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cc: Becker

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of BRAUNKOHLE TRANSPORT, USA (Import of South African Uranium Ore Concentrate)	Docket No. 11003919 License Application No. IU-87001
In the Matter of BRAUNKOHLE TRANSPORT, USA (Import of South African Natural Uranium Hexafluoride)	Docket No. 11003920 License Application No. IU-87002
In the Matter of BRAUNKOHLE TRANSPORT, USA (Import of South African Enriched Uranium Hexafluoride)	Docket No. 11003921 License Application No. ISNM-87003
In the Matter of BRAUNKOHLE TRANSPORT, USA (Import of South African Enriched Uranium Hexafluoride)	Docket No. 11003922 License Application No. ISNM-87004
In the Matter of ADVANCED NUCLEAR FUELS CORP. (Import of South African Enriched Uranium Hexafluoride)	Docket No. 11003928 License Application No. ISNM-87005
In the Matter of EDLOW INTERNATIONAL CO. (Import of South African Uranium Ore Concentrate)	Docket No. 11003929 License Application No. IU-87006
In the Matter of EDLOW INTERNATIONAL CO. (Import of South African Uranium Hexafluoride)	Docket No. 11003930 License Application No. IU-87007

In the Matter of EDLOW INTERNATIONAL CO. (Import of South African Enriched Uranium Hexafluoride)	Docket No. 11003931 License Application No. ISNM-87008
In the Matter of INTERNATIONAL ENERGY ASSOCIATES LTD. (Import License for Enriched Uranium Hexafluoride from South Africa)	Docket No. 11003688 License No.ISNM-84012
In the Matter of PHIBRO-SALOMON, INC. (Import License for Natural and Enriched Uranium from South Africa)	Docket No. 11002933 License No. ISNM-82015
In the Matter of ADVANCED NUCLEAR FUELS CORP. (Import License for Natural and Enriched Uranium from A Country Not Specified)	Docket No. 11003365 License No. ISNM-83025
In the Matter of BRAUNKOHLE TRANSPORT, USA (Import License for Natural and Enriched Uranium from A Country Not Specified)	Docket No. 11003204 License No. ISNM-83011
In the Matter of TRANSNUCLEAR, INC. (Import License for Enriched Uranium from A Country Not Specified)	Docket No. 11003111 License No. ISNM-83005
In the Matter of TRANSNUCLEAR, INC. (Import License for Special Nuclear Material from A Country Not Specified)	Docket No. 11002593 License No. ISNM-81017

In the Matter of NEW YORK NUCLEAR CORPORATION (Import License for Enriched Uranium from A Country Not Specified)	Docket No. 11003097 License No. ISNM-83003
In the Matter of EDLOW INTERNATIONAL COMPANY (Import License for Enriched Uranium from A Country Not Specified)	Docket No. 11002967 License No. ISNM-82020
In the Matter of EDLOW INTERNATIONAL COMPANY (Import License for Nuclear Source Material from A Country Not Specified)	Docket No. 11000168 License No. IU-78019
In the Matter of WESTINGHOUSE ELECTRIC CORPORATION (Import License for Enriched Uranium from A Country Not Specified)	Docket No. 11002348 License No. ISNM-81001
In the Matter of SEPARATIVE WORK UNIT CORPORATION (Import License for Enriched and Natural Uranium from A Country Not Specified)	Docket No. 11002597 License No. ISNM-82016

REPLY TO RESPONSES OF ADVANCED NUCLEAR FUELS AND NRC STAFF TO PETITION TO INTERVENE AND REQUEST FOR HEARING AND PETITION FOR COMMENCEMENT OF LICENSE REVOCATION PROCEEDINGS

Filed On
Behalf Of
Petitioners:

CONGRESSMAN RONALD V. DELLUMS
CONGRESSMAN MERVYN M. DYMALLY
CONGRESSMAN WILLIAM H. GRAY, III

CONGRESSMAN EDWARD J. MARKEY
CONGRESSMAN CHARLES B. RANGEL
CONGRESSMAN BILL RICHARDSON
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THE NUCLEAR CONTROL INSTITUTE
AMERICAN COMMITTEE ON AFRICA
TRANSAFRICA, INC.
THE WASHINGTON OFFICE ON AFRICA
ROBERT L. CHAVEZ
STATE SENATOR CARLOS P. CISNEROS
HENRY ERIC ISAACS

I. INTRODUCTION

On February 17, 1987, Petitioners Ronald V. Dellums, Mervyn M. Dymally, William H. Gray, III, Edward J. Markey, Charles B. Rangel, Bill Richardson, and Howard Wolpe, all U.S. Congressmen; along with the Oil, Chemical and Atomic Workers International Union; the Nuclear Control Institute; the American Committee on Africa; TransAfrica; and the Washington Office on Africa filed a Petition for Leave to Intervene and Request for Hearing (hereinafter the "Intervention Petition") in respect to eight pending specific license applications seeking the importation of special nuclear and source material of South African/Namibian origin. On the same date, Petitioners also filed a Petition for Commencement of License Revocation Proceedings (hereinafter the "Revocation Petition") in respect to eleven existing licenses to import South African/Namibian special nuclear and source material. The Oil, Chemical and Atomic Workers International Union withdrew from the above-mentioned Petitions by way of notices filed on February 20, 1987. On March 10, 1987, Petitioners moved to amend their Petitions to include Robert L.

Chavez, State Senator Carlos P. Cisneros and Henry Eric Isaacs as additional Petitioners.

Advanced Nuclear Fuels Corporation (hereinafter "ANF"), holder of License No. ISNM-83025 and applicant in License Application No. ISNM-87005, filed a Response of Advanced Nuclear Fuels Corporation to Petition for Commencement of License Revocation Proceedings (hereinafter "ANF Response") on March 16, 1987. On March 19, 1987, ANF also filed a separate Answer of Advanced Nuclear Fuels Corporation to Petition for Leave to Intervene and Request for Hearing (hereinafter "ANF Answer"). The NRC Staff Response to Petition for Leave to Intervene and Request for Hearing (hereinafter "NRC Response") was likewise filed March 19, 1987.[1]

Petitioners hereby submit this document in reply to the ANF Response, the ANF Answer and the NRC Response pursuant to 10 C.F.R. § 110.83(b).[2]

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[1] On March 19, 1987, International Energy Associates Limited ("IEAL") filed a letter with the Commission effectively stating that its license was not covered by the ban of the Comprehensive Anti-Apartheid Act. As discussed infra at p. 11, n. 7, absent a demonstration to this effect, there is no basis for dropping IEAL's license for the Revocation Petition.

[2] On March 25, 1987, Petitioners filed a motion to extend time for filing a reply to the ANF Response which was not opposed by ANF. See, Petitioners' Motion for Extension of Time at 3. However, ANF has indicated that it takes the position that Petitioners have no procedural rights to file a reply to the ANF Response. Response of Advanced Nuclear Fuels Corporation to Motion for Extension of Time at 2. Petitioners agree that no specific regulation contemplates a reply to a response to a

II. PETITIONERS' PARTICIPATION IN THESE PROCEEDINGS WILL ASSIST THE COMMISSION IN MAKING ITS STATUTORILY REQUIRED DETERMINATIONS.

The basic position adopted by both ANF and the NRC staff is that, given the nature of Petitioners' contentions, there is essentially no role for Petitioners in the import licensing process. Both ANF and the NRC staff, however, misconceive Petitioners' contentions, ignore the proper role of the Commission, and fail to recognize the legitimate function of intervenors in import licensing proceedings. Contrary to the views of the NRC staff and ANF, Petitioners submit that their participation "will be in the public interest" and will "assist the Commission in making the statutory determinations required by the Atomic Energy Act," as expressed in the Commission's own regulations, 10 C.F.R. § 110.84(a).

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petition for the commencement of revocation proceedings. By the same token, however, no specific regulation authorizes the filing of the ANF Response. Petitioners take the view that both the filing of the ANF Response and a reply to that Response are appropriate in proceedings of this nature. Petitioners note from the outset that "[a]gencies are free to grant additional procedural rights in the exercise of their discretion." Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 524 (1978).

Petitioners see no reason why the procedures set forth at 10 C.F.R. § 2.706 (permitting a party to "file a reply to an answer within 10 days after it is served") and 10 C.F.R. § 110.83(b) (permitting "a reply to an answer [to] be filed within 10 days after all timely answers have been filed") should not provide guidance for the proper procedures in the instant proceedings. Indeed, as was pointed out in Petitioners' Motion for Extension of Time at 3, the ANF Answer is cross-referenced to the ANF Response and therefore a reply to the ANF Answer, which is clearly supported by 10 C.F.R. § 110.83(b), by necessity requires a reply to the ANF Response.

A. Petitioners Raise Important Issues and Their Contentions Have Substantial Merit.

The contentions set forth by the Petitioners in their Intervention and Revocation Petitions do not constitute a full exposition of the arguments they intend to present to the Commission in opposition to the proposed and existing licenses. Rather, those contentions are simply intended to provide notice to other parties and the Commission of the issues which Petitioners seek to raise. Petitioners are not required to litigate their position in advance of any determination that the Commission will address the issues raised, nor are they required to demonstrate a likelihood of success on the merits. The Commission's regulations only oblige Petitioners to "[s]et forth the issues sought to be raised." 10 C.F.R. § 110.82(b)(2). It is enough at the stage at which intervention is sought that Petitioners present contentions with "reasonable specificity." Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 466 (1982). There is no question here that Petitioners' contentions meet this standard and that they warrant the most detailed scrutiny by the Commission when intervention is granted and revocation proceedings instituted.

Both ANF and the NRC staff however, advance several allegations with regard to the merits of Petitioners' contentions. While not identified as such, these allegations, taken as a whole, appear to assert that Petitioners' contentions lack merit and/or are frivolous in nature. Both ANF and the NRC staff argue that there is no support for Petitioners'

interpretation of Section 309 of the Comprehensive Anti-Apartheid Act of 1986,[3] regarding its application to uranium hexafluoride ("UF6"), that the challenged uranium imports are not inimical to the common defense and security, that the challenged imports are not violative of international law and that the specific license applications need not be denied for failing to supply minimally required information. NRC Response at 15-20; ANF Response at 6-16; ANF Answer at 10. None of these arguments has any merit. A reasoned appraisal of Petitioners' contentions clearly demonstrates that they are highly material to the statutorily required determinations the Commission must make.

1. Petitioners' Contentions Under The Anti-Apartheid Act Are Well-Founded.

In its Response, the NRC staff agrees with Petitioners that the Commission must, in exercising its licensing authority, determine whether proposed imports are prohibited under Section 309(a) of the Anti-Apartheid Act. NRC Response at 13. Likewise, the NRC staff notes that Treasury Department regulations relating to South African imports and interpreting the provisions of the Anti-Apartheid Act[4] are not binding on the Commission and that the Commission must make its own, independent determinations with

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[3] Pub. L. No. 99-440, 100 Stat. 1086, 1102 (1986) (to be codified at 22 U.S.C. § 5059) (hereinafter the "Anti-Apartheid Act" or "Act").

[4] The Treasury Department regulations, published March 10, 1987 (52 Fed. Reg. 7273), are to be codified at 31 C.F.R. Part 545.

respect to the application of the Act's prohibitions. NRC Response at 16.[5] Both the NRC staff and ANF assert that the Act does not bar the importation of UF6 from South Africa. NRC Response at 15-17; ANF Response at 6-12.[6] Simply put, the NRC staff and ANF misunderstand the Act and its history and fail properly to analyze the "substantial transformation" doctrine upon which they rely.

(a) The Act Bans UF6 Imports.

While it is true that Section 309 does not refer specifically to UF6 in its text, this absence of reference to one

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[5] While ANF, in arguing that UF6 imports are not barred, cites the Treasury regulations in support of its position, even it does not claim these regulations are binding on the Commission. See, ANF Response at 8. In fact, because at least part of the question whether UF6 is covered by the Act depends upon an evaluation of technical considerations concerning the nature of UF6 and the nuclear fuel cycle, see discussion, infra, pp. 12-13, little weight should be ascribed to Treasury's determination in 31 C.F.R. § 545.425 that the Act's prohibitions do not cover UF6; the Commission, given its nuclear expertise, is far better equipped to make such a determination.

