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# STATE OF COLORADO

Bill Owens, Governor  
Jane E. Norton, Executive Director

*Dedicated to protecting and improving the health and environment of the people of Colorado*

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Colorado Department  
of Public Health  
and Environment

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APR 06 1999

Paul H. Lohaus, Director  
Office of State Programs  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-001

**RE: SP-99-018 GENERALLY LICENSED PORTABLE MOISTURE DENSITY GAUGES**

Colorado is opposed to authorizing the distribution of moisture density gauges under a general license because dose limits in Part 20 will be exceeded, users of the devices will not have adequate training, and because merely having an annual contact is not adequate to ensure the safe use of these devices.

#### EXPOSURE LIMITS

The exposure from moisture density gauges (MDG) is too high to treat the devices as generally licensed. While the NRC staff appears to have made its evaluation based on the exposure from personnel monitoring, the evaluation failed to consider public dose. Since the public dose limit was lowered in 1994, Colorado has emphasized evaluating this standard at its MDG licensees. It is not uncommon for licensees to have more than 20 gauges. When these are stored in one location, we have found many examples where a licensee has exceeded the public dose limit. Often we require additional shielding before granting a license or an amendment for additional devices. Our licensees have had to move their storage locations and/or add shielding to reduce exposures to non-radiation workers. Were MDG licensees not evaluated through a licensing and inspection program, the licensees would neither know they were exceeding public dose limits, nor know how to reduce exposures.

We believe the Commission was correct in asking for an evaluation of risks relative to devices being lost and/or stolen. Because these types of devices are routinely stolen, we believe evaluating the consequences of the theft must be considered when evaluating "conditions of normal use." Review of Seaman Nuclear Corporation's (Seaman) MDG device sheets reveals that exposure rates from their devices can exceed 1 R/hr. It is not reasonable to believe a stolen gauge is unlikely to expose anyone over 500 millirem.

Reliance on past monitoring cannot be used to predict future exposure rates were the devices generally license. Not only are public doses reduced through licensing and inspections, but worker exposures are also reduced.

As a final comment regarding doses, while not specifically related to Seaman's request, Colorado believes that the basis for approving a device to be distributed as a generally licensed should be reviewed. The 500 millirem standard was established when the public dose limit was 500 millirem. Now that the public dose limit has been reduced, it is time to also reduce the exposures allowed from generally licensed devices. As the NRC stated when it proposed regulations to permit the release of therapy patients, exposures up to 500 millirem for members of the public may be permitted when justified. There has been no justification why general licensees should be allowed to receive 500 millirem per year.

#### TRAINING

For all of the issues discussed under training, an evaluation must consider that there is a high turn over rate among users of these devices. Having an individual certify that he has been trained prior to purchasing the device does not assure that his co-workers or replacement will also have the training.

The device sheets for Seaman's MDG's require user training. A frequent item of noncompliance is that users have not received required training. Occasionally we receive an application for a MDG license in which no one has had any training. If the MDG is generally licensed, there will be a workforce of untrained individuals.

A second area of training that will deteriorate involves Department of Transportation (DOT) requirements. Failure to comply with DOT requirements is one of the more common citations issued to MDG licensees. Elimination of a specific license will create more problems not only for the licensees, but also for "First Responders." If MDG's are to be generally licensed, what assurance is there that users will be properly instructed in shipping requirements.

Two of the ways radiation control programs educate licensees is through the application process and through license conditions. A general licensee will not be afforded this opportunity. Licensees and all users of radioactive materials are required to be familiar with the applicable sections of the regulations. Our licensees know that they must secure their MDG at temporary job sites, and must report the loss or theft of the device to our program. Our general licensees are not aware of this requirement. If MDG's are generally licensed, the licensees will cease to report the theft of the device.

The device sheets for Seaman MDG's recognize that typical users are not qualified to repair these devices. Colorado notes this as a license condition. If the devices were generally licensed, users, for economic reasons, might open the devices to repair them. They will not know that they should not do this. This too should be evaluated when considering the potential doses to general licensees.

During the last year, Colorado conducted a survey of general licensees that possess devices containing sealed sources. General licensees reported that no one was in charge of radiation safety, and there had been no training. The potential hazards from MDG's are too great to allow them to be used with no training and no one in charge of safety.

