI:MB		C:MB	C	D:DRP		D:DRS	
WMMcNeill/lmb		DAPowers		TPGwynn		ATHowell III	
07/21/97		07/22/97		07/23/97		07/28/97	

OFFICIAL RECORD COPY

Entergy

Entergy Operations, Inc.
P.O. Box B
Killona, LA 70066
Tel 504 739 6242

Early C. Ewing, III
Director
Nuclear Safety & Regulatory Affairs
Waterford 3

W3F1-97-0182
A4.05
PR

July 8, 1997

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
NRC Inspection Report 97-05
Reply to Notice of Violation

Gentlemen:

In accordance with 10CFR2.201, Entergy Operations, Inc. hereby submits in Attachment 1 the response to the violation identified in Enclosure 1 of the subject Inspection Report.

If you have any questions concerning this response, please contact me at (504) 739-6242 or Tim Gaudet at (504) 739-6666.

Very truly yours,

T. Gaudet
for

E.C. Ewing
Director,
Nuclear Safety & Regulatory Affairs

ECE/GCS/tjs
Attachment

97-1440

9707140137 8pp

cc: E.W. Merschoff (NRC Region IV)
C.P. Patel (NRC-NRR)
J. Smith
N.S. Reynolds
NRC Resident Inspectors Office

ATTACHMENT 1

ENTERGY OPERATIONS, INC. RESPONSE TO THE VIOLATION IDENTIFIED IN ENCLOSURE 1 OF INSPECTION REPORT 97-05

VIOLATION NO. 9705-03

Criterion IX of Appendix B to 10 CFR Part 50 states, in part, "Measures shall be established to assure that special processes, including welding..... are controlled and accomplished..... in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

Contrary to the above, measures did not assure that welding was controlled in accordance with requirements in the following examples that were identified by the licensee's correction program:

1. Weld rod was not discarded in accordance with the requirements in Procedure MM-001-053, in that, on five occasions from April 16-23, 1997, unattended and unaccounted for weld rods were found.

2. Stainless steel welds were contaminated contrary to the requirements in Procedure MM-001-050 on two occasions, March 6 and April 15, 1997, when carbon steel wire brushes, chains and work tables came into contact with weld surfaces.

3. Final quality control inspections of stud welds were not performed as required by Procedure NOECS-100 on April 16, 1997.

4. A coupling was not welded on a safety injection line, as required by Work Order 001153561. The coupling was erroneously welded on April 20, 1997, to a containment spray line.

These examples constitute a Severity Level IV violation (Supplement 1) (50-382/9705-03).

RESPONSE

(1) Reason for the Violation

All four examples of failure to control the welding program were identified by Waterford 3 and entered into the corrective action program. Each example was evaluated in concert with other program deficiencies to draw conclusions regarding process control. Evaluation results indicate the process, in general, is well defined and controlled. Moreover, the corrective action program continues to provide feedback and corrective actions that promote process improvement.

Analysis of each example indicated a need for both specific and broad corrective actions. Specific root causes and corrective actions for each violation were formulated to preclude the recurrence of similar examples. The root causes and corrective actions for each example are identified below. Included within those actions, where appropriate, are plans to conduct additional training. We believe additional training is warranted to address the broader implications of this violation; namely, to ensure that welding activities are accomplished in accordance with program controls.

Example 1

The root cause of this example is inadequate training. Personnel using welding material were not properly trained on plant requirements related to disposal and control of filler material. During the outage, many of the individuals using welding material were contractors who were temporarily assigned to Waterford 3. These individuals were provided reading material on the proper control of filler material but were never given formal classroom training.

Contributing to this example is inadequate administrative controls. There were no administrative controls to ensure that welders did not check out excessive quantities of welding filler material. According to site Administrative Procedure MM-001-053, "Control of Welding Consumables (Filler Material)," welders could request any quantity of welding filler material as long as they were qualified to use that filler material. As a result, excessive quantities of welding filler material were sometimes requested for minor welding activities, and the unused filler material was not always returned.

Also contributing to this example is poor work practice. The use of rod stub disposal barrels as a means of disposing welding filler material proved to be inadequate. The rod stub disposal barrels were not properly maintained and were not emptied when they became full. As a result, rod stubs were sometimes falling out of the barrels.

Example 2

The root cause for this example is an inadequate procedure. Site Administrative procedure MM-001-050, "General Welding Requirements," does not specifically state that carbon steel wire brushes should not be used on stainless steel material. The procedure states that tools used on one type of base material such as carbon steel are not to be used on another type of material such as stainless steel. This statement does not preclude using carbon steel brushes on stainless steel material, but prohibits using the same tool on both carbon and stainless steel materials.

