UNITED STATES NUCLEAR REGULATORY COMMISSION

IN RE PETITION FOR RULEMAKING on NUREG-1757, pursuant to 10 C.F.R. § 2.802(a)	)
IN RE PETITION FOR A STAY ON ANY ACTION ON THE SHIELD ALLOY METAL CORPORATION DECOMMISSIONING PLAN (Docket No. 04007102), pursuant to 10 C.F.R. § 2.802(d)	)

Submitted by:

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The New Jersey Department of Environmental Protection ("NJDEP") files this petition for rulemaking pursuant to 10 C.F.R. § 2.802(a) seeking to rescind the portion of the finalized NUREG-1757, Consolidated Decommissioning Guidance, which sets forth the Long Term Control ("LTC") license, the legal agreement and restrictive covenant ("LA/RC"), the 1000 year dose modeling, the ALARA analysis, and the financial assurance. The revisions to the first two volumes of NUREG-1757 were finalized on or about October 27, 2006. The NJDEP is also filing a separate petition for a hearing seeking rescind these NUREG-1757 provisions.

Because Shieldalloy Metallurgical Corporation (License No. SMB-743) ("Shieldalloy") has submitted a decommissioning plan (Docket No. 04007102) ("DP") that relies upon NUREG-1757, NJDEP requests a formal stay of any action on the DP until the petitions are adjudged. 1757. See 10 C.F.R. § 2.802(d).

I. 10 C.F.R. § 2.802(c)(1): "Set forth a general solution to the problem or the substance or text of any proposed regulation or amendment, or specify the regulation which is to be revoked or amended."

NJDEP requests NRC to rescind the portion of NUREG-1757 which pertains to the LTC license, the LA/RC, the 1000 year dose

modeling, the ALARA analysis, and the financial assurance. Revisions to the first two volumes of NUREG-1757 were finalized on or about October 27, 2006.

A detailed explanation of the defects of NUREG-1757 and proposed remedies are provided in Section III below. Stated briefly, the LTC license and the LA/RC provided in NUREG-1757 does not adequately protect the public health and safety from decommissioning facilities that conduct onsite disposal of long-lived nuclides under the License Termination Rule ("LTR"), 10 C.F.R. Part 20, Subpart E. Also, NUREG-1757 fails to comply with various statutes, regulations, and NRC policies.

To remedy these defects NRC should rescind the portion of NUREG-1757 which provides for the LTC license and the LA/RC. Goodman Dec. ¶¶ passim.

II. 10 C.F.R. § 2.802(c)(2): "State clearly and concisely the petitioner's grounds for and interest in the action requested."

NJDEP files this petition for rulemaking so that NRC rescinds the portion of NUREG-1757 regarding the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance. Each of NJDEP's contentions are discussed in detail in Section III below. These contentions include, first, NUREG-1757

violates the Low-Level Radioactive Waste Policy Act ("LLRWPA") and Atomic Energy Act ("AEA") by failing to protect the public health and safety. See 42 U.S.C. § 2021b(7); 42 U.S.C. §§ 2012(d), 2013(d), 2022(f)(3), (referring to § 2022(b)(2)), 2099, 2111(b)(1)(A), 2113(b)(1)(A), 2114(a)(1), 2201(b). Second, the NRC violated the AEA by providing in a guidance document a new license called the LTC license, setting the terms and conditions of the LTC license, and setting forth the information an applicant for a license is required to submit for the LTC license. See 42 U.S.C. §§ 2232(a), 2233. Third, NUREG-1757 conflicts with a number of regulations duly promulgated by the NRC. Fourth, NRC was required to conduct an Environmental Impact Statement ("EIS") prior to issuing NUREG-1757. See 42 U.S.C. § 4332(2)(C). Fifth, NUREG-1757 is arbitrary and capricious by violating a number of NRC policies.

An agency action that has the effect of changing a regulation or other existing law entitles a person to a hearing on that action. Citizens Awareness Network v. NRC, 59 F.3d 284, 295-96 (1st Cir. 1995). In Citizens Awareness, the court was construing the language of the AEA which provides "in any proceeding for the issuance or modification of rules and regulations dealing with the activities of licensees, . . . the Commission shall grant a hearing upon the request of any person . . . ." 42 U.S.C. § 2239(a)(1)(A). In this case, NJDEP is entitled to petition the NRC to rescind the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA

analysis, and the financial assurance provisions of NUREG-1757 under 10 C.F.R. 2.802(a), which provides that "any interested person may petition the Commission to issue, amend or rescind any regulation." As discussed below in Points 3-7, the provisions of NUREG-1757 regarding the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance have the effect of changing the LTR. Furthermore, as discussed below in Point 2, the LTC license provisions of NUREG-1757 should have been promulgated as a rule or regulation under the AEA. See 42 U.S.C. §§ 2232(a), 2233. Therefore, NJDEP is entitled to petition the NRC to rescind these NUREG-1757 provisions.

NJDEP has an interest in rescinding the NUREG-1757 provisions because this guidance document has been utilized by Shieldalloy in developing their DP for their facility in Newfield, New Jersey. NRC Staff relied on NUREG-1757 for determining that the DP is sufficient for the technical review to begin. Exh. A. A State has standing in a proceeding that involves a "facility located within [the State's] boundaries." 10 C.F.R. § 2.309(d)(2)(i). Thus, when a State advises the NRC that a proceeding involves a facility within its borders, the NRC "shall not require a further demonstration of standing." Id. § 2.309(d)(2)(ii).

III. 10 C.F.R. § 2.802(c)(3): "Include a statement in support of the petition which shall set forth the specific issues involved, the petitioner's views or arguments with respect to those issues, relevant technical, scientific or other data involved . . . and such other pertinent information.

Point 1

NUREG-1757 FAILS TO ADEQUATELY PROTECT THE PUBLIC SAFETY AND HEALTH FOR MATERIALS CONTAINING LONG LIVED NUCLIDES.

The NUREG-1757 provisions regarding the LTC license, LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance violate the LLRWPA and the AEA by failing to require the permanent isolation of low-level radioactive waste or protect the public health and safety. NRC should therefore rescind these provisions in NUREG-1757.

The LLRWPA requires the "the permanent isolation of low-level radioactive waste pursuant to the requirements established by the Nuclear Regulatory Commission under applicable laws, or by an agreement State if such isolation occurs in such agreement State." 42 U.S.C. § 2021b(7). Thus, the LLRWPA requires the "permanent isolation" of low-level radioactive waste.

Furthermore, NRC's paramount responsibility, as required by the AEA, is to regulate radiological material in a manner that protects the public health and safety. 42 U.S.C. §§ 2012(d),

2013(d), 2022(f)(3), (referring to § 2022(b)(2)), 2099, 2111(b)(1)(A), 2113(b)(1)(A), 2114(a)(1), 2201(b).