[6] The NRC staff agrees with Petitioners that Section 309 does bar the importation of uranium and uranium oxide for enrichment or other processing and subsequent re-export. NRC Response at 17. That position is plainly correct. On its face, Section 309 bars "imports", without regard to the purpose of such importation. This reading of Section 309 is fully confirmed by the legislative history of the Act. See discussion, infra, pp. 13-14. Furthermore, such a reading is consistent with and supported by well-established case law holding that a product is "imported" when it is simply brought within the territorial jurisdiction of the United States, regardless of its eventual disposition. E.g., Cunard Steamship Co. v. Mellon, 262 U.S. 100 (1923); Palmero v. United States, 112 F.2d 922 (1st Cir. 1940); Sherwin Williams Co. v. United States, 38 C.C.P.A. 13, 18 (1950). Indeed, if this were not the case, such transactions would presumably not even be subject to the Commission's licensing authority under the Atomic Energy Act, which is triggered by an "import" of source or special nuclear material. E.g., 42 U.S.C. §§ 2077, 2099.

specific uranium compound scarcely supports the conclusion, asserted by the NRC staff and ANF, that UF6 imports are permitted under the Act. The Commission's inquiry is not limited to the words of the statute, construed as narrowly and technically as possible. Rather, as the Supreme Court has often stressed, "When aid to construction of the meaning of words, as used in the statute, is available, there certainly can be no 'rule of law' which forbids its use, however clear the words may appear on 'superficial examination.'" Train v. Colorado Public Interest Research Group, 426 U.S. 1, 10 (1976), quoting United States v. American Trucking Associations, Inc., 310 U.S. 534, 543-544 (1940). See also, Kokoszka v. Belford, 417 U.S. 642, 650, reh. denied, 419 U.S. 886 (1974)

> (When "interpreting a statute, the court will not look merely to a particular clause in which general words will be used but will take in connection with it the whole statute... and the objects and policy of the law, as indicated by its various provisions, and give to it such a construction as will carry into execution the will of the Legislature . . . ." (citation omitted));

Bob Jones University v. United States, 461 U.S. 574, 586 (1983); Natural Resources Defense Council, Inc. v. Train, 545 F.2d 320, 327-328 (2d Cir. 1976). In this inquiry, there is "an overriding requirement of looking to all sources including purpose and legislative history, to ascertain discernible legislative purpose." Portland Cement Association v. Ruckelshaus, 486 F.2d 375, 379-380 (D.C. Cir. 1973).

In the instant proceedings, it is manifest that, given the overall thrust of the Act to stem uranium trade with South Africa, it makes no sense to interpret Section 309 as permitting UF6 imports which might, for example, have been converted in Western Europe, and to ignore, as ANF suggests, the actual origin of the raw material. See ANF Response at 7-8. To the contrary, Petitioners submit that all that matters is whether the raw material originated in South Africa.[7] Not only is there no rationale whatsoever for limiting the effect of Section 309 to those forms of uranium found only at the beginning and the end of the conversion and enrichment process while leaving intermediate forms of uranium free to enter the United States, but such a construction of the law would as Congressmen Richardson, Dellums, Markey and others noted in their letter of October 31, 1986 to the President, a copy of which is attached at Exhibit A "render the uranium sanction totally ineffective and meaningless contrary to congressional intent."[8]

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[7] It is for this reason that the suggestion of IEAL, holder of License No. ISNM-84012, in its letter to the Commission of March 19, 1987, is beside the point. While the material imported by IEAL may indeed have been enriched in the United Kingdom, the Netherlands or the Federal Republic of Germany, what is relevant is the source of the material which has been enriched. If it is South African, then Section 309(a) is applicable. Until there is a satisfactory factual demonstration that no South African raw material is involved in IAEL's imports, there is no basis whatsoever to sever it from these proceedings.

[8] While the NRC staff seeks to discount this letter by referring to it as merely "post hoc legislative history," NRC Response at 15, this characterization is misleading. While the letter may have been written subsequent to the enactment of the Anti-Apartheid Act, its content is what is relevant, and that content consists of a well-conceived and persuasive statement of the legislative history prior to the actual enactment of the legislation.

The reason for this conclusion is simple. Oxide and hexafluoride forms of uranium are essentially interchangeable.[9] Thus, for example, UF6 is commonly "swapped" with oxide forms of uranium. See, e.g., Nuclear Fuel, September 22, 1986 at 6 (copy attached at Exhibit B); Nuclear Fuel, February 23, 1987 at 1 (copy attached at Exhibit C). Not surprisingly, given this interchangeability in the marketplace, once it became apparent that the Treasury Department (and perhaps the NRC) might interpret Section 309 as allowing the import of UF6, the ratio of UF6 to oxide import requests essentially reversed itself: whereas in 1985 and 1986 8 per cent to 22 per cent of U.S. imports from South Africa consisted of UF6, 73 per cent of the total amount of uranium now sought to be imported under the pending license requests consists of UF6. See, Nuclear Control Institute, Issue Brief (February, 1987) (copy attached at Exhibit D). In such circumstances, it is obvious that allowing UF6 imports would effectively nullify the Congressional prohibitions. As stated in a recent industry editorial:

> It may be warranted, for example, in the complex field of trade sanctions, to distinguish between steel exported by one country and automobiles manufactured from that steel and exported by a second nation. But is there validity in differentiating between, say, U308 exported by one country and UF6 produced from the U308 by another? The dinstinction seems feeble when one acknowledges that the sole commercial use for uranium is as fuel for nuclear reactors, that the great

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[9] Ironically, even the NRC staff simply refers to UF6 as a variation in the form of the uranium proposed to be imported." NRC Response at 14.

> majority of the world's reactors run exclusively on enriched uranium, and that presently employed uranium enrichment technologies require UF6 as feed. Put another way, South African uranium has little utility-and thus little value-unless it is converted to UF6. Therefore, permitting the import of South African-origin uranium in the form of UF6 renders a ban on South African uranium ore and oxide absolutely pointless.

Swuco, "Perspective: Embargo-A Term of Art", Report. No. 72, January 1, 1987 at 5 (copy attached at Exhibit E).

The NRC staff, in commenting on the prospect of allowing the importation of uranium for subsequent processing and re-export, properly recognized that the Act cannot be interpreted in such a way as to render its prohibitions nugatory, citing United States v. Menasche, 348 U.S. 528, 538-539 (1955). NRC Response at 17. Precisely the same principle ineluctably leads to the conclusion that the Commission must interpret Section 309 to bar UF6 imports.

It is equally clear that, contrary to the assertions of the NRC staff and ANF, NRC Response at 15, ANF Response at 7, the legislative history of the Act is not barren of support for Petitioners' construction of Section 309. From the outset, the very purpose of the legislation was to establish a "comprehensive and complete framework" for U.S. trade policy concerning South Africa, see, S. 2701, § 4, 132 Cong. Rec. S. 9891 (daily ed. July 30, 1986)[10] Within that framework, which would scarcely be

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[10]This language, of course, is carried foward into Section 4 of the Act itself.

comprehensive or complete if it could readily be undercut by UF6 imports, there is every indication that the sponsors of the legislation understood that they were barring uranium imports in a generic sense, i.e., without regard to the specific form which it might take. E.g., 132 Cong. Rec. S6383 (daily ed. May 21, 1986) (statement of Sen. Kennedy); 132 Cong. Rec. H6778 (daily ed. Sept. 12, 1986) (statement of Rep. Wolpe); 132 Cong. Rec. H8660 (daily ed. September 29, 1986) (statement of Rep. Richardson). It is plain, moreover, that the Senate debate on August 15, 1986, concerning the so-called McConnell Amendment which would have deleted Section 309, see, 132 Cong. Rec. S11851-S11853 (daily ed. August, 15, 1986), can only be understood if Section 309 were to apply to all South African-origin uranium.

Finally, while both the NRC staff and ANF assert that UF6 is not subject to the Act's prohibitions because it reflects a "substantial transformation" from the original raw material, they scarcely demonstrate that a substantial transformation in fact has occurred. Indeed, the NRC staff candidly admits that it has made no independent review of the law in this regard. NRC Response at 16-17. Even assuming arguendo, however, that the doctrine were legally applicable here, it must be determined whether it applies as a matter of fact, i.e., has there been a

"transformation" of the original raw material and has that transformation been "substantial".[11] Case law makes clear that the alteration in form, appearance, nature or character must be "fundamental", and there must be "very great change" in economic value. E.g., United States v. Murray, 621 F.2d 1163, 1169 (1st Cir.), cert. denied, 449 U.S. 837 (1980) (blending of glues, including removal of impurities and addition of defoamer, not a substantial transformation); Uniroyal, Inc. v. United States, 542 F.Supp. 1026 (CIT 1982), aff'd, 702 F. 2d 1022 (Fed. Cir. 1983) (attachment of outer soles to footwear uppers not a substantial transformation); National Juice Products Association v. United States, 7 Int'l Trade Rep. 1921 (CIT 1986) (conversion of orange juice concentrate into frozen concentrated orange juice or reconstituted orange juice not a substantial transformation).[12] Under such precedents, there are the strongest reasons to conclude that UF6 conversion, which is just an intermediate product form and adds relatively little to the final value, does not represent a "substantial transformation."

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[11] While ANF cites the definition of "country of origin" in 19 C.F.R. § 134.1(b) as if it were relevant to this inquiry, ANF Response at 9-10, obviously it is not: the country of origin definition raises the substantial transformation question for purposes of determining country of origin labeling but scarcely describes what does or does not constitute substantial transformation itself.

[12] That there may be a new name for a product, i.e., hexafluoride "as opposed to" "yellowcake", is the weakest evidence of a substantial transformation. National Juice Products Association v. United States, supra, 7 Int'l Trade Rep. at 1930-1931.

(b) Imports of Uranium from South Africa or Namibia are Inimical to the Common Defense and Security.

In its Response, ANF points out that the NRC had previously determined that the imports permitted by License No. ISNM-83025 would not be inimical to the common defense and security at the time the license was issued in 1984. ANF Response at 13. That license, however, was issued over three years ago and since that time conditions and circumstances in South Africa have changed dramatically. This is no better illustrated than by the passage of the Anti-Apartheid Act itself. While ANF asserts, "There is nothing in the Act or in its legislative history to require a repudiation of the January 11, 1984 NRC determination...," ANF Response at 13, nothing could be further from the truth.

Even a cursory review of the Act's legislative history clearly reveals Congress' belief that conditions in South Africa had decidedly changed for the worse since 1984. Congressman Gray's remarks provide a cogent example of this sentiment:

> [South Africa] is not a new issue, it is one that we have debated many times in this Congress, and we have held many hearings over the last few years. In 1985, this body took an unprecedented stand against apartheid, bi-partisanly, I might add... And now we are back again. Why? Because conditions have gotten worse. Last year, ...when we debated my Anti-Apartheid Act of 1985, we were debating it in the midst of the loss of 70 lives per month. This year, over 130 lives per month are being lost. And while the defenders of apartheid keep telling us that reform has gone on, we constantly see no dismantlement of apartheid, we see further invasions of neighboring states like Botswana,

Zambia, Zimbabwe, we see continuing repression internally of the apartheid system.

132 Cong. Rec. H3864 (daily ed. June 18, 1986). See also, e.g., 132 Cong. Rec. S6387 (daily ed. May 21, 1986) (remarks of Sen. Leahy); 132 Cong. Rec. S6383-S6384 (daily ed. May 21, 1986) (remarks of Sen. Kennedy); id. at S6388 (remarks of Sen. Proxmire); 132 Cong. Rec. H3861-H3862 (daily ed. June 18, 1986) (remarks of Rep. Wolpe); id. at H3864 (remarks of Rep. Gray); 132 Cong. Rec. S14484 (daily ed. October 1, 1986) (remarks of Sen. Pell); 132 Cong. Rec. S14636 (daily ed. October 2, 1986) (remarks of Sen. McConnell).

In 1984, there was no federal legislation concerning South African apartheid. In 1985, over 20 pieces of legislation were introduced in the House and six were introduced in the Senate reflecting Congressional concern over the deteriorating situation in South Africa. Two bills, S. 635 and H.R. 1460 were passed by the Senate and House, respectively, and were sent to Conference Committee. Also in 1985, President Reagan instituted limited sanctions against South Africa by the promulgation of Executive Order No. 12532, 50 Fed. Reg. 36861 (September 10, 1985), in which he characterized "the policies and actions of the government of South Africa [as] constitut[ing] an unusual and extraordinary threat to the foreign policy and economy of the United States...." In 1986, the Anti-Apartheid Act was passed.

Assuming arguendo that there was no threat to the common defense and security in 1984 when the ANF license was issued, the point to be made here is that since that time, both the Executive and Legislative Branches have made a determination that the situation in South Africa is of much graver concern today.

In light of the high degree of import accorded to the question of apartheid in South Africa by both the executive and the legislative branches, it is imperative that the Commission fully consider the inimicality contentions of Petitioners. Petitioners assert that the common defense and security of the United States is endangered by uranium imports from South Africa and Namibia in three ways: (1) such imports provide critical support for South African military operations in townships, illegally occupied Namibia, and neighboring states; (2) enrichment and processing of South African uranium supports South Africa's nuclear weapons program and contributes to nuclear proliferation; (3) continued import of South African uranium risks creating dependence on a potentially unstable source of supply. Intervention Petition at 24-27.

ANF suggests these inimicality issues are too "speculative" to be properly considered by the Commission. ANF Response at 14. There is nothing speculative about the danger to the common defense and security that these imports pose. That danger is real, clear and present. Petitioners have requested the Commission to reach a factual determination as to whether the

proposed imports under existing conditions would create or exacerbate a threat to the common defense and security. Such a request does not involve an invitation to speculate. To the extent that the Commission deems it necessary to consider possible future ramifications of the proposed imports, such consideration is perfectly legitimate and would coincide with NRC precedent. See, Edlow International Company, CLI-80-18, 11 NRC 680 (1980) (denial of export license based on consideration of future conduct of Government of India). As Judge Wilkey stated in Natural Resources Defense Council, Inc. v. Nuclear Regulatory Commission, 647 F. 2d 1345, 1358 (D.C. Cir. 1981), referring to the NRC's consideration of an export license, "Under the Atomic Energy Act the Commission must make judgments that the future behavior of foreign governments will not be inimical to this country's 'common defense and security.'" The same reasoning obviously applies to its determinations with respect to these proceedings.[13]

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[13] ANF's reliance on San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission, 789 F. 2d 26 (D.C. Cir.), cert. denied, __ U.S. __, 93 L.Ed. 2d 302 (1986), to support its proposition that the Commission should decline to review the inimicality issues is misplaced. ANF Response at 14. Neither the statute or the regulations at issue in that case provided for review of the issues raised by the plaintiffs, a situation clearly distinguishable from the instant proceedings where both the Commission's own regulations and the Atomic Energy Act provide for consideration of inimicality issues. Metropolitan Edison v. People Against Nuclear Energy, 460 U.S. 766 (1983), provides no aid to ANF either. The court there did not rule that the impact of psychological health effects were too "speculative" to be entertained, as ANF suggests. See, ANF Response at 14. It simply held the psychological health effects claimed by plaintiffs were not caused by an environmental impact covered by the statute, but were caused by plaintiffs' perception of risk.

