

**Florida
Power**
CORPORATION

March 12, 1984
3F0384-06

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Technical Specification Change Request No. 115
Inaccessible Snubber Inspections

Dear Mr. Denton:

Enclosed are three (3) originals and forty (40) copies of Request No. 115 requesting amendment to Appendix A of Operating License No. DPR-72. As part of this request, the proposed pages are enclosed.

This proposed change seeks a reclassification of accessibility on several snubbers and relief from the requirement to visually inspect all inaccessible snubbers during the time period four months to ten months following Cycle Five startup. The intent of this request is not to waive the requirement for inspection. The intent of this request is to not perform a Mode 5 cold shutdown for the sole purpose of inspecting snubbers.

Since Cycle Startup, there have been two Mode 3 shutdowns which have presented an opportunity to perform visual inspections. Approximately two-thirds of all inaccessible snubbers and nearly all of the accessible snubbers have been inspected. At each future opportunity, additional inspections will be performed, with an anticipated near total inspection completed by the end of the Cycle. Inspecting at all appropriate mid-cycle shutdowns affords the opportunity to reinspect and monitor snubber performance. This on-going inspection effort in some respects is more comprehensive than a one time inspection shutdown. Our inspection efforts to date have revealed no significant problems. For this reason, we have a high confidence level that the CR-3 snubbers are adequate to perform as designed, and that a forced inspection outage is unnecessary.

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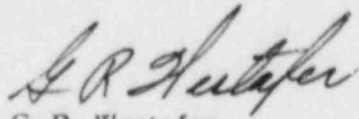
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March 12, 1984
3F0384-06
Page 2

Florida Power Corporation considers this request to be a Class III Amendment per 10CFR170.22. Accordingly, a check for four thousand dollars (\$4,000.00) is enclosed.

Sincerely,



G. R. Westafer
Manager, Nuclear Operations
Licensing and Fuel Management

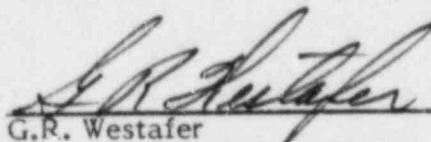
DVH/ddl

cc: Mr. J.P. O'Reilly
Regional Administrator, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street N.W., Suite 2900
Atlanta, GA 30303

STATE OF FLORIDA

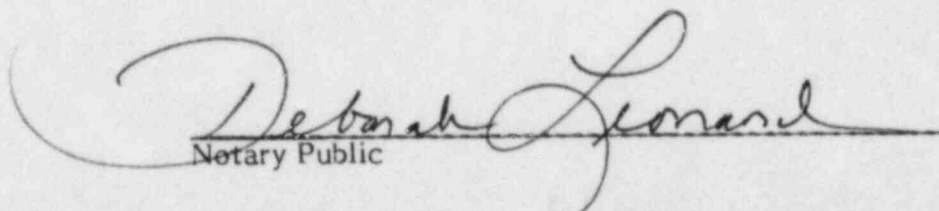
COUNTY OF PINELLAS

G.R. Westafer states that he is the Manager, Nuclear Operations Licensing and Fuel Management for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.



G.R. Westafer
Manager, Nuclear Operations Licensing and Fuel
Management

Subscribed and sworn to before me, a Notary Public in and for the State
and County above named, this 12th day of March 1984.



Notary Public

Notary Public, State of Florida at Large,

My Commission Expires:

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXPIRES NOV 19 1986
BONDED THRU GENERAL INSURANCE UND

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF)

FLORIDA POWER CORPORATION)

DOCKET No. 50-302

CERTIFICATE OF SERVICE

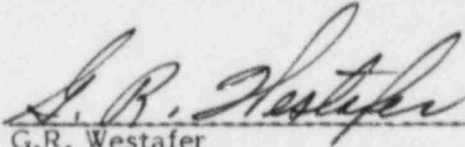
G.R. Westafer deposes and says that the following has been served on the Designated State Representative and the Chief Executive of Citrus County, Florida, by deposit in the United States mail, addressed as follows:

Chairman,
Board of County Commissioners
of Citrus County
Citrus County Courthouse
Inverness, FL 32650

Administrator
Radiological Health Services
Department of Health and
Rehabilitative Services
1323 Winewood Blvd.
Tallahassee, FL 32301

One (1) copy of Technical Specification Change Request No. 115 requesting amendment to Appendix A of Operating License No. DPR-72.