NUREG-1757 does not require the federal or State government to take ownership of the land where the decommissioning takes place. NUREG-1757 admits that sites containing long-lived nuclides require federal or State ownership for adequate institutional controls. NUREG-1757 vol. 1 page 13-3. However, NUREG-1757 goes on to state that "[i]f a licensee cannot establish acceptable institutional controls or independent third party arrangements, the licensee may propose one of the two new options involving NRC: an NRC long-term control (LTC) license or an NRC legal agreement and restrictive covenant (LA/RC)." NUREG-1757 vol. 1 page 17-65. Thus, NUREG-1757 provides a LTC license or LA/RC in lieu of federal or State ownership of the decommissioned facility. While NUREG-1757 claims that the durable institutional controls of a LTC license and LA/RC should last indefinitely, it is self-evident that a corporation or an independent third party trustee will not endure for the time period necessary for long-lived nuclides.

In the case of Shieldalloy, their radioactive waste contains thorium-232, which has a half-life of over 14 billion years, and uranium-238, which has a half-life of over 4 billion years. Goodman Dec. ¶ 2. Neither Shieldalloy nor a private third party trustee can be expected to endure in perpetuity to enforce the LTC license or

LA/RC. Therefore, NRC should rescind the LTC license and LA/RC provisions of NUREG-1757.

The minimum protective measures required by NUREG-1757 are not adequate for long-lived nuclides. NUREG-1757 only requires dose modeling assessments for 1,000 years, regardless of the duration of the radioactive hazard. NUREG-1757 vol. 1 pages 17-87 to 17-88. This time period is inadequate for long-lived nuclides that remain a threat to the public health and safety beyond the 1000 year time frames. Goodman Dec. ¶ 3.

10 C.F.R. § 20.1401(d) requires an applicant for decommissioning to calculate the peak annual total effective dose equivalent ("TEDE") to the average member of the critical group expected within the first 1000 years after decommissioning. However, this provision is intended to only apply to short-lived nuclides. 62 Fed. Reg. 39058, 39083 (July 21, 1997) (Response F.7.3). Short-lived nuclides are defined as having half-lives between 5.3 and 30 years and which would decay to unrestricted dose levels in about 10-60 years. Id. at 39069. For long-lived nuclides, future calculations beyond 1000 years would be required. Id. at 39083.

NRC admits that the emphasis of 10 C.F.R. Part 20 is for the protection of the public and workers from "imminent exposures" to excessive radiation, "not projected long-term exposures." SECY-03-0069 attachment 8 page 2. The NRC further admits that protecting

the public health from long-term exposures would require additional rulemaking. Id.

With regards to onsite disposal by facilities that continue operating at the site under a license, NRC Staff admitted that there exists "uncertainties associated with the burial performance and potential releases of contamination, transport of contamination in the subsurface environment, cleanup costs of subsurface contamination, and future disposal costs." SECY-06-0143 page 5. These releases and transport of contamination occur even in cases where the materials are disposed onsite for a limited period of time and then disposed offsite under the LTR. Id.

The problems of contamination and transport of contamination related to disposals that remain onsite for a limited period of time is even more applicable to onsite disposals of long-lived nuclides that remain onsite in perpetuity pursuant to the LTR. Goodman Dec. ¶ 5. It is reasonable to assume that facilities disposing long-lived nuclides onsite under the LTC or LA/RC are more likely to release and transport contamination over the thousands, millions, or billions of years that long-lived nuclides remain a radioactive hazard. Id. Thus, NRC should promulgate a rule which prohibits the onsite disposal of long-lived nuclides under the LTR.

NRC should thus rescind the LTC license, LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance

provisions of NUREG-1757 to protect the public health and safety and to ensure the isolation of low-level radioactive waste.

Point 2

THE NRC IS REQUIRED TO UTILIZE RULES AND REGULATIONS WHEN ISSUING OR AMENDING A LICENSE OR WHEN ESTABLISHING THE TERMS AND CONDITIONS OF A LICENSE.

The NRC is required to promulgate rules or regulations when setting forth the information an applicant for a license is required to submit or when the NRC establishes the form and conditions of a license. The NRC may not use guidance documents, such as NUREG-1757, in taking these actions. NRC should therefore rescind the LTC licnese provisions of NUREG-1757.

The AEA provides as follows:

> Each application for a license hereunder shall be in writing and shall specifically state such information as the Commission, <u>by rule or regulation</u>, may determine to be necessary to decide such of the technical and financial qualifications of the applicant, the character of the applicant, the citizenship of the applicant, or any other qualifications of the applicant as the Commission may deem appropriate for the license.

42 <u>U.S.C.</u> § 2232(a) (emphasis added). The AEA also provides the following: "Each license shall be in such form and contain such terms and conditions as the Commission may, <u>by rule or regulation</u>,

prescribe to effectuate the provisions of this chapter." 42 U.S.C. § 2233 (emphasis added).

The AEA also requires the NRC to promulgate regulations or rules regarding the disposal of byproduct material. Environmental Defense Fund v. U.S. N.R.C., 902 F.2d 785, 789-90 (10th Cir. 1990). The AEA provides: "Not later than 6 months after the date on which the Administrator promulgates final standards pursuant to subsection (b) of this section, the Commission shall, after notice and opportunity for public comment, amend the October 3 regulations, and adopt such modifications, as the Commission deems necessary to conform to such final standards of the Administrator." 42 U.S.C. § 2022(f)(3). The referenced subsection (b) requires the EPA to promulgate regulations concerning the protection of the public health, safety and the environment from radiological and nonradiological hazards associated with the possession, transfer, and disposal of byproduct material. Id. § 2022(b)(1). The U.S. Court of Appeals for the Tenth Circuit held that this provision of the AEA requires the NRC to promulgate rules or regulations regarding the disposal of byproduct material. Environmental Defense Fund, 902 F.2d at 789-90.

A rule or regulation imposes rights and obligations on a person or entity. Texaco, Inc. v. Federal Power Com., 412 F.2d 740, 744 (3d Cir. 1969). A rule or regulation creates a binding standard on an agency and the regulated public. Cabais v. Egger,

690 F.2d 234, 237 (D.C. Cir. 1982); Guadamuz v. Bowen, 859 F.2d 762, 767 (9th Cir. 1988).

In contrast, NUREG-1757 explicitly states that it is a guidance document that does not establish a binding norm. NUREG-1757, Vol. 1, page xvii ("This NUREG is not a substitute for NRC regulations, and compliance with it is not required."). However, NRC violated the AEA by creating a new license called LTC license though a guidance document. NUREG-1757 vol. 1 page 17-65. NUREG-1757 impermissibly provides various terms and conditions that an LTC license would provide. NUREG-1757 vol. 1 pages 17-65 to 17-66, 17-79 to 17-80. Furthermore, NUREG-1757 sets forth guidance on the information that an applicant should submit in an application for a LTC license. NUREG-1757 vol. 1 pages 17-71 to 17-82; vol. 2 pages 2-4 to 2-15. Also, NUREG-1757 applies to the disposal of byproduct material at a decommissioned facility. NUREG-1757 vols. 1 and 2 page xv.