#### ANNUAL CONTACT BY SUPPLIER IS INADEQUATE

SECY-98-232 implies that an annual accountability program would provide more frequent contact than the current inspections. This is not true. NRC currently contacts all licensees on an annual basis through its collection of fees.

If Seaman notifies the NRC when a general licensee does not respond to their survey, the concept is that the NRC will follow up. If the NRC does not receive license fees, how will it afford to track down these licensees. Current Colorado licensees know that they must notify us prior to moving. General licensees do not. In a survey of general licensees, excluding exit signs and static eliminators, almost half of the surveys sent were not returned. Similar results for MDG's could be expected if they too were generally licensed.

If Seaman goes out of business before the NRC initiates a tracking system for general licensees, will these licensees then revert to specific licensees?

#### OTHER COMMENTS

Colorado strongly supports the Commissioners' recommendation to initiate a screening method to determine whether individual issues should be referred to the Office of State Programs for possible coordination with Agreement States.

The amount of americium-241 in these gauges exceeds that amount that can be disposed of at most disposal sites. Our regulatory programs have trouble disposing of these sources for specific licensees when the manufacturer will not take possession of the source. We should not lose control of licensees, as we would were we to generally license MDG's, when there is difficulty disposing of the sources.

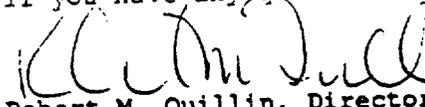
One of the ways Colorado has helped maintain control of devices is to require a use log. Prior to this requirement, licensees did not know a device was missing until we asked them to identify its location. Without this control, more sources will be lost.

SECY-98-232 seems to imply that the NRC wants to reduce the regulatory burden on MDG licensees, and we agree with this objective. Unlike the NRC's NUREG 1556 Volume 1, Colorado developed simplified application for MDG license applicants that addresses most safety concerns and still reduces the

Paul H. Lohaus  
Page 4

regulatory burden. The application informs the applicant what is require in simple language, and asks the applicant to commit to meeting the requirements. If the NRC wants examples of how to reduce the regulatory burden, Colorado, as well as other Agreement States, have already done this without treating MDG users as general licensees.

If you have any question, please contact Jake Jacobi at (303) 692-3036.



Robert M. Quillin, Director  
Laboratory and Radiation Services Division

RQ:wj



JDACool  
② L. Camp

← (1) PBL  
(2) SCD  
~~(3) JHM~~  
(4) PMH/ASAC

STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Radiological Health  
3rd Floor, L & C Annex, 401 Church Street  
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Phone: 615-532-0360, Fax: 615-532-7938, E-mail: mmobley@mail.state.tn.us

April 26, 1999

Office of State Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Paul Lohaus, Director  
Office of State Programs

99 APR 30 PM 2:00  
OSP

Gentlemen:

We are writing in response to the Program Management Information in SP-99-018 concerning the Seaman Nuclear Corporation's application to distribute generally licensed portable moisture density gauges. We agree with the Commission's concerns that an industry shift to general licensing of this type of device will greatly increase the generally licensed population - a population which is too large and too minimally regulated already.

To add to this number of devices a population which causes a great deal of resource intensity to control, locate, and maintain even when specifically licensed is an increased burden and threat to the public which is not warranted simply because the devices may be able to be built to the standards of generally licensed devices.

Our understanding was that the Commission had expended resources to pursue the containment of the proliferation of generally licensed devices, not to expand their availability.

Thank you for the opportunity to comment on this important matter.

Sincerely,

Michael H. Mobley, Director



1) PHZ  
2) FCC  
3) SCD  
4) JHM

## Texas Department of Health

William R. Archer III, M.D.  
Commissioner

1100 West 49th Street  
Austin, Texas 78756-3189  
(512) 458-7111

Patti J. Patterson, M.D., M.P.H.  
Executive Deputy Commissioner

Radiation Control  
(512) 834-6688

August 26, 1999

U S NUCLEAR REGULATORY COMMISSION  
ATTN PAUL H LOHAUS DIRECTOR  
OFFICE OF STATE PROGRAMS (03H20)  
WASHINGTON DC 20555-0001

Dear Mr. Lohaus:

This is in response to your letter, dated August 4, 1999, in which comments on the application from Seaman Nuclear Corporation to distribute generally licensed (GL) portable moisture density gauges were requested (SP-99-052).