FLORIDA POWER CORPORATION



G.R. Westafer
Manager
Nuclear Operations Licensing and Fuel
Management

SWORN TO AND SUBSCRIBED BEFORE ME THIS 12th DAY of March 1984.



Notary Public

Notary Public, State of Florida at Large
My Commission Expires:

(NOTARIAL SEAL)

FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3
DOCKET NO. 50-302/LICENSE NO. DPR-72
REQUEST NO. 115, REVISION 0
INACCESSIBLE SNUBBER INSPECTIONS

LICENSE DOCUMENT INVOLVED: Technical Specifications (Appendix A)

PORTION: 3.7.9.1 Hydraulic Snubbers

DESCRIPTION OF REQUEST:

Florida Power Corporation requests relief from the required visual inspection interval for inaccessible hydraulic snubbers. Specifically, footnote (**) should be revised to apply only to accessible snubbers. The following footnote (+) should be added to Table 4.7-4, page 3/4 7-35:

- + "For the duration of Cycle Five, as many inaccessible snubbers as possible, without increasing shutdown duration, shall be visually inspected during any mid-cycle outage(s).

Additionally, Florida Power Corporation requests that the following snubbers be classified as "inaccessible" instead of "accessible" as is the current case:

EFH-92	FWH-154	FWH-167	MSH-212
EFH-93	FWH-155	FWH-169	MSH-213
EFH-106	FWH-156	MSH-125	MSH-227
EFH-110	FWH-157	MSH-126	MSH-232
EFH-144	FWH-158	MSH-205	MSH-240
FWH-149	FWH-162	MSH-206	
FWH-153	FWH-166	MSH-207	

The following snubbers should be classified as "accessible" snubbers instead of "inaccessible":

DHH-661
DHR-18
DHR-31
DHR-37
DHR-49

REASON FOR REQUEST:

Currently the Crystal River Unit 3 Technical Specifications require that a visual inspection of all snubbers be performed after 4 months but within 10 months of commencing power operation following Refuel IV. To date approximately three quarters of all safety-related snubbers have been inspected (details below). The inspections have revealed only two "failures" which corresponds to a one percent (1%) "failure-rate". Florida Power

Corporation is confident, based on the factors outlined below, that the uninspected inaccessible snubbers are operable and, therefore, is requesting relief from any inspection of these snubbers which would cause or extend mid-cycle outages.

The required visual inspection(s) have been initiated with the two forced outages of January and February. The results of the inspections are as follows:

- (1) Sixty-two percent (62%) of all the small bore inaccessible snubbers have been inspected with one failure (MUH-44). Zero percent (0%) of the large bore inaccessible snubbers have been inspected.
- (2) Ninety percent (90%) of all the accessible snubbers have been inspected with one failure (MSH-252).
- (3) Eighty percent (80%) of the non-safety related snubbers that were rebuilt in the same manner as safety-related snubbers were inspected with no failures.

Florida Power Corporation will continue to maintain an aggressive snubber inspection program to minimize the number of snubbers requiring inspection. The plan for the next outage is to inspect as many of the inaccessible snubbers as reasonably achievable. The limiting factor is the erection of scaffolding required to conduct the inspections. Additionally, we are able to assess the potential for even inaccessible snubbers to be inoperable by observing evidence of fluid leakage on floors and other surfaces during various building entries.

Another reason that Florida Power Corporation requests relief from this inspection is to reduce the number of shutdown transients. To reduce personnel hazards associated with the complete inspection of all inaccessible snubbers, the unit must be taken to COLD SHUTDOWN conditions. There are several incentives for minimizing the number of plant shutdowns. One incentive is a need to avoid non-essential plant transients. A normal shutdown transient subjects systems and equipment to cooldown and heat-up transient(s) which in turn causes increases in the various rates of aging.

A second incentive for minimizing plant shutdowns is the potential for equipment degradation. Experience has indicated that the Reactor Coolant Pump seals can withstand a limited number of shutdowns. Based on previous experience, the probability of deterioration will increase due to plant shutdown. This is especially true for shutdowns requiring destaging the seals (COLD SHUTDOWNS). Various plant cooling systems (e.g., Letdown Coolers) are also sensitive to cooling and heating transients. Although this equipment is carefully observed and controlled to minimize thermal shock, complete avoidance of thermal transients is not possible during plant shutdown. Therefore, if a plant shutdown is necessary, there is an inherent risk that accelerated equipment degradation will occur.