In light of the AEA's requirement to promulgate rules and regulations that set forth the information required to be submitted by a license applicant, 42 U.S.C. § 2232(a), that set forth the form, terms and conditions of its licenses, 42 U.S.C. § 2233, and regarding the disposal of byproduct material, 42 U.S.C. § 2022(f)(3), NRC should rescind the LTC license provisions of NUREG-1757.

Point 3

NUREG-1757 CONFLICTS WITH THE REGULATIONS CONCERNING THE TEDE MODELING REQUIRED BY APPLICANTS FOR DECOMMISSIONING FACILITIES.

NUREG-1757's allowance for dose assessments for 1000 years, regardless of the duration of the radioactive hazard, violates the LTR. Therefore, NRC should rescind the dose assessment provisions of NURE-1757.

NUREG-1757 allows dose assessments for 1000 years, regardless of the duration of the radioactive hazard. NUREG-1757 vol. 1 pages 17-87 to 17-88. 10 C.F.R. § 20.1401(d) requires an applicant for decommissioning to calculate the peak annual TEDE to the average member of the critical group expected within the first 1000 years after decommissioning. However, this provision is intended to only apply to short-lived nuclides. 62 Fed. Reg. at 39083 (Response F.7.3). Short-lived nuclides are defined as having half-lives between 5.3 and 30 years and which would decay to unrestricted dose levels in about 10-60 years. Id. at 39069. For long-lived nuclides, future calculations beyond 1000 years would be valuable. Id. at 39083. Thus, the intent of 10 C.F.R. § 20.1401(d) is to actually require longer dose assessments depending on the duration of the nuclides.

NUREG-1757 allows dose assessments for 1000 years, regardless of the duration of the radiological hazard, and therefore it conflicts with 10 C.F.R. § 20.1401(d)'s requirement to provide for a dose assessment that corresponds to the length of time that the materials in question remain a radiological hazard. NRC should thus rescind the NUREG-1757 provisions regarding dose modeling.

Point 4

NUREG-1757 CONFLICTS WITH THE REGULATIONS REGARDING TERMINATION OF THE LICENSE UPON DECOMMISSIONING.

NUREG-1757 violates the regulatory provisions relating to termination of the license upon decommissioning by allowing facilities to substitute a LTC license or LA/RC for State or Federal ownership of the disposal site for sites containing long-lived nuclides. NRC should therefore rescind the LTC license provisions of NUREG-1757.

NUREG-1757 provides that the LTC license would be used to satisfy the LTR requirement for legally enforceable and durable institutional controls in any case where the Federal or State government is unwilling to take ownership of the site. NUREG-1757 vol. 1 page 17-67. The LTC license is available regardless of the nature or duration of the radioactive hazard. Id. "If complex monitoring or maintenance activities are needed at a restricted use

site, the LTC license could be an appropriate institutional control option (compared to the LA/RC)." Id. page 17-66.

The regulations define "decommission" as follows:

> to remove a facility or site safely from service and reduce residual radioactivity to a level that permits -
>
> (1) Release of the property for unrestricted use and termination of the license; or
>
> (2) Release of the property under restricted conditions and termination of the license.
>
> 10 C.F.R. §§ 20.1003, 30.4, 40.4, 50.2, 70.4, 72.3 (emphasis added).

Under the LTR, termination of the license under unrestricted use occurs when, among other factors, residual radioactivity results in a "TEDE to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year." 10 C.F.R. § 20.1402. License termination under restricted use occurs when, among other factors, "Residual radioactivity at the site has been reduced so that if the institutional controls were no longer in effect, there is reasonable assurance that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group is as low as reasonably achievable and would not exceed either -- (1) 100 mrem (1 mSv) per year; or (2) 500 mrem (5 mSv) per year provided that the licensee-- . . . ." 10 C.F.R. § 20.1403(e).

Under NUREG-1757, the TEDE is measured based upon a 1000 year modeling, regardless of the duration of the radiological hazard. It is possible that a total effective dose equivalent ("TEDE") of less than 500 mrem/y could occur at 1000 years, but then peak of greater than 500 mrem/y may occur in the time period after 1000 years. Goodman Dec. ¶ 3. As discussed in Points 1 and 3, these provisions of NUREG-1757 violate the AEA, the LLRWPA, and the LTR. Dose modeling should be required for the entire duration of the radiological hazard. Goodman Dec. ¶ 3.

If a facility proposes to permanently decommission and conduct onsite disposal of long-lived nuclides using the LTC license as the institutional controls, the dose modeling should assume that the engineering controls completely fail because a LTC licensee cannot be expected to maintain the engineering controls as long as the duration of the radiological hazard.

In cases where long-lived nuclides are disposed onsite under restricted use and the engineering and institutional controls completely fail, in certain cases, it is reasonable to believe that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group would exceed 500 mrem per year.

The conflict between the LTR and NUREG-1757's LTC license for long-lived nuclides is admitted by NRC in the following statement:

"NRC licensing oversight for some sites could be permanent because the current sites considering restricted release are sites with uranium and thorium contamination. Although this NRC role was not envisioned under the LTR . . . ." SECY-03-0069 page 27.

Thus, NUREG-1757 violates the LTR because it allows the applicant to use the LTC license if the Federal or State government declines to take ownership of the onsite disposal, regardless of the nature or duration of the radioactive waste. In certain cases where a LTC license is utilized for long-lived nuclides, the site may not be able to reduce residual radioactivity to a level that permits license termination as required by 10 C.F.R. § 20.1403(e). NRC should therefore rescind the LTC license provisions of NUREG-1757.

Point 5

NUREG-1757 CONFLICTS WITH THE REGULATIONS REQUIRING AN ALARA ANALYSIS FOR DECOMMISSIONING SITES.

For sites that are being decommissioned, the regulations require residual radioactivity to be reduced to levels that are as

low as reasonably achievable ("ALARA"). 10 C.F.R. §§ 20.1402, 20.1403(a), 20.1404(a)(3). ALARA is defined as

> making every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest.

10 C.F.R. § 20.1003.

NUREG-1757 circumvents the ALARA analysis required by 10 C.F.R. §§ 20.1402, 20.1403(a), and 20.1404(a)(3). Specifically, NUREG-1757 states: "the Commission recognized that requiring absolute proof that institutional controls would endure over long periods of time would be difficult, and the Commission did not intend to require this of licensees. Rather, the Statement of Considerations explained that institutional controls should be established with the objective of lasting 1000 years." NUREG-1757 vol. 1 page M-23.

However, NUREG-1757's mandate that modeling the durability of institutional controls beyond 1000 years is not required because of the difficulty involved is in direct conflict with the analysis required by ALARA regulations. The ALARA regulations require NRC to consider whether the technology exists to keep radiation exposure as far below the dose limits as possible. 10 C.F.R. § 20.1003. The ALARA regulations require NRC to consider the economics of

improvements in relation to the state of technology and the benefits to the public health and safety, and other societal and socioeconomic considerations. Id. To consider each of these factors, a case-by-case analysis of each decommissioning plan must be undertaken to consider the nature and longevity of the particular radioactive material, the current technology available to protect the public for the duration of the radiological hazard, and other societal and socioeconomic considerations that are unique to the area where the decommissioning is proposed to take place. Id. NUREG-1757 circumvents these required considerations by simply setting an arbitrary time period required for institutional controls to endure, regardless of the longevity of the radiological hazard, the state of technology regarding the hazard, or other societal and socioeconomic considerations unique to the location of the proposed decommissioning.

