

March 25, 1981



SECY-81-197

RULEMAKING ISSUE
(Affirmation)



For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: PROPOSED AMENDMENT TO 10 CFR PART 71 TO RESTRICT AIR TRANSPORT OF PLUTONIUM

Purpose: To obtain Commission approval of a proposed amendment to 10 CFR Part 71 that would restrict the shipment of plutonium by air, implementing the Scheuer Amendment (PL 94-79) with a rule and acknowledging the development of a plutonium package certified to be air-crash resistant.

Category: This paper covers a minor policy question. Resource estimates, Category 1, preliminary (see Section 1.3.1, Enclosure 3).

Summary: The proposed amendments to 10 CFR Part 71 are:

1. Replace, by a regulation, the existing order to licensees currently implementing the Scheuer Amendment.
2. In the regulation, permit air shipment of small quantities of plutonium in other than a container certified to be air-crash resistant (having decided that this is a reasonable interpretation of the Energy Reorganization Act of 1974, as modified by the Scheuer Amendment).
3. Do not codify qualification criteria for an air-crash-resistant package in the NRC regulations. Instead refer to the criteria as published.

Contact:
N. A. Eisenberg, SD
443-5946

8104020 656

Replacing the order to licensees by a regulation is desirable because: (1) a regulation provides for a more uniform and efficient licensing process, (2) the rulemaking procedure provides for public participation and (3) through rulemaking the NRC can permit shipment of small quantities of plutonium in other than an air crash-resistant package, as a reasonable interpretation of the law and without seeking legislative change by Congress. A rule that permits small quantities of plutonium (an A_2 quantity or less) to be shipped in other than crash-resistant packaging is desirable, because it avoids the expense and inconvenience to licensees of mandatory use of an air-crash-resistant package for small quantities of plutonium, while it prevents large public health consequences in the event that an aircraft carrying plutonium crashes--the goal of the Scheuer Amendment. Codification of the package qualification criteria through the rulemaking and public comment process is neither necessary nor desirable at this time. The criteria have been made public in NUREG-0360 and were given rigorous review by the ACRS and the National Academy of Sciences. It is not expected that public comment would result in any significant changes. Further, it is desirable to obtain experience with the use of such criteria before limiting flexibility by codification. Several procedural and technical alternatives were considered. These are discussed in the Value/Impact Statement (Enclosure 3).

As a follow up to this action, the staff will (1) consider whether to recommend that the Commission seek legislative relief to permit shipments, that are larger than an A_2 quantity, by air in other than an air-crash-resistant package of safeguards samples and of other small quantities of plutonium, for which rapid transport is required and is of identifiable benefit to the public interest and (2) evaluate whether to encourage DOT to consider changes to its regulations that would reduce inconsistencies with NRC regulations, as amended by this proposed rule.

Discussion:

The following summarizes the detailed discussion of all the technical and administrative options considered in formulating this action paper, which is presented in the Value/Impact Statement, (Enclosure 3). A detailed evaluation of the pros and cons of the alternatives is also presented in Enclosure 3.

The Scheuer Amendment

The Scheuer Amendment is part of Public Law 94-79 and appears as a footnote to section 201 of the Energy Reorganization Act of 1974. Enacted into law August 9, 1975, it provides:

"The Nuclear Regulatory Commission shall not license any shipments by air transport of plutonium in any form, whether exports, imports or domestic shipments: Provided, however, that any plutonium in any form contained in a medical device designed for individual human application is not subject to this restriction. This restriction shall be in force until the Nuclear Regulatory Commission has certified to the Joint Committee on Atomic Energy of the Congress that a safe container has been developed and tested which will not rupture under crash and blast-testing equivalent to the crash and explosion of a high-flying aircraft."

The NRC Certification Program

On August 15, 1975, NRC issued an order to its licensees, prohibiting the air transport of plutonium, except that contained in a medical device for individual human use. Since then, the NRC staff has developed a plutonium package capable of surviving an air crash (Model PAT-1), published qualification criteria for such a package (NUREG-0360), published a Safety Analysis Report for the package (NUREG-0361), and obtained the review of the National Academy of Science (NUREG/CR-0928) and the ACRS for both the certification criteria and the package. This effort culminated on August 4, 1978, when the NRC certified to Congress that a package (Model PAT-1) that would fulfill the requirements of public Law 94-79 had been designed and tested. A certificate of compliance was issued by NRC (See NUREG-0383, Volume 2, Revision 2, pp. 1-4) that authorizes use of the Model PAT-1 package for air transport of plutonium.