The Texas Department of Health's Bureau of Radiation Control recommends that the Nuclear Regulatory Commission (NRC) not approve Seaman's application to distribute generally licensed portable moisture density gauges (PMDG) for the following reasons:

- a. Currently, all PMDGs are specifically licensed.
  - (1) Even with the elevated sense of licensee awareness which results from specific licensure (e.g., training; experience; Radiation Safety Officer; Operating, Safety and Emergency Procedures), the rate of loss/theft of PMDGs is relatively high; one would expect an even higher rate of loss/theft under general licensure. A higher rate of loss/theft of PMDGs translates directly to an increased risk of radiation exposure to the general public and an increased probability that PMDGs will find their way into scrap metal yards and/or smelting factories.
  - (2) If NRC were to approve Seaman's application to distribute their PMDG as a GL device and if many Agreement States retained their policies to specifically license PMDGs, users of the Seaman's PMDG would find themselves caught between regulatory philosophies which cannot work together (i.e., entities wishing to work within both NRC-space and Agreement State-space would have to operate under a general license while in NRC-space and under a specific license while in Agreement State-space). Reciprocity is currently awarded because some competent regulatory authority has determined that the licensed entity is capable of using radioactive material safely. If a general license is issued by NRC, no such determination has been made and reciprocity cannot be awarded (even if NRC modifies their rules to remove their current prohibition against granting reciprocity to users of GL devices).

Mr. Paul H. Lohaus  
Page two of two  
August 26, 1999

- b. Seaman's commitment to NRC to track the generally licensed PMDGs they distribute only requires that they make two attempts to contact the general licensees receiving Seaman GL'ed PMDGs. If the attempts at establishing/maintaining contact are unsuccessful, the lost PMDG(s) become(s) a burden for the affected Agreement State(s).
- c. Agreement States have no regulatory authority by which to enforce Seaman's commitment to NRC for an annual contact with the general licensees receiving Seaman GL'ed PMDGs.

If you have any questions regarding the information contained within this letter, please contact Mr. Peter H. Myers, Deputy Division Director, Licensing, at (512) 834-6688 extension 2209.

Sincerely,



Richard A. Rathoff, P.E., Chief  
Bureau of Radiation Control

DCP (SP03)

PHL

FCC

SCD

JAM

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF RADIATION PROTECTION

September 17, 1999

SEP 21 AM 9:26  
SP-99-052  
OSP

Paul Lohaus, Director  
Office of State Programs (03C10)  
USNRC  
Washington, DC 20555

Dear Mr. Lohaus:

In response to your request for comments on SEAMAN Nuclear Corporation's application to distribute generally licensed portable moisture density gauges, the North Carolina Division of Radiation Protection (NCDRP) comments as follows:

LICENSING

- NCDRP, as a matter of policy, specifically licenses all portable devices containing radioactive material, without regard to the licensing classification specified in their respective SS&D registries.
- NCDRP does not recognize or issue reciprocal licensure of portable generally licensed devices in this State, since they do not meet the requirements of 15A NCAC 11.0310 or .0345.

ACCOUNTABILITY

- Based on the compliance histories of specific licensees that use and possess portable devices, a significant number of licensees fail to maintain adequate accountability of their devices (Utilization logs, Leak tests, Inventories, Transportation Requirements, etc.) irrespective of NC Regulations or their license conditions. Allowing a portable device to be generally licensed allows the owner of the device to disregard normal radioactive material accountability requirements.
- SEMAN's proposed General Licensing Tracking System of all of the gauges that it distributes does not insure that the devices distributed can be accounted for at any given time.

RISK

- NCDRP understands that sealed sources contained in portable devices are not likely to rupture during accidents, however, the likelihood of portable devices being stolen constitutes a risk to the general public if a device falls in to the possession of an untrained member of the public. Further, the appearance of these devices in waste and recycle process streams continues to be a problem. More and larger Generally Licensed devices would make this problem even greater.

TRAINING

- Typically, generally licensed devices do not require mandatory training of their prospective users. SEMAN does not support a mandatory training session for a user to possess its device. NCDRP does not support the General Licensed distribution of this type and quantity of radioactive material to untrained persons in the general public, and does not support a training program that is entirely literature based.