NUREG-1757 fails to require the effects of inflation in conducting the ALARA analysis. If the effects of inflation are considered, the ALARA analysis would need to consider the additional money that is required to be set aside today to maintain the site over the necessary duration of time. Burke Dec. ¶ 3. Furthermore, NUREG-1757 allows a high discount rate of 7% over the next 100 years. Id. ¶ 4. Because it is very difficult to predict the discount rate over 100 years, NUREG-1757 should require the more conservative discount rate of 3%. Id. NRC may already

acknowledge that predicting future discount rates is difficult over long periods of time because NUREG-1757 uses a 3% discount rate for the time period beyond 100 years. Id. A more conservative rate should be used to ensure sufficient funds are available during the entire time period that the radiological hazard continues in order to conduct the required maintenance and control over the site. Id.

NUREG-1757 therefore violates the ALARA regulations. See 10 C.F.R. §§ 20.1003, 20.1402, 20.1403(a), 20.1404(a)(3). NRC should therefore rescind the ALARA provisions of NUREG-1757.

Point 6

NUREG-1757 CONFLICTS WITH THE REGULATIONS REQUIRING SUFFICIENT FINANCIAL ASSURANCE.

NUREG-1757 conflicts with the regulations requiring sufficient financial assurance because NUREG-1757 fails to consider the effects of inflation and provides a discount rate that is too high.

The regulations require the applicant seeking to terminate the license under restricted conditions to provide "sufficient financial assurance to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site." 10 C.F.R. § 20.1403. NUREG-1757 admits that for long-lived nuclides, control and maintenance of a disposal site will be in perpetuity. NUREG-1757 vol. 1 page 13-3.

However, NUREG-1757's provisions regarding financial assurance fail to require applicants to take into consideration the effects of inflation. NUREG-1757 vol. 1 § 15.2. If the effects of inflation are considered, the applicant would need to post additional financial assurance to control and maintain the site over time since any money posted today will be reduced over time by the effects of inflation. Burke Dec. ¶ 3. Furthermore, NUREG-1757's allowance of a discount rate of 7% over the next 100 years is too high. Id. ¶ 4. Because it is very difficult to predict the discount rate over 100 years, NUREG-1757 should require the more

conservative discount rate of 3%. Id. NRC may already acknowledge that predicting future discount rates is difficult over long periods of time because NUREG-1757 uses a 3% discount rate for the time period beyond 100 years. Id. As discussed above, a more conservative rate should be used to ensure sufficient funds are available during the entire time period that the radiological hazard continues in order to conduct the required maintenance and control over the site. Id.

Thus, NRC should rescind the financial assurance provisions of NUREG-1757.

Point 7

NUREG-1757 CONFLICTS WITH THE REGULATIONS REGARDING THE RADIOLOGICAL CRITERIA FOR UNRESTRICTED AND RESTRICTED USE.

NUREG-1757 conflicts with the intent of the LTR, 20 C.F.R. §§ 20.1402, 20.1403, because NUREG-1757 encourages restricted use decommissioning where the facilities contain long-lived nuclides.

The intent of the decommissioning regulations is to limit the release of sites containing long-lived nuclides to unrestricted release. 62 Fed. Reg. at 39069 (Response B.3.2). The NRC stated: "termination of a license for unrestricted use is preferable because it requires no additional precautions or limitations on use

of the site after licensing control ceases, in particular for those sites with long-lived nuclides." Id.

Short-lived nuclides include radioactive materials where the half-lives are between 5.3 and 30 years and which would decay to unrestricted dose levels in about 10-60 years. 62 Fed. Reg. at 39069. Such short-lived nuclides can be safely secured under restricted release through the use of institutional control. Id.

NUREG-1757 makes it easier for decommissioning facilities to conduct onsite disposal of radioactive materials containing long-lived nuclides under restricted release. Goodman Dec. ¶ 4. NUREG-1757 makes it easier to decommission by providing a LTC license or LA/RC for sites containing long-lived nuclides where the Federal or State government is not willing to take ownership or control of the site. Id. Also, NUREG-1757 allows dose assessment modeling for 1000 years, regardless of the duration of the radioactive hazard. Id. This may create a greater number of decommissioned facilities with onsite disposals of long-lived radioactive waste under restricted release throughout the country. Id.

Because NUREG-1757 encourages restricted release of the property for materials with long-lived nuclides, NUREG-1757 conflicts with the regulatory intent of the LTR. NRC should therefore rescind NUREG-1757 provisions regarding the LTC license, the LA/RC, and the 1000 year dose modeling.

Point 8

NRC WAS REQUIRED TO CONDUCT AN ENVIRONMENTAL IMPACT STATEMENT PRIOR TO ISSUING NUREG-1757.

The National Environmental Policy Act ("NEPA") requires federal agencies to conduct an environmental impact statement ("EIS") for any "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). NRC should therefore rescind the NUREG-1757 provisions regarding the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance because it failed to conduct an EIS.

10 C.F.R. 51.22(a) allows the NRC to categorically exclude an action from the requirements of NEPA where the "proposed action belongs to a category of actions which the Commission, by rule or regulation, has declared to be a categorical exclusion, after first finding that the category of actions does not individually or cumulatively have a significant effect on the human environment."

NRC has exempted from NEPA any amendments to Part 20 of the regulations where they relate to procedures for filing and reviewing applications for licenses or permits, recordkeeping requirements, reporting requirements, and actions on petitions for rulemaking relating to these amendments. 10 C.F.R. 51.22(c)(3).

NRC's issuance of NUREG-1757 is clearly a major Federal action that significantly affects the quality of the human environment. As discussed in Points 1 and 9, NUREG-1757 is a major policy reversal that allows waste sites containing long-lived nuclides to be controlled and maintained by private entities. NUREG-1757 may allow these waste sites to propagate throughout the country with a resulting increase in the risk to the public health and environment. Thus, an EIS is required for NUREG-1757.

NRC's issuance of NUREG-1757 does not fall within the exemptions for amendments to Part 20 of the regulations since it does not relate to procedures for filing and reviewing applications for licenses or permits, recordkeeping requirements, reporting requirements, or actions on petitions for rulemaking. See 10 C.F.R. 51.22(c)(3).

NRC conducted a Generic EIS prior to adopting the onsite disposal option under the LTR. NUREG-1496; 62 Fed. Reg. at 39060. Because NUREG-1757 alters the regulations upon which the Generic EIS was conducted, as described in Points 3 through 7 of this Petition, NRC should conduct another EIS for NUREG-1757.

The U.S. Court of Appeals for the Ninth Circuit held that the NRC is required to consider a terrorist attack in its EIS. San Luis Obispo Mothers for Peace v. N.R.C., 449 F.3d 1016, 1028-35 (9th Cir. 2006).