Petitioners strongly take issue with the NRC staff's and ANF's claim that a discretionary hearing is not required for the NRC to resolve the inimicality issues. ANF Answer at 9; NRC Response at 19. It would be inappropriate for the Commission to reach its inimicality decision in a vacuum guided only by the conclusionary allegations of NRC staff that the common defense and security issues raised by Petitioners have no merit.[14] Petitioners must be given an opportunity to present evidence to support their inimicality claims. Based on such evidence, the Commission can readily reach its own conclusion as to the validity of these claims.

Finally, contrary to assertions made by ANF that prohibition of the proposed imports "would be inimical to the common defense and security insofar as the import is necessary to fabricate nuclear fuel for the use by West European customers of ANF to generate electricity in their countries," ANF Answer at 10, there exist alternative sources of supply for Western Europe which do

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[14] Of course the NRC will also presumedly have the views of the Executive Branch on inimicality issues. See 10 C.F.R. § 110.41. Petitioners have no knowledge of what recommendations the Executive Branch intends to make. It is nonetheless clear the Commission must make an independent judgment with respect to the inimicality criterion. In the words of Judge Robinson of the Circuit Court of Appeals for the District of Columbia Circuit, "At the heart of the statutory scheme lie[s] the mandate to NRC to provide a strong independent check' on the judgment of the Executive Branch..." Natural Resources Defense Council, Inc. v. Nuclear Regulatory Commission, 647 F.2d 1345, 1368, 1369 (D.C. Cir. 1981) (Robinson, J., concurring) (citing remarks of Senator Glenn at 124 Cong. Rec. S.1067 (daily ed. Feb. 2, 1978)). See also, H.R. Rep. No. 587, 95th Cong., 1st Sess. 21 (1977).

not involve the use of South African or Namibian origin uranium. Petitioners are prepared to demonstrate these facts at a hearing granted by the Commission.

(c) Petitioners' Contentions Based on International Law Respecting Namibia Have Substantial Merit.

Petitioners' contention that the proposed imports would be violative of the international legal obligations of the United States is essentially unchallenged by either the NRC staff or ANF.

ANF seeks to evade the issue by advancing the factually questionable claim that "although some of the source material for enriched UF6 may have originated in South Africa...none of it originated in Namibia."[15] ANF Response at 5, n. 4. ANF then begs the question by concluding that "the import of UF6 from Western Europe under the license in no way violates international law." Id. at 15. As the Commission is obligated to uphold binding international legal obligations of the United States,[16]

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[15] Serious questions have been raised regarding efforts to conceal the source of uranium of Namibian origin. NCI reports that Namibian uranium production is twice that of neighboring South Africa. Hearings at the UN held in July of 1980 disclosed that several western governments and transnational corporations collaborated to conceal their purchase of Namibian source uranium. Plunder of Namibian Uranium: Major Findings of the Hearings on Namibian Uranium Held by the United Nations Council for Namibia in July 1980 11 (1982).

[16] There was no question that the Security Council Resolutions invoked by Petitioners are binding on the federal government. U.N. Security Council Resolutions 276 (1970) and 301 (1971) were validly adopted pursuant to the U.N. Charter. Article 25 of the Charter (which itself is the "law of the land" within the meaning of the U.S. Constitution) specifically

it is appropriate to require import license holders and applicants to establish to acceptable legal standards that no Namibian uranium is to be imported. Proper elucidation of the facts in this regard would be facilitated by an adversarial, adjudicatory hearing where full discovery was made available and utilized by the parties.

The NRC staff, for its part, erroneously concludes that since the Anti-Apartheid Act treats Namibia as part of South Africa for the purpose of prohibiting the importation of uranium mined in Namibia, the Commission need not attend to the international issues. NRC Response at 19-20. Such an approach would indeed be reckless. The question of whether the importation of uranium from Namibia violates international law requires a separate and independent inquiry from that of whether the importation of uranium from Namibia violates Section 309 of the Act. Certainly, the Commission need not inquire into the international legal obligations of the United States in respect to Namibia if it determines that all Namibian uranium is banned by the Act. If this obvious fact is what NRC staff intended to state in its brief, then Petitioners, of course, concur.

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provides that U.N. members agree to accept and carry out resolutions of this nature. The International Court of Justice has affirmed this interpretation. See, Advisory Opinion Concerning the Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa), Notwithstanding Security Council Resolution 276 (1970), [1971] I.C.J. 16. The U.S. Department of State has agreed that these resolutions reflect this country's obligations under the Charter. Statement of William P. Rogers, U.S. Secretary of State, 26 U.N. GAOR Supp. 1, at 1, U.N. Doc. A/PV 1950 (1971).

However, should the Commission determine that some uranium originating in Namibia is not barred under Section 309, then it must consider whether U.S. international obligations independently bar such imports.

(d) The Commission Must Deny License Applications Which Fail To Supply Minimally Required Information.

Petitioners have already established that every uranium import license application now pending before the Commission is deficient in providing the minimum information required by statute. This fact is not contested by the responses filed by ANF or the NRC staff.

ANF wrongly claims that the Commission has "no legal basis to summarily deny the [applications]." ANF Answer at 14. ANF somehow reaches this conclusion from its reading of 10 C.F.R. § 110.44(d) which discusses grounds for the denial of license applications. 10 C.F.R. § 110.44(d) reads in pertinent part that "The Commission will deny...any import license for which the Commission in unable to make the finding in [10 C.F.R. § 110.44(b)]." 10 C.F.R. § 110.44(b), as applicable, reads as follows:

> (b) The Commission will issue an import license if it finds that the proposed import would not be inimical to the common defense and security or constitute an unreasonable risk to the public health and safety...

As Petitioners point out in their Intervention Petition, Sections 53 and 63 of the Atomic Energy Act, 42 USC §§ 2073, 2093, require that license applicants must, at minimum, provide the information necessitated under 10 C.F.R. § 110.31 before the finding referred to by 10 C.F.R. § 110.44(b) can be made. Intervention Petition at 31. Logically then, a license may be denied for failure to provide the information requested by 10 C.F.R. § 110.31. ANF's argument to the contrary is wholly specious.

The NRC staff states that Petitioners fail to demonstrate how they would be prejudiced by permitting applicants to amend their applications. NRC Response at 20. The answer is simple. The Commission's regulations only permit a motion to intervene to be filed 30 days after an application for a license is noticed in the Federal Register or after 15 days if the application is noticed by placement in the Public Document Room. 10 C.F.R. § 110.82(c). There are no regulations which permit a motion to intervene to be filed in response to an amended license application. Therefore, any members of the public who were not sufficiently prescient to intervene in opposition to a deficient application would be precluded from doing so once the true nature of the license request became apparent following amendment.

It would be inequitable for the Commission to permit the license applicants in the instant matter to file license requests which fail to provide requisite notice, then not permit the

public to contest those applications once they have been amended to provide minimally required information. If the Commission established this as a precedent, a state of affairs could result where license applicants intentionally withheld information, so that no one could find reason to object, and then routinely amended their license requests after the intervention deadline had passed.

It would place no great hardship upon the license applicants to refile their applications with the minimally required information. The license applications contested in the instant proceedings are each only one page in length.

B. Petitioners' Participation in these Proceedings Would Be in the Public Interest.

Petitioners' participation in these proceedings would promote the public interest in ensuring the full and fair consideration by the Commission of all factors relevant to the granting, denial or revocation of the proposed or existing licenses.

ANF takes the position that Petitioners in particular and the public in general could not possibly have anything to aid to these proceedings. In its view, all relevant expertise appears to reside at the NRC and in the Executive Branch. ANF Answer at 9. ANF contends that Petitioners lack the "specific expertise, knowledge or understanding" relevant to these proceedings which is necessary to allow them to successfully intervene [illegible]. The

NRC staff adopts a similar position. NRC Response at 13. The position is defenseless.

In fact, Petitioners have much to add to these proceedings and the NRC staff admits as much. On page 9 of the NRC Response, it states that Congressional Petitioners all "have exhibited a keen interest and involvement in the policies and practices of the South African government." Indeed, they have, and they would present both additional information and alternative perspectives. They are in a position to present expert testimony from witnesses with non-governmental affiliations who would: (1) not otherwise be called to testify; (2) have information gathered from independent sources; and, (3) provide alternative interpretations of data and technical information relevant to the statutory criteria. Thus, Petitioners would augment significantly the information available to the Commission. Petitioners could provide information on South Africa from their own experiences. They could through personal and institutional contacts provide for testimony of other persons with expertise on South Africa and Namibia. This case is thus significantly different from cases relied on by ANF, such as Westinghouse Electric Corp. 12 NRC 253 (1980), see ANF Answer at 9, where petitioners were primarily seeking information from the Commission.

Petitioners are in a position to make this contribution because, from their individual experiences, or in the case of organizational petitioners, through their membership, their

boards, their advisors, and the work of their staffs, they have developed extensive technical and general expertise with respect to the uses and misuses of nuclear energy generally and the specific risks associated with the import of special nuclear and source material from South Africa, as well as the risks to the common defense and security posed by the apartheid policies of the South African government. See generally, Intervention Petition at 9-19; Motion to Amend to Add New Parties at 3-5. A few examples suffice to underscore this point.

Congressman Rangel has taken a leading role in the development of U.S. policy toward the southern Africa region. In 1977, he introduced H.R. 9103, which sought to prohibit the export of nuclear materials, facilities and technology to South Africa. During his sixteen years of service in the House of Representatives, Congressman Rangel has sponsored over fifteen pieces of legislation dealing with southern Africa, including five bills which directly address the import of uranium from South Africa.[17]

Congressman Wolpe is a former professor of political science at Western Michigan University and a recognized author and

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[17] H.R. 9103 (1977) (prohibiting exports of arms and nuclear materials, facilities and technology); H.R. 9104 (1977) (prohibiting import of coal and uranium from South Africa); H.R. 10090 (1977) (prohibiting export to South Africa of nuclear materials, military and law enforcement articles); H.R. 1449 (1979) (prohibiting export of nuclear materials, military and law enforcement articles to South Africa); H.R. 1020 (1983) (prohibiting export of nuclear materials, facilities and technology to South Africa).

scholar of African studies. In 1982 and 1985 he led Congressional delegations on fact finding tours of South Africa. Petitioner Wolpe has chaired the House Subcommittee on Africa for eight years. He has conducted innumerable hearings on such issues as security threats posed by South Africa to the region, South Africa's nuclear capabilities, trade relations with South Africa, etc.

The Nuclear Control Institute ("NCI") was one of the first organizations to collect and analyze data as to the nature of South African uranium imports, the South African uranium industry and the South African nuclear program.[18] The President of NCI, Paul Leventhal, as a member of the staff of the Senate Government Operations Committee in the mid-1970s, was intimately involved in the development of the Nuclear Non-Proliferation Act. Members of the Board of Directors of NCI include Dr. Theodore Taylor, a world renowned expert on safeguards, and Peter Bradford, a former NRC Commissioner.

The American Committee on Africa ("ACOA"), has been in existence for 31 years. It has focused public attention on apartheid and investments in South Africa by organizing meetings and disseminating pamphlets and research reports. ACOA staffers have frequently testified on the ramifications of U.S. policy

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[18] NCI's February 1987 Issue Brief on the U.S. - South African uranium trade is attached at Exhibit D. An earlier, more extensive Issue Brief, "Weapon Implications of U.S. - South African Uranium Trade", was published in January 1985.

toward South Africa before Congress and the United Nations. ACOA founded and retains close ties with Africa Today, a quarterly journal of commentary and research on contemporary African affairs, now published by the University of Denver. ACOA also founded the Africa Fund, which raises charitable aid for South Africans, and the Washington Office on Africa.

TransAfrica is the African-American lobby for Africa and the Caribbean. TransAfrica provides research and analysis on Southern African issues to Congress as well as its members. The Executive Director of TransAfrica, Randall Robinson, is a nationally recognized expert on U.S. foreign policy toward Africa. He is a member of the Council on Foreign Relations, a Director of USA for Africa and co-founder of the Free South Africa Movement. TransAfrica has produced several position papers on various aspects of the crisis in Southern Africa and Randall Robinson has written extensively on African affairs.

The Washington Office on Africa ("WOA") was the first full-time lobby group which exclusively addressed African affairs. WOA staff provides up to date information and analysis on African events and foreign policy to Congress and the general public. In 1983, WOA instituted an informational campaign to counter nuclear proliferation in southern Africa. WOA developed and published several fact pieces on the ramifications of U.S. nuclear assistance to South Africa.