On September 1, 1978, the NRC issued an order to NRC licensees (superseding the August 15, 1975 order to licensees) which states:

"Notwithstanding any provisions to the contrary in the NRC's regulations or in your license, shipments of plutonium by air, other than plutonium contained in a medical device designed for individual human application, may only be made in packages the design of which the NRC has specifically approved for transport of plutonium by air."

The Proposed Action

Now that the NRC plutonium air transport package certification program has been completed, the staff proposes issuing a regulation implementing the mandate of Congress. The rule formulated by the NRC staff to implement the law is a reasonable interpretation of the language of the law, permitting plutonium shipments

of small quantities and very low specific activities in packaging other than that certified by the NRC to be air-crash resistant.

The allowance to ship very low specific activities in other than crash-resistant packaging is a practical interpretation of the law, recognizing the definition of radioactive materials used in transport regulations. Similarly, the rule drafted by the NRC staff would, as a reasonable interpretation of the legislation, permit the air shipment of small quantities of plutonium in packaging other than that certified to be air-crash resistant. A legal analysis prepared by OELD, Appendix II to Enclosure 3 of this paper, elaborates on this issue. An NRC staff analysis, the Environmental Impact Appraisal, (Enclosure 4), shows that an A_2 quantity of plutonium released to the human environment as a result of an air crash would generally be expected to produce no more than minor public health consequences. This realistic, but still conservative, assessment which takes into account the environmental dispersion and population density exposed, shows the health effects produced would be a small fraction of a latent cancer fatality. With that margin of safety, large public health consequences would be essentially impossible, even if more than one package was involved in a single air crash. In addition, plutonium shipments of an A_2 quantity or less are currently exempt from the proposed Department of Transportation and NRC requirements for accident-resistant packaging (which are based on internationally accepted standards), because such small quantities pose small risk and hazard to the public, even if they were entirely released. These exemptions, of course, have been superseded by the NRC implementation of the Scheuer Amendment.

Petition to Ship Small Quantities

Related to this rulemaking, Eberline Instrument Corporation, in a letter dated July 18, 1977, formally petitioned the Commission (PRM-70-6) to allow air shipment of small quantities of plutonium (less than 5 microcuries) contained in calibration sources. On August 18, 1977, the NRC published a notice (42 FR 41675) of filing of that petition for rulemaking. Commission action on the rule proposed herein will define NRC policy and constitute a definitive response to this petition.

Inconsistencies with DOT and IAEA Regulations

Regardless of the particular manner chosen, any implementation of the Scheuer Amendment will go beyond current DOT and IAEA regulations, because those regulations do not require air shipment of plutonium in a crash-resistant package. If DOT or IAEA should decide to consider changes in their regulations to reduce

or remove the inconsistencies between those regulations and the NRC regulations, some staff activity would be involved in working with those organizations. The NRC staff will evaluate whether it should encourage consideration of such changes by DOT.

US/IAEA Safeguards Agreement

In the implementation of international safeguards in other countries, the IAEA needs to be able to airship safeguards samples of plutonium rapidly to their laboratories in Seibersdorf, Austria. Implementation of the US/IAEA Safeguards Agreement may also require the rapid shipment of safeguards samples of plutonium from U.S. nuclear facilities to Seibersdorf. The provision in this proposed rule to allow shipments of an A_2 quantity or less of plutonium in packaging other than that certified to be air-crash resistant will be consistent with the U.S. policy to support effective international safeguards by permitting the shipment of certain safeguards samples by air in packaging less expensive and less cumbersome than the air-crash-resistant package. This does not, however, completely solve the problem because many shipments of safeguards samples consist of quantities of plutonium that are larger than an A_2 quantity. OELD, NMSS, IP, OCA, and OGC will coordinate an evaluation of whether to recommend legislative change to relax requirements for the shipment by air of safeguards samples and of other small quantities of plutonium, for which rapid transport is needed and of identifiable benefit to the public interest.

