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DOCUMENT DATE: 09/12/1969

TITLE: PR-040,150 - 34FR14333 - SOURCE MATERIAL REPORTS

CASE REFERENCE: PR-040,150
34FR14333

KEY WORD: RULEMAKING COMMENTS

Document Sensitivity: Non-sensitive - SUNSI Review Complete

Westinghouse Electric Corporation

Power Systems

D J Povejsil
General Manager
Nuclear Fuel Division



Penn Center
Box 355
Pittsburgh Pennsylvania 15230

November 11, 1969

Source Mat. Rpts

DOCKETED
NOV 14 1969
OFFICE OF THE SECRETARY
PUBLIC PROCEEDINGS
PR 40-150

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

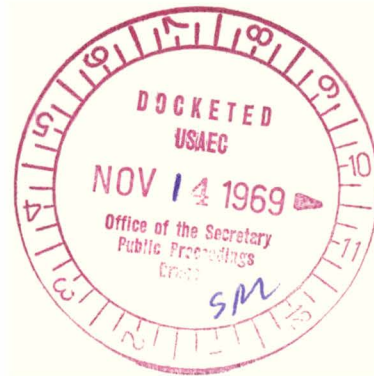
Gentlemen:

Westinghouse's Nuclear Fuel Division and representatives of other divisions of the Nuclear Energy Systems Group have reviewed the proposed amendment to 10 CFR 40, 150 as published in the Federal Register on September 12, 1969.

We recommend against adoption of the formal reporting system for source materials, as proposed in the amendment. It is inconceivable to us how the semi-annual reporting of inventories and of transactions exceeding 1000 kg can provide significant input to our safeguards system; because it is too easy to circumvent, too ambiguous in its requirements, and from a practical point of view, unenforceable. At best it requires the full cooperation of all federal and state licensees handling large quantities of source material. We believe that their "good will" can be better utilized by requiring the licensees to report any theft or attempted unlawful diversion of source materials of a significant quantity (say, 5000 kg).

It must be made clear to all concerned parties that a large investment in facilities, and a time of several years is required by the diverter, to extract from such source materials a significant quantity of special nuclear materials. To prevent such extraction by clandestine facilities and unlicensed operators is a proper concern of our safeguards system. Surely, this goal can be achieved by other than the formal reporting system as proposed in this amendment.

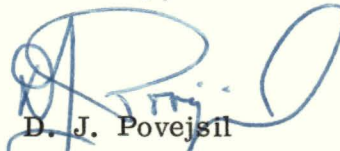
Commissioner James T. Ramey has identified four basic objectives that a safeguards system should satisfy: it must be effective; its cost should be minimized; it should be depersonalized; and its interference with normal



operations should be a minimum. We do not believe that the proposed system meets the first criterion. In order to strengthen the effectiveness such as by lowering the quantities requiring reports, and by introducing necessary inspection procedures, the proposal would certainly not meet the other three objectives.

These comments and recommendations are submitted with full appreciation of the importance of the evolving safeguards system.

Sincerely,



D. J. Povejsil
General Manager
Nuclear Fuel Division

/c

GENERAL ELECTRIC
COMPANY

DOCKET NUMBER *source mtr*
PROPOSED RULE *RPTS* **PR 40-150**

NUCLEAR ENERGY
DIVISION

175 CURTNER AVE., SAN JOSE, CALIF. 95125 . . AREA CODE 408, TEL. 297-3000, TWX NO. 910-338-0116

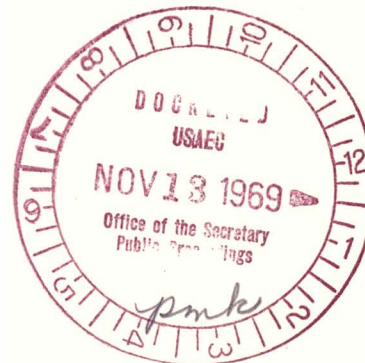
November 11, 1969

Mr. W. B. McCool, Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

Gentlemen:

Subject: 10 CFR Parts 40 and 150 - Source Material Reports



General Electric has reviewed the proposed amendments which were published in the Federal Register on September 12, 1969. The following comments are submitted for the Commission's consideration.

