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August 3, 1979

DOCKET NUMBER

PETITION RULE PRM-2-8 (1) (44 FR 32489)

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Docketing & Service Branch

RE: Docket No. PRM-2-8
Union of Concerned Scientists and Natural
Resources Defense Council, Inc.; Filing of
Petition for Rule Making



Dear Sir:

The following are my comments regarding the filing of a Petition for Rule Making by the Union of Concerned Scientists and the Natural Resources Defense Council, Inc. which comments were solicited by 44 Federal Register 32489.

In general, the subject Petition appears to lack any basis in informed substance and, therefore, is often reduced to justification based upon misinformation and petty, cheap shots directed at the Staff of the Nuclear Regulatory Commission. Moreover, the conclusions reached by the petitioners beginning at Exhibit F-1 page and ending at Exhibit F-14 page of their petition appeared to be based on fuzzy logic and a seemingly total misconception of how components are manufactured. Due to petitioners' faulty logic and misconceptions, they often state a set of facts, arrive at a conclusion based on those facts, and then even on the same exhibit page make a confusing statement which contradicts their conclusion thereon.

Specifically, petitioners' allegations that the public did not have an opportunity to comment on the commercial grade exemption amendment to 10 CFR Part 21 before it became effective on October 19, 1978, is without foundation. Since the regulations in Part 21 became fully effective on January 6, 1978, there was much discussion concerning the effects of the regulation on the nuclear industry by all concerned parties. In fact, it was the continuous dialogue and numerous opportunities to comment on the regulations which resulted in the commercial grade exemption amendment to Part 21. In addition, the public was solicited to comment on these amendments to Part 21 after the

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effective date of October 19, 1978 in order to evaluate the need for any further clarifying or other changes to Part 21. Comments by such people as the petitioners were being received up to December 18, 1978 for the purpose of evaluating the need for and content of any additional amendments deemed necessary. In short, the record supports the proposition that numerous opportunities to comment on the amendment were provided to the purchasers, suppliers and the public at large.

The section entitled "Actions of Nuclear Industry" on Exhibit page F-3 shows precisely why a commercial grade exemption is necessary. Contractors and their sub-contractors who are the purchasers of components in nuclear station construction projects are required to sign contracts with the nuclear companies, which include the reporting requirement of Part 21, as well as additional Parts 30, 40, 50, 70 or 71. Therefore, the contractors (purchasers) simply pass along Part 21 and the other parts in their paperwork to avoid a burdensome administrative task of segregating between literally millions of components that go into a nuclear station based upon the criteria of whether it's a critical or non-critical application. The time and money added to a job is often greatly increased by regulations such as Part 21, et al, and, therefore, the purchasers look for shortcuts, such as invoking Part 21 in his procurement documents for all components even though the components possibly are not safety-related. It is far better that purchaser err on invoking Part 21 in his procurement documents rather than rely on elaborate segregation programs to make sure that all components are properly classified as either critical or non-critical applications. In short, the petitioners overlook the burdensome administrative costs to the purchasers who would invoke the selectivity proposed by the petitioner between critical and non-critical application.

Exhibit pages F-4 through F-7 are replete with fuzzy logic, hastily drawn conclusions thereto and a total misconception about the manufacturing of components. First of all, every manufacturer of commercial grade components, whether it be a bolt made of steel or an electrical device, such as a relay or switch, makes these components based upon an engineering specification which typically meets or exceeds national codes, manufacturing codes in their industry, as well as the components passing independent laboratory testing criteria, such as Underwriter's Laboratory certifications on electrical devices. Therefore, commercial grade items exempted from Part 21 do meet or exceed minimum safety standards set by national and local codes, as well as industry's standards based on sound engineering design. Thus, a purchaser who buys a commercial grade item for a critical safety application in a nuclear facility

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where the design and specification thereof meets or exceeds the design or specification requirements of its application in the nuclear facility can be assured of buying a quality component which adequately protects the public's health and safety.

Furthermore, because every major manufacturer/supplier of components has been subject to product liability lawsuits wherein the safety of their design is scrutinized by experts in that industry, almost all of these major manufacturers/suppliers have quality assurance programs of their own to reduce their risk of loss. To set-up a separate program to comply with Part 21 and Part 50, Appendix B, for commercial grade items, would simply duplicate programs already in existence without materially effecting the quality of the manufactured components. Moreover, all reputable, major manufacturers/suppliers of commercial grade items voluntarily initiate a recall program when a defect in these items is found to reduce their product liability exposure. Certainly, the same reputable manufacturers/suppliers would report such a defect in the commercial grade item to the purchaser obviating the necessity for the purchaser to maintain a quality assurance program as eluded to by the petitioners. Moreover, major manufacturers/suppliers of commercial grade items would certainly adhere to the second paragraph of Part 21.2, where the regulations encourage a manufacturer/supplier of commercial grade items to report any known or suspected defect of failure in their product.

The ascertainment by the petitioners that so-called second choice suppliers would not degrade safety and actually produce better components borders on being ludicrous and not in touch with the real world. Second choice suppliers typically do not have the engineering staff or wherewithal to run an adequate quality assurance program or the technological know-how developed through years of experience necessary to provide manufacturing processes that produce better components. A second choice supplier is often hungry for any business and will gladly accept the financial risks of Part 21 (petitioners previously stated there were no financial risks associated with Part 21) and the quality assurance programs of Part 50, Appendix B, because when their "better" components fail miserably, they're no longer in business or anywhere around to compensate the nuclear industry or the public for any losses due to their components' failure.

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Exhibit page F-8 takes a cheap shot at sub-tier suppliers who often are reputable distributors of commercial grade items made by major manufacturers/suppliers who do have, as previously stated, quality assurance programs, as well as quality products that meet all national and local codes in manufacturing specifications therefor. Again, on Exhibit page F-9, petitioners miss the point in that off-the-shelf bolts, which properly meet all design and specification requirements, do not require the bolt purchaser to test individually the strength of every bolt purchased and then to assure safety. If the bolts meet certain specifications for even a critical application in a nuclear facility, then the bolts are prima facie safe for that application which does not exceed the design specifications of the bolt. When commercial grade items are made to meet certain design specifications and the critical application in a nuclear facility calls for an item which is less than or equal to the design specifications of the commercial grade item, then there is no logical reason why a purchaser must insist upon a further quality assurance program in accordance with Part 50, Appendix B.

Another total misconception by the petitioners is that any quality assurance program, whether Part 50, Appendix B, format is followed, or some other, will detect any and all safety deficiencies in the purchased component. Statistically any quality assurance program will not detect 100% of any and all safety deficiencies in a manufactured component. What is important is that proper engineering design specifications for a component are followed in the manufacturing process. Here is where a major manufacturer/supplier who has years of experience in the manufacturing process of a component plus the engineering staff and technology readily available to improve upon those manufacturing processes can improve upon the safety of the components which find their way into a nuclear facility and whether or not they are exempted as a commercial grade item does not diminish the quality of these components.

There is a real danger in approving the petitioners' request for repeal of the amendments to 10 CFR 21, set forth in the Federal Register, October 19, 1978 (43FedReg48621) in that such a repeal would result in effectively precluding any further nuclear construction by making such construction costs prohibitive in a time when the United States is facing an energy crunch. There are two additional points worthy of note in this regard.

First, to eliminate the category of "commercial grade items" and the provisions attendant thereto from Part 21 would effectively impose upon any manufacturer/supplier whose catalog-listed product might conceivably be used in a critical application, the requirement to

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implement a special quality assurance program according to Part 50, Appendix B, above and beyond the quality assurance program which might presently be in use and the reporting requirements of Part 21, even though this catalog-listed product was without features unique to a nuclear installation. The requirements of Part 21 and Part 50, Appendix B, would do nothing further to improve the quality of these "commercial grade items" and would not necessarily improve the ultimate safety of a nuclear facility as much as it would eliminate manufacturers/suppliers of quality commercial grade components who feel that they would rather not sell to the nuclear industry if it were to entail such duplication of programs and additional burdens to be added to their commercial grade items. Petitioners confirm this proposition on Exhibit pages F-11 and F-12, where it is pointed out that General Electric Company, a giant amongst the manufacturers/suppliers of components, has flatly refused to supply components if Part 21 was invoked in their procurement documents. It also serves as an example of how costly the regulations of Part 21 can be if commercial items are not exempted in that G.E. would require its suppliers to agree to be subject to Part 21 before it would supply commercial grade items under Part 21. The net result of such requirements would be a significantly increased cost of commercial grade items, and, at least initially, a great increase in lead time for purchase of such commercial grade items by the nuclear industry. Manufacturers/suppliers of commercial grade items of superior quality might withdraw from the nuclear market entirely causing the overall degradation to the quality of components supplied thereto and thereby having an opposite effect to the one desired by petitioners. In the aggregate, the upshot of such requirements industrywide upon all manufacturers/suppliers would be to economically preclude any further nuclear construction, which seems to be the real purpose and thrust of the subject Petition by the Union of Concerned Scientists and Natural Resources Council, Inc.

Secondly, manufacturers/suppliers of widely used commercial grade items which may happen to find an application in a nuclear facility are really not the proper parties to be charged with the knowledge of how such an item would be used in a nuclear facility. The purchasers and/or contractors who select the commercial grade items are the ones most familiar with the anticipated application of the parts which they purchase and the design specifications which apply to the use of these items. If the purchasers and/or contractors

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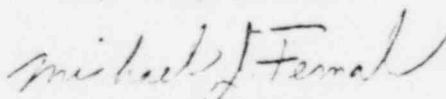
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are restricted only to those manufacturers/suppliers who have established petitioners' panacean quality assurance programs, including the reporting requirements of Part 21, they may very well find themselves precluded from purchasing quality parts from major electrical manufacturers like G.E. whose commercial grade items undoubtedly perform much better and are safer than components provided by so-called second choice suppliers whether or not the second choice suppliers have complied with Part 21 and Part 50, Appendix B. The restriction of the purchasers' latitude in selection of manufacturers/suppliers is viewed as anti-competitive and restrictive to the purchasers' ability to make the most productive use of his money and choose the best part for the critical application even though it is an exempted commercial grade item, rather than an item falling under the requirements of Part 21 and Part 50, Appendix B.

In sum, the repeal of the amendments of Part 21 set forth in the Federal Register on October 19, 1978, would render further construction of nuclear facilities economically prohibitive and possibly unfeasible. It is, therefore, recommended that such repeal not be effected and that the purchasers and/or contractors who best know when a component is crucial to the safety of the nuclear facility be the ones who decide when a commercial grade item is not sufficient for this critical application.

Very truly yours,



Michael J. Femal

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