NRC should therefore rescind the NUREG-1757 provisions regarding the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance because it failed to conduct an EIS.

Point 9

NUREG-1757 WILL ENCOURAGE THE CREATION OF LEGACY SITES THROUGHOUT THE COUNTRY, IN DIRECT VIOLATION OF NRC POLICIES.

NUREG-1757 will create additional legacy sites throughout the country by making it easier to obtain approval for the restricted release option for long-lived nuclides without adequate protection to the public health. Goodman Dec. ¶¶ 4, 5. However, this result is in direct contradiction to settled NRC policy to prevent future legacy sites. SECY-03-0069 Attach. 4 page 3; SECY-06-0143 pages 5 to 7. NUREG-1757's conflict with settled NRC policy is arbitrary and capricious.

While agencies may reverse settled policy, such reversals must have a rational basis and may not be arbitrary and capricious. Citizens Awareness Network v. NRC, 59 F.3d 284, 291 (1st Cir. 1995). Furthermore, the reversal must be accompanied by some reasoning to indicate that the reversal is not arbitrary and capricious. Id.

NRC has continually reasserted its policy to prevent future legacy sites. SECY-03-0069 Attach. 4 page 3; SECY-06-0143 pages 5 to 7. A legacy site is defined as "[a]n existing decommissioning site that is complex and difficult to decommission for a variety of financial, technical, or programmatic reasons." NUREG-1757 vol. 1 page xxxii.

On May 2, 2003, the NRC issued SECY-03-0069, which discussed its policy of preventing legacy sites. The NRC stated in SECY-03-0069 that the restricted releases under a dose criterion of 1 millisievert per year ("mSv/yr") (100 mrem/yr) gives the licensee the most flexibility to conduct onsite disposals. SECY-03-0069 Attach. 4 page 3. While NRC stated that such option could lead to additional legacy sites, requiring additional financial assurance would help ensure remediation of the onsite disposal to comply with the dose restrictions when the facility decides to decommission under the LTR. Id.

On July 5, 2006, NRC revisited the problem of legacy sites in SECY-06-0143. In this latest document, NRC stressed that allowing a dose criterion of 1 mSv/yr (100 mrem/yr) and requiring additional financial assurance could still lead to the creation of additional legacy sites. SECY-06-0143 page 5. The NRC reasoned that the amount of additional financial assurance required may likely be underestimated "because of uncertainties associated with the burial performance and potential releases of contamination, transport of

contamination in the subsurface environment, cleanup costs of subsurface contamination, and future disposal costs." Id. The NRC therefore recommended finalizing decommissioning guidance and to conduct rulemaking to only allow onsite disposals resulting in doses no greater than a few millirem per year. Id. page 5 to 6. NRC may approve higher dose criteria based on the following considerations: (a) time of potential dose impacts based on half-life of the material; (b) mobility of the material to be disposed; (c) additional financial assurance; and (d) other aspects that ensure that the facility will not become a future legacy site. Id. page 5.

The NRC is currently developing a rule and associated guidance to prevent future legacy sites for onsite disposals. Id. at 6.

This NRC policy regarding legacy sites was discussed in the context of onsite disposals for facilities that continued to operate under a license. Id. page 3. After the onsite disposal, these facilities would continue to operate until they decide to decommission the entire site subject to the LTR. Id. The NRC concluded that for the limited time that passed between the onsite disposal and the facility-wide decommissioning, uncertainties still exist for the burial performance and potential releases of contamination, transport of contamination in the subsurface environment, cleanup costs of subsurface contamination, and future disposal costs. Id. page 5. Such concerns are warranted to a much

greater extent for facilities disposing long-lived nuclides onsite under the LTR that remain hazardous in perpetuity. Goodman Dec. ¶ 5. In the case of LTR onsite disposals containing long-lived nuclides, it is more likely that controls will eventually fail and cause the release of contamination thereby posing a hazard to the public. Goodman Dec. ¶¶ 4, 5. Such is the case at the Shieldalloy site where some of the radionuclides contained in the radioactive waste are thorium-232, which has a half-life of over 14 billion years, and uranium-238, which has a half-life of over 4 billion years. Goodman Dec. ¶ 2.

Although NRC policy of preventing legacy sites for onsite disposals is clear, NUREG-1757 directly contradicts this policy by allowing the creation of additional legacy sites under the LTR. NUREG-1757 will create additional legacy sites by making it easier for facilities to permanently dispose of radioactive materials containing long-lived nuclides in a number of ways. Goodman Dec. ¶ 4. First, NUREG-1757 allows the durable institutional control requirement to be met by the issuance of the LTC license or LA/RC for sites containing long-lived nuclides where the Federal or State government is not willing to take ownership or control of the site. See NUREG-1757 vol. 1 pages 17-65 to 67. NUREG-1757 admits that the LTC license will be issued for sites where complex monitoring or maintenance activities, including maintenance of an engineered barrier or continued monitoring of groundwater or radiological

hazards, are needed at a restricted use site. NUREG-1757 vol. 1 page 17-66.

Second, NUREG-1757 allows for dose assessments of 1,000 years, regardless of the duration of the radioactive hazard. NUREG-1757 vol. 1 pages 17-87 to 17-88. 1,000 year dose modeling is not adequate for long-lived nuclides. Goodman Dec. ¶ 3. The 1000 year time frame for dose assessment is clearly not appropriate for materials that have a half-life of billions of years. Id.

Third, by limiting the analysis to these time periods, regardless of the radioactive half-life of the materials, facilities will now have greater flexibility to choose the onsite disposal and restricted release option. Goodman Dec. ¶ 5. NRC admits that the restricted releases under a dose criterion of 1 mSv/yr (100 mrem/yr) gives the licensee the most flexibility to conduct onsite disposals. SECY-03-0069 Attach. 4 page 3.

Fourth, NUREG-1757 underestimates the amount of financial assurance required by a licensee, thereby making permanent onsite disposal upon decommissioning under NUREG-1757 more attractive to licensees. NUREG-1757 claims that the licensee must provide sufficient financial assurance so that the licensee funds the long-term control of the site with no additional costs being passed on to a future site owner/licensee, even where a site contains long-lived nuclides. NUREG-1757 vol. 1 pages 15-2 and 17-82. However, this reliance on financial assurance ignores the NRC conclusions

that the amount of additional financial assurance required may likely be underestimated "because of uncertainties associated with the burial performance and potential releases of contamination, transport of contamination in the subsurface environment, cleanup costs of subsurface contamination, and future disposal costs." SECY-0600143 page 5. These conclusions were made regarding onsite disposal by licensed facilities that would continue operating at the site and may be subject to future remediation when the facilities decide to permanently decommission their entire site and terminate their license. Id. NRC concluded that uncertainties associated with the burial performance and potential releases of contamination and transport of contamination in the subsurface environment existed for the limited time periods that facilities continued to operate. Id.

Furthermore, NUREG-1757 fails to require adequate financial assurance because it ignores the effects of inflation. Burke Dec. ¶ 3. Money set aside today will gradually be reduced by the effects of inflation. Id. If the effects of inflation are considered, the applicant would be required to post greater financial assurance. Id. Furthermore, the longer the period of time is required to maintain financial assurance, the greater the underestimation of the amount of financial assurance will be. Id.