1. We do not recommend treating source material as a strategic material until such time as the United States places its non-military operations under the IAEA safeguards system in accordance with the Presidential Commitment to do so when a non-proliferation treaty becomes effective.
2. Uranium holdings and acquisitions are proprietary business matters and should not be made public, at least with company identity. The proposed regulation must include a restriction upon the Commission to assure withholding of such information.
3. Uranium used as shielding in shipping containers is exempt from licensing by authority of 10 CFR 40, Section 40.13 and therefore should also be exempt from the proposed reporting requirements discussed herein.
4. Proposed Section 40.64(b) requires an annual statement of the source material inventory held by "each licensee who is authorized to possess... more than 1000 kilograms...". We believe this requirement should be revised to apply only to each licensee who possesses more than 1000 kilograms.

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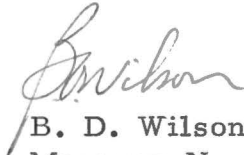
Mr. W. B. McCool

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November 11, 1969

We appreciate the opportunity to direct these comments to the Commission's attention and trust they may assist in establishing an adequate but not necessarily complex safeguards system.

Sincerely,



B. D. Wilson
Manager-Nuclear Safety
MAIL CODE 273

ems

SECRET NUMBER

EXCLUDED RULE

PR - 40-150

NUMEC

Nuclear Materials and Equipment Corporation

Apollo, Pennsylvania 15613

Telephone 412-842-0111

Cable NUMEC

November 10, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

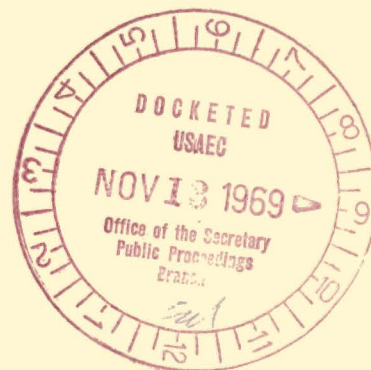
Dear Sir:

This is in response to AEC proposed changes to 10CFR40 and 10CFR150, as published in the Federal Register on September 12, 1969 (34FR 175, pg 14333). We appreciate the opportunity to comment on this proposed regulation.

We do not believe that the system proposed by the AEC is necessary to assure that, "source material is adequately safeguarded in the interest of the common defense and security." We believe that reports of attempted theft are sufficient to protect the very limited safeguards interest which normal and depleted uranium may have.

Source materials have no direct strategic value. They can only be used as starting materials for the production of special nuclear materials, following processes which require large investments in time, money, and scientific manpower. Moreover, they are commercially available in large quantities, so that acquisition by theft is unnecessary.

We also question whether the proposed reporting requirements will provide meaningful information. Consider a typical major contract involving depleted uranium. Total receipts might exceed 10,000 kgs, and most individual receipts probably would exceed 1,000 kgs, so AEC would receive documentation of receipts. In mixed U-Pu work, none of the shipments would exceed even 100 kgs, and would not be reported to the AEC. There would be several burials, and less than 1,000 kgs would be discarded as recovery of the admixed plutonium was accomplished. None of these losses would be reported to the AEC, however, since the quantities would be below 1,000 kgs, and since known losses were not included in AEC's reporting requirements. There would be a physical inventory of over 1,000 kgs, so that would be reportable. In summary then, the proposed requirements would inform AEC that the processor had received over 10,000 kgs U, and now possessed significantly less, but would give no information as to what happened to the material. A reasonable accounting presumably would exist in the processor's records, of course, but it would not be reportable to the AEC.