Recommendations:

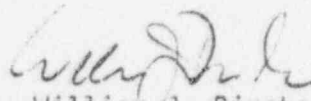
The Commission:

- (a) 1. Approve publication for comment of the notice of proposed rule making (Enclosure 1) which provides amendments to 10 CFR Part 71 to restrict the shipment of plutonium by air.
 2. Approve the staff's conclusions set forth in Enclosure 6, which provides the analysis called for by the Periodic and Systematic Review of the Regulations. The criteria used were derived from Executive Order 12044 which was rescinded on February 17, 1981 by Executive Order 12291 (see memorandum from Bickwit to the Commission, February 27, 1981). This approach is proposed as an interim procedure until the staff can make recommendations and the Commission decides what to do in response to Executive Order 12291.
- (b) Note
1. Staff actions will be initiated to: (1) evaluate whether to encourage DOT to consider changes to existing DOT

regulations that would reduce inconsistencies with the NRC regulations, as amended, and (2) consider whether there exist sufficient technical and policy bases for a staff recommendation to the Commission that NRC seek legislative relief for the air shipment of safeguards samples and other small quantities of plutonium, for which rapid transport is needed and is of identifiable benefit to the public interest. (The motivation for these considerations is discussed in detail in the Value/Impact Statement, Enclosure 3).

2. The proposed amendment would be published in the Federal Register for 60-day public comment.
3. If after expiration of the comment period no significant adverse comments or significant questions have been received and no substantial changes in the text of the rule are indicated, the Executive Director for Operations will arrange for publication of the amendment in final form. If significant questions have been received or substantial changes in the text of the rule are indicated, the revised amendment will be submitted to the Commission for approval;
4. That in accordance with 10 CFR 51.7, 51.5 (c), and 51.5 (b)(6), a negative declaration is incorporated in the notice of proposed rulemaking (Enclosure 1). A Draft Environmental Impact Appraisal (Draft EIA, Enclosure 4), supporting the negative declaration, will be made available in the Public Document Room. If substantive comments are received, the staff will modify the Draft EIA to provide the Final EIA. If no substantive comments are received the Draft EIA will be used as the Final EIA.
5. The preamble to the proposed rule contains the statement that: "the Commission hereby certifies that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." A copy of this certification and the accompanying succinct statement explaining the reasons for it will be forwarded by the Division of Rules and Records to the Chief Counsel for Advocacy of the Small Business Administration. A summary of information to assist the Commission in making this certification is given in Enclosure 5.
6. The Value/Impact Statement supporting this proposed rule will be made available in the Public Document Room for public inspection and comments.
7. The appropriate Congressional committees will be informed.

8. A public announcement, such as Enclosure 2, will be issued when the proposed amendment is filed with the Office of the Federal Register.
9. Copies of this proposed rule will be mailed to affected licensees and known interested parties.
10. These amendments are considered to be matters of basic compatibility between NRC and Agreement State regulations.
11. The basis for the NRC resource estimate is given in Section 1.3.1 of the Value/Impact Statement (Enclosure 3).



William J. Dircks
Executive Director for Operations

Enclosures:

1. Notice of Proposed Rulemaking
2. Draft Public Announcement
3. Value/Impact Statement
4. Draft Environmental Impact Appraisal
5. Information Summary for Regulation Determinations
6. Analysis with Respect to Periodic Systematic Review of Regulation

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Friday, April 10, 1981.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT April 3, 1981, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of April 20, 1981. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

DISTRIBUTION

Commissioners
Commission Staff Offices
Exec Dir for Operations
ACRS
ASLBP
ASLAP
Secretariat

NUCLEAR REGULATORY COMMISSION

[10 CFR Part 71]

Packaging of Radioactive Material for Transport and Transportation
of Radioactive Material Under Certain Conditions

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission has under consideration proposed amendments to its regulations that would restrict the air transport of plutonium. Pursuant to the Scheuer Amendment, the proposed rule will require that shipments of plutonium by air be contained in a package specifically certified as air-crash resistant. However, plutonium may be shipped by air in other packages if the plutonium is in a medical device for individual human use or if the plutonium is shipped in quantities or concentrations small enough to present no significant hazard to the public health and safety, even were the plutonium released in an air crash. All NRC licensees authorized to transfer plutonium are subject to the provisions of this proposed rule.

DATES: Comments received after _____ will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before _____.