The problems of contamination and transport of contamination related to disposals that remain onsite for a limited period of

time is even more applicable to onsite disposals of long-lived nuclides that remain onsite in perpetuity pursuant to the LTR. Goodman Dec. ¶ 5. Facilities disposing long-lived nuclides onsite under the LTR or LA/RC are more likely to release and transport contamination over the thousands, millions, or billions of years that long-lived nuclides remain a radioactive hazard. Id. It is therefore arbitrary and capricious for NRC to conclude that adequate financial assurance can be provided for long-lived nuclides where controls are required in perpetuity (as is the case in Shieldalloy) even though NRC admits that underestimation of the financial assurance is a problem for sites that are decommissioned for a limited period of time.

NRC admitted that "uncertainties" existed regarding contamination and transport of contamination for onsite disposal for facilities that continue to operate, even under current NRC regulations. SECY-06-0143 page 5. NRC therefore recommended the promulgation of a new rule. Id. at 6. NRC further admits that the emphasis of 10 C.F.R. Part 20 is for the protection of the public and workers from "imminent exposures" to excessive radiation, "not projected long-term exposures." SECY-03-0069. Such concerns are warranted to a much greater extent for facilities disposing long-lived nuclides onsite under the LTR since it is reasonable to assume that facilities disposing long-lived nuclides onsite under the LTR have a higher likelihood of releasing and transporting

contamination over the thousands, millions, or billions of years that long-lived nuclides remain a radioactive hazard. Goodman Dec. ¶ 5.

It is therefore arbitrary and capricious for NRC to be concerned about releases and transport of contamination from onsite disposal at facilities that continue to operate under a license while NRC ignores the even greater likelihood of releases and transport of contamination from onsite disposals that remain a radiological hazard in perpetuity when facilities decommission under the LTR. See Citizens Awareness Network, 59 F.3d at 291. NRC should therefore rescind the NUREG-1757 provisions regarding the LTC license, LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance.

Point 10

NUREG-1757 CONTRADICTS ITS OWN TERMS BY FAILING TO REQUIRE ADEQUATE INSTITUTIONAL CONTROLS FOR LONG-LIVED NUCLIDES.

Chapter 13 of NUREG-1757 requires durable controls that last into perpetuity for long-lived nuclides. However, chapter 17 of NUREG-1757 permits the LA/RC or LTC license to constitute the necessary durable controls. The LA/RC and LTC license cannot be

expected to endure into perpetuity. Such a direct contradiction within NUREG-1757 is certainly without rational basis and is therefore arbitrary and capricious. See Citizens Awareness Network, 59 F.3d at 291.

Durable institutional controls are defined as "[a] legally enforceable mechanism for restricting land uses to meet the radiological criteria for license termination (10 CFR 20, Subpart E). Durable institutional controls are reliable and sustainable for the time period needed." NUREG-1757 vol. 1 page xxix. NUREG-1757 states that durable institutional controls are required for long-lived nuclides, such as materials containing uranium. Id. page 13-3. For these radioactive materials, Chapter 13 of NUREG-1757 states that institutional controls must be "durable, meaning they must be expected to last in perpetuity. State and Federal Agencies are examples of such acceptable organizations." Id.

However, chapter 17 of NUREG-1757 goes on to contradict chapter 13 by allowing durable controls that cannot be expected to last in perpetuity. Rather, chapter 17 states that the LTC license or the LA/RC would be used to satisfy the LTR requirement for "legally enforceable and durable institutional controls" in cases where the Federal or State government is unwilling to take ownership of the site. NUREG-1757 vol. 1 pages 17-65 to 67.

However, the LTC license and LA/RC would not be able to last in perpetuity as an institutional control. Both options rely upon

legal restrictions on the use of the property. NUREG-1757 vol. 1 pages 17-65 to 67. However, a private corporation cannot be expected to exist in perpetuity to enforce the legal restrictions. Although the licensee is required to enter into a trustee agreement with an independent third-party and to provide that financial assurance is available to the trustee to carry out responsibilities for any necessary control and maintenance of the site, NUREG-1757 vol. 1 page 17-82, such entities will likely cease to exist within the time period that long-lived nuclides remain a radioactive hazard. Indeed, chapter 17 of NUREG-1757 discusses at length the restrictions placed on the use of the property, but it fails to consider how these restrictions would be enforced if the entity owning the property ceases to exist. See NUREG-1757 vol. 1 pages 17-76 to 17-77. Furthermore, as discussed in Points 6 and 9, the estimated financial assurance will likely be underestimated.

Thus, the LTC license and LA/RC are not adequate durable controls for long-lived nuclides. The materials at issue in the Shieldalloy decommissioning site will remain a radioactive hazard for billions of years. Goodman Dec. ¶ 2. This is precisely why chapter 13 of NUREG-1757 requires durable institutional controls to last in perpetuity, such as Federal or State ownership, page 13-3. NRC should rescind the LTC license and LA/RC provisions of NUREG-1757.

CONCLUSION

In light of the preceding, the NJDEP respectfully requests NRC to rescind the NUREG-1757 provisions regarding the LTC license, the LA/RC, the 1000 year dose modeling, the ALARA analysis, and the financial assurance

Respectfully submitted,

STUART RABNER
ATTORNEY GENERAL OF NEW JERSEY

Dated: 12/22/06

By: Andrew D Reese
ANDREW D. REESE
KENNETH W. ELWELL
Deputy Attorneys General

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IN RE PETITION FOR RULEMAKING on NUREG-1757, pursuant to 10 C.F.R. § 2.802(a)	DECLARATION OF JENNIFER GOODMAN
IN RE PETITION FOR A HEARING on NUREG-1757, pursuant to 10 C.F.R. § 2.309 and 42 U.S.C. § 2239(a)(1)(A)	
IN RE PETITION FOR A STAY ON ANY ACTION ON THE SHIELD ALLOY METAL CORPORATION DECOMMISSIONING PLAN (Docket No. 04007102), pursuant to 10 C.F.R. § 2.802(d)	

I, JENNIFER GOODMAN, hereby declare as follows:

1. Attached please find my resume, which is incorporated into this Declaration by reference.

2. I am familiar with NUREG-1757, the first two volumes of which were finalized on October 27, 2006. I am also familiar with the radioactive waste located at the Shieldalloy

Metallurgical Corporation (License No. SMB-743) ("Shieldalloy") in Newfield, New Jersey. Some of the radionuclides contained in the radioactive waste at Shieldalloy are thorium-232, which has a half-life of over 14 billion years, and uranium-238, which has a half-life of over 4 billion years. I am also familiar with the decommissioning plan (Docket No. 04007102) ("DP") submitted by Shieldalloy.