Based on the above, NCDRP does not support the General Licensure of any portable devices. Further, it is unlikely that SEAMAN will be able to account for all of its distributed devices on an annual basis by "voluntary" response by their device recipients.

We appreciate this opportunity to continue to work with you on radiation protection matters. If this Agency can provide you with any additional information on this matter, do not hesitate to contact me.

Sincerely,

Richard M. Fry, CHP

3825 BARRETT DR. RALEIGH, NORTH CAROLINA 27609-7221  
PHONE 919-571-4141 FAX 919-571-4148

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SECRETARY

RICHARD M. FRY  
DIRECTOR

all portable uses for such a device. The current regulation, 10CFR32.51 indicates that an address is required of each general licensee. Currently since the office address, which may be temporary is all that is given, the regulatory community will have no way to locate a device if some manufacturing defect should occur. Neither the current regulations nor the manufacturer's instructions provide for any kind of utilization log.

In going from one jurisdiction to another jurisdiction two general licenses are involved. One issued by the exporting jurisdiction and one by the importing jurisdiction. I understand that the Office of General Council has indicated that this is not a transfer from one General License to another. I would point out that when a specific license is issued to a person in one jurisdiction it is not valid in another jurisdiction for that person, but they must obtain a new specific license in the new jurisdiction. Further, they must maintain records relating to each license including transfers. Thus it would seem that two General Licenses are required and therefore a transfer must occur. Currently, reciprocity is not available to general licensees. Since an address is required of the distributor and several jurisdiction require the filing of applications for registration to have a valid general license, it is difficult to see how many jurisdictions can accept portable devices crossing jurisdictional boundaries. If the address were not required and the registration not required this probably would not be a problem.

I also request that the contents of this letter be provided to the Commissioners should a decision is made that authorize the distribution of these devices to general Licensees.

Sincerely



Aubrey V. Godwin  
Director

AVG



Jane Dee Hull  
Governor

Aubrey V. Godwin  
Director



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August 10, 1999

Carl J. Paperiello, Director  
Office of Nuclear Material Safety  
and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Dr. Paperiello:

In reviewing the Seaman's proposal to distribute a device containing 10 millicuries of 137 Cesium and 40 millicuries of 241 Americium, I conclude that the device is **not** inherently safe such that a person not having the training in radiological protection can safely operate the device, 10CFR32.51 (a)(2)(I). Specifically, the conditions of storage cannot be assured without the specific training of the individuals operating the device. Without proper storage, the devices are likely to be diverted into the scrap metals industry or into situations involving public exposures. The latter situations, in most cases, will not exceed 20 to 30 millirem. The former, could result in extensive decontamination costs and significant population exposure. This conclusion is supported by the fact that currently specific licensed operators who have received some training, have problems related to storage of these devices. Several are reported lost each year due to inadequate storage and security. If the operator is only advised to read the instructions of the manufacturer, and to commit to following these instructions, there is no assurance that the health and safety are being protected adequately.

Further, the manual accompanying the device is deficient in that it does not adequately address the storage of the device. It does not indicate the seriousness of proper storage such that someone who has no radiation training will properly store the device. For example, it does not inform the reader of the potentially severe penalties for improper storage or the loss of the device. In a related matter, the instructions of the transportation regulatory requirements, such as manifesting which are needed to support any emergency response, would require more than just reading a manual. Even though these are Department of Transportation requirements in making these devices pursuant to a specific license for distribution to general licensees, you may be inviting a failure to comply with another set of regulations relating to the public health and safety. This violation is more likely since it is probable that the devices will be in private carriage.

I would also note that, even though the statements of considerations indicate the possible use for portable/mobile GL devices, I have never seen a safety evaluation of the regulation which would address

**From:** Martha Dibblee <dibblee@teleport.com>  
**To:** John Lubinski <jwl@nrc.gov>, Terry Lindsey <terry....  
**Date:** Tue, Feb 16, 1999 2:46 PM  
**Subject:** Re: Just a quick note to see if the GL rules are done yet?

My only comment is that portable devices should not be GLs. Oregon doesn't allow any portable GLs, they all are classified as specific license portable gauges (several different program codes). If you're interested, Terry Lindsey can send you the specific program codes.