The list could readily be expanded, but suffice it to say that all of these individuals and groups, and others upon whom Petitioners might call, have written and spoken widely on southern Africa and non-proliferation, and, through personal contact and their own research, have developed information, expertise, and wisdom which may not be available to the Commission through the Executive Branch. Unless one believes that all information, expertise and wisdom with respect U.S./South African nuclear relations are found among those presently employed by the United States government, the suggestion that Petitioners have nothing to add to these proceedings borders on the ludicrous.

NRC staff not only claims that the Petitioners lack expertise, but it also contends that there are no factual issues presented in these proceedings to which Petitioners' expertise could be applied. NRC Response at 14. However, these proceedings raise numerous factual issues, and Petitioners could substantially contribute to the resolution. Factual issues that need to be probed are, inter alia: (a) the existence of alternative sources of supply for Western Europe, (b) how much uranium produced by South Africa is in fact from Namibia, (c) the risks to peace in Southern Africa associated with the South African nuclear program, (d) the dangers to the U.S. from the South African nuclear program, (e) the origin of source material enriched in Western Europe, (f) the interchangeability in the marketplace of UF6 and oxide forms of uranium, (g) whether South

Africa is in fact an unstable source of supply, (h) what constitutes "substantial transformation", and (i) whether any substances proposed to be imported have been substantially transformed. The list could be expanded but the point should be apparent: absent a hearing there is no assurance that these issues will be explored with the rigor that is associated with an adversarial hearing.

II. PETITIONERS HAVE INTERESTS WHICH MAY BE AFFECTED BY THESE PROCEEDINGS AND THEREFORE ARE ENTITLED TO INTERVENE UNDER SECTION 189a OF THE ATOMIC ENERGY ACT.

Petitioners readily admit that the Commission has adopted judicial "standing" doctrines to determine the right of a party to a hearing under Section 189a of the Atomic Energy Act. Edlow International Company, CLI-76-6, 3 NRC 563 (1976); Exxon Nuclear Company, Inc., CLI-77-24, 6 NRC 525 (1977); Westinghouse Electric Corp., CLI-80-30, 12 NRC 253 (1980). "In essence the question of standing is whether the litigant is entitled to have the court decide the merits of the dispute or of particular issues." Warth v. Seldin, 422 U.S. 490, 498 (1975). To demonstrate standing, "A plaintiff must allege personal injury fairly traceable to the defendant's unlawful conduct and likely to be redressed by the requested relief." Allen v. Wright, 468 U.S. 737, 751 (1984); accord, Diamond v. Charles, 476 U.S. ____, ___, 90 L. Ed. 2d 48, 59 (1986); see generally, Valley Forge Christian College v. Americans United for Separation of Church and State, 454 U.S. 464, 472 (1982), quoting, Gladstone, Realtors v. Village of

Bellwood, 441 U.S. 91, 99 (1979) and Simon v. Eastern Kentucky Welfare Rights Organization, 426 U.S. 26, 38, 41 (1976).

In the Intervention Petition, as amended, Petitioners set out detailed allegations with respect to the harm they would suffer from the approval of the challenged existing licenses and license applications. Intervention Petition at 9-19; Motion to Amend to Add New Parties at 3-5. In these instant proceedings Petitioners meet the applicable standing requirements.[19]

A. Petitioners Chavez and Isaacs Satisfy Traditional Article III Standing Requirements.

Petitioners do not intend to embark on an extended review of the standing rights of all 14 individuals and groups which seek to intervene in opposition to the challenged licenses and license applications. Rather, Petitioners believe that it is clear, at the very least, Robert L. Chavez and Henry Eric Isaacs satisfy the standing requirements and will so demonstrate below. Once it is determined that they have standing, it then follows that all other Petitioners have standing as well. Watt v. Energy Action Educational Foundation, 454 U.S. 151, 160 (1981); Village

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[19]The NRC staff treats proposed new parties Messrs. Chavez, Cisneros and Isaacs as original Petitioners and addresses the merits of their standing claims on that basis. NRC Response at 1-2, n.1 and 9, n.8. Petitioners herein respond to the NRC staff's standing arguments as to the new Petitioners.

ANF considers the Motion to Amend to Add New Parties as a new petition and on that ground has stated its intention to respond within 30 days. Letter from Leonard Trosten dated March 19, 1987 to Samuel J. Chilk. Petitioners state their objection to ANF's interpretation and reserve their right to respond to any papers filed by ANF in this respect.

of Arlington Heights v. Metropolitan Housing Development Corp., 429 U.S. 252, 263, n.9 (1977); National Wildlife Federation v. Watt, 571 F. Supp. 1145, 1153 (D.D.C. 1983).

1. Petitioner Chavez Has Standing.

In order to demonstrate his standing rights, Petitioner Chavez must first demonstrate an injury in fact--that is, he must "show that he personally has suffered some actual or threatened injury as a result of the putatively illegal conduct." Diamond v. Charles, 90 L.Ed.2d at 57, quoting, Gladstone, Realtors v. Village of Bellwood, 441 U.S. 91, 99 (1979). In addressing the injury in fact requirement, the Commission must accept the pleaded legal theory as valid. See, e.g., Warth v. Seldin, 422 U.S. 490, 501 (1975); American Federation of Government Employees v. Pierce, 697 F.2d 303 (D.C. Cir. 1982). In these proceedings, Petitioners' legal theory is that any uranium imports from South Africa or Namibia would, inter alia, violate Section 309 of the Anti-Apartheid Act and be inimical to the common defense and security by increasing dependence on an unreliable source of uranium. Petitioner Chavez claims that uranium imports from South Africa or Namibia are unfairly competitive with domestically produced uranium. The inability of Petitioner Chavez's former employer to compete with foreign uranium imports caused Petitioner Chavez to lose his job. Petitioner Chavez's chances of regaining employment as a uranium miner are substantially diminished by the continued importation of uranium from South Africa or Namibia.

Petitioner Chavez suffers an injury in fact in two ways. First, he suffers an "actual injury" as he is currently an unemployed uranium miner. Second, he is at risk of a "threatened injury" in that any future uranium imports would diminish his likelihood of regaining employment as uranium miner. Clearly Petitioner Chavez suffers an injury in fact which is the kind of "specific and concrete" injury which provides the basis for standing. See, e.g, Simon v. Eastern Kentucky Welfare Rights Org., 426 U.S. 26, 40 (1976).

Furthermore, Petitioner Chavez's predicament is "fairly traceable to the Government conduct...challenge[d] as unlawful." Allen v. Wright, 468 U.S. at 757. All that is required to demonstrate the truth of this assertion is a reasonable showing that "but for" the challenged government conduct the injury would not occur. Community Nutrition Institute v. Block, 698 F.2d 1239 (D.C. Cir. 1983), rev'd on other grounds, 467 U.S. 340 (1984). Petitioner Chavez's claim is simply "but for" threatened NRC action to permit uranium imports from South Africa and Namibia, the general employment climate and his specific employment options as a uranium miner would improve. Thus, a "chain of causation" exists between the government conduct which is challenged here and the asserted injury. See, Allen v. Wright, 468 U.S. at 759.

Petitioner Chavez must additionally demonstrate that his injury is capable of redress by the relief he is requesting. Allen v. Wright, 468 U.S. at 751; Director, Office of Workers Compensation Programs, U.S. Department of Labor v. Perini North River Associates,459 U.S. 297, 305 (1983). Chavez's injury in fact will be removed if the NRC enforces the Anti-Apartheid Act. Thus, Chavez's injury clearly meets redressability requirements.

In addition to Constitutionally imposed standing requirements, federal courts examine "prudential" considerations, which include, in particular, whether a plaintiff's complaint is "arguably within the zone of interests to be protected or regulated by the statute in question." Association of Data Processing Service Organizations, Inc. v. Camp, 397 U.S. 150, 153 (1970). Petitioner Chavez, without a doubt, is within the zone of interests to be protected by the Anti-Apartheid Act. This is made clear by the legislative history. For example, Congressman Richardson noted on several occasions that domestic imports of South African and Namibian uranium had increased 350 percent since 1981, "at a time when the number of domestic uranium miners has dropped from 362 to a mere handful, and over 85 percent of our [uranium] miners have lost their jobs." 132 Cong. Rec. E3193 (daily ed. September 19, 1986). Congressman Richardson expressed his hope that "through provisions such as the one banning the importation of South African uranium, coal and steel, we will be counteracting South African unfair foreign trade practices and giving a much needed boost to American miners." 132 Cong. Rec.

E3194 (daily ed. September 19, 1986); see also, 132 Cong. Rec. E2298 (daily ed. June 26, 1986) (remarks of Rep. Richardson).

Incredibly, the NRC staff claims Chavez is outside the zone of interests regulated by these NRC proceedings. The NRC staff bases this claim on its reading of Long Island Lighting Company (Jamesport Nuclear Power Station, Units 1 and 2), ALAB--292, 2 NRC 631 (1975) ("Jamesport"). NRC Response at 9, n. 8. The NRC staff is correct to note that the NRC held the harm alleged in Jamesport did not fall within the zone of interests of either the Atomic Energy Act or the National Environmental Policy Act. But, Jamesport is inapplicable here. The harm complained of here is squarely within the zone of interests contemplated by the Anti-Apartheid Act. These very proceedings are taking place because of the Anti-Apartheid Act. The reason why the Commission amended its regulations relating to import licenses was to "implement the provision of the Comprehensive Anti-Apartheid Act...which prohibits the import into the United States of uranium ore and uranium oxide produced or manufactured in South Africa." 51 Fed. Reg. 47207 (December 31, 1986). Consequently, where a petitioner falls within the zone of interests of the Act, as Chavez does, prudential considerations militate in favor of standing.

2. Petitioner Isaacs Has Standing.

Petitioner Isaacs, like Petitioner Chavez, suffers from an injury in fact from possible non-compliance with the Anti-Apartheid Act. If uranium imports from South Africa or Namibia

are permitted, that would provide substantial foreign exchange and good will to the South African government. Petitioners' Motion to Amend to Add New Parties at 5. This, asserts Petitioner Isaacs, will prolong the apartheid system and prevent him from returning home. Id. This is precisely the type of "personal injury" which serves to give rise to standing. Allen v. Wright, 468 U.S. at 751.

Petitioner Isaacs' personal injury is also "fairly traceable to the Government conduct ... challenge[d] as unlawful," Allen v. Wright, 468 U.S. at 757, because "but for" the threatened NRC action no uranium imports would be permitted and no foreign exchange or good will would accrue to the South African government. Petitioner Isaacs' injury is likewise redressable because the NRC could clearly prevent the injurious consequences of the uranium imports by simply enforcing the Anti-Apartheid Act.

The NRC staff contests Petitioner Isaacs' standing rights on the grounds that "he has failed to establish a clear nexus between the potential outcome of this proceeding and his interest in being free to return to South Africa." NRC Response at 2, n. 1. The NRC staff apparently misunderstands the proper application of the "fairly traceable" and "redressability"

components of the standing inquiry to the injury Petitioner Isaacs alleges in this case.

Petitioner Isaacs was conferred a benefit by Congress' enactment of the Anti-Apartheid Act. He is now in danger of losing that benefit because of threatened NRC action which would permit uranium imports and undermine the Congressional framework for ending apartheid. This is the injury of which he complains and this injury is inherently redressable by NRC action. Petitioner Isaacs need not establish that the relief requested from the NRC, without more, would enable him to return home. Plaintiffs "need not negate every conceivable impediment to effective relief...nor are they required to prove that granting the requested relief is certain to alleviate their injury." International Ladies' Garment Workers Union v. Donovan, 722 F. 2d 795, 811 (D.C. Cir. 1983) (citations omitted, emphasis in the original).

Petitioner Isaacs' standing considerations are substantially similar to the plaintiffs in Diggs v. Shultz, 470 F. 2d 461 (D.C. Cir. 1972). There, the court held that the plaintiffs, residing in the United States, who were unable to return to their homeland

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[20] In Allen v. Wright, Justice O'Connor explains that the difference between the "fairly traceable" and "redressability" standing components, "[t]o the extent there is a difference," is that the "fairly traceable" component "examines the causal connection between the assertedly unlawful conduct and the alleged injury," whereas the redressability component "examines the causal connection between the alleged injury and the judicial relief requested." Allen v. Wright, 468 U.S. at 753, n. 19.

had standing to challenge an Act of Congress which they alleged violated a United Nations embargo of Rhodesia. The court rejected suggestions that the plaintiffs' injury was not redressable because of the slight chance that enforcement of the embargo would bring the desired relief. The relationship between the U.N. action and the statute challenged in Diggs is precisely the same as the relationship between the Anti-Apartheid Act and the Commission's implementing regulations in the instant proceedings and the standing analysis of the Diggs court applies here.

Also, like Petitioner Chavez, Petitioner Isaacs' injury is within the zone of interests contemplated by the Anti-Apartheid Act. The express purpose of the Act is to help "to bring an end to apartheid in South Africa." Anti-Apartheid Act, Section 4. There are several sections of the Act which are addressed to providing aid for the "victims of apartheid," providing for such things as scholarship assistance, Section 201; a "human rights fund," Section 202; and the "[w]elfare and protection of the victims of apartheid employed by the United States," Section 206. Certainly, Petitioner Isaacs' interest in the abolition of apartheid is envisioned by the entire Act.

B. The Commission Should Adopt More Equitable Standing Rules for Application in Import Licensing Hearings Under Section 189a of the Atomic Energy Act.

