

9/7/88 CET

NEUTRON PRODUCTS inc

22301 Mt. Ephraim Road, P.O. Box 68
Dickerson, Maryland 20842 USA
301/349-5001 TWX: 710-828-0542
August 29, 1988

Mr. Roland G. Fletcher, Administrator
Center for Radiological Health
State of Maryland
Department of The Environment
201 West Preston Street
Baltimore, MD. 21201

RECEIVED

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accordance with the Freedom of Information Act.
Exemptions 2
FOIAPA 2008-0197

AUG 31 1988

CENTER FOR
RADIOLOGICAL HEALTH

Dear Mr. Fletcher:

We doubt that we could contest, for less than \$3,000, the fine imposed by your letter dated July 26, 1988; and, win or lose, we believe that exercise would distract each of us from our respective responsibilities for radiation safety. Accordingly we are enclosing a check for \$3,000 as requested. However, we do not believe that the fine, or any other punitive measure, is either justified by the facts or in the public interest; and for the reasons that follow, we protest its levy, and invite you to rescind the fine and return the check.

1. In the eyes of the public, and at least some of our employees and their families, punitive measures imply deliberate wrongdoing or callous indifference to regulatory requirements; and to that extent, the fine constitutes a misrepresentation of the essential facts in this matter.
2. The portal monitor that is now deemed inadequate by both the Department and the company was installed about six years ago to assure against the accidental removal of activity at the microcurie level. A thorough survey of the homes, clothes and cars of employees, and the plant outside the limited access area, has yielded no evidence that the portal monitor and the system for its use failed to perform as then intended.
3. The fact that neither our portal survey system, nor our procedures for its use, prevented the removal of nanocurie levels should not surprise the Department; and the hindsight view (which we share) that our portal monitor system can be more sensitive, and should be more sensitive, is founded more in the politics of what can be accomplished than the physiology of what should be required as a matter of employee safety and public health.
4. Moreover, we have no evidence that releases of the level found are of prospective consequence to the health of employees, their families or the public, and the levy of a substantive fine is misleading, as is the Department's interpretation of our license with regard to this matter.
5. The only injury here is to the pride of Neutron Products, and a few of its employees. The cause of that injury is that more sensitive systems are available and used by others in the industry; and our prior failure to adopt more sensitive measures has caused embarrassment. The cure is the adoption of more sensitive measures; the money used to pay the fine would be much more usefully applied to that purpose; and with that in mind, we respectfully request its return.

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Our views on the fine do not diminish in any way our respect for the capability the Department has established to detect inconsequential levels of radiation, or our appreciation for the courtesy, care and discretion exercised without fail by the Department's personnel in their recent surveys of our employees' property. However, we believe that the Department is misusing that resource; and the misuse we allege belies a policy error, not unique to the Department, that adds to our reasons for protesting the fine. The established ability to detect low levels of radiation can be used for or against the public interest.

Its use to reduce permissible levels below those justified by considerations of workplace safety and the public health, are, in our opinion, counterproductive in the extreme.

To the contrary, its use to assure that decent health and safety margins are maintained (when that is the case) constitutes a valuable tool for the education and assurance of a public that has been misinformed to believe that very low levels of radiation are more dangerous than is indicated by overwhelming evidence to the contrary.

Moreover, under present policies, further improvements in our ability to measure increasingly inconsequential levels of radioactivity will assure that "incidents" of this nature will increase disproportionately to the public interest; and fines of the nature levied in this case will make it ever more difficult to wean a miseducated public and its policy makers from the doctrine that, at any level of radiation, lower is better in some substantive way.