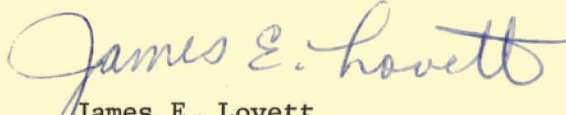
Chief, Public Proceedings Branch

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November 10, 1969

We conclude that sufficient meaningful safeguards control over source materials can be achieved by requiring licensees to keep records and to make them available for AEC inspection, and by requiring prompt reporting of all attempted thefts, etc. We see no basis for any further AEC control.

Very truly yours,



James E. Lovett
Manager, Nuclear Materials Control

JEL:ma

The Standard Oil Company

(An Ohio Corporation)

Midland Building

Cleveland, Ohio 44115

D. G. STEVENS
SENIOR VICE PRESIDENT

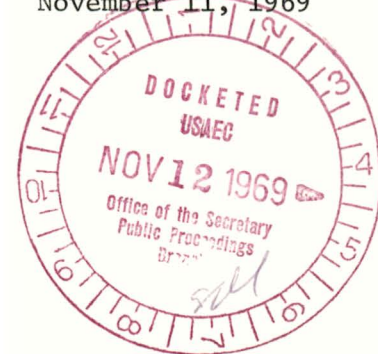
Source Mat. Rpt
DOCKET NUMBER
PROPOSED RULE PR-40150

November 11, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

Dear Sir:



In an earlier letter the management of our subsidiary, Vistron Corporation, requested an exemption from the proposed changes which appeared in the Federal Register of September 12, 1969, relative to the requirements for reporting transfers of source material. The requested exemption was for exclusion of their product, Catalyst 21, which uses depleted uranium as one of its raw materials. The basis for the request was that the form of uranium used for this product has already been processed for the extraction of isotope 235 and, therefore, is not so vital in a control program as other materials in the broad category of "source material".

After further review, we would like to suggest that "process depleted uranium" as a category be excepted from the proposed reporting requirements. We feel that this change would enhance the overall program for the following reasons:

1. An improved program for safeguarding source material will result from eliminating the dilution of effort imposed by auditing volumes of depleted wastes which are not of vital concern.
2. It is our understanding that inventories of the waste depleted uranium are building and that increased usage of this material should be encouraged. Minimizing the administrative attention concomitant to its use would be directionally correct in extending its use.

Secretary

U. S. Atomic Energy Commission

- 2 -

November 11, 1969

In accommodating this change, "process depleted uranium" could be defined as a material with a maximum content of isotope 235 that is somewhat below the natural concentration so that an adequate safeguard exists. We would see a concentration limit of isotope 235 in the range of 0.38 to 0.40% as feasible for this definition.

We would naturally expect and encourage a continuation of the existing controls and licensing requirements covering depleted uranium that are now being administered by the Commission and the state agencies.

Thank you for your consideration of this suggestion. If we can be of any further assistance on this matter, please advise us.

Very truly yours,



D. G. Stevens
Senior Vice President

DGS:klb



Corporation

SPECIALTY CHEMICALS DIVISION

MORRIS TOWNSHIP CENTER • P.O. BOX 70 • MORRISTOWN, NEW JERSEY 07960
TEL. (201) 538-8000

November 20, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

Dear Sirs:

In response to your notice of proposed rule making on Source Material Reports, published in the Federal Register, Vol. 34, No. 175 on September 12, 1965, we are pleased to submit our comments and suggestions as follows:

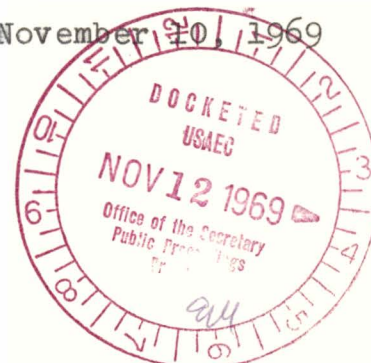
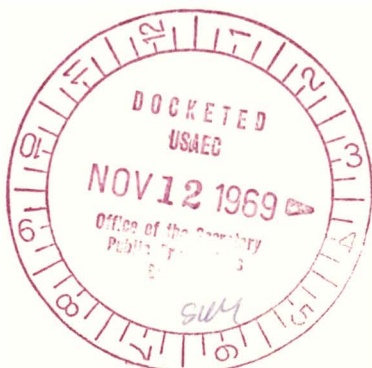
Proposed Paragraph 40.64(b) requires that "Each licensee who is authorized to possess at any one time and location more than 1,000 kilograms of uranium . . . shall submit to the Commission . . . a statement of his source material inventory." We presume from our discussions on international safeguards with the Commission that this would not require a complete physical inventory of the source material. A UF_6 conversion plant, such as ours, is not a batch operation but a continuous one and a complete physical inventory would cause us to shut down our plant for a period of 8 - 12 weeks for each shut-down. Recognizing this, it was agreed with the Commission in discussions on international safeguards that based on the experience of the AEC and Allied Chemical ". . . a product yield of 99.5% of the input uranium will constitute sufficient evidence that uranium is not being diverted so as to preclude the necessity for safeguards inspections within the uranium hexafluoride conversion plant at Metropolis."

Thus, as we understand it, a "statement of source material inventory" under proposed Paragraph 40.64(b) would include: (a) an inventory of uranium concentrates and UF_6 on hand, and (b) an estimate of source material in process and scrap material.

Sincerely yours,


K. R. Osborn

General Manager
Nuclear Fuels Department



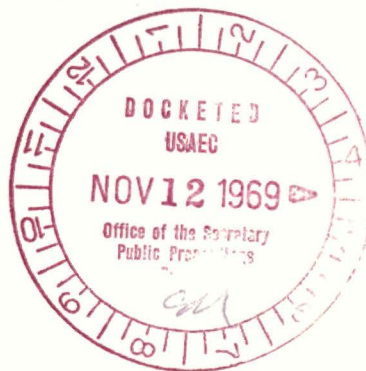


AMERICAN CYANAMID COMPANY

P. O. BOX 10008, NEW ORLEANS, LA. 70121

AREA CODE 504 729-5511

November 10, 1969



Secretary
U.S. Atomic Energy Commission
Washington, D.C. 20545

Attention: Chief, Public Proceedings Branch

Gentlemen:

In the Federal Register, Volume 34, No. 175 - Friday, September 12, 1969, there was a proposed rule covering amendments to the Atomic Energy Act of 1954. This specifically dealt with Amendments of 10 CFR Parts 40 and 150. In this amendment, certain reports are to be required: licensees to report on movement and inventory of source materials. As we understand the proposed amendment, it would also include depleted uranium. We would propose that depleted uranium not be included in the proposed amendment. Depleted uranium as presently used in industry for acrylonitrile production is certainly not a source material that could affect the common defense or the security of the country. We feel that inclusion of this depleted uranium will not serve the best interest of the industry or the country.

If this exclusion is not considered appropriate, we would ask that depleted uranium be defined as that source material containing less than 0.4% U²³⁵. We feel that depleted uranium of this level could be exempted from the proposed regulations.

Your consideration of our suggestion would be appreciated and we would hope that these changes would be implemented prior to the amendment being issued in its final form.

Very truly yours,

AMERICAN CYANAMID COMPANY

R. B. Johnson

R. B. Johnson, Manager
Technical Services

RBJ/vrm

Special Delivery

Pratt & Whitney Aircraft

DIVISION OF UNITED AIRCRAFT CORPORATION

U
A

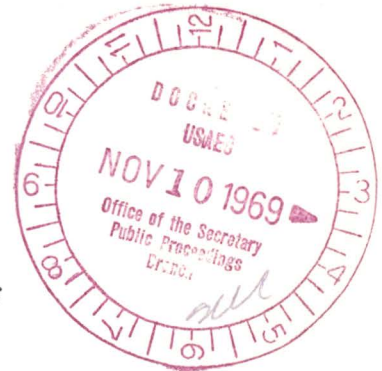
Source Mat. Rpts
DOCKET NUMBER
PROPOSED RULE PR-40-150