Having established the standing of Petitioners Isaacs and Chavez, Petitioners need not here discuss the standing rights of

the other Petitioners. See, discussion at p. 32, supra. Petitioners concede that there is a line of Commission cases, starting with Edlow International Co., CLI-76-6, 3 NRC 563 (1976), denying standing to individuals and organizations with interests substantially similar to several Petitioners in proceedings similar to the present ones. E.g., Edlow International Co., supra; Transnuclear, Inc., CLI-77-24, 6 NRC 525 (1977); Westinghouse Electric Corp., CLI-80-30, 12 NRC 253 (1980); General Electric Co., CLI-81-2, 13 NRC 67 (1981). The effect of the Commission's standing rulings, however, is essentially to preclude review of import licensing actions by many persons who may lack Article III standing but who are still affected by the outcome of an import licensing proceeding. In short, many persons whom the process is designed to protect are excluded from participation. See, Comment, Environmentalists Attack NRC's Fuel Export Licensing, 6 E.L.R. 10190 (September 1976). This result is unwarranted and should be changed.

Rethinking standing precedent in import licensing is particularly appropriate because one of the basic premises for the Commission's approach to standing, elaborated in the first Edlow decision, was that there was nothing in the Atomic Energy Act to indicate that Congress contemplated public participation in the import and export licensing process. Edlow International Co., supra, 3 NRC at 570-572. Since Edlow was decided, the Nuclear Non-Proliferation Act of 1978, Pub-L. No. 95-242 (the "NNPA"), has been enacted, reflecting the judgment of Congress

that public participation in the export licensing process is "crucial." Natural Resources Defense Council, Inc. v. Nuclear Regulatory Commission, 647 F. 2d 1345, 1368, 1375 (D.C. Cir. 1981) (Robinson, J., concurring).[21] The same reasoning, of course, would apply to these proceedings. Since Article III does not dictate the result to be reached under Section 189a of the Atomic Energy Act there is every reason to expand the Commission's approach to standing in proceedings such as this one.

C. The Doctrine of Equitable Discretion is Inapplicable in these Proceedings.

ANF seeks to terminate the involvement of the Congressional Petitioners in these proceedings through the disingenuous misapplication of the equitable discretion doctrine. See, ANF Answer at 12-13. The doctrine of "remedial" or "equitable" discretion originally articulated in Riegle v. Federal Open Market Committee, 656 F. 2d 873 (D.C. Cir.), cert. denied, 454 U.S. 1082 (1981), has no application here. It is a prudential doctrine of judicial restraint. The Riegle court was concerned that the inappropriate exercise of judicial power would intrude into that arena reserved for the Legislative Branch. Such "meddling with internal decision making processes of one of the political branches extends judicial power beyond the limits

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[21] Indeed, the House Report on the NNPA states, "[T]he intent of the committee [is] to guarantee to citizens and public interest groups their right to make their views known during the export licensing process." H.R. Rep. No. 587, 95th Cong., 1st Sess. 22 (1977) (emphasis added). See also 124 Cong. Rec. S 1438 (daily ed. February 7, 1978) (remarks of Senator Glenn).

inherent in the constitutional scheme for dividing federal power," said the court. Id. at 881 (citing, McGowan, Congressmen in Court: The New Plaintiffs, 15 Ga. L. Rev. 241, 251 (1981)).

ANF suggests that "the NRC should deny the Petition with respect to the petitioning Congressmen in order to resolve the separation-of-powers issues that the Petition raises." ANF Answer at 12. The Petitions, however, raise no separation-of-powers issues. Separation-of-powers issues are only posed where one Branch of government seeks to interpose itself into the affairs of another. That simply is not the case here. The Congressional Petitioners are simply requesting the NRC to properly interpret the Anti-Apartheid Act. There is no danger here that the NRC may extend its power "beyond the limits inherent in the constitutional scheme for dividing federal power." The NRC must decide the question of the proper application of the Anti-Apartheid Act whether or not intervention is permitted. The NRC cannot avoid this responsibility by an "exercise of prudential restraint." There is no prudential restraint to exercise here. It comes as no surprise then that ANF is unable to cite a single case where an administrative agency declined to allow participation by a Member of Congress based on the doctrine of equitable discretion. There is no foundation for such a holding.

III. THE COMMISSION MUST INSTITUTE PROCEEDINGS TO REVOKE EXISTING LICENSES TO THE EXTENT THEY AUTHORIZE THE IMPORT OF URANIUM FROM SOUTH AFRICA OR NAMIBIA.

ANF makes three arguments specifically related to the revocation proceedings. First, it argues there is no legal basis for the Revocation Petition itself. ANF Response at 2-4. Second, ANF argues that there is no basis for the institution of revocation proceedings under the Commission's regulations. ANF Response at 4-11. ANF further argues that revocation of an existing license raises potential Constitutional questions. ANF Response at 11-12.[22] These arguments fail upon close scrutiny.

A. The Commission Has Inherent Power To Consider Petitions For Revocation of Existing Licenses.

ANF argues that there is no specific regulation providing for petitions for revocation of existing licenses, therefore, "there is no legal basis for the petition," ANF Response at 4. However, ANF concedes that the NRC has authority to "revoke, suspend, or modify a license..." Id. It is absurd in such circumstances to suggest that an affected outside party cannot properly raise the revocation question before the Commission. Certainly, regardless of its specific regulations, the Commission has inherent power to consider such a request. Indeed, the failure to consider such a request in the face of a

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[22] As a final point, ANF argues that immediate suspension of a license is inappropriate. ANF Response at 19-20. As ANF itself recognizes, however, suspension without a hearing, is warranted under the Commission's regulations, "when the common defense and security... requires..." 10 C.F.R. § 110.52 (e). For the reasons outlined above, see p. 44-45, infra, Petitioners submit that this is indeed such a case.

clear violation of statute would almost surely be an abuse of discretion.[23]

B. The Act and The Commission's Regulations Apply To Existing Licenses To Import Uranium.

ANF lamely argues that the Commission's alteration of its regulations to require a specific license for the importation of South African uranium, see, 51 Fed. Reg. 47207 (December 31, 1986), "has no effect on a valid specific license." ANF Response at 10-11.[24] This argument misses the point of the law. Section 309(a) bars the importation of all South African uranium effective December 31, 1986. There is absolutely no exception for holders of pre-existing licenses. In short, ANF's license is no longer valid. By the same token, the change in 10 C.F.R. § 110.27 to require specific licenses for new imports in no way implies that a prior license continues to be valid under the new regulations. True, the regulations do not speak to the validity of prior licenses as such. But clearly the new mandate of the law requires reevaluation of such licenses. Otherwise, the ban

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[23] Certainly, the Commission's power to revoke and its specific regulatory recognition, in other contexts, that revocation petitions may be entertained, see, 10 C.F.R. § 2.206, provides an appropriate basis for the Commission to consider that it may entertain the revocation request.

[24] While the NRC in 1978 may have made general statements concerning the applicability of domestic licensing procedures to export and import licensing functions, see, 43 Fed. Reg. 6915, 6917 (1978), those general statements, contrary to the implications in the ANF Response, see, ANF Response at 3, were not directed with particularity at petitions for revocation, and they scarcely contemplated a situation such as the instant one where a subsequent legislative enactment might invalidate existing licenses.

would be severely compromised. Significantly, in this regard, the Commission staff, in a series of letters transmitted on February 3 and February 4, 1987, has already advised holders of existing licenses that they should "refrain from importing any material of South African origin under these licenses while our review is underway." See, e.g., letter from Marvin R. Peterson, Nuclear Regulatory Commission dated February 4, 1987 to Exxon Nuclear Company (now ANF). The revocation proceeding which Petitioners seek will ensure the proper application of the law.

C. ANF's "Constitutional" Claims Are Meritless.

Finally, ANF argues that any action to revoke or otherwise limit the use of its existing license could either constitute a "taking of private property without just compensation" or "an impairment of contract." ANF Response at 11. These claims are meritless. The power to modify and/or revoke a license is clearly stated in the Commission's statutory authority, see, Sections 186 and 187 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§ 2236, 2237, and in the Commission's regulations governing import licenses. See, 10 C.F.R. § 110.52(a) ("A license may be revoked, suspended, or modified for a condition which would warrant denial of the original license application"). It is settled law, moreover, that a license does not create an obligation in the contractual sense. A government license is not a contract, nor does it confer a vested right, but rather it may be revoked, modified or continued, and, indeed, is accepted subject to the condition that

the liability then prescribed by statute may be altered or repealed. E.g., Home Indemnity Co. of New York v. O'Brien, 104 F.2d 413 (6th Cir. 1939). See also, e.g., Seidenberg v. McSoreley's Old Ale House, Inc., 308 F. Supp. 1253, 1257 (S.D.N.Y. 1969); South Terminal Corporation v. Environmental Protection Agency, 504 F.2d 646 (1st Cir. 1974); Comtronics, Inc. v. Puerto Rico Telephone Co., 409 F. Supp. 800, 809 (D.P.R. 1975), aff'd, 553 F.2d 701 (1st Cir. 1977); Swim v. Bergland, 696 F.2d. 712, 719 (9th Cir. 1983). In short, ANF as a licensee has no constitutionally protected interest in the face of a subsequently enacted prohibition such as that embodied in Section 309(a) of the Anti-Apartheid Act.

IV. A FULL ORAL ADJUDICATORY HEARING, INCLUDING CROSS-EXAMINATION AND DISCOVERY, IS APPROPRIATE IN THESE PROCEEDINGS.

Petitioners have requested that the Commission conduct an oral adjudicatory hearing on the issues raised in their Intervention and Revocation Petitions and that said hearing be conducted in an adversarial context with full discovery and cross-examination of adverse witnesses. Intervention Petition at 34-37; Revocation Petition at 6-7.

NRC staff and ANF oppose Petitioners' request for a full adjudicatory hearing. They claim, inter alia, that: 1) the Commission's written comment procedures are adequate to meet Petitioners' demands; 2) the Commission's rulings and regulations only permit adjudicatory hearings in limited situations, and; 3)

discovery is unnecessary and inappropriate to these proceedings. These grounds for the NRC staff and ANF opposition to Petitioners' requests are not persuasive.

Petitioners have raised numerous factual issues with respect to these proceedings. See, p._, supra. These factual issues cannot be resolved by the written comment procedures referred to in 10 C.F.R. §§ 110.84 and 110.85. Only an oral adjudicatory hearing can provide the heightened adversarial context necessary to determine the factual questions raised by Petitioners. Proceedings relying solely on written comment procedures would permit license holders and applicants to offer all manner of unsupported allegations and go unchallenged.[25]

There is also no question that a full-scale adjudicatory hearing is available in the import licensing process. The Atomic Energy Act in Section 189 does not specify what type of hearing the Commission must provide in an import licensing. The Atomic Energy Act leaves discretion with the Commission to establish procedures; in no way does it prohibit the granting of an adjudicatory hearing. Thus, the contention that import licensing cannot accommodate adjudicatory hearings is inconsistent with the

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[25] While Petitioners strongly believe an oral adjudicatory hearing would be most appropriate in these proceedings, less desirable alternatives exist which would at least permit the submission of "oral statements, questions, responses, and rebuttal testimony," 10 C.F.R. §§ 105(a)(3), 110.107(f). The Commission itself has recognized that such public hearings "can be conducted without prejudicing the important national interests on which export licensing determinations are made." Edlow International Co., CR-16-6, 3 NRC, 590 (1976).

Congressional judgment on this matter; if Congress had felt that this were the case, it plainly could have specified that adjudicatory hearings should not be held.

Petitioners recognize that the Commission's regulations, 10 C.F.R. Part 110, Subpart J, basically contemplate legislative-type hearings. Nonetheless, the Commission has a wide range of choices legally available to it in structuring its hearing processes. The agency has authority to modify its procedural rules "when the ends of justice require it", American Farm Lines v. Black Ball Freight Service, 397 U.S. 537 (1970),[26] and flexibility under Subpart J to do so. See, e.g., 10 C.F.R. § 110.113(e)(4).

In this case, moreover, an adjudicatory hearing is desirable. Certainly, the full benefits of a hearing can only be realized if Petitioners are granted discovery privileges in addition to the opportunity to present direct oral testimony and to cross-examine other witness. The NRC staff position that all pertinent documents will be made available in the Public Document Room is simply untrue. NRC Response at 21. The only documents made available in the Public Document Room are those which the NRC staff have requested from or which have been volunteered by license applicants or holders. If Petitioners raise issues not

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[26] In Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 524 (1978), Justice Rehnquist stated "[a]gencies are free to grant additional procedural rights in the exercise of their discretion."

already raised by the NRC staff, then there would be no reason for pertinent documents to be stored in the Public Document Room. For example, there are no documents in the Public Document Room which are pertinent to determining whether any uranium imports are in fact from Namibia. The NRC would not ordinarily request license applicants to provide data on this topic. Only the granting of full discovery will ensure that all requisite information is made available to the parties, the Commission and the NRC staff.

In short, unless the full panoply of adjudicatory procedures is available, there is a real risk that the record will not be fully developed and that the risks associated with these imports will not be completely and comprehensively explored. Full discovery in connection with a full adjudicatory hearing will best ensure that the Commission "develop[s] a record that will contribute to informed decision making." 10 C.F.R. § 110.105(a). Petitioners submit that the Commission should exercise the discretion which it plainly has to grant an adjudicatory hearing.