A third incentive to avoid a plant shutdown is based on economics. To perform the inspection of all remaining inaccessible snubbers, the plant must remain off-line for approximately 8 days. Replacement fuel costs for 8 days will exceed 4 million dollars (conservatively utilizing 500k/day). Therefore, this request proposes that the inaccessible snubber inspection be performed (via delay until Refuel if necessary) such that a specific plant shutdown is not required.

Accessible snubbers are classed as such because it is possible to inspect those snubbers during power operation. The 26 snubbers being revised to "inaccessible" are located on high-

energy lines. Inspection of these snubbers is not considered appropriate due to personnel hazards associated with these lines. The five snubbers currently classified as "inaccessible" can be inspected during power operation and, therefore, should be considered to be "accessible".

EVALUATION OF REQUEST:

This change will not degrade plant safety. Due to the low probability of failure, the large margin for snubber failure, and the proposed compensatory actions, no adverse safety consequences are likely to occur as a result of this change.

The inspections detailed above, revealed two inoperable Power Piping manufactured snubbers corresponding to approximately a 1% failure rate for Power Piping snubbers inspected. (See Table 1.) No failures have been identified in snubbers supplied by other manufacturers. This failure rate implies that these two failures are not generic or widespread and thus it is unlikely that an inspection of all inaccessible snubbers would reveal significantly more failures. The two "failures" which have occurred are detailed below:

An accessible snubber, MSH-252, was found inverted and the fluid drained out. This snubber was allowed to rotate because the jam nut was insufficiently tightened. Apparently, personnel working near this snubber inadvertently inverted it. A combination of failures was necessary to cause this inoperability. It is considered unlikely that such a combination of events would occur more than a few times, and thus, this failure mechanism is not considered generic to all snubbers.

An inaccessible snubber, MUH-44, was found to be inoperable due to a leak in the lower end of the valve block at the tubing fitting. Only one failure of this type has been found. Considering the extensive rebuild of these valve blocks, one failure is considered a random event.

As shown by our inspections since refuel, the snubber failure rate is minimal. Snubber failures identified appear to be random, non-generic, and independent of environmental effects (e.g., snubbers inside the Reactor Building are as reliable as those outside). It is unlikely that the inaccessible snubbers are indeed inoperable. Thus delaying inspection of some of these snubbers will not adversely impact plant safety. Florida Power Corporation, in fact, expects that unplanned outages between now and the end of Cycle V may well provide the opportunity to complete the inspection of all the snubbers.

A large margin for snubber failure exists due to conservative design/technique employed during original design. An engineering study has been performed to evaluate the feasibility of reducing the quantity of safety-related snubbers. This investigation showed that there are numerous small bore snubbers whose failure would not affect the integrity of piping or equipment. An analysis of one safety related system (feedwater piping from heater to penetration) has indicated that up to 25% of the existing snubbers could be removed with no safety effect and up to 75% could be removed or replaced with rigid restraints. This degree of conservatism varies from system to system. Nevertheless delaying the inspection of some inaccessible snubbers is unlikely to affect plant safety due to the conservative design.

As compensation for relief from the inspection of certain inaccessible snubbers, Florida Power Corporation will continue to expeditiously perform inspections of the inaccessible snubbers during each mid-cycle outage. Furthermore, a Special Report will be submitted within 30 days of the discovery of an inoperable snubber describing the cause, corrective

actions and generic implications of the failure. The next inspection interval will be determined from Table 4.7-4.

When considering the probability that inaccessible snubbers are actually operable or unnecessary, and the safety significance of subjecting the plant to an additional shutdown transient, Florida Power Corporation considers granting relief from inspection of inaccessible snubbers will not degrade and, in fact, enhance overall plant safety.

Revising the classification of snubbers from "accessible" classification to "inaccessible" or vice/verse will not degrade plant safety. This revision is necessary to reflect personnel hazards associated with the inspection of these snubbers during power operation.

TABLE 1
SNUBBER INSPECTIONS*

	INSPECTION COMPLETED		INSPECTION TO BE DONE		TOTAL NO.
	No.	%	No.	%	
Safety-Related Inaccessible	107	63	64	37	171
Safety-Related Accessible	81	90	9 [#]	10	90
Non-Safety-Related	24	80	6	20	30

*This tabulation does not include the newly installed ITT Grinnell or McDowell-Wellman manufactured snubbers. It includes those snubbers with which we have, in the past, discovered generic problems, Power Piping Co.

[#]These snubbers heretofore have been classified as "accessible", but should be considered "inaccessible" during power operation due to personnel hazards.