11/10/69 SM November 7, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

Subject : Notice of Proposed Rule Making, Federal Register
(Vol. 34, No. 175 - Friday, September 12, 1969)
Source Material Reports (10 CFR Parts 40, 150)



Gentlemen:

We appreciate the opportunity to comment on the proposed amendment. We object to the application of the proposed subject amendment to thorium dispersed in nickel-thoria alloy in the form of finely divided thorium (thorium dioxide) where the thorium content in the nickel-thoria alloy does not exceed four percent by weight because:

1. Thorium in such form (nickel-thoria alloy) is apparently no more accessible or extractable than in the ores exempted in the proposed regulation.
2. Thorium in such form (nickel-thoria alloy) presents less of a hazard than the exempted ores, and
3. The burden of the proposed reporting requirement would diminish the economic value of such nickel-thoria alloys and therefore tend to restrict the trade and development of this promising technology.

We note that in the Notice of Proposed Rule Making the expressed intent is that the new requirements "would apply only to source material after it becomes a product of a mill and the product contains 5 percent or more uranium or thorium by dry weight". In contrast under paragraph (d) of the proposed regulation the only exemptions from the new requirements

U. S. Atomic Energy Commission
Page 2
November 7, 1969

are for "(1) unprocessed ores containing uranium or thorium, or (2) processed ores containing less than five (5) percent of uranium or thorium or any combination thereof, by dry weight". We suggest that this portion of the regulation be revised to conform with the intent as expressed in the Notice.

We think these are valid objections to the proposed regulation and we suggest that they be given due consideration.

Very truly yours,

UNITED AIRCRAFT CORPORATION
Pratt & Whitney Aircraft Division



E. L. Davis
Assistant Secretary

ELD:rwm

DOCKET NUMBER
PROPOSED RULE **PR-40+150**
Source Mtl Rpts



ELECTRONICS GROUP
PHILCO-FORD CORPORATION • Aeronutronic Division • Ford Road • Newport Beach, California • 92663

October 22, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D.C. 20545

Attention: Chief, Public Proceedings Branch

Dear Sir:

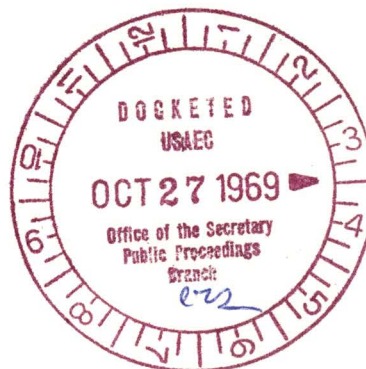
It is recommended that paragraphs 40.64(b) and 140.17(b) be modified to require submission of reports by licensees only if the licensee possesses more than 1,000 kilograms of source material on the effective date of the amendment, or accumulates more than 1,000 kilograms of source material at any time after the effective date of the amendment, except that no report shall be required if the maximum quantity possessed has not exceeded 1,000 kilograms since submission of the last report.

Thank you for the opportunity to reply.

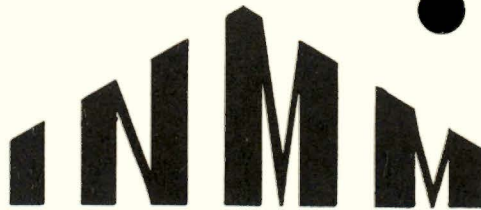
Very truly yours,

F. J. Foster
Safety Engineering Section

FJF/dg



acknowledged by card 10/27/69, ore



INSTITUTE OF NUCLEAR MATERIALS
MANAGEMENT
505 King Avenue
Columbus, Ohio 43201



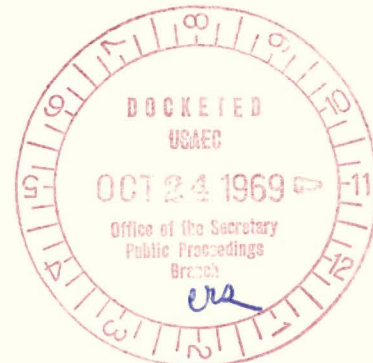
DOCKET NUMBER **PR-40,150**
PROPOSED RULE
Source Mtl Rpts

October 20, 1969

Secretary
U. S. Atomic Energy Commission
Washington, D.C. 20545

Attention: Chief, Public Proceedings Branch

Gentlemen:



The Government Relations Committee of the INMM has reviewed the proposed amendment to 10CFR 40, 150 as published in the Federal Register on September 12, 1969.