V. CONSOLIDATION OF LICENSE REVOCATION PROCEEDINGS WITH PROCEEDINGS FOR THE GRANTING OF NEW LICENSES IS BOTH PERMISSIBLE AND APPROPRIATE.

While the Commission's rules for export licensing, 10 C.F.R. Part 110, contain no specific provisions for motions to consolidate, the Commission's General Rules of Practice do. 10 C.F.R. § 2.716 provides:

> On motion and for good cause shown or on its own initiative, the Commission or the presiding officers of each affected proceeding may be consolidated for hearing or for other purposes two or more proceedings, or may hold joint hearings with interested States and/or other federal agencies on matters of concurrent jurisdiction, if it is found that such action will be conducive to the proper dispath of its business and to the ends of justice and will be conducted in accordance with the other provisions of this subpart.

The same considerations can and do make sense in the import licensing context, and, pursuant to 10 C.F.R. § 110.113(e)(2), the Commission has the power to "[c]onsolidate applications for hearing."

ANF suggests that consolidation is inappropriate because the applications and licenses do not raise common questions of law and fact. This assertion is patently erroneous. All the existing applications and licenses raise common questions of fact concerning the origin of the source material, as well as common questions of law concerning the application of the Anti-Apartheid Act, the application of the inimicality criterion and the legal obligations of the United States. Indeed, far from causing "confusion..., prejudice and expense," ANF Response at 18, consolidation would promote the most efficient and expeditious resolution of Petitioners' contentions and avoid a waste of the Commission's and the parties' resources.

V. CONCLUSION

For all the reasons set forth herein, Petitioners

respectfully request that the relief requested in the Intervention and Revocation Petitions be granted.

Respectfully submitted
on behalf of Petitioners,

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April 1, 1987

EXHIBIT A

Congress of the United States

House of Representatives

Washington, DC 20515

October 31, 1986

President Ronald Reagan
The White House
Washington, D.C. 20500

Dear Mr. President:

The Anti-Apartheid Act was adopted by Congress to evince our strong disapproval of the apartheid policies pursued by the government of South Africa. This disapproval was given concrete effect in the form of a series of sanctions incorporated into the new law. The sanctions were intended to be meaningful and effective.

One set of sanctions is contained in Section 309 of the bill. One of the purposes of this provision was to bar the importation of South African origin uranium into the United States. We are accordingl exceedingly troubled by reports that the Treasury Department intends to interpret Section 309 to apply only to uranium in the form of raw ore or in a specific oxide compound. This interpretation would render the uranium santion totally ineffective and meaningless contrary to congressional intent. Uranium ore is processed at uranium mills into a uranium concentrate which may be either an oxide or nitrate in form. The concentrate is then converted into uranium hexafluoride, a gas, for enrichment. After enrichment, the uranium hexafluoride is converted into another form of uranium oxide for actual fuel fabrication.

Although uranium hexafluoride or uranium nitrate may differ chemically from uranium oxide, that difference does not constitute a substantial transformation. The process to convert uranium oxide into uranium hexafluoride is neither expensive nor difficult. The cost of conversion to uranium hexafluoride is only about 6% of the cost of uranium concentrates and only about 2% of the overall cost of nuclea fuel. The term uranium oxide is used in Section 309 as a term of art which intends to encompass processed uranium including oxides and related compounds which are not substantially transformed. It makes no sense to construe the provision narrowly; the purpose of the Act to sanction South Africa is served only if the provision is interpreted to cover compounds into which the oxide may be readily transformed.

In banning South African uranium ore and uranium oxide, we intended to bar all South African uranium from the beginning ore stage to the final oxide stage. To apply the ban only to ore or the initial oxide allows easy circumvention of the sanction, since uranium

ore has not been imported from Africa since the 1950's and since concentrates can be readily and easily transformed into uranium hexafluoride in Europe or Canada and then imported into the United States. Indeed, construing the ban to apply only to ore and initial oxides would not sanction South Africa, but instead would harm the U.S. uranium hexafluoride conversion industry in Oklahoma and Illinois. This would be both irrational and counterproductive.

It was the understanding of the Senate, and the House when it accepted the Senate bill, that the language in Section 309 would be effective in barring importation of all South African uranium. Indeed, even opponents of Section 309 so construed it. Senators McConnell and Ford proposed to delete Section 309, which they described as "the ban on the importation or uranium and uranium oxide" on the ground that DOE's "biggest [uranium enrichment] customers overseas...use U.S. facilities to process that uranium" and that "the uranium ban threatens 2400 jobs" at the DOE's Kentucky and Ohio enrichment plants. Senator Sarbanes opposed the amendment on the ground that there were ample alternative supplies of uranium, including supplies from the depressed U.S. domestic uranium industry (123 Cong. Rec. S. 11852). The amendment was tabled by the Senate by a 56-40 vote. Senator Kennedy subsequently objected to the retroactive insertion of colloquy by opponents of Section 309 which sought to undermine the uranium import ban (123 Cong. Rec. S. 17319). The debate on the McConnell-Ford amendment and the subsequent effort to retroactively insert colloquy into the Record make no sense unless Section 309 is interpreted to apply to all South African origin uranium.

Moreover, Section 309 was interpreted by the House as applying to all South African uranium when the House accepted that provision. For example, Congressman Wolpe, Chairman of the Subcommittee on Africa, explained that the Act "bans imports of...uranium...from South Africa" (123 Cong. Rec. H. 6778). Congressman Richardson specifically noted Section 309 was intended to be effective in barring uranium imports at the time of the veto override (124 Cong. Rec. H. 8660).

In short, Mr. President, the record is clear that Section 309 must be construed to ban all South African origin uranium from the United States. Any contrary interpretation would render the sanction meaningless, would be contrary to the intent of Congress in adopting the provision, and would serve only to harm the United States uranium conversion industry.

Sincerely,

Bill Richardson

Ronald V. Dellums

Ed Markey

Ted Kennedy

Jeff Bingaman

cc: The Honorable James Baker, III

EXHIBIT B

received permission to retransfer Pu (as PuO2) from La Hague to Alkem's fabrication facility in Hanau, Germany. Some of that material has been transferred already, but some is still at La Hague, the official said.

In 1984, in order to implement its planned MOX fuel irradiation campaign despite the lack of U.S. retransfer permission, NOK obtained 36 kg of non-U.S.-origin Pu on the European market for manufacture into four MOX assemblies by Alkem. Those assemblies were loaded into Beznau-2 in the summer of 1984. Following the U.S. permission obtained last year, eight assemblies containing 72 kg of Pu were loaded into the reactor. This year, another four were inserted, and eight more are planned to be inserted next year for the end of the Beznau-2 experiment. The NOK official said that, assuming U.S. permission is received for the remaining 108 kg, mixed-oxide fuel may be loaded in the Beznau-1 reactor as well. Besides the 108 kg now under consideration by U.S. authorities, NOK also is scheduled to get back by 1988 about 80 kg of Pu it lent to the Swiss Federal Institute for Reactor Research (EIR) at Wuerenlingen in 1984 for a three-year experiment on MOX fuel behavior in the zero-power Proteus reactor.

The present NOK application for subsequent arrangement is the first to mention the Belgian fuel firm, Belgonucleaire. Belgonucleaire fabricates mixed-oxide fuel rods at its Dessel facility and is Alkem's major competitor for MOX business currently. The NOK official said that the utility felt it was "better to have two options" for fabricating the MOX elements. The earlier request for retransfer of Pu to Alkem was held up by the Defense Department because of questions about physical security measures at the Hanau facility; it is conceivable the inclusion of the Dessel facility in the pending application will raise similar questions.

An American response on the subsequent arrangement request is not anticipated until early next year.

In a related development, NuclearFuel has learned that the U.S. DOE is still seeking ways of solving the Swiss utilities' "plutonium problem" — the fact that the utilities cannot count on U.S. retransfer approvals in the context of a widescale Pu recycle program — that would make it once again attractive for the utilities to buy enrichment services from DOE in the 1990s. The Swiss companies have weaned themselves from all U.S.-origin uranium and enrichment services over the past few years, cancelling former enrichment contracts and resorting to large-scale swaps of U.S. uranium to U.S. utilities, so as to be free of U.S. constraints when deciding what to do with the plutonium they will be receiving from La Hague's UP3 plant after 1990.

Swiss utility sources confirmed that American officials have hinted that solutions might be available under which DOE, or some other U.S. entity, would take title to Swiss plutonium in exchange for equivalent-value enrichment services, for example. It is unclear, however, how the U.S. government could use the Swiss plutonium without getting into a civilian-military use bind: the space program might be a possibility, a Swiss source said.— *Ann MacLachlan, Paris*

AIF CONFERENCE DOMINATED BY TALK OF DOMENICI BILL, MINERS' LAWSUIT

The 280 plus attendees at the Atomic Industrial Forum's Uranium Seminar '86 at Jackson Lake Lodge, Moran, Wyo. had the beauty of the Grand Teton National Park to distract them from all-day discussions of the miners' lawsuit against DOE. Many utility fuel managers at the conference made it clear that they did not agree with their CEOs that the Domenici bill was worth supporting, but in general, they were philosophical that their CEOs had, perhaps, some sense of a "bigger picture," as one fuel manager put it. Among the more significant papers were those describing recent actions by state utility commissions to oversee more closely nuclear fuel purchases and a major policy announcement by the State Department on "flag swaps." Following are reports on some of the papers. Additional brief reports will appear next issue.

√STATE ELABORATES POLICY ON 'FLAG' SWAPS

In a major policy address, the State Department's Fred McGoldrick elaborated the Reagan administration's views on swaps of material across borders—so-called flag swaps. In response to questions, McGoldrick, director of the Office of Nuclear Nonproliferation & Export Policy, said the legal basis for the new flag swap policy rests on the mutual obligations in agreements for cooperation. A U.S. partner cannot unilaterally remove material subject to the agreement, McGoldrick said. Likewise, the U.S. cannot unilaterally remove material subject to the agreement. Isotopic composition is important, McGoldrick said, because, from a safeguards point of view, the U.S. does not want to see, for instance, swaps of 3% for 95% enriched material. How would some party go about seeking approval for a flag swap? McGoldrick said that, for example, if the utility were in a Euratom country, the utility would notify Euratom, which, if it had no objection, would ask the U.S. for approval. If the material had flags of other countries too, then the U.S. would consult with those countries on whether approval for the swap should be granted.

Excerpts from the address follow:

A "flag" is the term commonly used to identify a country that has legal rights attaching to nuclear material.

Flag swaps are not to be confused with title swaps, where only the ownership of the material is exchanged, while the nonproliferation obligations remain the same. Nor are they to be confused with substitutions of material within a single country, where labels (if indeed they are exchanged) are not moved across borders and an equivalent quantity of material within the country in question always remains subject to a given set of nonproliferation controls.

Flag swaps are transactions in which the obligations pertaining to a given quantity of nuclear material situated in one country and the obligations pertaining to an equivalent quantity of the same type of nuclear material in another country are exchanged. The actual quantities of material remain in their respective countries, but each quantity becomes subject to the agreement for cooperation that previously governed the other; in other words, the "label" attaching to each quantity of material is removed, sent, as it were, to the other country involved in the swap, and affixed to an equivalent quantity of material in that country.

To illustrate by an example: A quantity of low-enriched uranium located in Euratom might be subject to the Canada-Euratom agreement for cooperation and is therefore said to carry a Canadian label. A second, equivalent quantity of low-enriched uranium located in Sweden may be subject to the U.S.-Sweden agreement for cooperation and is therefore said to carry a Canadian label. A second, equivalent quantity of low-enriched uranium located in Sweden may be subject to the U.S.-Sweden agreement for cooperation and is therefore said to carry a U.S. label. Under a flag swap, the Canadian label is affixed to the material in Sweden, replacing the U.S. label and signifying that the material is now subject to the Canada-Sweden agreement for coopera-

material is now subject to the U.S.-Euratom agreement for cooperation.

While the international transfer of labels on nuclear materials may sometimes have certain commercial and other benefits, it also raises a number of serious nonproliferation concerns for the U.S.

Such a transfer might involve a diminution of consent rights applicable to the nuclear material that ended up carrying the U.S. label. It could also lead to a degradation in the nonproliferation circumstances in the country out of which the U.S. label, with its frequently more stringent conditions, is transferred; it could lead to equivalent conditions but less stringent enforcement; or it could lead to the "pyramiding" of flags on one quantity of material, freeing equivalent amounts of other material from nonproliferation controls altogether.

Requests for approval of flag swaps have thus far been relatively rare. We have nevertheless thought it prudent to elaborate a policy to deal with them in the expectation that they will become more frequent. We intend to start from the premise that many of the legitimate objectives of international label transfers, or flag swaps, can be met by a transnational or transboundary transfer of ownership or by substitution of material within a single country without the need for a transfer of the label. We will consider approving a label transfer only in cases where an ownership transfer or substitution is not a possible alternative. We will consider each case individually on its merits, applying the following criteria:

—The transaction must not result in any diminution of U.S. nonproliferation controls on nuclear material.

—The transaction must not result in any degradation of the nonproliferation situation in a particular country or facilitate a transaction of nonproliferation concern.

The transaction must result in a situation of equivalency of quantity and isotopic composition subject to U.S. nonproliferation controls.

—The transaction must be consistent with U.S. political objectives.

—All governments involved in the transaction must agree to it.