3. NUREG-1757's allowance to model for only 1000 years, regardless of the duration of the radioactive hazard, is not adequate to protect the public health and safety from materials containing long-lived nuclides. For facilities seeking to decommission under the License Termination Rule ("LTR"), 10 C.F.R. Part 20, Subpart E, NRC should require modeling for the length of time that the materials remain a radioactive hazard. The time period of the radioactive hazard relates to the amount of time that the nuclides decay to unrestricted use levels. It is possible that a Total Effective Dose Equivalent ("TEDE") of less than 500 mrem/y could occur at 1000 years, but then a peak dose of greater than 500 mrem/y may occur in the time period after 1000 years.

4. NUREG-1757 makes it easier for decommissioning facilities to conduct onsite disposal of radioactive materials containing

long-lived nuclides under restricted release. NUREG-1757 makes it easier by providing a LTC license or a LA/RC for sites containing long-lived nuclides where the Federal or State government is not willing to take ownership or control of the site. Also, NUREG-1757 allows dose assessment modeling for 1000 years, regardless of the duration of the radioactive hazard.

5. I am familiar with SECY-06-0143, in which the NRC Staff discussed the problem of the creation of legacy sites where onsite disposals are approved for facilities that continue to operate under a license. I agree with the NRC Staff that financial assurance is typically underestimated because uncertainties exist regarding the burial performance and potential releases of contamination, transport of contamination in the subsurface environment, cleanup costs of subsurface contamination, and future disposal costs. Such concerns are warranted to a much greater extent for facilities decommissioning under the LTC license or the LA/RC with long-lived nuclides onsite since it is more likely that releases and transport of contamination will occur over the thousands, millions, or billions of years that long-lived nuclides remain a radioactive hazard compared to the limited time frame discussed in SECY-06-0143 regarding onsite disposals. Because

it is not unreasonable to assume that sites utilizing onsite disposal of long-lived radionuclides will release contamination and transport contamination in the subsurface environment, NUREG-1757 is not adequate to protect the public health and safety for long-lived nuclides.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

DATE: 12/22/06

Jennifer Goodman

Jennifer Goodman

Jennifer Goodman
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EDUCATION

Rutgers University Graduate School, New Brunswick, NJ
MS Radiation Science, October, 1987
Institute of Nuclear Power Operators (INPO) Fellowship recipient

Cook College (Rutgers University), New Brunswick, NJ
BS Biochemistry, 1980

EXPERIENCE

US Environmental Protection Agency, Region 2, New York, NY
1984-85, Emergency Planning, Member of Radiological Assistance Committee

NJ Department of Environmental Protection, Trenton, NJ
1985-88, Bureau of Nuclear Engineering, Coordinated nuclear power plant emergency exercises, wrote standard operating procedures, designed and supervised construction of the Emergency Laboratory Facility.
1988-92, Bureau of Environmental Radiation, Supervised Radon Section, responsible for implementation of radon certification regulations.
1992-Present, Bureau of Environmental Radiation, Supervise Radiological Assessment Section
Responsible for reviewing characterization, remediation and final status survey plans for sites contaminated with radioactive materials. Sites include mineral extraction industries, former Manhattan Engineering District sites (nuclear weapons production), military bases, and manufacturing operations. Part of a team that developed cleanup standards for naturally occurring radioactive materials. Developed and promulgated a regulation for soil remediation standards for radioactive materials. Assist the Bureau of Safe Drinking Water with radionuclides in drinking water issues including occurrence, treatment, waste management, health effects, and costs.
Member of the Interagency Steering Committee on Radiation Standards Sewage Sludge Subcommittee
Assisted the NJ Drinking Water Quality Institute in developing a standard for Ra-224, currently assisting with development of radon in water standard.
Member of National Council on Radiation Protection and Measurements Scientific Committee 6-2.

REPORTS

New Jersey Drinking Water Quality Institute Report on Radium-224
Health Effects Subcommittee, November 2001
Radon in Air Investigation of the Pequest Trout Hatchery, Mansfield,

Liberty, and White Townships, Warren County, 2004
Investigation of Charlotte Uranium Mine, Byram Township, Sussex County, February 2004
ISCORS Assessment of Radioactivity in Sewage Sludge:
Radiological Survey Results and Analysis, November 2003
Modeling to Assess Radiation Doses, February 2005
Recommendations on Management of Radioactive Materials in Sewage Sludge and Ash at Publicly Owned Treatment Works, February 2005
A Study of Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) at a New Jersey POTW, January 2005
A Review of "Understanding Patterns and Trends of Radioactive Strontium-90 in Baby Teeth of New Jersey Children with Cancer: A Report to the New Jersey State Department of Health and Senior Services", September, 2005

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Amidon, T., Stern, R., and Goodman, J., *A Pathways Analysis Approach to Developing Remediation Standards for Radioactively Contaminated Soils,* in Contaminated Soils, Volume 4, Kostecki, P. and Calabrese, E. editors, 1999.
Goodman, J., New Jersey and MARSSIM: Perfect Together (Well, Almost). *Health Physics*. 84(6) Supplement 3, June 2003
Bastian, R. et al, Radioactive Materials in Biosolids: National Survey, Dose Modeling, and Publicly Owned Treatment Works (POTW) Guidance, *Journal of Environmental Quality* 34:64-74, 2005.
Wolbarst, A.B.et al, Radioactive Material in Biosoilds: Dose Modeling. *Health Physics*. 90(1), January 2006

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Ingestion Pathway Planning in NJ and the Impact on a State Radiation Laboratory, Health Physics Society, Boston, MA, July, 1988.
Implementation of NJ Soil Remediation Standards for Radioactively Contaminated Sites, Health Physics Society, Philadelphia, PA, June, 1999.
ISCORS Update on Sewage Sludge, Conference of Radiation Control Program Directors Mid-Atlantic Meeting, Atlantic City, NJ, October, 2003
Cleaning Up the BOMARC Site, from Missile Maidens to MARSSIM NJ Chapter of the Health Physics Society, March, 2005
Implementation of ISCORS Guidance Documents: New Jersey's Experience, ISCORS Principals, Washington D.C., March 2005

AWARDS

Appreciation Award in Recognition of Outstanding Achievement as a member of the Tom's River Working Group, June 1999
Professional Achievement Award for assistance to the Drinking Water Quality Institute in developing a Radium-224 in water standard, April, 2003

REFERENCES

Available upon request

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(609) 292-1509

IN RE PETITION FOR RULEMAKING on NUREG-1757, pursuant to 10 C.F.R. § 2.802(a)	)
IN RE PETITION FOR A HEARING on NUREG-1757, pursuant to 10 C.F.R. § 2.309 and 42 U.S.C. § 2239(a)(1)(A)	)
IN RE PETITION FOR A STAY ON ANY ACTION ON THE SHIELDALLOY METALLURGICAL CORPORATION DECOMMISSIONING PLAN (Docket No. 04007102), pursuant to 10 C.F.R. §2.802(d)	)

DECLARATION OF JOHN BURKE

I, JOHN BURKE, hereby declares as follows:

1. Attached please find my resume, which is incorporated into this Declaration by reference.

2. I have reviewed the portions of the finalized NUREG-1757, Consolidated Decommissioning Guidance that concern financial requirements.