Contributing to this example is inadequate administrative controls. Stainless steel wire brushes are required to be color coded red to distinguish them from carbon steel brushes. It was discovered in some instances that carbon steel brushes were incorrectly color coded red.

Regarding stainless steel welds contacting carbon steel surfaces, it was determined, as documented in engineering input to condition report CR-97-0527, that casual contact between the stainless steel and the carbon steel surface of the work table and the chainfall will not contaminate the stainless steel welds.

Example 3

The root cause of this example is inadequate procedure. The Weld Specification Documentation Sheet (WSDS) in procedure MM-001-054, "Control and Documentation of Welding," which specifies when QA visual examination of welds is required did not clearly indicate that all the stud welds associated with the work should be examined. Initially only two of the preproduction testing welds were inspected by QA.

Contributing to this example is poor communication. The Quality Assurance Inspectors were aware that stud welds were being placed on the gantry crane rail holddown bolts and that they were required to inspect the welds after installation. However, the lead engineer on this task was not on site when this activity was completed and notification that the welds had been completed and ready for inspection was not communicated to QA. As a result, the work was completed and nuts and plates were placed over the stud welds before QA could inspect them.

Example 4

The root cause for this example is inattention to detail. The individuals tasked to weld a coupling on a safety injection line were provided with isometric drawings showing the location of the line to be welded on. They incorrectly welded on the containment spray line which was in the vicinity of the safety injection line. Had these individuals paid closer attention to detail and matched the penetration number on the isometric to the penetration number on the containment wall, they would not have made this error.

(2) Corrective Steps That Have Been Taken and the Results Achieved

The corrective steps that have been taken for each example of failure to control the welding process at Waterford 3 are provided below:

Example 1

Filler material training was conducted on April 25 and April 28, 1997. Welding foreman and tool room attendants were required to attend the training. Those welders who did not attend the training were not allowed to check out welding material.

A satellite filler material issue facility was established to be used during heavy welding periods for issuing filler material outside the protected area to enhance the filler material issue process.

Tighter controls have been placed on the issuance of filler material. Individuals requesting filler material are required to justify reason for usage. The quantity of filler material requested and used is tracked. Unused material and rod stubs are returned to storage.

All covered electrodes or welding rods are issued in either a rod caddie, a leather pouch or equivalent container.

Rod stub cans are issued to welders when they request filler material.

Rod stub disposal barrels will no longer be used for general disposal of welding filler material.

Example 2

Quality Assurance issued a Stop Work Order to place a hold on activities where there was a potential for carbon steel brushes to be used on stainless steel material.

The Filler Material Data Base was reviewed to identify stainless welding activities in order to determine the work packages involved.

Engineering evaluated the effect of using carbon steel brushes on various stainless steel components and determined that they were not adversely affected.

Wire brushes were verified to be properly color coded.

Carbon steel brushes were removed from job locations, tool rooms, and the plant warehouses.

Tighter controls have been placed on the issuance of wire brushes. Individuals requesting wire brushes are required to justify reason for usage.

Welders were instructed on the proper use of wire brushes. This included the use of wire brushes on joints constructed of dissimilar material.

Appropriate Management personnel discussed this issue with their supervisors who held discussions with their employees.

Example 3

The nuts and plates were removed from the gantry crane rail holddown bolts and the welds were inspected.

A discussion of this event was held with appropriate personnel to reemphasize the requirement for QA inspections of welds.

Example 4

The individual leading the team responsible for welding on the incorrect line was counseled.

(3) Corrective Steps Which Will Be Taken to Avoid Further Violations

The corrective steps which will be taken to avoid further violations for each example of failure to control the welding process at Waterford 3 are provided below:

Example 1

Administrative procedure MM-001-053, "Control of Welding Consumables," will be revised to specify training requirements for the tool room lead, tool room filler material issue personnel, and welders. This revision will be completed by 10/31/97.

Example 2

Mechanical Maintenance procedure MM-001-050, "General Welding Requirements" and MD-001-012, "Tool Control," will be revised to include a statement that only stainless steel brushes should be used on stainless steel components. This revision will be completed by 10/31/97.

Formal training will be developed for workers and contractors that normally use or issue wire brushes and grinding wheels. Training will be developed by 12/31/97. New workers and contractors will receive training before attempting any welding activities.

Example 3

Mechanical Maintenance procedure MM-001-054, "Control and Documentation of Welding," will be revised to enhance administrative controls regarding Weld Specification Documentation Sheet preparation. This revision will be completed by 12/1/97.

Example 4

Waterford 3 believes that the corrective action taken for example 4 is adequate to preclude this type of occurrence.

(4) Date When Full Compliance Will Be Achieved

Full compliance will be achieved by December 31, 1997.