ADDRESSES: Interested persons are invited to submit written comments and suggestions on the proposed amendments, on the supporting Value/Impact Statement, on the Environmental Impact Appraisal, and on the certification criteria in NUREG-0360 to the Secretary of the Commission, U.S. Nuclear

Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch. Single copies of the Value/Impact Statement, the Environmental Impact Appraisal or NUREG-0360 may be obtained on request from Norman A. Eisenberg (address below). Copies of the Value/Impact Statement, the Environmental Impact Appraisal, NUREG-0360 and other reports cited under supplementary information below, and of comments received by the Commission may be examined in the Commission's Public Document Room at 1717 H Street NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dr. Norman A. Eisenberg, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, DC 20555 (Telephone: 301-443-5946).

SUPPLEMENTARY INFORMATION:

Background:

The Scheuer Amendment, part of Public Law 94-79 and appearing as a footnote to section 201 of the Energy Reorganization Act of 1974, was enacted into law August 9, 1975. It provides that:

The Nuclear Regulatory Commission shall not license any shipments by air transport of plutonium in any form, whether exports, imports or domestic shipments: Provided, however, that any plutonium in any form contained in a medical device designed for individual human application is not subject to this restriction. This restriction shall be in force until the Nuclear Regulatory Commission has certified to the Joint Committee on Atomic Energy of the Congress that a safe container has been developed and tested which will not rupture under crash and blast-testing equivalent to the crash and explosion of a high-flying aircraft.

On August 15, 1975, NRC issued an order to licensees, prohibiting the air transport of plutonium, except that contained in a medical device for individual human use. Since then, the NRC staff has developed a plutonium package capable of surviving an air crash (Model PAT-1), published qualification criteria for such a package (NUREG-0360), published a Safety

Analysis Report for the package (NUREG-0361), and obtained the review of the National Academy of Sciences (NUREG/CR-0928) and the Advisory Committee on Reactor Safeguards (ACRS) for both the certification criteria and the package. This effort culminated on August 4, 1978, when the NRC certified to Congress that a package (Model PAT-1) that would fulfill the requirements of Public Law 94-79 had been designed and tested. A certificate of compliance was issued by NRC (see NUREG-0383, Volume 2, Revision 2, pp. 1-4) that authorizes use of the Model PAT-1 package for air transport of plutonium. The Commission will consider certifying other packaging as air-crash resistant, if such packaging is demonstrated to satisfy the criteria stated in NUREG-0360. Comments on these criteria are invited, although selection of certification criteria is not part of this rulemaking action.

On September 1, 1978, the NRC issued an order to NRC licensees (superseding the August 15, 1975 order to licensees) which states that:

Notwithstanding any provisions to the contrary in the NRC's regulations or in your license, shipments of plutonium by air, other than plutonium contained in a medical device designed for individual human application, may only be made in packages the design of which the NRC has specifically approved for transport of plutonium by air.

Now that the NRC plutonium air transport package certification program has been completed, the NRC plans to issue a regulation implementing the mandate of Congress.

The Proposed Rule:

This regulation is a reasonable interpretation of the law. Reflecting the specific language of the law, it will require the use of a package certified to be air-crash resistant for the air shipment of plutonium, unless the plutonium is contained in a medical device for individual human use. In addition the regulation permits air shipment of plutonium in packaging

other than that certified by the NRC to be air-crash resistant for low specific activities (less than 0.002 microcurie per gram) or for small quantities (less than an A_2 quantity*).

The allowance to ship very low specific activities in other than air-crash-resistant packaging is a practical interpretation of the law, recognizing the definition of radioactive materials used in transport regulations. Since the atmospheric nuclear weapon tests in the 1950s and 1960s, soil, animals, and virtually all terrestrial materials contain very small quantities of plutonium. Obviously the law was not intended to apply to these materials in an absolute sense.

Similarly this proposed regulation, as a reasonable interpretation of the legislation, allows the air shipment of small quantities of plutonium in packaging other than that certified to be air-crash resistant. An NRC staff analysis (The Environmental Impact Appraisal, shows that an A_2 quantity of plutonium released to the human environment as a result of an air crash would generally be expected to produce no more than minor public health consequences. This realistic, but still conservative assessment, taking into account the environmental dispersion and population density exposed, shows the health effects produced would be a small fraction of a latent cancer fatality. With that margin of safety, large public health consequences would be essentially impossible, even if more than one