Martha

**From:** "Robert W Goff" <rgoff@msdh.state.ms.us>  
**To:** OWFN\_DO.owf1\_po(FCC)  
**Date:** Tue, Sep 21, 1999 11:40 AM  
**Subject:** Seaman Nuclear Portable Gauge

In response to SP-99-52 concerning the Seaman Nuclear Corporation's application to distribute generally licensed portable moisture density gauges, I strongly recommend that this application be denied. Even with specific licensees the states and NRC are constantly having to respond to incidents involving these types of devices due to the lack of security and accountability. Allowing these devices to be distribute as general license device will only add to our workload.

If NRC approves this application, I would hope that any compatibility issues in the proposed 31.5 would allow a state the flexibility of requiring a specific license for this device if they chose to do so.

I apologize for my late response.

Robert W. Goff, Director  
Mississippi State Dept. of Health  
Division of Radiological Health  
(601) 987-6893, Fax (601) 987-6887

**From:** "Frazee, Terry" <tcf0303@doh.wa.gov>  
**To:** OWFN\_DO.owf1\_po(fcc)  
**Date:** Wed, Sep 1, 1999 2:50 PM  
**Subject:** SP-99-052

This is in response to your request for comments on the Seaman Nuclear Corporation application to distribute generally licensed portable moisture density gauges. We are opposed to allowing portable devices under a general license. We strongly recommend that this application be denied.

We recognize that other portable devices have already been allowed to be distributed under general license, and admit to being persuaded to allow our manufacturer licensees to do the same thing because of their competition with manufacturers from out of state. However, we feel this trend should be stopped and, in fact, reversed.

Please note the current effort to bring the whole "general license" program under control. We should not add to the future problem with general licensees by shifting (the beginning of ) a whole class of specific licensees into the general licensee category! While we understand that the risk is low (from a single focus health physics point of view), we are never-the-less concerned because:

- 1) portable devices, by their very nature, are more susceptible to being lost, stolen, or involved in a transportation accident thus raising a "public perception" issue even if the actual dose is non-existent; and
- 2) general licensees, by their very nature, do not receive much, if any, regulatory attention; and, with no intervention, problems with security, storage, maintenance, transportation, leak testing, and adherence to the operator's manual could arise that have not been considered fully as to their effect on risk.

There also may be some concern in the area of reciprocity since some states may not agree with your final decision and want the opportunity to conduct reciprocity inspections. They may not be able to do so if this allowed as a general license.

Again, as if it isn't already clear, we are opposed to allowing portable gauges to be distributed under a general license!

\*\*\*\*\*

This message from: Terry Frazee tcf0303@doh.wa.gov

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Also, visit our Home Page at

--> <http://www.doh.wa.gov/ehp/rp>

**CC:** TWFN\_DO.twf4\_po(RMS2),GATED.nrcsmtp("agodwin@arra....

**From:** "Sanford, James" <j\_sanford@deq.state.la.us>  
**To:** TWFN\_DO.twf4\_po(RMS2)  
**Date:** Wed, Aug 11, 1999 2:29 PM  
**Subject:** SP-99-052

We feel that all portable gauges should be specifically licensed. In our opinion we can maintain better accountability if such gauges are specifically licensed, and we require that they be so licensed.

Jim Sanford

DCD (SP03)

PHL  
FCC  
SCP  
JHM

+ JFE

R. S. [unclear] / [unclear]



**KANSAS**  
**DEPARTMENT OF HEALTH & ENVIRONMENT**  
BILL GRAVES, GOVERNOR  
Clyde D. Graeber, Secretary

99 AUG 13 AM 9:09

OSP

August 6, 1999

Frederick C. Combs, Deputy Director  
Office of State Programs  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Re: Request for Comments on Seamen Nuclear Corporation Application to Distribute Generally Licensed Portable Moisture Density Gauges (Sp-99-052)

Dear Mr. Combs:

We have reviewed the above letter and wish to make several formal comments in opposition to any plan to issue a license to distribute moisture/density gauges to general licensees. Specifically the basis of our opposition is:

1. As evidenced by the data in the Nuclear Materials Events Database, these devices have had a significant history of loss, damage and/or misuse. Under the current licensing practices these devices may only be used by or under the supervision of persons who have received training in their use. Relinquishing this requirement by the distribution of the devices to general licensees will place the devices in the hands of untrained and inexperienced personnel. A review of the incidents which have occurred reveals a significant number have involved untrained or poorly trained personnel.
2. The proposal to delegate an accountability program to the device manufacturer constitutes a conflict of interest which has the potential of resulting in losing accountability of these devices. It is a well known problem that accountability of generally licensed sources has been a major concern and has resulted in very costly (in terms of lives, exposure and dollars) events.
3. We question the analysis of potential exposures since the exposure rates these are based on assume the device is operated in accordance with the manufacturers specifications and are

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SP-A-4

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handled under accident conditions by trained personnel. Both of these assumptions are no longer valid if the devices are distributed to generally licensed personnel who have not been trained.