—The transaction must be consistent with the U.S. export licensing process, the U.S. subsequent arrangement approval process, and all other U.S. legal requirements.

We believe that this approach will permit us to take full account of legitimate commercial interests in international label transfers while at the same time protecting our nonproliferation interests.

FUEL ADVANCES TO REDUCE URANIUM DEMAND

Uranium demand in the U.S. will show a net decrease of 6% to 7% in the year 2000 because of the moves by utilities to higher burnup fuel and improved fuel management and new fuel designs. The decrease in uranium demand caused by these moves will be enough to offset the increase in uranium demand caused by increasing reactor capacity factors, according to a paper authored by Exxon Nuclear Co. Inc.'s George Sofer and Robin Feuerbacher.

Sofer and Feuerbacher anticipate that average burnup for BWRs will increase from 29,000 megawatt-days per metric ton uranium (MWD/MTU)—the average for reloads inserted in 1986—to 36,000 MWD/MTU for reloads inserted in 1995. For PWRs the anticipated increase is from 36,000 MWD/MTU to 45,000 MWD/MTU.

The paper notes that the trend to higher burnup fuel may have been held back some in the past because of the higher financial risk that one of the higher burnup assemblies, which have a higher up-front cost, may have a premature fuel failure. This risk is being minimized, said Sofer and Feuerbacher, by techniques for the "identification, removal, and replacement of any failed rods during the limited time available during normal refueling shutdown."

Feurbacher said that "it is believed that DOE will eventually offer cost incentives for disposal of the smaller number of irradiated fuel assemblies resulting from increased burnup."

Improving capacity factors for U.S. plants is likely, the Exxon officials said. And they calculate that an increase in the average capacity factor in the U.S. from 63% to to 70% could increase uranium demand by 10% by the year 2000 (assuming that burnup does not increase above the 1985 rate).

Working to decrease uranium demand by smaller increments are improvements in fuel design and fuel management, which have the effect of decreasing the consumption of uranium through greater chain reaction neutron economy, Sofer and Feurbacher said.

The authors note that their uranium demand projections are based on a tails assay of 0.3%. If the tails assay would drop to 0.2% in the future, the uranium demand would be reduced further by 16%.

EFFECT OF HIGHER BURNUP ON
KEY FUEL RELOAD CHARACTERISTICS

PWR (15x15) - CONSTANT CYCLE LENGTH

			Difference %
Discharge Burnup (Avg)(MWD/MTU)	36,000	45,000	+25.0
Number of Assemblies	60	48	-20.0
Assembly Weight (KgU)	432	432	None
Enrichment (w/o U235)	3.20	3.69	+15.3
Natural U3O8 per Assembly (lb)	8,004.70	9,357.20	+16.9
Separative Work per Assembly (Kg-SWU)	1,644.40	2,037.60	+23.9
Front End Cost per Assembly ($)	451,750	524,350	+16.1
Energy Generated per Assembly (MWD)	15,552	19,440	+25.0
Reload Weight (KgU)	25,920	20,736	-20.0
Natural U3O8 per Reload (lb)	480,283	449,150	-6.5
Separative Work per Reload (Kg-SWU)	98,661	97,805	-0.9
Energy Generated per Reload (MWD)	933,120	933,120	None
Front End Cost per Reload ($)	27,105,000	25,168,800	-7.1
Front End Cost per Unit of Energy (mills/KWH)	3.67	3.41	-7.1

BWR (9x9) - CONSTANT CYCLE LENGTH

Discharge Burnup (Avg) (MWD/MTU)	30,000	36,000	+20.0
Number of Assemblies	144	120	-16.7
Assembly Weight (KgU)	174	174	None
Enrichment (w/o U235)	2.65	2.98	+12.5
Natural U3O8 per Assembly (lb)	2,612.7	2,979.5	+14.0
Separative Work per Assembly (Kg-SWU)	489.9	592.5	+20.9
Front End Cost per Assembly ($)	149,720	168,970	+12.9
Energy Generated per Assembly (MWD)	5,220	6,264	+20.0
Reload Weight (KgU)	25,056	20,880	-16.7
Natural U3O8 per Reload (lb)	376,220	357,540	-5.0
Separative Work per Reload (Kg-SWU)	70,540	71,110	+0.8
Energy Generated per Reload (MWD)	751,680	751,680	None
Front End Cost per Reload ($)	21,559,600	20,276,400	-5.9
Front End Cost per Unit of Energy (mills/KWH)	3.62	3.41	-5.9

The key economic assumptions used to prepare the numbers in the above charts are as follows: U308, $20/lb; conversion to UF6, $2/lbU; enrichment, $110/SWU; fabrication, $225/kgU; cost of spent fuel disposal, 1 mill/KWH; tails assay, 0.3%; conversion loss allowance, 0.5%; fabrication loss allowance, 0.5%.

PUC FUEL OVERSIGHT EXAMINED IN PAPERS

The California Public Utilities Commission (CPUC) has often been regarded as a leader in establishing trends in regulation that are then adopted by other states. Pacific Gas & Electric Co.'s Heera Gurbaxani outlined the uranium guideline proposals the CPUC has suggested.

The CPUC, she said, is attempting to draft a formula-type regulatory review process and a method for risk-sharing bet-

EXHIBIT C

NuclearFuel

A biweekly report from the editors of Nucleonics Week

Vol. 12 No. 4 — February 23, 1987

HIGHLIGHTS

UNCERTAINTY STILL SURROUNDS U.S. POLICY ON 'FLAG SWAPS' OF URANIUM

Issues surrounding "flag swaps" of uranium are apparently far from settled despite the broad enunciation of the U.S. policy regarding such deals delivered last September by the U.S. State Department's Fred McGoldrick (NF, 22 Sept. '86, 6).

Fueling the uncertainty have been recent letters from NRC responding to requests for approval of nationality swaps involving different forms of uranium. In a letter sent in January to Nukem Inc., NRC General Counsel William Parler wrote: "There is no legal requirement to obtain advance NRC approval of the transaction described in your letter (a swap of U.S.-origin uranium contained in low-enriched uranium for an equivalent quantity of Canadian-origin natural uranium in the form of UF6)....(But) NRC's position should not be regarded as preempting DOE or the Department of State with respect to this transaction."

(continued on page 12)

DOE REPORT ON ENRICHMENT PRIVATIZATION LOOKS TO CONGRESS TO BACK GOV'T CORP.

DOE managers who support gradual privatization of the uranium enrichment enterprise have quietly told Congress that the best hope for survival of the enterprise is restructuring as a government corporation. Unable to propose enabling legislation themselves, the enrichment officials have been frustrated by a bureaucratic logjam at the top levels of the department and at the Office of Management & Budget (there apparently were disagreements within the administration over details of the legislation). But last week, in a report to the House and Senate Appropriations Subcommittees on Energy & Water Development outlining options for privatization, DOE Assistant Secretary for Nuclear Energy David Rossin quietly came out in support of the joint ownership approach to privatization and called on Congress "to reach a consensus on objectives for the enterprise." Failure to do so, he said, "threatens its future existence."

Sources took note that it was Rossin and not DOE Secretary John Herrington or Under Secretary Joseph Salgado who transmitted the report. In it, they said, DOE advocates of privatization can be heard pleading with Congress to reexamine the enrichment enterprise and act quickly to propose legislation without waiting for Herrington or OMB to

elements which had been through the furnace and were waiting for the next stage of manufacture, so that part of the operation continued "virtually uninterrupted". The preceding stages of the fuel's manufacture were also able to continue. "As far as we were concerned, it was something of minor consequence," the spokesman said.—*Pearl Marshall, London*

COMMONWEALTH EDISON OUT LOOKING FOR U

Commonwealth Edison Co. is looking for 1-million pounds of U3O8 or UF6 equivalent in 1987 and 1-million pounds of U3O8 in 1988, 1989, 1990, and 1991. U.S.-origin material is preferred. Commonwealth is also seeking bids for supply of UF6 or conversion services in 1987, 1988, and 1989. Bids are due March 11.

In 1985, Commonwealth went out looking for about 1-million pounds of uranium a year over the period 1986 to 1990. Late that year, however, the utility notified bidders that it had decided not to buy. This time, though, analysts believe that Commonwealth is doing more than "kicking tires." Deliveries of uranium under several contracts with Canadian producers will end this year. In addition, Commonwealth's subsidiary Cotter Corp. in January suspended production at its 1,500-tons-per-day uranium processing mill at Canon City, Colo. and at its mine near Golden, Colo. The company laid off 60 workers at the mill and 46 at the mine. Another nine workers at the company's offices in Lakewood, Colo. were laid off. J.P. McCluskey, Cotter executive vice president and general manager, said 32 workers will remain on the job at the mill to provide security and maintenance during the shutdown. About 45 workers will continue to do development work at the mine. "They will continue to try to find and expose as much ore as we can so that when the economics are right, we'll be ready to go back into full-scale operation," McCluskey said.

FLAG SWAPS *(continued from page 1)*

A similar letter from Russel Rentschler of NRC's division of safeguards went to the Tennessee Valley Authority (TVA) in early February. TVA in late December 1986 informed NRC about a proposed nationality swap of 1,855,547 kilograms of uranium contained in unirradiated fuel assemblies at Bellefonte, Browns Ferry, Sequoyah, and Watts Bar for an equivalent quantity as UF6 at Sequoyah Fuels Corp. and Eldorado Nuclear Ltd. facilities.

A State Department official said that State "would need to take a close look at the swap, but it would probably be okay." However, it is uncertain if State will ever be officially notified of the swap or if State's approval will be sought, given that there are no apparent legal reporting requirements—outside of filling out DOE/NRC Form 741, which is required to track the movement of nuclear material.

However, in another case involving a request for a nationality swap, NRC has deemed that the transaction has "international implications" and has asked State for a review. In November 1986, Nukem Inc. informed NRC that it had two non-U.S. clients who want to swap the origin of their uranium. The first client, Nukem said, has U3O8 of South African origin located at the Transnuclear storage facility in Leese, West Germany. The second client has Canadian-origin uranium as UF6 located at a DOE facility. Nukem said the two want to swap 261,280 equivalent pounds of U3O8 on March 1 and 339,720 equivalent lb U3O8 on June 1. Nukem asked NRC to confirm that it had no objection to the swap.

From conversations with DOE and State Department officials, it appears that the U.S. will not approve this swap. DOE for a long time has had a policy against approving swaps of material in different forms when some of the material is located at a DOE facility. And a State Department official, noting not only potential U.S. nonproliferation concerns but also concerns about the impact of the uranium ban in the Comprehensive Antiapartheid Act of 1986, said: "Anything that looks like a circumvention of U.S. law, we would not go along with."—*Michael Knapik, Washington*

BRIEFLY . . .

U.S.: World Nuclear Fuel Market elections. Henry Patak and Walt Wolf have been re-elected chairman and vice chairman of the World Nuclear Fuel Market (WNFM). Patak, manager of nuclear fuel cycle with Elektrizitats-Gesellschaft Laufenburg AGA of Switzerland, has been a member of the WNFM board since 1982. He was vice chairman in 1985. Wolf, president of Swuco, Inc., has served on the board since 1983.

. . . SGN and Cogema join forces. SGN and Cogema, Inc. have established a joint U.S. subsidiary called Numatec which will integrate the two companies' efforts to market French technologies to U.S. clients, especially in the areas of spent fuel management and high- and low-level waste management. William Gallagher, a 21-year veteran with NUS Corp., has been named Numatec president. Cheryl Hutchison, a U.S. marketing representative for both SGN and Cogema since 1978, will assist Gallagher.

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EXHIBIT D

Nuclear Proliferation: Studies and Strategies for Stopping the Spread of the Bomb

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ISSUE BRIEF

UPDATE ON U.S.-SOUTH AFRICAN URANIUM TRADE

By Matthew Levy

The recently enacted Comprehensive Anti-Apartheid Act of 1986 (Public Law 99-440) seeks, by means of economic sanctions, to apply pressure on the white minority government of South Africa to move away from its racial policies.

Among the sanctions provided in the Act are two prohibitions on nuclear trade. Section 307 prohibits any further U.S. nuclear exports to South Africa. Section 309(a) bans the import of South African uranium ore and uranium oxide into the United States. These provisions raise several important issues relevant to U.S.-South African nuclear cooperation, U.S. non-proliferation policy, and the suspected South African nuclear weapons program.

South African uranium exports comprise an important element of that nation's nuclear program, providing foreign exchange in support of the program, including suspected development of nuclear weapons. Current production of South African/Namibian uranium is about 12,000 tons annually.[1] At the current spot market price of about $18 per pound, the value of South Africa's uranium production is approximately $432 million per year.

The United States is one of the principal importers of South African uranium, receiving thousands of tons annually for processing into fuel for power reactors operated by American and foreign utilities. (See Table 1.) The Reagan Administration maintains that this trade relationship provides the United States with influence over the direction of the South African nuclear program. The South African government, however, has rejected U.S. diplomatic appeals to accept full international inspections of its nuclear activities. South Africa's refusal to sign the Nuclear Non-Proliferation Treaty (NPT) fuels suspicions about Pretoria's nuclear intentions.

The nuclear provisions of the Anti-Apartheid Act provide the Reagan administration the means to reinforce the overall objectives of the Act aimed at South African racial policies as well as to bolster ongoing diplomacy aimed at unsafeguarded South African nuclear activities. The

would be UF_6. By contrast, prior to the ban, uranium hexafluoride comprised no more than 17 and 22 per cent of uranium imports from South Africa in 1985 and 1986 respectively. The sudden rise in proposed UF_6 imports suggests that industry customers intend to rely upon imports of uranium hexafluoride of South African origin to get around the ban on ore and oxide.