Thus, while we will not contest the fine itself, we believe it is important to take issue with its underlying cause; and for that purpose we request the courtesy of a high level meeting to consider the following agenda items plus any you care to add:

- a) With regard to both radiation levels and concentrations of radioactive materials, efficient and effective regulation requires the establishment of both regulatory limits, that might give rise to fines if persistantly exceeded or callously ignored, and de minimus levels, that are beyond the scope of rational regulatory and public concern.
- b) Between these two limits, the notion that lower is better can fairly be applied, and the concept of ALARA can serve constructively. In any case, the concept of maximum permissible concentrations for release is sound, and it should not be abandoned, either partially or totally in the name of ALARA. We need some level at which we can say "that's good enough". Otherwise, we shall exhaust our financial and human resources on trivia.
- c) With few, if any, exceptions, the established permissible exposures and mpc's have well served the industry and the public for more than three decades; and in most cases, we believe that de minimus levels can be set at 5% to 10% of existing mpc's. If there are instances where permissible doses or mpc's are too high; let's establish new ones. In any event, we need a finite and rational sphere of regulatory interest.
- d) When we (or other licensees) set an internal standard below the permissible standard, we seek to provide margin against the likelihood of a regulatory

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violation; and it is an abuse for the Department to apply such standards in a manner that increases the probability of a regulatory infraction, as it has done in this case. When is that policy going to change?

In establishing de minimus levels, I would hope that the Department could agree that we should be held to a level no more stringent (or not much more stringent) than the standard for radon in the home or unregulated workplace.

At the "safe" radon concentration of 4 picocuries per liter, for example, a thorough quarterly cleaning of our plant would accumulate multi-microcurie levels of radon daughters Pb-210 and Po-210 (about 20 million dpm) each of which is far more radiotoxic than cobalt-60.

If we were operating an unregulated plant, we could send such waste to a land fill, or spread it in our garden if we wished; and common sense suggests that we should be able to disregard lesser releases of cobalt-60 to similar recipients, and less harmful levels of activity in soil.

Pending the development of a national standard, we have suggested, as an interim measure, that soil having a concentration of cobalt-60 no greater than the mpc for water be accepted as clean. Can't you accept that?

Similarly, in the radon "safe" home, the quarterly accumulation of Pb-210 and Po-210 would be in the range of 30,000 dpm to 60,000 dpm. This constitutes a higher level of more dangerous species than we have found in the recent surveys; and while it is in the interest of housekeeping and politics to improve our survey sensitivity, a decent respect for the mental health and education of our employees and their families requires that we place what we are finding in a proper context.

The technology is such that the standard for release on persons and clothing (and at this writing there is none) can and should be lower than the 2,200 dpm per 100 square centimeter level of smearable, removable contamination that has been established for equipment. However, to the extent that we set lower internal criteria to provide margin against a regulatory transgression, we must be allowed to use that margin for its intended purpose. By treating such criteria as a reduction in permissible levels, the Department increases the likelihood of a violation; and discourages us from adopting practices and procedures to provide the margins we would like to maintain.

The Rochester incident, and the ensuing surveys, call for some changes to be incorporated in our practices and our new license, and within a few weeks, we hope to submit an updated draft of our application for license renewal. In considering that application, I trust that the Department will work with us to implement a mode of operation that encourages us to focus our attention on matters of primary concern to employee safety and public health.

Very truly yours,

NEUTRON PRODUCTS, INC.

J. A. Ranshoff, President

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MEMORANDUM

Copies {

To Karen Pushkar From Roland Fletcher Date September 2, 1988
 Subject Check Deposit

The check(s) listed below reflects payment of a Civil Penalty assessed by the Center for Radiological Health (Project 39.01.02.0101). It is to be deposited to general fund.

FROM

Neutron Products inc, D.I.P.

\$ 3000.00

TOTALS 3000.00

RGF/mrd

NEUTRON PRODUCTS inc, D.I.P.
 Dickerson, Maryland 20842

DATE	INVOICE	AMOUNT

13939

PAY Three thousand and 00 00 7-16
520

DATE 8/30/88 TO THE ORDER OF Comptroller of the Treasury

GROSS AMOUNT			DISCOUNT		CHECK AMOUNT
OTHER	ACCTS PAYABLE				
	3000.00				3000.00

DOLLARS

MARYLAND NATIONAL BANK

David M. Lewis

(b)(4)