3. NUREG-1757 fails to require sufficient financial assurance and fails to require an adequate ALARA analysis

because it fails to require the consideration of inflation. Over the past 50 years inflation has dramatically increased the cost of goods and services. Failure to consider the effect of inflation on all costs to maintain the disposal site and comply with license and record keeping obligations dramatically undermines the sufficiency of the financial assurance amount posted at the time of establishment of the disposal facility. This is particularly true at a disposal facility which is to be maintained in perpetuity.

4. NUREG-1757 also fails to require sufficient financial assurance and fails to require an adequate ALARA analysis because it allows a high discount rate of 7% over the next 100 years. Because it is very difficult to predict the discount rate over 100 years, NUREG-1757 should require the more conservative discount rate of 3%. NRC may already acknowledge that predicting future discount rates is difficult over long periods of time because NUREG-1757 uses a 3% discount rate for the time period beyond 100 years. As discussed above, a more conservative rate should be used to ensure sufficient funds are available during the entire time period that the radiological hazard continues in order to conduct the required maintenance and control over the site.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

DATE: 12-22-06

John Burke

Personnel Data

Name:	John T. Burke
Address:	410 E. State St. PO Box 402 Trenton, NJ 08625-0402
Education:	B.S. La Salle University, Philadelphia, P.A.
Major Field:	Accounting
Minor Field:	Business Administration
Post Graduate Studies:	Federal and New Jersey State Income Taxation, Insurance and Financial Planning
Organizations:	Association of Government Accountants, Trenton Chapter
Government Employment:	
Aug. 2,1997 to Date	Administrative Analyst 1(FM) New Jersey Department of Environmental Protection, Office of Legal Affairs.
Duties:	Perform Economic Benefit and Ability to Pay analyses as requested by Department program elements and the advising deputies attorney general. Manage Budget, Fiscal and Personnel matters for the NJDEP's Offices of Legal Affairs, Legislative Affairs, Business and External Affairs, Communications and Press Office.
Sept. 5,1992 to Aug. 1,1997	Administrative Analyst 1(FM) New Jersey Department of Environmental Protection, Office of Enforcement Coordination.
Duties:	Perform Economic Benefit and Ability to Pay analyses as requested by Department program elements and the advising deputies attorney general. Manage the Enforcement Information Services unit. Serve as Enforcement's representative on NJDEP's Budget Process Evaluation and ITF Subcommittees. Manage Budget, Fiscal and Personnel matters for NJDEP's Air and Water Enforcement programs.
Nov. 8,1986 to Sept. 4,1992	Supervising Auditor New Jersey Department of Environmental Protection, Office of Environmental Claims.
Duties:	Perform Economic Benefit and Ability to Pay analyses as requested by Department program elements and the advising deputies attorney general. Serve as the representative of the Administrator of the New Jersey Sill Compensation Fund on cost recovery investigation carried out by Department program elements. Advise Environmental Claims Administration staff on claims involving complex issues of a financial nature and or the construction of public water systems made necessary due to ground water contamination.
May 28,1985 to Nov. 7,1986	Auditor I New Jersey Department of Environmental Protection, Office of Audit
Duties:	Prepare audit programs and perform internal and external audits of all NJDEP activities. Prepare reports based on audit work papers and when applicable discuss findings with appropriate officials. Perform special projects and assignments of a financial nature. Review audit reports and work papers, when necessary, prepared be other organizations, government agencies, and or consulting firms. Supervise the duties of other auditors as required.
Jan. 10,1981 to May27,1986	Auditor II Taxation (Emergency Audit) New Jersey Transfer Inheritance Bureau.
Duties:	Examine and audit estates primarily selected to be expedited: classified large, intermediate, small, or emergency audit.
Oct. 6, 1979 to Jan. 9,1981	Auditor III Taxation New Jersey Transfer Inheritance Bureau.
Duties:	Examine and audit estates classified as small estates.

Oct. 2,1978 to Oct 5,1979 Auditor Accountant Trainee New Jersey Transfer Inheritance Bureau.
Duties: Examine and audit estates classified as un-taxable or small estates.

Private Sector Employment:

For the past twenty nine years I have operated a public accounting and financial planning practice. I currently have over four hundred accounts which include C and S Corporations, Limited Liability Companies, Partnership and Individuals. The services I provide include installing accounting systems and procedures, preparation of financial statements and tax returns, advising clients with respect to organization, financing, employee benefit programs, pensions and investments.

Professional Licenses NASD Series 63, Series 65 and Series 7
State of New Jersey Life Insurance License

JON S. CORZINE
Governor

State of New Jersey
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STUART RABNER
Attorney General

ROBERT J. GILSON
Director

December 22, 2006

via email and first class mail
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemakings and Adjudications Staff

Re: Petition for Rulemaking on NUREG-1757
Petition for a Hearing on NUREG-1757
Petition for a Stay of any Action on the Shieldalloy Metallurgical Corporation (License No. SMB-743) Decommissioning Plan (Docket No. 04007102)

Dear Staff:

Enclosed for filing, please find an original and two copies of the Petition for Rulemaking on NUREG-1757 and for a Stay, a Petition for a Hearing on NUREG-1757, the Declarations of Jennifer Goodman and John Burke, and a certification of service. These Petitions are being filed on behalf of the New Jersey Department of Environmental Protection ("NJDEP").

Service on the NJDEP should be provided to me at the address listed below. My email address is reeseand@dol.lps.state.nj.us.

Sincerely yours,

STUART RABNER
ATTORNEY GENERAL OF NEW JERSEY

By: Andrew D Reese
Andrew D. Reese
Deputy Attorney General

c: **via first class mail**
David R. Smith, Radiation Safety Officer
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IN RE PETITION FOR RULEMAKING on NUREG-1757, pursuant to 10 C.F.R. § 2.802(a)	CERTIFICATION OF SERVICE
IN RE PETITION FOR A HEARING on NUREG-1757, pursuant to 10 C.F.R. § 2.309 and 42 U.S.C. § 2239(a)(1)(A)	
IN RE PETITION FOR A STAY ON ANY ACTION ON THE SHIELD ALLOY METAL CORPORATION DECOMMISSIONING PLAN (Docket No. 04007102), pursuant to 10 C.F.R. § 2.802(d)	

I, ANDREW D. REESE, hereby certify as follows:

1. On December 22, 2006, I caused an original and two copies of the Petition for Rulemaking on NUREG-1757 and for a Stay, the Petition for a Hearing on NUREG-1757, and the

Declarations of Jennifer Goodman and John Burke to be sent via email and first class mail to the following:

Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attention: Rulemakings and Adjudications Staff

2. On December 22, 2006, I also caused a copy of the Petition for Rulemaking on NUREG-1757 and for a Stay, the Petition for a Hearing on NUREG-1757, and the Declarations of Jennifer Goodman and John Burke to be sent via first class mail to the following:

David R. Smith, Radiation Safety Officer
Shieldalloy Metallurgical Corporation
12 West Boulevard
PO Box 768
Newfield, New Jersey 08344-0768

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

DATE: 12/22/06

Andrew D Reese

Andrew D. Reese