We are opposed to formal reporting requirements for source materials, since in our judgment such paperwork does not strengthen the safeguard system, but increases unduely the administrative burden of the licensee. It appears sufficient to require any licensee to report any theft or attempted unlawful diversion of source material of a significant quantity (say 5000 kg). It is suggested that the Commission pursue its responsibility, through existing methods and procedures, which appear to us quite adequate for safeguarding source materials; if indeed safeguarding of source materials in the U.S.A. can be considered to be in the interest of the common defense and security.

These comments and recommendations are submitted with full appreciation of the importance of the evolving safeguards program.

Sincerely,

Fredric Forscher

F. Forscher, Chairman
Government Relations Committee

cc: INMM Officers & Exec. Committee
R. Witzke/C. DeSalvo (W)
Ed Wiggins - AIF

10/24/69 era

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MIDLAND BUILDING • CLEVELAND, OHIO 44115

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

Attention: Chief, Public Proceedings Branch

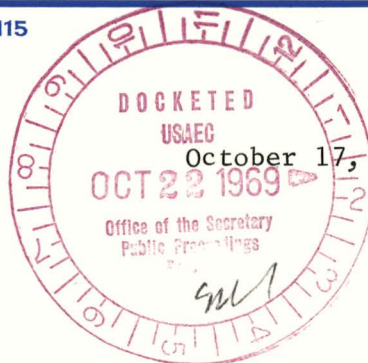
Dear Sir:

We have been notified of the proposed rule making concerning Source Material Reports which appeared in the Federal Register of September 12, 1969. After reviewing the proposed change, we request that an exemption to the proposed reporting program be granted to licensees possessing, shipping or receiving depleted uranium employed or to be employed in an acrylonitrile catalyst known as Catalyst 21.

Our parent company, The Standard Oil Company, Cleveland, Ohio holds patents covering a process for the manufacture of acrylonitrile, a chemical intermediate, and has licensed this process on a world-wide basis. A substantial number of these acrylonitrile producers employ Catalyst 21, a patented catalyst containing antimony and uranium oxides on a silicon dioxide base. The uranium content of the catalyst is less than 15% by weight. Depleted uranium is utilized for its chemical, rather than its radioactive properties. To the best of our knowledge, this use of depleted uranium is the only significant commercial use at present.

The depleted uranium has been obtained as UF_6 from the Atomic Energy Commission's stockpile in Paducah, Kentucky and from several foreign and domestic ore processors. Currently the McGean Chemical Division of Chemetron Corporation in Cleveland is converting the UF_6 to U_3O_8 . The depleted uranium is incorporated into Catalyst 21 by both Vistron Corporation in Lima, Ohio and by Chemetron Corporation in Cleveland and Louisville, Kentucky. Finished Catalyst 21 is currently utilized in the acrylonitrile process by Vistron in Lima and shipped to acrylonitrile process licensees in the United States, Japan, the Netherlands and the United Kingdom and may be used in other countries in the future.

All of the parties involved are licensed by the AEC, state agencies or the respective foreign governments. Export licenses are requested for all foreign shipments and no catalyst is manufactured outside of the United States. The strategic nature of the depleted uranium contained in Catalyst 21 has been carefully considered by the Divisions of State and Licensee Relations and



Source Material Rpts

10/22/69

-40 F150

SAC

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

October 17, 1969

and International Affairs and it has been felt that there are no problems whatsoever in this respect. American companies possessing the catalyst are inspected periodically by state or AEC agencies and are held accountable for the contained uranium.