*An A_2 quantity of plutonium is defined in Appendix C of the proposed amendments to 10 CFR Part 71 (44 FR 48234) published August 17, 1979 and in Table VII of the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials, IAEA Safety Series No. 6 (1973 Revised Edition).

package were involved in a single air crash. Furthermore the PAT-1 package certified to Congress by the NRC to be air-crash resistant allows the release of an A_2 quantity in a period of a week, after "crash and blast testing equivalent to the crash and explosion of a high-flying aircraft." Radioactive material shipments of an A_2 quantity or less would be exempt from the proposed Department of Transportation (DOT) requirements (44 FR 1852) and the proposed NRC requirements (44 FR 48234) for shipping in accident-resistant (type B) packaging, because such small quantities pose negligible risk and hazard to the public. For NRC licensees these exemptions would, however, be superseded by the NRC regulations implementing of the Scheuer Amendment. The allowance to ship as much as an A_2 quantity of plutonium in packaging other than that certified to be air-crash resistant will be consistent with the U.S. policy to support effective international safeguards by permitting the shipment of certain safeguards samples by air in packaging less expensive and less cumbersome than air-crash-resistant packaging. On this basis the proposed rule would allow these small quantities of plutonium to be shipped in other than air-crash-resistant packaging.

The A_2 quantity is in the context of the 1973 IAEA regulations, the same break point as 1 millicurie in the context of current NRC/DOT regulations. When the 1973 IAEA regulations are incorporated into the U.S. system by making final the NRC and DOT proposed rules, the reference to an A_2 quantity in this proposed rule will be consistent with the new regulatory structure. (For long-lived alpha-emitting isotopes of plutonium, the A_2 quantity is 2 or 3 millicuries; for Pu-241, a beta emitter, the A_2 quantity is 0.1 curie, but Pu-241 is substantially less radiotoxic than the other isotopes of plutonium.)

Petition to Ship Small Quantities:

Related to this rulemaking, Eberline Instrument Corporation, in a letter dated July 18, 1977, formally petitioned the Commission (PRM-70-6) to allow air shipment of small quantities of plutonium (less than 5 micro-curies) contained in calibration sources. On August 18, 1977, the NRC published a notice (42 FR 41675) of filing of a petition for rulemaking. Commission action on the rule proposed herein will define NRC policy and constitute a definitive response to this petition.

Environmental Impact Statement:

The Commission has determined under Council of Environmental Quality guidelines (40 CFR Part 1500) and the criteria in 10 CFR Part 51 that an environmental impact statement for these proposed amendments to 10 CFR Part 71 is not required, based on a finding of no significant impact on the quality of the human environment. Concurrent with publication of this notice of proposed rulemaking, the Commission is making available for public inspection, in its Public Document Room at 1717 H Street NW., Washington, DC, an "Environmental Impact Appraisal for Proposed Amendments to 10 CFR Part 71 to Restrict the Air Transport of Plutonium," to support a Negative Declaration,** and copies of the Value/Impact Statement supporting the proposed rule. Single copies of either document may be obtained on request from Dr. Norman A. Eisenberg, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, DC 20555 (Telephone: 301-443-5946). Copies of any comments received on these proposed amendments may be examined at the Commission's Public Document Room at 1717 H Street NW., Washington, DC.

** A copy of this appraisal is filed with the Office of the Federal Register.

Regulatory Flexibility Certification:

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. The proposed regulation, if promulgated, will relieve the restrictions on the air shipment of plutonium imposed by the current NRC order to licensees by permitting the air shipment of small quantities of plutonium in packaging other than that certified to be air-crash resistant. Currently the schedules and work routines, principally of small organizations, are disrupted by the inability to acquire small calibration sources containing plutonium in a timely fashion by air shipment. Because the proposed regulation reduces the regulatory burden imposed by the NRC's current order to licensees, the proposed rule does not have a significant economic impact within the context of the Regulatory Flexibility Act.

The Commission has made this certification regarding compliance with the requirements of the Regulatory Flexibility Act based on the analyses contained in the Value/Impact Statement and the Environmental Impact Appraisal. These analyses were based on the best estimates of costs and number of entities affected that were available to the Commission staff at the time these analyses were prepared. The Commission specifically invites comments on aspects of these analyses that will either support or dispute the determination made regarding compliance with the requirements of the Regulatory Flexibility Act. Unless the Commission receives comments on other information that causes the conclusions regarding these determinations to change, the Commission intends to repeat them at the final rule stage.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, section 553 of title 5 of the United States Code, and Public Law 94-79 (the Scheuer Amendment), notice is hereby given that adoption of the following amendments to Title 10, Chapter I, Code of Federal Regulations, Part 71 is contemplated.