4. We disagree with the statement that this proposal will improve the accountability of these devices. Since these will be distributed in states outside of NRC jurisdiction, it will not be possible for the NRC to maintain an accountability of these devices.
5. We feel this proposal is not in the best interest of the public because it will introduce an additional 5000 devices into the generally licensed device pool which have consistently proven themselves to have a higher than normal probability of loss or damage.
6. The higher than normal probability of loss or damage in itself should prevent these devices from being generally licensed. The criteria "under ordinary conditions" is in direct contradiction to the observed facts as evidenced by the data in NMED.

Sincerely,



Vick L. Cooper, Chief  
Radiation Control Program  
Bureau of Air & Radiation

---

Division of Environment, Bureau of Air and Radiation  
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DCD (SP03)

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99 AUG 13 AM 9:09  
R. Shene/  
nmss  
OSP

Frederick C. Combs, Deputy Director  
Office of State Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

August 9, 1999

Dear Mr. Combs:

As requested in SP-99-052, I am submitting my personal comments in regards to Seamen Nuclear Corporation's application to distribute generally licensed portable moisture density gauges.

I urge the Commission not to approve this request. My personal opinion is that it sets the tone for increased loss of radioactive material, and is contrary to the discussions that have been occurring over the last few years regarding general licensure.

Generally licensed devices, and the overall inability of the regulating agencies to maintain accountability for them, have been a problem for many years. The recent approvals allowing generally licensed portable gauges have compounded the problem. In response to this, some states (Alabama included) have rules which prohibit a portable gauge to be possessed under a general license. We allow such gauges to be possessed under a general license only if the device is to be used on a single site.

My discussions with other Agreement State individuals seem to indicate a preference toward being more restrictive about what may be possessed and used through this process. Discussions between Agreement States and the NRC have included increased restrictions, and even the abolishment of all general licenses.

Although I am not aware of any specific instances where it has been proved, it is thought that generally licensed devices are responsible for many of the contaminations that have occurred when a device is melted in a blast furnace. As you know, this costs many millions of dollars for clean up. These costs are usually not paid by the company whose source was melted, because they cannot be traced or determined.

Portable generally licensed devices compound this problem, simply by their mere portability. In addition, portable moisture density gauges are among the most often stolen items containing radioactive material. This further increases the possibility that they will find their way into the scrap metal stream.

I believe that if this request is granted, it will hasten the decision by individual Agreement States to place further restrictions on generally licensed devices. I urge the NRC to work with the Agreement States to make a final and collective decision about generally licensed devices before they approve this request. I feel there are many things about the current rules that are "broken", and should be fixed before approving new classes of generally licensed devices.

I want to thank you for the opportunity to comment on this request.

Sincerely,



David Walter, Director  
Radioactive Material Licensing Branch  
Alabama Office of Radiation Control

SP-A-4



August 30, 1999

Paul H. Lohaus, Director  
Office of State Programs  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Lohaus:

Please find enclosed Nebraska's Health and Human Services Regulation and Licensure comments on SP-99-052 and SP-99-18 request to distribute generally licensed portable moisture density gauges.

If you have any questions please contact Trudy Hill (402)471-0560 or Bryan Miller at (402)471-6444.

Sincerely,



Cheryl K. Rogers, Program Manager  
Radioactive Materials Program

Enclosure

Xc: Raeann Shane

**Nebraska Health and Human Services Regulations & Licensure  
Division of Public Health Assurance  
Radioactive Material Program's Comments on**

**SP-99-052 and SP-99-18 request to distribute generally licensed portable moisture density gauges**

Licensing the Seaman portable moisture gauge as a general license is unsuitable as it does not address training, transportation, and control of sources sufficiently.

A specific license ensures greater accountability from the licensee than a general license. It has been Nebraska's experience that it is much easier to account for specifically licensed items than generally licensed items.

Having the source remain inside the gauge does not diminish the fact that the gauge has two sealed sources within it. This configuration still poses similar hazards to the old style of gauges. A gauge can easily be run over by large equipment and pose a potential health hazard.

The following areas need to be considered:

**Training**

Currently users of portable moisture density gauges are required to have eight hours of training by the manufacturer. This training includes the operation and care of the equipment, leak testing, radiation safety training and transportation of radioactive materials. This training would not be required with a GL. The inspector currently checks for training of the individuals operating the gauges. The users of these gauges need training.

**Transportation**

The licensee is responsible for a number of transportation requirements which include:

A copy of IAEA Certificate of Competent Authority for each gauge is on file

A copy of Type A package testing.

A copy of an emergency response document and phone number.

A completed Bill of Lading when transporting the gauge.

Check that the RQ designation appears on documents and packages for transportation.

Check on how the gauges are loaded into the transport vehicle by the licensee taking into consideration how they are secured and distance the device is from the occupants of the vehicle in order to reduce exposure.

These gauges are transported on a regular basis and the licensee needs to know and understand the transportation regulations. This is ensured by initial training and by license inspections.

**Accountability**

A specific licensee is inspected every five years by the NRC or Agreement States. The specific license **requires** the licensee to identify: The radioactive material being used, use and storage location, the minimum training for authorized users, a radiation safety officer, and to commit to operating and emergency procedures. This ensures greater accountability of the radioactive material.

A general license is not required to address any of this information nor are they required to have operating and emergency procedures.

An inspection will verify that the gauge is being used for the purpose described in the SSD Registration Sheets.

Each Specific Licensee has a RSO who is responsible for proper use & maintenance, personnel training, incident response & investigation, gauge security and storage, material disposal, gauge transport, record maintenance and annual internal audit and is a point of contact for the State. A general licensee only has a contact listed often not even a name. With the new proposed

regulations a contact name will be listed but the contact does not have the responsibility of a RSO.

In summary changing this Seaman Gauge from a specific license to a general license can decrease the radiation safety, security and control of radioactive materials and compliance with regulations by the licensee.

Contact Trudy Hill at (402)471-0560 E-Mail: [thill@hhs.state.ne.us](mailto:thill@hhs.state.ne.us) or  
Bryan Miller at (402)471-6444 E-Mail: [bryan.miller@hhs.state.ne.us](mailto:bryan.miller@hhs.state.ne.us)

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# DEPARTMENT OF NUCLEAR SAFETY

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George H. Ryan  
Governor

Thomas W. Ortziger  
Director

September 10, 1999

Paul H. Lohaus, Director  
Office of State Programs  
U.S. Nuclear Regulatory Commission  
Document Control Desk  
P1-37  
Washington, DC 20555-0001

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OSP

**Subject:** Comments on the Agreement States Letter SP-99-052, Request for  
Comments on Seaman Nuclear Corporation Application to  
Distribute Generally Licensed Portable Moisture Density Gauges

Dear Mr. Lohaus:

The Department has reviewed the information notice regarding the Seaman Nuclear Corporation (Seaman) proposal to generally license a portable moisture/density gauge, including the supporting material presented at the NRC General License Workshop on July 27-28, 1999. The Department believes accountability and jurisdictional issues are the principal reasons why this proposal should not be approved. Our comments are as follows:

Seaman has made commitments to NRC to report the disposition of devices subsequent to the initial transfer. Agreement States cannot enforce this kind of commitment made in a NRC license. Furthermore, if Seaman's accountability records are incomplete through unresponsiveness of the general licensee, NRC would be powerless to proceed with enforcement.

The NRC has placed a number of the requirements currently reserved for specific licensure in the Seaman's Operator Manual. We believe NRC and the States cannot enforce statements made in an operators manual.

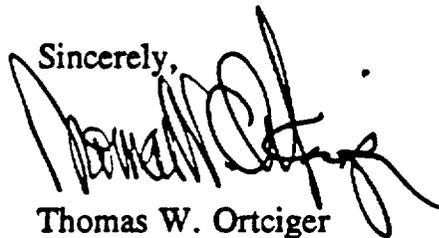
NRC and Agreement State reciprocity rules would have to be amended to allow transfer of devices between jurisdictions. Currently, generally licensed devices are not considered under these rules.