It is possible that substantial amounts of natural and enriched uranium of South African origin have been, and will continue to be, imported into the United States as material attributed to another country or as material for which the country of origin is not specified. Such imports are possible because of the Nuclear Regulatory Commission's failure to enforce its own requirement that importers identify the country of origin of material processed abroad.

Import data from the Department of Energy indicate that in 1985 and 1986 only a small fraction of the South African uranium imported into the United States was enriched material. (See Table 2.) However, it is possible that enriched or unenriched UF_6 attributed in DoE data to other countries actually originates in South Africa.

There are 11 existing specific licenses to import uranium into the United States. Each predates the January 1 start-up of the ban and has an expiration date beyond it. Nine of the existing licenses show the country or countries of origin as "unspecified"; one indicates "Australia, South Africa or other countries"; and one specifies South Africa. Under the law, exisiting licenses should be revoked to the extent they authorize imports of South African material. The NRC, however, has been advised by its General Counsel that imports of UF_6 made out of South African uranium are not prohibited by the Act. There is a possibility, therefore, that the Commission may approve specific licenses authorizing such imports.

A second issue, whether ore and oxide forms of South African uranium can be imported for processing for foreign customers, has been raised by those seeking to protect the work and the workers of the American plants that handle South African uranium---principally the uranium conversion facilities owned by Kerr-McGee in Oklahoma and Allied Chemical in Illinois and at the Energy Department's uranium enrichment plants in Kentucky and Ohio.

On August 15, 1986, an amendment to the Comprehensive Anti-Apartheid Act was introduced by Senator Dole (R-KA), apparently on behalf of Senator McConnell (R-KY), in an attempt to eliminate the ban on imports of South African uranium ore and oxide. The amendment failed in a rollcall vote 56-40.

During the debate on the amendment, a colloquy allegedly took place between Senators McConnell, Ford, and Lugar during which the senators attempted to establish a legislative history that would allow imports of South African uranium ore and oxide that were not marked for domestic consumption. The apparent purpose of the scripted, unspoken colloquy was to protect the domestic uranium conversion and enrichment industries against loss of foreign business, but the colloquy is cast in general terms, making no specific reference to uranium.

determining the Executive Branch position on South African uranium imports, has drafted regulations permitting imports of hexafluoride. Treasury's position is that UF_6 represents a "substantial transformation" of the original uranium and is not affected by the ban on ore and oxide. A contrary position, that conversion from an oxide powder to a fluoride gas in the process of making fuel does not involve a substantial transformation of uranium, has been expressed by a leading expert in the industry.[4]

The draft Treasury regulations take a two-step approach toward imports of South African uranium ore and oxide. First, there is a six-month interim rule (expiring on July 1, 1987), allowing in ore and oxide under bond for processing and subsequent reexport to non-U.S. utilities. Second, there is a final rule effective when the interim rule expires, barring further imports of South African uranium ore and oxide.

Even if all imports of ore and oxide eventually are banned, enough South African uranium could be imported during thhe interim period to satisfy foreign customers for several years. The eight licenses now pending before the NRC cover some 3,700 metric tons of uranium, more than was imported into the United States during the first 11 months of the year prior to the ban, and thousands of tons more could come in under the 11 existing import licenses.

Almost two thirds (64 per cent) of the South African uranium imported between 1981 and 1986 into the United States has been processed for reexport to foreign customers. (See Table 3.) An interim rule permitting continuation of these imports would serve to nullify the uranium ban enacted by Congress. It is also possibile that the interim rule will be extended indefinitely.

The final decision rests with the NRC, which as an independent regulatory agency, is empowered to deny import-license applications despite Treasury regulations permitting imports. By deciding to require a specific license for each import of South African uranium, including uranium hexafluoride, the Commissioners are now in a position to consider on a case-by-case basis what South African uranium, if any, will be allowed into the United States.

Under the Atomic Energy Act, the NRC can deny licenses deemed to be inimical to the common defense and security of the United States. South Africa's role as a nuclear outlaw nation strongly suspected of having a nuclear weapons program provides a basis for such a finding by the NRC. Further, because of ample alternative sources of uranium, including large U.S. reserves, there should be no adverse effects on foreign or domestic users of South African uranium. Recently, a leading nuclear fuel cycle analyst, Horst Keese of Nukem in West Germany, confirmed that an embargo on South African-origin uranium would not adversely effect uranium supplies in the West.5 It would not be inimical to U.S. security or foreign-policy interests, therefore, for the NRC to deny the pending license applications and to revoke existing licenses that involve South African uranium.

Voices have been raised in black African states, several of them signers of the Non-Proliferation Treaty and advocates of a nuclear-free continent, calling for a counter to South African nuclear capability. For example, in June, 1983, Edem Kodjo, Director General of the Organization of African Unity (OAU), called on member states to develop nuclear weapons.[7]

A U.S. posture that appears to condone a South African nuclear weapons capability should be seen as a serious threat to the regional consensus for non-proliferation and consequently to U.S. security interests. The Administration, however, appears determined to circumvent the Anti-Apartheid Act's prohibitions on nuclear trade with South Africa. Rather than permit the Administration to create loopholes large enough to allow thousands of tons of South African uranium into the United States, the NRC should uphold the law by denying import license applications and revoking existing licenses. It may be necessary for Congress promptly to pass another law making its intent all the more obvious to the Administration and the Commission.

[For further background on South African nuclear-weapons development and on U.S.-South African nuclear cooperation, including the extensive use of South African uranium by U.S. utilities, see Nuclear Control Institute Issue Brief, "Weapons Implications of U.S.-South African Nuclear Trade," January 1985.]

#

NOTES

(1) OECD Nuclear Energy Agency, Uranium Resources, Production and Demand, 1986, p. 46.

(2) Congressional Record, October 18, 1986, p. S17319.

(3) Letter to NRC Commisioner James Asselstine from William Parker, Office of the General Counsel, dated November 26, 1986.

(4) Bruce Tucker, SWUCO, Report No. 72, January 1, 1987.

(5) Nuclear Fuel, February 9, 1987, p. 10.

(6) Leonard S. Spector, The New Nuclear Nations, (Random House, New York), p. 220-221.

(7) The New York Times, June 10, 1983.

Table 2

U.S. URANIUM IMPORTS FROM SOUTH AFRICA

(in metric tons of uranium)

Year	Natural Uranium Concentrates	Natural UF6 converted at BNFL (UK)	Natural UF6 converted at El Dorado (Canada)	Exxon[a]	Other[b]	Total Uranium	Total Natural Uranium	% of UF_6[c]
1984	1,917	n/a	n/a	37	595	2,549[d]	1,917[d]	n/a
1985	2,177	118	101	24	194	2,614	2,396	8-17
1986[e]	2,692	0	433	79	255	3,459	3,125	12-22

(a) Imports of enriched uranium in any form by Exxon Nuclear.
(b) Other imports of enriched or depleted uranium in any form.
(c) The lower limit includes only BNFL and El Dorado; the upper limit assumes that all imports other than natural concentrates are in the form of UF_6
(d) Does not include possible imports of natural UF_6 from BNFL or El Dorado.
(e) 1986 totals are for January through November.

Terms: BNFL (British Nuclear Fuels, Ltd.)
n/a (not available)

Source: Department of Energy, Nuclear Material Control Division.

Table 3

PERCENTAGE OF U.S. IMPORTS OF SOUTH AFRICAN URANIUM DESTINED FOR FOREIGN END-USE

1981	80%
1982	63%
1983	65%
1984	72%
1985	43%
1986	60%

Sources: Department of Energy, Survey of United States Uranium Marketing Activity, 1977-1983

Department of Energy, Nuclear Material Control Division

EXHIBIT E

PERSPECTIVE:
EMBARGO -- A TERM OF ART

When the U.S. Congress drafted those sections of the Comprehensive Anti-Apartheid Act of 1986 which involve uranium, it specifically mentioned only "ore" and "oxide." It made no reference to other physical or chemical forms of the material, such as uranium hexafluoride (UF_6). That this was an unfortunate oversight on the part of Congress became obvious as soon as the Reagan Administration set about implementing the Act.

The various agencies of the Executive Branch called upon to put the new law into effect were quick to note the loophole. And by late November it was reported that the Nuclear Regulatory Commission, the Department of State, and the Department of the Treasury had all agreed that the Act did not prohibit import of South African uranium which had been *substantially transformed* in a third country. The three agencies also reputedly agreed that UF_6 made from South African feed but converted outside that nation fell within the exempt category.

Some members of Congress, including the authors of the Anti-Apartheid Act, objected immediately and strenuously to this interpretation. In an angry letter to President Reagan, they called the position "contrary to congressional intent" and claimed that it "would render the uranium sanction totally ineffective and meaningless.... In banning South African uranium ore and uranium oxide," the lawmakers argued, "we intended to bar all South African uranium...."

Thus far, the legislators appear to be on firm ground, and at minimum their complaint emphasizes the need for close and critical scrutiny of the Executive Branch interpretation. While commercial and legal tests like "substantial transformation" undoubtedly have solid foundations in the history of international trade, they just as undoubtedly have the potential for misapplication.

It may be warranted, for example, in the complex field of trade sanctions, to distinguish between steel exported by one country and automobiles manufactured from that steel and exported by a second nation. But is there validity in differentiating between, say, U_3O_8 exported by one country and UF_6 produced from that U_3O_8 by another? The distinction seems feeble indeed when one acknowledges that the sole commercial use for uranium is as fuel for nuclear reactors, that the great majority of the world's reactors run exclusively on enriched uranium, and that presently employed uranium enrichment technologies require UF_6 as feed. Put another way, South African uranium has little utility -- and thus little value -- unless it is converted to UF_6. Therefore, permitting the import of South African-origin uranium in the form of UF_6 renders a ban on South African uranium ore and oxide absolutely pointless.

Thus far, as noted, the authors of the Anti-Apartheid Act have a reasonably strong substantive case against the Administration's alleged implementation policy. But, not content with this, the legislators resort to semantic arguments in their letter to President Reagan; and in so doing they give (hopefully unwitting) nourishment to the latest component of governmental doublespeak.

The Administration should realize, they say, that the word *oxide*, as used in the Act, is a "term of art" intended to "encompass processed uranium including oxides and related compounds which are not substantially transformed." (They add that the conversion of U_3O_8 to UF_6 does not, in their opinion, constitute a substantial transformation.) In essence, then, the lawmakers contend that the language of the Act incorporates things which are not oxides under the general heading of "oxide," because *oxide* is now a "term of art."

Computer glitch

If memory serves, the caterpillar in *Alice in Wonderland* said something very similar when he insisted that his words meant whatever he wanted them to mean.

The phrase "term of art" has gained sudden and widespread currency in the halls of U.S. government, from Congress to the Customs Service. It is an intriguing and extremely useful construct, primarily because it is almost totally devoid of content. Rather than having a meaning of its own, the phrase seems to function as a kind of label or license which allows its user to do anything he desires to other elements of the English language. If *oxide* is a term of art, for instance, it can clearly be used to describe non-oxides.

Clearly.

Not to be outdone by Congress, the Department of the Treasury has responded to criticism by creating a new "interim interpretation" of the uranium sanctions in the Anti-Apartheid Act -- and by effectively turning yet another word, *embargo*, into a term of art. According to reports received late in December, the Treasury Department now plans to interpret the Act in a way which, for the next six months or so, will allow U.S. import of South African uranium ore and uranium oxide, as well as South African UF_6, provided that the material is brought in not for domestic use but solely for processing and re-export to third countries.

A number of arguments are offered in support of this idea: *e.g.*, that not permitting such imports would work hardship on third-country trading partners and damage the reputation of the U.S. as a reliable supplier of nuclear goods and services; that banning transshipment of South African uranium would reduce U.S. control over nuclear materials and weaken the nation's nonproliferation efforts; and that restricting all commerce in South African uranium would cost the U.S. government and U.S. industry millions of dollars in conversion, enrichment, and fabrication revenues.

Although the foregoing arguments contain a fair amount of truth, there is nevertheless something disturbing about the overall concept. For one thing, the interim interpretation proposed by the Treasury Department directly undermines the intent and purpose of Congress in passing the Anti-Apartheid Act; for another it calls into question the integrity of U.S. policy. The interpretation obviously aids and abets the ongoing sale of South African uranium, albeit not to U.S. buyers.

If the government and people of the U.S. are sufficiently convinced of the propriety of their stand regarding South Africa to pass a law which imposes severe economic sanctions, it seems hypocritical to back away from that law when it causes economic and other difficulties at home or among allies. Such vacillation does transform *embargo* into a term of art, a chameleon word which changes with the whims of those who use it. Under the interim interpretation, sanctions serve to penalize domestic uranium consumers rather than to punish South African uranium suppliers.

Also, even by today's standards, there is something repugnant about reaping profits from forbidden goods, about earning interest on outlawed principal. Or perhaps *integrity*, too, is now a term of art.

-- Bruce Tucker

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply to Responses of Advanced Nuclear Fuels and NRC Staff to Petition to Intervene and Request for Hearing and Petition for Commencement of License Revocation Proceedings was served on April 1, 1987 by hand-delivery upon the following:

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