A small amount of used Catalyst 21 has been sold as part of a mixture with another acrylonitrile catalyst to Southern California Chemical Company, Santa Fe Springs, California, for the recovery of contained antimony.

Finished Catalyst 21 is a microspherical powder. It is utilized in the process inside of a large fluid bed reactor. All of the catalyst except the finest particles, usually those less than 20 microns in size, are contained and re-used continuously within the reactor. The fines which are lost are separated and collected in subsequent liquid streams from which used catalyst may be recovered. Occasionally it has been necessary for licensees to return catalyst to the manufacturer for rejuvenation.

Catalyst 21 displays low level radiation. Measurements of radioactivity taken within one inch of exposed catalyst range from 6 to 8 milliroentgens per hour. External radiation from drums or other vessels containing the catalyst is less than 0.5 milliroentgens per hour.

Because Catalyst 21 utilizes depleted uranium as its source material and then incorporates it into a unique chemical structure, it is felt that Catalyst 21 represents a very remote source of uranium for unlawful diversion of such material. The proposed program if required for the Catalyst 21 business would necessitate the generation of a substantial number of reports from the raw material source to the finished catalyst user, which both the licensees and your agency would be required to handle. Catalyst sales will reach 3 to 4 million pounds in 1969 with shipments ranging in size from 15,000 to 100,000 pounds. For these reasons it is felt that exemption of depleted uranium for use in Catalyst 21 as well as exemption of the possession, shipment and receipt of Catalyst 21 from the source materials reporting program is justified and such exemption is so requested.

VISTRON CORPORATION

-3-

Secretary
U. S. Atomic Energy Commission
Washington, D. C. 20545

October 17, 1969

Should there be any further questions concerning this request, we suggest that they be directed to Mr. D. R. Wilkinson, Manager of Administration and Catalyst Sales.

Yours very truly,

A handwritten signature in blue ink, appearing to read "H. J. Coleman", written over a light yellow rectangular background.

H. J. Coleman
Vice President

HJC:am



RARE EARTH DIVISION

American Potash & Chemical Corporation

258 ANN STREET • WEST CHICAGO, ILLINOIS 60185

October 15, 1969

10/20/69
cu

Secretary, U.S. Atomic Energy Commission
Washington, D. C. 20545

Attn: Chief Public Proceedings Branch

Dear Sir:

The proposed rules as published in the Friday, September 12, 1969, Federal REGISTER would require licensees of source material to make certain reports.

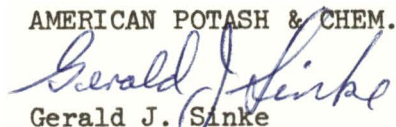
§ 40.64b would require an annual inventory report, with certain exceptions as listed in 40.64d.

We believe that 40.64d should also exempt process residues containing source material, as well as unimportant quantities as listed in 40.13. We would also like "in process" source material to be exempt from the inventory report.

We do not believe that the exemptions we have asked will in any way jeopardize the safeguarding of our common defense or security.

Very truly yours,

AMERICAN POTASH & CHEM. CORP.


Gerald J. Sinke
Safety Engineer - RSO

GJS:jl
cc: B.J. Bennett
J.C. Schumacher



A SUBSIDIARY OF KERR-MCGEE CORPORATION

Alliance Boring Company

PRECISION PRODUCTS

DESIGN, MACHINING, AND ASSEMBLY
1495 DAUNER ROAD FENTON, MICHIGAN 48430

October 13, 1969

Secretary
United States Atomic Energy Commission
Washington D. C., 20545

Subject: Source Material Reports, reference Federal
Register Volume 34, number 175
Friday, September 12, 1969

Attention: Chief, Public Proceedings Branch.


Gentlemen:

We wish to be on record against any requirement adding
additional controls, although it appears that requirements,
subject matter, will not affect our license STB-513.

The record keeping and up-dating of such are stifling the
industry.

Very truly yours

Alliance Boring Company


Bruce Mc Lenna

BML/1s