Many states do not currently have the appropriate measures established to track general license distributions/transfers. Nor do they necessarily have the resources to perform follow-up inspections for unresponsive general licensees or to resolve apparent general licensee inventory discrepancies. At the NRC Workshop, participants expressed a wide variety of methods for regulating these devices ranging from requiring a specific license to essentially not regulating these devices at all. If certain states choose not to provide appropriate regulation for these devices (including inspections), infractions of the regulations/operator's manual will certainly increase, and these infractions will impact neighboring states/regions because of the portable nature of the gauge.

The Department believes that NRC should not approve this device for general license distribution until the mechanisms for accountability, use and transfer of portable generally licensed devices are developed and specified in a regulation. Until this is accomplished, accountability of these devices will be problematic. A majority of the States present at the NRC Workshop indicated that they would require specific licensure for these devices regardless of NRC's decision. This is consistent with current national and international efforts to enhance regulatory control of radioactive material throughout the world. If NRC grants authorization for Seaman to distribute this device to general licensees, many other competitor manufacturers are certain to follow suit and request general licensure for their devices which will further complicate the situation.

Thank you for the opportunity to comment on this draft procedure. Should you have any questions, please contact me or Gibb Vinson of my staff at (217) 785-9947.

Sincerely,



Thomas W. Ortziger  
Director

TWO:dks

cc: Jim Lynch, State Agreements Officer

# Georgia Department of Natural Resources

4244 International Parkway, Suite 114, Atlanta, Georgia 30354

Lonice C. Barrett, Commissioner  
Environmental Protection Division  
Harold F. Reheis, Director  
(404) 362-2675

September 3, 1999

Paul H. Lohaus, Deputy Director  
Office of State Programs (03H20)  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Lohaus:

In All Agreement States letter SP-99-052 NRC requested all the Agreement States for comments on Seaman Nuclear Corporation's application to distribute generally licensed portable moisture density gauges. Georgia foresees problems with the general licensing of portable gauges and offers the following comments.

- (1) **Accountability:** I commend Seaman Nuclear for their proposal to maintain contact annually with all recipients of their gauges. It is a program that will fall by the wayside without constant vigilance by the NRC. As soon as NRC's registration program is operational Seaman Nuclear will initiate actions to remove any regulatory requirements NRC may have placed on their initially voluntary program. And if NRC does not require the program, funding will be redirected into other areas by Seaman Nuclear until the program is no longer viable. Stolen portable gauges have been reported regularly to the NRC Operations Center and posted on NRC's Daily Events Report website. With the minimal regulation of generally licensed devices these reports will cease to be made. Did NRC's risk analysis include the increased number of devices being lost or stolen or was it just based on the current lost/stolen rate?
- (2) **Reciprocity:** Georgia's licensing rules, which are modeled after SSRCR Part C Section 90 provide for granting a general license to companies holding NRC or Agreement State specific licenses to perform work using radioactive material as stipulated in their specific license. We do not have a provision for granting a general license to a general licensee. We have denied reciprocity to companies desiring to perform work in Georgia using generally licensed devices. Can we anticipate NRC receiving from Seaman Nuclear a petition for rule making to modify 10 CFR 150.20(a)(1) to provide for reciprocal recognition of general licensees using portable gauges containing radioactive material?
- (3) We also are concerned about the profilation of Am 241 sources if the projected sales goals are achieved or exceeded. The cost of return or disposal of Am 241 sources is not communicated to prospective buyers. Once the buyer learns of the cost of disposal, discarding the device will become a very attractive option since the DOE does not have a program in place to receive these sources. Georgia does not and I am certain other Agreement States do not have the resources to recover and dispose of abandoned sources/devices. If Seaman Nuclear's request is approved the mandatory return of unwanted sources to Seaman Nuclear should be a stipulated requirement. Such a stipulated requirement would minimize any adverse impact on the States resulting form NRC's approval of this application.

In conclusion, we do not believe it appropriate to generally license portable devices and recommend the application be denied. If you should have any questions regarding this matter, please do not hesitate to contact me at (404) 362-2675.

Sincerely,



Thomas E. Hill, Manager