PART 71 - PACKAGING OF RADIOACTIVE MATERIAL FOR TRANSPORT AND TRANSPORTATION OF RADIOACTIVE MATERIAL UNDER CERTAIN CONDITIONS

1. A new §71.43 is added to read as follows:

§71.43 Air transport of plutonium.

(a) Notwithstanding the provisions of any general licenses and notwithstanding any exemptions stated directly in this part or included indirectly by citation of 49 CFR Chapter 1, as may be applicable, plutonium in any form, whether for import, export, or domestic shipment, may not be transported by air or delivered to a carrier for air transport unless:

(1) the plutonium is contained in a medical device designed for individual human application; or

(2) the plutonium is contained in a material in which the specific activity is not greater than 0.002 microcuries per gram of material and in which the radioactivity is essentially uniformly distributed; or

(3) the plutonium is shipped in a single package containing no more than an A_2 quantity¹ of plutonium in any isotope or form and is shipped in accordance with §71.5; or

¹An A_2 quantity of plutonium is defined in Appendix C of the proposed amendments to 10 CFR Part 71 (44 FR 48234) published August 17, 1979 and in Table VII of the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials, IAEA Safety Series No. 6 (1973 Revised Edition).

(4) the plutonium is shipped in a package specifically authorized for the shipment of plutonium by air in the Certificate of Compliance for that package issued by the Commission.

(b) Nothing in paragraph (a) of this section is to be interpreted as removing or diminishing the requirements of §73.24.

(Secs. 53, 161b. and i., Pub. L. 83-703, as amended, 68 Stat. 930, 948, as amended (42 U.S.C. 2073, 2201(b., i.)); Sec. 201, Pub. L. 93-438, as amended, 88 Stat. 1242, as amended, (42 U.S.C. 5841); Pub. L. 94-79.)

Dated at Washington, D. C. this _____ day _____ 1981.

For the Nuclear Regulatory Commission.

Samuel J. Chilk
Secretary of the Commission

DRAFT PUBLIC ANNOUNCEMENT

NRC PROPOSES AMENDMENTS TO REGULATIONS
TO RESTRICT AIR TRANSPORT OF PLUTONIUM

The Nuclear Regulatory Commission is proposing to change its regulations to implement by a regulation an existing law requiring most air shipments of plutonium to be carried in packages certified as capable of withstanding the crash and explosion of a high-flying aircraft.

NRC licensees were ordered in August 1975 to stop shipping most forms of plutonium by air. The order reflected a statutory ban on NRC licensing of shipments of plutonium by air--except plutonium contained in a medical device intended for individual human use. The law also provided for resumption of shipments by air when the NRC certified to the Congress that a safe container had been developed and tested which would not rupture under conditions equivalent to an aircraft crash and explosion.

The NRC certified such a package (the Model PAT-1) to the Congress in August 1978 and the following month issued another order to its licensees permitting the shipment of plutonium by air in these NRC-approved packages.

Under the proposed amendments--which would replace the 1978 order--the certified-package restriction would not apply to air shipments of plutonium contained in a medical device for individual human use (a heart pacemaker for example). The proposed amendments also would permit air shipments of small quantities of plutonium which would not present a significant hazard to the public health and safety even if a package ruptured in a crash.

The NRC staff would also be authorized to review applications to use crash-resistant packages other than the Model PAT-1. New packages would have to meet certain qualification criteria including certain individual and sequential tests that simulate the conditions produced in severe aircraft accidents. The criteria also provide for operational controls which would have to be observed during transport.

A copy of the "Qualification Criteria to Certify a Package for Air Transport of Plutonium" (NUREG-0360) is available for public inspection at the NRC Public Document Room at 1717 H Street, NW., Washington, D.C., or for purchase from the National Technical Information Service, Springfield, Virginia 22161, at \$5.25 for paper copy and \$3.00 for microfiche.

Written comments on the proposed amendments, which are to Part 71 of the Commission's regulations, should be received by _____ (60 days following publication of the proposed rules in the Federal Register on _____). Comments should be addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch.