Seaman Nuclear Corporation
7315 South First Street • Oak Creek, WI 53154 USA
Tel 414-762-5100 • Fax 414-762-5106

January 27, 2000

John Hickey
Chief, Materials Safety & Inspection Branch
Office of Nuclear Material Safety & Safeguards
US Nuclear Regulatory Commission
Washington, DC 20555

RE: SEAMAN NUCLEAR CORPORATION

Dear Mr. Hickey:

On October 5, 1998, NRC staff alerted the Commission to its intent to issue a license to Seaman Nuclear Corporation authorizing distribution of moisture density gauges (MDGs) to persons Generally Licensed (GL) in accordance with 10 CFR 31.5. The Commissioners disapproved the staff's plan to issue the license "at this time". The Commission instructed the staff to consult with Agreement States and to consider the results of the Material Risk Study that was being written at the time.

A number of states have taken the opportunity to comment on the application to authorize distribution of the Seaman MDG to persons Generally Licensed. Without exception, the states that chose to comment were opposed to the issuance of the license.

Several states took the time to express their opposition in more than one letter. This opposition was almost always stated as opinion without basis or supporting data.

The more significant state comments and Seaman's responses are summarized below.

Alabama, Arizona, Kansas, North Carolina, and Texas commented that GL MDGs would result in expensive contamination incidents or that the gauges would end up in landfills. This is believed to result from a conjecture that MDGs will end up in scrap streams and be melted in steel mills. Neither Seaman Nuclear nor NRC staff has been able to identify any instance where a MDG has been found in a steel mill or a landfill.

The high value appearance of MDGs will in most cases preclude their inclusion in scrap. This is in contrast with both Specifically Licensed (SL) and GL fixed gauges, which frequently look like scrap metal, and find their way to steel mills. Concerns about steel mill incidents are critical. However, based upon historical evidence, these concerns are unrealistic for MDGs and distract from risk informed decision making.

Washington stated that risk or dose to the public in the event of an incident would be low or nonexistent, while Kansas stated that an incident might be costly in terms of human life. We believe Washington is correct and that public dose in incidents will be low. This is supported by the summary of risk results for MDGs in NUREG/CR-6642.

Georgia and Kansas thought that the availability of a GL MDG would greatly increase the total market for MDGs. This is unlikely because MDGs are expensive capital equipment purchased for a specific task. It is unlikely that a change in licensing will result in substantial change in the overall number of MDGs. We believe that some members of NRC staff might be concerned that approval of the Seaman MDG will give Seaman a competitive advantage. We hope they are correct and that this concern will not interfere with the Commission's risk informed decision making.

Colorado, Georgia, Illinois, Kansas, Nebraska, North Carolina, and Texas commented on the Seaman accountability program. Most comments indicated a failure to understand the program. Some states commented that the NRC is powerless to enforce its rules

in Agreement States. This is true. However, the Seaman program requires reporting a loss of contact with a customer to the Agreement State with jurisdiction over the customer. The Agreement State's enforcement action does not depend upon the power of the NRC.

Other states stated that Agreement States can not enforce the program against Seaman Nuclear. Again, this is true. The NRC currently and effectively enforces requirements for distributors in Non-Agreement States.

Nebraska felt that accountability would be diminished by Seaman's annual contact with the General Licensee. This annual contact would replace contact during inspection at five-to-seven year intervals with Specific Licensees. Seaman strongly believes that annual contact will improve accountability. A complete physical inventory is rarely performed as a component in an on-site inspection of a SL.

Colorado, Kansas, and Texas commented that the dose modeling was wrong or that occupational or public dose limits would be

exceeded. No basis for these comments, which contradict the findings in NUREG/CR-6642, was given.

Alabama, Kansas, Texas, and Washington commented that MDGs were frequently stolen and that Generally Licensed MDGs may be more frequently stolen. Colorado stated that theft is a normal condition of use for MDGs. However frequently they are stolen, MDGs are almost always recovered. Proper labeling ensures that even thieves do not choose to be in unauthorized possession of MDGs. There is no evidence to suggest that a Generally Licensed device with its required labels would be a more frequent target of thieves than a Specifically Licensed device.

Alabama, North Carolina, Oregon, Texas stated that they do not permit portable Generally Licensed devices. Alabama also stated that if Seaman Nuclear's request is granted, states will change their regulations to restrict Generally Licensed MDGs. It is not clear from the regulations in these states that they actually restrict portable GL devices. Some states, despite their objections to the Seaman MDG, approved distribution of portable gauges to General Licensees. States, such as Alabama, who wish

to, would be free to restrict licensing of portable GL devices approved by other jurisdictions.

A number of states commented on the Agreement States' and the NRC's performance in regulating GL devices. Alabama, North Carolina, Tennessee, and Washington stated that Agreement States and the NRC failed to regulate GL devices or regulate GL devices poorly. If this is true, this is a substantial issue requiring the Commissioners attention because it has bearing on a wide range of devices used in every aspect of commerce, industry, medicine, government, and education. The perceived need to improve the performance of regulatory agencies in a broad range of activities should not be used in singling out the Seaman MDG for objections.

Colorado said that the NRC regulations are too complex. Arizona and Colorado stated that there has been no safety evaluation of the adequacy of the requirements in Part 32. The basis for the requirements appeared in the Statements of Consideration. These should be made available to states with concerns about the adequacy of regulations.

The Texas Natural Resource Conservation Commission stated that states would not know about the transfer of GL devices. This is an indication that this agency is unaware of the existing quarterly reporting requirements in Part 32 and the equivalent regulations of Agreement States.

Illinois, Mississippi, Tennessee, and Texas commented that states might not have adequate resources to regulate GL devices or that their workload would increase if Seaman Nuclear reports a loss of contact with a General Licensee. This ignores the essential fact that GL MDGs will replace SL MDGs without a significant change in the aggregate number. Seaman's reporting a loss of contact can require no more effort by a state than a telephone call.

Two states, North Carolina and Washington, commented on their practices in issuing authorization to licensees in their states to distribute portable GL devices. North Carolina stated that it has not issued design approval for a portable GL device. However, Device Registration number NC-0646-D-135-B has been issued to a North Carolina Licensee for a "Laboratory Asphalt Content System." The "Laboratory System" is essentially the same

as the Specifically Licensed Portable Asphalt Content Gauge described in the Device Registration Number NC-646-D-128S. The portable gauge and the laboratory system are identical in their intended use. The housings of both are DOT 7A containers to enable transportation to field locations. The name of a device should not determine whether or not it is suitable for distribution to General Licensees.

Washington stated it had issued approval for portable GL devices but that the practice should be stopped. Arizona and Kansas commented that the Seaman MDG is not inherently safe for use without training. This contradicts the findings of NRC staff.

Arizona, Illinois, Georgia, Texas, and Washington raise a legitimate concern about the movement of portable devices between jurisdictions. The Seaman Nuclear manual contains explicit instructions regarding restriction of use to the jurisdiction in which the GL exists. Seaman is prepared to add any material required by the Commission to its manual.

Arizona, Colorado, Nebraska, and Washington commented on transportation requirements and incidents. The Seaman Nuclear

Manual contains detailed instructions for compliance with DOT requirements. These are equal to or exceed the instruction provided in manuals for SL devices. Seaman Nuclear is prepared to add any additional content required by the Commission to its manual.

Arizona, Colorado, Illinois, Nebraska, North Carolina, and Washington commented that the Seaman Nuclear manual is inadequate, or unenforceable, or that users won't follow the directions in the manual. The Seaman Nuclear manual, approved by Commission staff, is at least as complete and clear as manuals for SL devices. The manual must be followed to use the device. Compliance with manual requirements, as opposed to license conditions or rules, is rarely an item of inspection for SL devices. Seaman Nuclear is prepared to make any changes to the manual required by the Commission.

If the Commission finds that the Seaman MDG meets the requirements stated in 10 CFR 32.51, we ask that the staff be authorized to issue the requested license. If the application, which, as indicated in the Notice to the Commissioners dated October 5, 1998, has already been approved by the staff, must

now meet additional requirements, we ask that these requirements be clearly stated so that we may address them.

Seaman Nuclear is requesting the opportunity for face-to-face meetings with the Commissioners' technical assistants and Commission staff to discuss the staff's prior determination that the Seaman MDG meets the requirements for distribution to persons who are Generally Licensed, and the responses of the states. The delays in approving our application have been financially damaging to Seaman Nuclear. Therefore, we are requesting that these meetings be quickly scheduled prior to any final Commission decision. If you have any questions or require additional information, please contact me at 414-762-5100 or Eli Port at 847-965-1999.

Sincerely,

Scott Seaman

President

cc: Chairman Meserve